REPORT

OF THE

BUREAU OF MINES

OF THE

Department of Internal Affairs of Pennsylvania

1902

WM. STANLEY RAY
STATE PRINTER OF PENNSYLVANIA
1903

LETTER OF TRANSMITTAL

Bureau of Mines,
April 15, 1903.

Hon. James W. Latta, Secretary of Internal Affairs:

Sir: In accordance with section 5 of an act establishing a Bureau of Mines in the Department of Internal Affairs, approved July 15, 1897, I have the honor to herewith submit the Report of the Bureau of Mines for the year ending December 31, 1902, together with the reports of the Anthracite and Bituminous Inspectors.

Very respectfully,
JAMES E. RODERICK,
Chief of Bureau of Mines.

A—13—1902

REPORT

OF THE

BUREAU OF MINES

COMMUNICATION

Department of Internal Affairs,

Harrisburg, April 18, 1903.

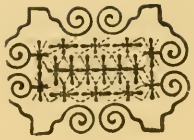
To His Excellency, Samuel W. Pennypacker, Governor of Pennsylvania:

Sir: In compliance with the requirements of the act of June 2, 1891, and that of May 15, 1893, relative to the Mine Inspectors' Reports of the Anthracite and Bituminous coal regions, I have the honor to present to you for transmission to the General Assembly the Report of the Bureau of Mines for the year 1902.

Very respectfully,

JAMES W. LATTA,

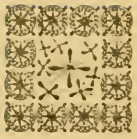
Secretary of Internal Affairs.



LAWS RELATING

TO

COAL MINING



Anthracite Mining Laws of Pennsylvania.

LAWS RELATING TO COAL MINING.

AN ACT

To provide for the health and safety of persons employed in and about the anthracite coal mines of Pennsylvania and for the protection and preservation of property connected therewith.

ARTICLE I.

Section 1. Be it enacted, &c., That this act shall apply to every anthracite coal mine or colliery in the Commonwealth, provided the said mine or colliery employs more than ten (10) persons.

ARTICLE II.

Inspectors and Inspection Districts.

Section 1. The counties of Susquehanna, Wayne, Luzerne, Lackawanna, Carbon, Schuylkill, Northumberland, Columbia, Lebanon and Dauphin, or so much of them as may be included under the provisions of this act, shall be divided into eight (8) inspection districts as follows:

Section 2. First. All that portion of the Lackawanna coal field lying northeast of East and West Market streets in the city of Scranton, and of Slocum and Drinker streets in the borough of Dunmore, including the coal fields of Susquehanna and Wayne counties.

Second. That portion of the Lackawanna coal field in Lackawanna county lying southwest of East and West Market streets in the city of Scranton, and west of Slocum and Drinker streets in the borough of Dunmore.

Third. That portion of the Wyoming coal field situated in Luzerne county, east of and including Plains and Kingston townships.

Fourth. The remaining portion of the Wyoming coal field west of Plains and Kingston townships, including the city of Wilkes-Barre and the boroughs of Kingston and Edwardsville.

Fifth. That part of Luzerne county lying south of the Wyoming coal field together with Carbon county.

Sixth. That part of the Schuylkill coal field in Schuylkill county lying north of the Broad Mountain and east of a meridian line through the centre of the borough of Girardville.

Seventh. That part of the Schuylkill coal field in Schuylkill county lying north of the Broad Mountain and west of a meridian line through

the centre of the borough of Girardville, together with Columbia, Northumberland and Dauphin counties.

Eighth. All that part of the Schuylkill coal field in Schuylkill county lying south of the Mahanoy Valley, and the county of Lebanon.

Section 3. In order to fill any vacancy that may occur in the office of Inspector of Mines by reason of expiration of term, resignation, removal for cause or from any other reason whatever, the judges of the court of Lackawanna county shall appoint an examining board for the counties of Susquehanna, Wayne and Lackawanna, and the judges of the court of Luzerne county shall appoint an examining board for the counties of Sullivan, Carbon and Luzerne, and the judges of Schuylkill county shall appoint an examining board for the counties of Schuylkill, Northumberland, Lebanon, Columbia and Dauphin.

Section 4. The said Board of Examiners shall be composed of three reputable coal miners in actual practice and two reputable mining engineers, all of whom shall be appointed at the first term of court in each year, to hold their places during the year. Any vacancies that may occur in the Board of Examiners shall be filled by the court as they occur. The said Board of Examiners shall be permitted to engage the services of a clerk, and they, together with the clerk, shall each receive the sum of five dollars per day for every day they are actually engaged in the discharge of their duties under this appointment, and mileage at the rate of six cents per mile from their home to the place of meeting and return by the nearest practicable railway route.

Section 5. Whenever candidates for the office of inspector are to be examined, the said examiner shall give public notice of the fact in not more than five papers published in the inspection district and at least two weeks before the meeting, specifying the time and place where such meeting shall be held. The said examiners shall be sworn to a faithful discharge of their duties, and four of them shall agree in their recommendation of all candidates to the Governor who have answered ninety per centum of the questions; the names of the applicants, the questions asked and answers thereto shall be sent to the Secretary of the Commonwealth, and published in at least two local papers, daily or weekly, and shall recommend only such applicants as they find qualified for the office.

Should the Board of Examiners not be able to agree in their selection and recommendation of a candidate, the judges of the court of common pleas shall dissolve the said board and appoint a new board of like qualifications and powers.

Upon the recommendation of the Board of Examiners as aforesaid, the Governor shall appoint such person or persons to fill the office

of inspector of mines under this act, and shall issue to him a commission for the term of five years, subject, however, to removal for neglect of duty or malfeasance in office as hereinafter provided for.

Section 6. The person so appointed must be a citizen of Pennsylvania and shall have attained the age of thirty years. He must have a knowledge of the different systems of working coal mines, and he must produce satisfactory evidence to the Board of Examiners of having had at least five (5) years' practical experience in anthracite coal mines of Pennsylvania. He must have had experience in coal mines where noxious and explosive gases are evolved.

Before entering upon the duties of his office he shall take an oath or affirmation before an officer properly qualified to administer the same, that he will perform his duties with fidelity and impartiality; which oath or affirmation shall be filed in the office of the prothonotary of the county. He shall also provide himself with the most modern instruments and appliances for carrying out the intentions of this act.

Section 7. The salary of each of the said inspectors shall be three thousand dollars per annum, which salary, together with the expense incurred in carrying into effect the provisions of this act, shall be paid by the State Treasurer out of the Treasury of the Commonwealth upon the warrant of the Auditor General.

Section 8. In case the inspector becomes incapacitated to perform the duties of his office, for a longer period than two weeks, it shall be the duty of the judges of the court of common pleas to deputize some competent person recommended by the Board of Examiners to fill the office of inspector until the said inspector shall be able to fulfill the duties of his office and the person so appointed shall be paid in the same manner as is provided for the Inspector of Mines.

Section 9. Each of the said inspectors shall reside in the district for which he is appointed, and shall give his whole time and attention to the duties of the office. He shall examine all the collieries in his district as often as his duties will permit or as often as the exigencies of the case or the condition of the mines require it; see that every necessary precaution is taken to secure the safety of the workmen and that the provisions of this act are observed and obeyed; attend every inquest held by the coroner, or his deputy, upon the bodies of persons killed in or about the collieries in his district; visit the scene of the accident for the purpose of making an examination into the particulars of the same whenever loss of life or serious personal injury occurs as elsewhere herein provided for, and make an annual report of his proceedings to the Secretary of Internal Affairs of the Commonwealth at the close of every year, enumerating all the accidents in and about the collieries of his district, marking in tabular form those accidents causing death or serious personal injury,

the condition of the workings of the said mines with regard to the safety of the workmen therein and the ventilation thereof, and the result of his labors generally shall be fully set forth.

Section 10. The Board of Examiners, each for its respective district as hereinbefore provided for, in order to divide more equitably among the several mine inspectors the labor to be performed and the territory to be covered by them in the performance of the duties of the office, may, at any time when they shall deem it desirable or necessary, readjust the several districts by the creation of new boundary lines, thereby adding to or taking from, as the case may be, the districts as at present bounded and described, if the court having jurisdiction approve the same.

And in case it shall be deemed desirable or necessary to readjust any contiguous district, comprised by more than one judicial district, by the creation of new boundary lines, then in such case the examining boards of the territory affected or requiring such adjustment, shall, in joint session, make such change or readjustment as they shall jointly agree upon, if the nearest court having jurisdiction to the territory affected to whom the said joint examining boards shall submit the matter, shall approve the same.

Section 11. The mine inspector shall have the right, and it is hereby made his duty to enter, inspect and examine any mine or colliery in his district and the workings and machinery belonging thereto, at all reasonable times, either by day or night, but not so as to impede or obstruct the working of the colliery, and shall have power to take one or more of his fellow inspectors into or around any mine or colliery in the district for which he is appointed, for the purpose of consultation or examination.

He shall also have the right and it is hereby made his duty, to make inquiry into the condition of such mine or colliery workings, machinery, ventilation, drainage, method of lighting or using lights and into all matters and things connected with or relating to, as well as to make suggestions providing for the health and safety of persons employed in or about the same, and especially to make inquiry whether the provisions of this act have been complied with.

The owner, operator or superintendent of such mine or colliery is hereby required to furnish the means necessary for such entry, inspection, examination, inquiry and exit.

The inspector shall make a record of the visit, noting the time and material circumstances of the inspection.

Section 12. No person who shall act or practice as a land agent or as the manager or agent of any coal mine or colliery, who is pecuniarily interested in operating any coal mine or colliery in his district, shall, at the same time, hold the office of inspector of mines under this act.

Section 13. Whenever a petition signed by fifteen or more reputable coal operators or miners, or both, setting forth that any inspector of mines neglects his duties, or is incompetent, or is guilty of malfeasance in office, it shall be the duty of the court of common pleas of the proper county to issue a citation in the name of the Commonwealth to the said inspector to appear at not less than five days' notice, on a day fixed, before said court and the court shall then proceed to inquire into and investigate the allegations of the petitioners. If the court find that said inspector is neglectful of his duties or that he is incompetent to perform the duties of the office, for any cause that existed previous to his appointment or that has arisen since his appointment, or that he is guilty of malfeasance in office, the court shall certify the same to the Governor of the Commonwealth, who shall declare the office of inspector for the district vacant and proceed, in compliance with the provisions of this act, to appoint a properly qualified person to fill the office.

The cost of said investigation shall be borne by the removed inspector; but if the allegations in the petition are not sustained the costs shall be paid by the petitioners.

Section 14. The maps and plans of the mines and the records thereof, together with all the papers relating thereto, shall be kept by the inspector, properly arranged and preserved, in a convenient place in the district for which each inspector has been appointed, and shall be transferred by him with any other property of the Commonwealth that may be in his possession, to his successor in office.

Section 15. The persons who, at the time this act goes into effect, are acting as inspectors of mines under the acts hereby repealed shall continue to act in the same manner as if they had been appointed under this act, and until the term for which they were appointed has expired.

ARTICLE III.

Surveys, Maps and Plans.

Section 1. The owner, operator or superintendent of every coal mine or colliery shall make, or cause to be made, an accurate map or plan of the workings or excavations of such coal mine or colliery, on a scale of one hundred feet to the inch, which map or plan shall exhibit the workings or excavations in each and every seam of coal and the tunnels and passages connecting with such workings or excavations. It shall state in degrees the general inclination of the strata with any material deflection therein in said workings or excavations, and shall also state the tidal elevations of the bottom of each and every shaft, slope, tunnel and gangway, and of any other point in the mine or on the surface where such elevation shall be deemed necessary by the inspector. The map or plan shall show the number of the last survey station and date of each survey on the

gangways or the most advanced workings. It shall also accurately show the boundary lines of the lands of the said coal mine or colliery and the proximity of the workings thereto, and in case any mine contains any water dammed up in any part thereof, it shall be the duty of the owner, operator or superintendent to cause the true location of the said dam to be accurately marked on said map or plan, together with the tidal elevation, inclination of strata and area of said workings containing water, and whenever any workings or excavations is approaching the workings where such dam or water is contained or situated, the owner, operator or superintendent shall notify the inspector of the same without delay.

A true copy of which map or plan the said owner, operator or superintendent shall deposit with the inspector of mines for the district in which the said coal mine or colliery is situated, showing the workings of each seam, if so desired by the inspector, on a separate sheet of tracing muslin. One copy of the said map or plan shall be kept at the colliery.

Section 2. The said owner, operator or superintendent shall, as often as once in every six months place, or cause to be placed, on the said Inspector's map or plan of said coal mine or colliery, the plan of the extensions made in such coal mine or colliery during the preceding six months. The said extensions shall be placed on the inspector's map and the map returned to the inspector within two months from the date of the last survey.

Section 3. When any coal mine or colliery is worked out preparatory to being abandoned, or when any lift thereof is about to be abandoned, the owner, operator or superintendent of such coal mine or colliery shall have the maps or plans thereof extended to include all excavations, as far as practicable, and such portions thereof as have been worked to the boundary lines of adjoining properties; or any part or parts of the workings of which is intended to be allowed to fill with water, must be surveyed in duplicate and such surveys must practically agree, and certified copies be filed with the inspector of the district in which the mines are situated.

Section 4. Whenever the owner, operator or superintendent of any coal mine or colliery shall neglect or refuse, or from any cause not satisfactory to the inspector, shall fail, for a period of three months, to furnish to the inspector the map or plan of said colliery or of the extensions thereto, as provided for in this act, the inspector is hereby authorized to cause an accurate map or plan of such coal mine or colliery to be made at the expense of the owner thereof, which cost shall be recoverable from said owner as other debts are by law recoverable.

Section 5. If the inspector finds or has reason to believe, that any map or plan of any coal mine or colliery, furnished under the provisions of this act, is materially inaccurate, it shall be his duty to make

application to the court of common pleas of the county in which such colliery is situate for an order to have an accurate map or plan of said colliery prepared, and if such survey shall prove that the map furnished was materially inaccurate or imperfect, such owner, operator or superintendent shall be liable for the expense incurred in making the same.

Section 6. If it shall be found that the map or plan furnished by the owner, operator or superintendent was not materially inaccurate or imperfect, the Commonwealth shall be held liable for the expense incurred in making such test survey.

Section 7. If it shall be shown that the said owner, operator or superintendent has knowingly or designedly caused or allowed such map or plan, when furnished, to be incorrect or false, such owner, operator or superintendent thus offending, shall be guilty of a misdemeanor and upon conviction thereof, shall be punished by a fine not exceeding five hundred dollars or imprisonment not exceeding three months, at the discretion of the court.

Section 8. The maps or plans of the several coal mines or collieries in each district and which are placed in the custody of the inspector, shall be the property of the Commonwealth, and shall remain in the care of the inspector of the district in which the said collieries are situated to be transferred by him to his successor in office; and in no case shall a copy of the same be made without the consent of the owner, operator or superintendent.

Section 9. The inspector's map or plan of any particular colliery shall be open for inspection, in the presence of the inspector, to any miner or miners of that colliery, whenever said miner or miners shall have cause to fear that his or their working place or places is becoming dangerous, by reason of its proximity to other workings which may be supposed to contain water or dangerous gases. Said map shall also be open to the inspection and examination of any citizen interested, during business hours.

Section 10. It shall be obligatory on the owners of adjoining coal properties to leave, or cause to be left, a pillar of coal in each seam or vein of coal worked by them, along the line of adjoining property, of such width, that taken in connection with the pillar to be left by the adjoining property owner, will be a sufficient barrier for the safety of the employes of either mine in case the other should be abandoned and allowed to fill with water; such width of pillar to be determined by the engineers of the adjoining property owners together with the inspector of the district in which the mine is situated, and the surveys of the face of the workings along such pillar shall be made in duplicate and must practically agree. A copy of such duplicate surveys, certified to, must be filed with the owners of the adjoining properties and with the inspector of the district in which the mine or property is situated.

ARTICLE IV.

Shafts, Slopes, Openings and Outlets.

Section 1. It shall not be lawful for the owner, operator or superintendent of any mine to employ any person or persons in such mine or permit any person or persons to be in such mine for the purpose of working therein, unless they are in connection with every seam or stratum of coal; and from every lift thereof, worked in such mine, not less than two openings or outlets, separated by a strata of not less than sixty (60) feet in breadth underground, and one hundred and fifty (150) feet in breadth at the surface, at which openings or outlets safe and distinct means of ingress and egress are at all times available for the person or persons employed in the said mine, but it shall not be necessary for the said two openings to belong to the same mine if the persons employed therein have safe, ready and available means of ingress and egress by not less than two openings. This section shall not apply to opening a new mine or to opening any new lift of a mine while being worked for the purpose of making communication between said two outlets, so long as not more than twenty persons are employed at any one time in such mine or new lift of a mine; neither shall it apply to any mine or part of a mine in which the second outlet has been rendered unavailable by reason of the final robbing of pillars previous to abandonment, so long as not more than twenty persons are employed therein at any one time. The cage or cages and other means of egress shall, at all times, be available for the persons employed where there is no second outlet.

Section 2. The owner, operator or superintendent of any mine to which there is only one shaft, slope or outlet may petition the court of common pleas in and for the county in which such mine is situated, which said court is hereby empowered to act in the premises, setting forth that, in consequence of intervening lands between the working of his mine and the most practicable point, or the only practicable point, as the case may be, at which to make or bring to the surface from the working of his mine, he is unable to make an additional shaft, slope or outlet in accordance with the requirements of this act, whereupon the court may make an order of reference and appoint three disinterested persons, residents of the county, viewers, one or more of whom shall be a practical mining engineer, all of whom, after being sworn to a faithful discharge of their duties, shall view and examine the premises and determine as to whether the owner shall have the privilege of making an additional outlet through or upon any intervening lands, as the case may require, and report in writing to the court, which report shall be entered and filed of record. If the finding of the viewers, or any two of them, is in favor of the owner of such coal mine or colliery,

he may make an additional shaft, slope or outlet under, through or upon intervening lands, as may be determined upon and provided for by the award. If the finding of the viewers is against the owner, or if no award be made by reason of any default or neglect on the part of the owner, he shall be bound to comply with the provisions of this act in the same manner as if this section had not been enacted. In case the said owner, operator or superintendent desires to, and claims that he ought to make an additional opening under, through or upon any adjoining or intervening lands, to meet the requirements of this act, for the ingress and egress of the men employed in his or their mine, he or they shall make a statement of the facts in the petition, with a survey, setting forth the point of commencement and the point of termination of the proposed outlet which he or they, their engineers, agents or employes may enter upon said intervening lands and survey and mark, as he or they shall find it proper to adopt for such additional outlet, doing as little damage as possible to the property explored; and the viewers shall state in their report what damage will be sustained by the owner or owners of the intervening lands by the opening, constructing and using of the outlet, and if the report is not appealed from, it shall be confirmed or rejected by said court as to right and justice shall appertain, and any further and all proceedings in relation thereto shall be in conformity with like proceedings as in the case of a lateral railroad across or under intervening lands, under the act in relation to lateral railroads, approved the fifth day of May, Anno Domini one thousand eight hundred and thirty-two, and the supplements thereto, so far as the provisions of the same are applicable hereto; and the notices to the owner of intervening lands, of the intention to apply for the privilege of making an outlet and meeting of the viewers shall be given, and the costs of the case shall be paid as provided in the said act of fifth day of May, Anno Domini one thousand eight hundred and thirty-two, and the supplements thereto.

Section 3. The escapements, shafts or slopes shall be fitted with safe and available appliances by which the persons employed in the mine may readily escape in case an accident occurs deranging the hoisting machinery at the main outlets.

Section 4. In slopes where the angle of inclination is fifteen degrees or less there must be provided a separate traveling way, which shall be maintained in a safe condition for travel and kept free from steam and dangerous gases.

Section 5. No inflammable structure, other than a frame to sustain pulleys or sheaves, shall be erected over the entrance of any opening connecting the surface with the underground workings of any mine, and no "breaker" or other inflammable structure for the preparation or storage of coal shall be erected nearer than two hun-

dred (200) feet to any such opening, but this act shall not be construed to prohibit the erection of a fan drift for the purpose of ventilation, or of a trestle for the transportation of cars from any slope to such breaker or structure, neither shall it apply to any shaft or slope until the work of development and shipment of coal has commenced: Provided, That this section shall not apply to breakers that are now erected.

Section 6. The top of each shaft and also of each slope, if dangerous, or any intermediate lift thereof, shall be securely fenced off by railing or by vertical or flat gates.

Section 7. Every abandoned slope, shaft, air-hole and drift shall be properly fenced around or across its entrance.

Section 8. All underground entrances to any places not in actual course of working or extension shall be properly fenced across the whole width of such entrances, so as to prevent persons from inadvertently entering the same.

Section 9. The owner, operator or superintendent of any coal mine or colliery which is worked by shaft or slope, shall provide and maintain a suitable appliance by or through which conversation can be held by and between persons at the bottom and at the top of the shaft or slope, and also an efficient means of signaling from the bottom of such shaft or slope to the engineer in charge of the hoisting engine.

Section 10. Hand rails and efficient safety catches shall be attached to, and a sufficient cover overhead shall be provided on every cage used for lowering or hoisting persons in any shaft.

Section 11. Wherever practicable, every cage or gun-boat used for lowering or hoisting persons in any slope, shall be provided with a proper protector, so constructed that persons, while on such cage or gun-boat, shall not be struck by anything which may fall or roll down said slope.

Section 12. The main link of the chain connecting the rope to the cage, gun-boat or car in any shaft or slope, shall be made of the best quality of iron; bridle chains made of the same quality of iron shall be attached to the main link, rope or rope socket from the cross-head of the cage or gun-boat when persons are being lowered or hoisted thereon.

Section 13. The ropes, safety catches, links and chains shall be carefully examined every day they are used, by a competent person delegated for that purpose and any defects therein found, by which life or limb may be endangered, shall be immediately remedied.

Section 14. An efficient brake shall be attached to every drum that is used for lowering or raising persons or material in any mine.

Section 15. Flanges or horns of sufficient dimensions to prevent the rope from slipping off the said drum shall be provided and properly attached to the drum, and all machines used for lowering or

hoisting persons in mines shall be provided with an indicator to show the position of the cage, car or gun-boat in the shaft or slope.

Section 16. Over all shafts which are being sunk or shall hereafter be sunk, a safe and substantial structure shall be erected to sustain the sheaves or pulleys, at a height of not less than twenty (20) feet above the tipping-place, and the top of such shaft shall be arranged in such manner that no material can fall into the shaft while the bucket is being emptied.

Section 17. The said structure shall be erected as soon as a substantial foundation is obtained, and in no case shall a shaft be sunk to a depth of more than fifty (50) feet without such structure.

Section 18. If provision is made to land the bucket upon truck, the said truck shall be constructed in such manner that material cannot fall into the shaft.

Section 19. All rock and coal from shafts as they are being sunk, shall not be raised except in a bucket or on a cage, and such bucket or cage must be connected to the rope or chain by a safety hook, clevis or other safe attachment.

Section 20. Such shafts shall be provided with guides and guide attachments applied in such manner as to prevent the bucket from swinging while descending or ascending therein, and such guides and guide attachments shall be maintained at a distance of not more than seventy-five (75) feet from the bottom of such shaft, until its sinking shall have been completed, but this section shall not apply to shafts one hundred (100) feet or less in depth.

Section 21. Where the strata are not safe every shaft shall be securely cased, lined or otherwise made secure.

Section 22. The following rules shall be observed, as far as practicable, in every shaft to which this act applies.

First. After each and every blast the chargeman must see that all loose material is swept down from the timbers before the workmen descend to their work.

Second. After a suspension of work, and also after firing a blast in a shaft where explosive gases are evolved, the person in charge must have the said shaft examined and tested with a safety lamp before the workmen are allowed to descend.

Third. Not more than four persons shall be lowered or hoisted in any shaft on a bucket at the same time, and no person shall ride on a loaded bucket.

Fourth. Whenever persons are employed on platforms in shafts the person in charge must see that the said platforms are properly and safely constructed.

Fifth. While shafts are being sunk all blasts therein must be exploded by an electric battery.

Sixth. Every person who fails to comply with or who violates the provisions of this article shall be guilty of an offense against this act.

ARTICLE V.

Boilers and Connections, Machinery, &c.

Section 1. All boilers used for generating steam in and about mines and collieries shall be kept in good order, and the owner, operator or superintendent shall have them examined and inspected by a qualified person as often as once in six months, and oftener if needed. The result of such examination, under oath, shall be certified in writing to the inspector for the district within thirty (30) days thereafter.

Section 2. It shall not be lawful to place any boiler or boilers, for the purpose of generating steam, under nor nearer than one hundred (100) feet to any coal breaker or other structure in which persons are employed in the preparation of coal: Provided, That this section shall not apply to boilers or breakers already erected.

Section 3. Each nest of boilers shall be provided with a safety valve of sufficient area for the steam to escape and with weights or springs properly adjusted.

Section 4. Every boiler house shall be provided with a steam gauge properly connected with the boilers, to indicate the steam pressure, and another steam gauge shall be attached to the steam pipe in the engine house and placed in such position that the engineer or fireman can readily examine them and see what pressure is carried. Such steam gauges shall be kept in good order, tested and adjusted as often as once in every six months and their condition reported to the inspector in the same manner as the report of boiler inspection.

Section 5. All machinery used in or about the mines and collieries, and especially in breakers, such as engines, rollers, wheels, screens, shafting and belting shall be protected by covering or railing so as to prevent persons from inadvertently walking against or falling upon the same. The sides of stairs, trestles and dangerous plank walks in and around the collieries shall be provided with hand and guard railing to prevent persons from falling over their sides. This section shall not forbid the temporary removal of a fence, guard rail or covering for the purpose of repairs or other operations, if proper precautions are used, and the fence, guard rail or covering is replaced immediately thereafter.

Section 6. A sober and competent person, not under eighten (18) years of age, shall be engaged to run the breaker engine and he shall attend to said engine while the machinery is in motion.

Section 7. A signal apparatus shall be established at important points in every breaker so that in case of an accident the engineer can be promptly notified to stop the machinery.

Section 8. No person under fifteen (15) years of age shall be appointed to oil the machinery, and no person shall oil dangerous parts of such machinery while it is in motion.

Section 9. No person shall play with, loiter around or interfere with any machinery in or about any mine or colliery.

Section 10. Failure to comply with the provisions of this article shall be deemed an offense against this act.

ARTICLE VI.

Wash Houses.

Section 1. It shall be the duty of the owner, operator or superintendent of each mine or colliery, at the request in writing of twenty or more men employed in any of the mines, to provide a suitable building, not an engine or boiler house, which shall be convenient to the principal entrance of such mine, for the use of the persons employed therein for the purpose of washing themselves and changing their clothes when entering the mine and returning therefrom. The said building shall be maintained in good order, be properly lighted and heated, and supplied with pure cold and warm water, and shall be provided with facilities for persons to wash. If any person or persons shall neglect or fail to comply with the provisions of this article, or maliciously injure or destroy, or cause to be injured or destroyed, the said building, or any part thereof, or any of the appliances or fittings used for supplying light, heat and water therein, or doing any act tending to the injury or destruction thereof, he or they shall be deemed guilty of an offense against this act.

ARTICLE VII.

Ambulances and Stretchers.

Section 1. The owner, operator or superintendent of every mine or colliery, except as hereinafter provided, shall provide and keep at such mine or colliery an ambulance and also at least two (2) stretchers, for the purpose of conveying to their places of abode, any person or persons who may be injured while in the discharge of his or their work at such mine or colliery.

Section 2. The said ambulance shall be constructed upon good, substantial and easy springs. It shall be covered and closed and shall have windows on the sides or ends. It shall be of sufficient size to convey at least two (2) injured persons with two (2) attendants at one time, and shall be provided with spring mattresses or other comfortable bedding to be placed on roller frames, together with sufficient covering and protection and convenient movement of the injured. It shall also be provided with seats for the attendants. The stretchers shall be constructed of such material and in such manner as to afford the greatest ease and comfort in the carriage of the injured person.

Section 3. Whenever any person or persons employed in or about a mine or colliery shall receive such injury by accident or otherwise, while so employed, as would render him or them unable to walk to

his or their place of abode, the owner, operator or superintendent of such mine or colliery shall immediately cause such person or persons to be removed to his or their place of abode or to an hospital as the case may require.

Section 4. It is provided, however, that the owner, operator or superintendent of any mine or colliery shall be excepted from the requirements of an ambulance, as aforesaid, if the places of abode of all the workmen at such mine or colliery be within a radius of a half mile from the principal entrance to such mine.

Section 5. It is provided further, that where two or more mines or collieries are located within one mile of each other, or the ambulance is located within one mile of each colliery, but one ambulance, as aforesaid, shall be required, if the said mines or collieries have ready and quick means of communication, one with the other, by telegraph or telephone.

Section 6. An ambulance, as aforesaid, shall not be required at any mine or colliery at which less than twenty (20) persons are employed.

Section 7. In case the distance from any mine or colliery to the place of abode of the person injured, is such as to permit his conveyance to his home or to an hospital more quickly and conveniently by railway, such mode of conveyance shall be permitted, but in such case the conveyance must be under cover and the comfort of the injured person must be provided for.

ARTICLE VIII.

Certified Mine Foremen.

Section 1. It shall not be lawful, neither shall it be permitted, for any person or persons to act as mine foreman or assistant mine foreman of any coal mines or colliery, unless they are registered as a holder of a certificate of qualification or service under this act.

Section 2. Certificates of qualification to mine foremen and assistant mine foremen shall be granted by the Secretary of Internal Affairs to every applicant who may be reported by the examiners, as hereinafter provided, as having passed a satisfactory examination and as having given satisfactory evidence of at least five years' practical experience as a miner, and of good conduct, capability and sobriety.

The certificate shall be in manner and form as shall be prescribed by the Secretary of Internal Affairs, and a record of all certificates issued shall be kept in his department.

Section 3. For the purpose of examination of candidates for such certificates, a board of examiners shall be appointed in each of the inspection districts provided for by this act. The said board shall consist of the district inspector of mines, two (2) practical miners and one owner, operator or superintendent of a mine. The said in-

spector shall act ex-officio, and the said engineer and owner, operator or superintendent shall be appointed in like manner and at the same time as the boards of examiners for candidates for mine inspectorship under this act are now appointed. The said board shall act as such for the period of one year from the date of their appointment. Meetings of the board may be held at any time, and they may make such rules and conduct such examinations as in their judgment may seem proper for the purpose of such examinations. The said board shall report their action to the Secretary of Internal Affairs, and at least three (3) of the members thereof shall certify to the qualification of each candidate who has passed such examination. The traveling expenses of the members of such board to and from their place of meeting, together with the sum of five dollars per day each to the said two (2) practical miners and owner, operator or superintendent, members of each board, for each day they are actually engaged therein, not exceeding ten (10) days in all, during the year, shall be paid by the Commonwealth on an order of the Auditor General drawn on the State Treasurer upon the certificate of the mine inspector, member of such board.

Section 4. Certificates of qualification to mine foreman and assistant mine foreman shall be granted by the Secretary of Internal Affairs to every applicant who may be reported by the examiners, as heretofore provided, as having passed a satisfactory examination and as having given satisfactory evidence of at least five (5) years' practical experience as a miner, and of good conduct, capability and sobriety. The certificate shall be in manner and form as shall be prescribed by the Secretary of Internal Affairs, and a record of all certificates issued shall be kept in the department. Certificates of qualification and certificates of service shall contain the full name, age and place of birth of the applicant, as also the length and nature of his previous service in or about the mines.

Section 5. Before certificate as aforesaid shall be granted applicants for same shall pay to the Secretary of Internal Affairs the following fee, namely:

For examination, one dollar; for registration of certificate, one dollar, for certificate, one dollar. All fees so received shall be covered into the treasury of the Commonwealth.

Section 6. No mines shall be operated for a longer period than thirty days without the supervision of a mine foreman. In case any mine is worked a longer period than thirty (30) days without such certified mine foreman, the owner, operator or superintendent thereof shall be subject to a penalty of twenty dollars per day for each day over the said thirty (30) days during which the said mine is operated.

Section 7. In case of the loss or destruction of a certificate the Secretary of Internal Affairs may supply a copy thereof to the person

losing the same upon the payment of the sum of fifty (50) cents: Provided, It shall be shown to the satisfaction of the Secretary that the loss has actually occurred.

Section 8. If any person or persons shall forge or counterfeit a certificate or knowingly make or cause to be made any false statement in any certificate under this act, or in any official copy of the same, or shall urge others to do so, or shall utter or use any such forged or false certificate, or unofficial copy thereof, or shall make, give, utter, produce or make use of any false declaration, representation or statement in any such certificate or copy thereof, or any document containing the same, he or they shall be guilty of a misdemeanor, and upon conviction thereof, shall be fined two hundred dollars, or imprisoned for a term not exceeding one (1) year, or both, at the discretion of the court trying the case.

Section 9. And no person shall be permitted to act as fire boss in any coal mine or colliery, except he has had five (5) years' practical experience in mines as a miner, three (3) of which he shall have as a miner wherein noxious and explosive gases are evolved, and the said fire boss shall certify to the same before entering upon his duties, before an alderman, justice of the peace or other person authorized to administer oaths, and a copy of said deposition shall be filed with the district inspector of mines wherein said person is employed.

ARTICLE IX.

Employment of Boys and Females.

Section 1. No boy under the age of fourteen (14) years, and no woman or girl of any age, shall be employed or permitted to be in any mine for the purpose of employment therein. Nor shall a boy under the age of twelve years or a woman or girl of any age, be employed or permitted to be in or about the outside structures or workings of a colliery for the purpose of employment, but it is provided, however, that this prohibition shall not affect the employment of a boy or female of suitable age in an office or in the performance of clerical work at a colliery.

Section 2. When an employer is in doubt as to the age of any boy or youth applying for employment in or about a mine or colliery, he shall demand and receive proof of the said lawful employment age of such boy or youth, by certificate from the parent or guardian, before said boy or youth shall be employed.

Section 3. If any person or persons contravene or fail to comply with the provisions of this act in respect to the employment of boys, young male persons or females, or if he or they shall connive with or permit others to contravene or fail to comply with said provisions, or if a parent or guardian of a boy or young male person make or give a false certificate of the age of such boy or young male person, or knowingly do or perform any other act for the purpose of secur-

ing employment for a boy or young male person under the lawful employment age and in contravention of the provisions of this act, he or they shall be guilty of an offense against this act.

ARTICLE X.

Ventilation.

Section 1. The owner, operator or superintendent of every mine shall provide and maintain a constant and adequate supply of pure air for the same, as hereinafter provided.

Section 2. It shall not be lawful to use a furnace for the purpose of ventilating any mine wherein explosive gases are generated.

Section 3. The minimum quantity of air thus produced, shall not be less than two hundred (200) cubic feet per minute for each and every person employed in any mine, and as much more as the circumstances may require.

Section 4. The ventilating currents shall be conducted and circulated to and along the face of each and every working place throughout the entire mine, in sufficient quantities to dilute, render harmless and sweep away smoke and noxious or dangerous gases, to such an extent that all working places and traveling roads shall be in a safe and fit state to work and travel therein.

Section 5. All worked out or abandoned parts of a mine in operation, so far as practicable, shall be kept free of dangerous bodies of gases or water, and if found impracticable to keep the entire mine free from an accumulation of gases or water, the mine inspector must be immediately notified.

Section 6. Every mine employing more than seventy-five (75) persons must be divided into two or more districts. Each district shall be provided with a separate split of pure air and the ventilation shall be so arranged, that not more than seventy-five persons shall be employed at the same time in any one current or split of air.

The inlet and return air passages for any particular district must be separated by a pillar of coal or stone, if the thickness and dip of the vein will permit, except where it is necessary to cut through said dividing pillar for the purposes of ventilation, traffic or drainage.

Section 7. All air passages shall be of sufficient area to allow the free passage of not less than two hundred (200) cubic feet of air per minute for every person working therein; and in no case, in mines generating explosive gases, shall the velocity exceed four hundred and fifty (450) lineal feet per minute, in any opening through which the air currents pass, if gauze safety lamps are used, except in the main inlet or outlet air ways.

Section 8. All cross-cuts connecting the main inlet and outlet air passages of every district, when it becomes necessary to close them permanently, shall be substantially closed with brick or other

suitable building material, laid in mortar or cement whenever practicable, but in no case shall said air stoppings be constructed of plank except for temporary purposes.

Section 9. All doors used in assisting or in any way affecting the ventilation shall be so hung and adjusted that they will close automatically.

Section 10. All main doors shall have an attendant whose constant duty it shall be to open them for transportation and travel and prevent them from standing open longer than is necessary for persons or cars to pass through.

Section 11. All main doors shall be so placed that when one door is open, another, which has the same effect upon the same current, shall be and remain closed and thus prevent any temporary stoppage of the air current.

Section 12. An extra main door shall be so placed and kept standing open, so as to be out of reach of accident, and so fixed that it can be at once closed in the event of an accident to the doors in use.

Section 13. The frame work of such main doors shall be substantially secured in stone or brick, laid in mortar or cement unless otherwise permitted in writing by the inspector.

Section 14. All permanent air bridges shall be substantially built of such material and such strength as the circumstances may require.

Section 15. The quantities of air in circulation shall be ascertained with an anemometer or other efficient instrument; such measurements shall be made by the inside foreman or his assistant once a week at the inlet and outlet airways, also at or near the face of each gangway and at the nearest cross-heading to the face of each gangway and at the nearest cross-heading to the face of the inside and outside chamber or breast where men are employed, and the headings shall not be driven more than sixty (60) feet from the face of each chamber or breast and shall be entered in the colliery report book.

Section 16. A report of these air measurements shall be sent to the inspector before the twelfth day of each month, for the preceding month, together with a statement of the number of persons employed in each district.

Section 17. All ventilators used at mines shall be provided with recording instruments by which the speed of the ventilators or the ventilating pressure shall be registered for each hour, and such data shall be preserved at the colliery for future reference, for a period of three months.

Section 18. Any person or persons who shall neglect or fail to comply with the provisions of this article, or who shall make any false report in regard to air measurements, shall be guilty of an offense against this act.

ARTICLE XI.

Props and Timbers.

Section 1. It shall be the duty of the owner, operator, superintendent or mine foreman of every mine to furnish to the miners all props, ties, rails and timbers necessary for the safe mining of coal and for the protection of the lives of the workmen. Such props, ties, rails and timbers shall be suitably prepared and shall be delivered to the workmen as near to their working places as they can be conveyed in ordinary mine cars, free of charge.

Section 2. Every workman in want of props, ties, rails or timbers shall notify the mine foreman or his assistant of the fact at least one day in advance, giving the length of the props or timber required; and in case of danger from loose roof or sides, he shall not continue to cut or load coal until the said props and timber have been properly furnished and the place made secure.

Section 3. A failure to comply with the provisions of this article shall be deemed an offense against this act, and shall be taken to be negligence per se on the part of the owner, operator, superintendent or mine foreman, as the case may be, of such mine, in action for the recovery of damages for accidents resulting from the insufficient propping of such mine, through failure to furnish the necessary props or timbers.

ARTICLE XII.

General Rules.

The following general rules shall be observed in every mine to which this act applies:

Rule 1. The owner, operator or superintendent of a mine or colliery shall use every precaution to ensure the safety of the workmen in all cases, whether provided for in this act or not, and he shall place the underground workings thereof, and all that is related to the same, under the charge and daily supervision of a competent person who shall be called "mine foreman."

Rule 2. Whenever a mine foreman cannot personally carry out the provisions of this act so far as they pertain to him, the owner, operator or superintendent shall authorize him to employ a sufficient number of competent persons to act as his assistants, who shall be subject to his orders.

Rule 3. The mine foreman shall have charge of all matters pertaining to ventilation, and the speed of the ventilators shall be particularly under his charge and direction; and any superintendent who shall cause the mine foreman to disregard the provisions of this act shall be amenable in the same manner as the mine foreman.

Rule 4. All accessible parts of an abandoned portion of a mine in which explosive gases have been found, shall be carefully examined

by the mine foreman or his assistants at least once a week, and all danger found existing therein shall be immediately removed. A report of said examination shall be recorded in a book kept at the colliery for that purpose and signed by the person making the same.

Rule 5. In mines generating explosive gases, the mine foreman or his assistant shall make a careful examination every morning of all working places and traveling roads and all other places which might endanger the safety of the workmen, before the workmen shall enter the mine, and such examination shall be made with a safety lamp within three (3) hours at most, before time for commencing work, and a workman shall not enter the mine or his working place until the said mine or part thereof and working place are reported to be safe. Every report shall be recorded without delay in a book which shall be kept at the colliery for the purpose and shall be signed by the person making the examination.

Rule 6. The person who makes said examination shall establish proof of the same by marking plainly the date thereof at the face of each working place and all other places examined.

Rule 7. A station or stations shall be established at the entrance to each mine or different parts of each mine, as the case may require, and a workman shall not pass beyond any such station until the mine or part of the mine beyond the same has been inspected and reported to be safe. It shall be the duty of the fire boss to remain at the danger station until relieved by some person authorized by himself or the mine foreman, who shall stand guard until said mine or part of mine shall be reported safe, and he shall not let any person pass without permission from the fire boss.

Rule 8. If at any time it is found by the person for the time being in charge of the mine or any part thereof, that by reason of noxious gases prevailing in such mine or such part thereof, or of any cause whatever the mine or the said part is dangerous, every precaution shall be used to ensure the safety of the workmen; and every workman, except such persons as may be required to remove the danger, shall be withdrawn from the mine, or such part thereof as is so found dangerous, until the said mine or said part thereof is examined by a competent person and reported by him to be safe.

Rule 9. In every working approaching any place where there is likely to be accumulation of explosive gases, or in any working in which danger is imminent from explosive gases, no light or fire other than a locked safety lamp shall be allowed or used. Whenever safety lamps are required in any mine they shall be the property of the owner of said mine, and a competent person, who shall be appointed for the purpose, shall examine every safety lamp immediately before it is taken into the workings for use, and ascertain it to be clean, safe and securely locked, and safety lamps shall not be used until they

have been so examined and found safe, clean and securely locked, unless permission be first given by the mine foreman to have the lamps used unlocked.

Rule 10. No one, except a duly authorized person, shall have in his possession a key or any other contrivance for the purpose of unlocking any safety lamp in any mine where locked lamps are used. No lucifer matches or any other apparatus for striking light shall be taken into said mine or parts thereof.

Rule 11. No blast shall be fired in any mine where locked safety lamps are used except by permission of the mine foreman or his assistants, and before a blast is fired, the person in charge must examine the place and adjoining places and satisfy himself that it is safe to fire such blast before such permission is given.

Rule 12. The mine foreman or his assistant shall visit and examine every working place in the mine at least once every alternate day, while the men of such place are or should be at work, and shall direct that each and every working place is properly secured by props or timber, and that safety in all respects is assured by directing that all loose coal or rock shall be pulled down or secured, and that no person shall be permitted to work in an unsafe place unless it be for the purpose of making it secure.

Rule 13. The mine foreman, or some other competent person or persons to be designated by him, shall examine at least once every day all slopes, shafts, main roads, traveling ways, signal apparatus, pulleys and timbering and see that they are in safe and efficient working condition.

Rule 14. Any person having charge of a working place in any mine shall keep the roof and sides thereof properly secured by timber or otherwise so as to prevent such roof and sides from falling, and he shall not do any work or permit any work to be done under loose or dangerous material except for the purpose of securing the same.

Rule 15. Whenever a place is likely to contain a dangerous accumulation of water, the working approaching such place shall not not exceed twelve (12) feet in width, and there shall be constantly kept, at a distance of not less than twenty (20) feet in advance, at least one (1) bore hole near the center of the working and sufficient flank bore holes on each side.

Rule 16. No person shall ride upon or against any loaded car, cage or gun-boat in any shaft, slope or plane in or about a mine or colliery.

Rule 17. Not more than ten (10) persons shall be hoisted or lowered at any one time in any shaft or slope, and whenever five persons shall arrive at the bottom of any shaft or slope in which persons are regularly hoisted or lowered they shall be furnished with an empty car or cage and be hoisted, except however, in mines where there is

provided a traveling way having an average pitch of fifteen (15) degrees or less and not more than one thousand (1,000) feet in length. This, however, shall not prohibit the hoisting or lowering of twenty (20) persons at one time on slopes where two (2) or more loaded cars are regularly hoisted: Provided, That not less than thirty (30) workmen working therein, make such request in writing, to the inspector of the district, and if, in his judgment, the hoisting appliances in every respect are of sufficient strength, he may comply with the request of the workmen.

Provided, That in any coal mine or colliery where the hoisting appliances are not of sufficient strength to hoist or lower the number of persons named, he shall have the power to reduce the number of persons to be hoisted or lowered.

Rule 18. An engineer placed in charge of an engine whereby persons are hoisted or lowered in any mine, shall be a sober and competent person of not less than twenty-one (21) years of age.

Rule 19. Every engineer shall work his engine slowly and with great care when any person is being lowered or hoisted in a shaft or slope and no one shall interfere with or intimidate him while in the discharge of his duties.

Rule 20. An engineer who has charge of the hoisting machinery by which persons are lowered or hoisted in a mine, shall be in constant attendance for that purpose during the whole time any person or persons are below ground, and he shall not allow any person or persons, except such as may be deputed by the owner, operator or superintendent, to handle or meddle with the engine under his charge or any part of its machinery.

Rule 21. When any person is about to descend or ascend a shaft or slope, the headman or footman, as the case may be, shall inform the engineer by signal or otherwise of the fact, and the engineer shall return a signal before moving or starting the engine. In the absence of a headman or footman the person or persons about to descend or ascend shall give and receive the signals in the same manner.

Rule 22. The owner, operator or superintendent of a colliery shall place a competent person to be called "outside foreman," in charge of the breaker and the outside work of such colliery and who shall direct, and as far as practicable, see that the provisions of this act are complied with in respect to the breaker, outside machinery, ropes, cages and all other things pertaining to the outside work, unless otherwise provided for in this act.

Rule 23. In all coal breakers where the coal dust is so dense as to be injurious to the health of persons employed therein, the owner, operator or superintendent of said breaker shall, upon the request of the inspector, immediately adopt measures for the removal of the dust, as far as practicable.

Rule 24. Any miner or other workman who shall discover anything wrong with the ventilating current or with the condition of the roof, side, timber or roadway, or with any other part of the mine in general, such as would lead him to suspect danger to himself or his fellow workmen or to the property of his employer, shall immediately report the same to the mine foreman or other person, for the time being in charge of that portion of the mine.

Rule 25. Any person or persons who shall knowingly or wilfully damage, or without proper authority, remove or render useless any fencing, means of signaling, apparatus, instrument or machine, or shall throw open or obstruct any airway, or open a ventilating door and not have the same closed, or enter a place in or about a mine against caution, or carry fire, open lights or matches in places where safety lamps are used, or handle without proper authority, or disturb any machinery or cars, or do any other act or thing whereby the lives or health of persons or the security of the property in or about a mine or colliery are endangered, shall be guilty of an offense against this act.

Rule 26. Gunpowder or any other explosive shall not be stored in a mine, and a workman shall not have at any time in any one place, more than one keg or box containing twenty-five (25) pounds, unless more is necessary for a person to accomplish one day's work.

Rule 27. Every person who has gunpowder or other explosive in a mine, shall keep it in a wooden or metallic box securely locked, and such box shall be kept at least ten (10) feet from the tracks in all cases where room at such a distance is available.

Rule 28. Whenever a workman shall open a box containing explosive or while in any manner handling the same, he shall first place his lamp not less than five (5) feet from such explosive and in such a position that the air current cannot convey sparks to it, and a workman shall not approach nearer than five (5) feet to an open box containing powder, with a lamp, lighted pipe or any other thing containing fire.

Rule 29. When high explosives other than gunpowder are used in any mine, the manner of storing, keeping, moving, charging and firing or in any manner using such explosives, shall be in accordance with special rules as furnished by the manufacturers of the same. The said rules shall be endorsed with his or their official signature and shall be approved by the owner, operator or superintendent of the mine in which such explosives are used.

Rule 30. In charging holes for blasting in slate or rock in any mine, no iron or steel-pointed needle shall be used, and a tight cartridge shall not be rammed into a hole in coal, slate or rock with an iron or steel tamping bar, unless the end of the tamping bar is tipped with at least six (6) inches of copper or other soft metal.

Rule 31. A charge of powder or any other explosive in slate or rock which has missed fire shall not be withdrawn or the hole reopened.

Rule 32. A miner or other person who is about to explode a blast by the use of patent or other squibs or matches, shall not shorten the match, nor saturate it with mineral oil, nor turn it down when placed in the hole, nor ignite it except at its extreme end, nor do anything tending to shorten the time the match will burn.

Rule 33. When a workman is about to fire a blast he shall be careful to notify all persons who may be in danger therefrom, and shall give sufficient alarm before and after igniting the match so that any person or persons who may be approaching shall be warned of the danger.

Rule 34. Before commencing work and also after the firing of every blast, the miner working a breast or any other place in a mine, shall enter such breast or place to examine and ascertain its condition, and his laborer or assistant shall not go to the face of such breast or place until the miner has examined the same and found it to be safe.

Rule 35. No person shall be employed to blast coal or rock unless the mine foreman is satisfied that such person is qualified, by experience and judgment, to perform the work with ordinary safety.

Rule 36. A person who is not a practical miner shall not charge or fire a blast in the absence of an experienced miner, unless he has given satisfactory evidence of his ability to do so with safety, and has obtained permission from the mine foreman or person in charge.

Rule 37. An accumulation of gas in mines shall not be removed by brushing where it is practicable to remove it by brattice.

Rule 38. When gas is ignited by blast or otherwise, the person igniting the same shall immediately extinguish it, if possible, and notify the mine foreman or his assistant of the fact, and workmen must see that no gas blowers are left burning upon leaving their working places.

Rule 39. Every fireman in charge of a boiler or boilers for the generation of steam, shall keep a constant watch of the same. He shall see that the steam pressure does not at any time exceed the limit allowed by the outside foreman or superintendent. He shall frequently try the safety valve, and shall not increase the weight on the same. He shall maintain a proper depth of water in each boiler, and if anything should happen to prevent this, he shall report the same without delay to the foreman, for the time being in charge, and take such other action as may under the particular circumstances be necessary for the protection of life and preservation of property.

Rule 40. At every shaft or slope in which provision is made in this act for lowering and hoisting persons, a headman and footman

shall be designated by the superintendent or foreman to be at their proper places from the time that persons begin to descend, until all the persons who may be at the bottom of said shaft or slope when quitting work shall be hoisted. Such headman and footman shall personally attend to the signals and see that the provisions of this act, in respect to lowering and hoisting persons in shafts or slopes, shall be complied with.

Rule 41. No person, except the man giving the signal, shall jump on a car, cage or gunboat after the signal to start has been given, and if any person should enter a car, cage or gunboat in excess of the lawful number the headman or footman shall notify him of the fact and request him to get off, which request must be immediately complied with. Any violation of this rule must be reported promptly to the mine foreman.

Rule 42. An empty trip shall be hoisted in any shaft or slope where the engine has been standing idle for an hour or more, before men are hoisted or lowered in said shafts or slopes, and no person or persons shall ascend any shaft or slope when working on the night turn, until one trip shall first be hoisted therein.

Rule 43. Every passage-way used by persons in any mines and also used for transportation of coal or other material, shall be made of sufficient width to permit persons to pass moving cars with safety, but if found impracticable to make any passage-way of sufficient width, then holes of ample dimensions, and not more than one hundred and fifty (150) feet apart, shall be made on one side of said passage-way. The said passage-way and safety holes shall be kept free from obstructions and shall be well drained; the roof and sides of the same shall be made secure.

Rule 44. When locomotives are used in any mine their speed shall not exceed six (6) miles per hour, and an efficient alarm shall be provided and attached to the front end of every train of cars pushed by a locomotive in any mine or part of a mine.

Rule 45. Locomotives propelled by steam, if using fire, shall not be used in any passage-way which is also used as an in-take air-way to any mine or part of a mine where persons are employed, unless there be a sufficient quantity of air circulating therein to maintain a healthy atmosphere.

Rule 46. No person shall couple or uncouple loaded or empty cars while the same are in motion: Provided however, That this shall not apply to the top or bottom men of slopes, planes or shafts.

Rule 47. When cars are run on gravity roads by breaks or sprags, the runner shall only ride on the rear end of the last car, and when said cars are run by sprags, a space of not less than two (2) feet from the body of the car shall be made on one or both sides of the track, wherever it may be necessary for the runner to pass along the side

of the moving car or cars, and said space or passage-way shall always be kept free from obstructions.

Rule 48. No miner or laborer shall run cars out of any breast or chamber or on any gravity road unless he is a suitable person, employed by the mine foreman for that particular work; and no person shall be employed by any mine foreman to perform such work, under the age of sixteen (16) years.

Rule 49. Safety holes shall be made at the bottom of all slopes and planes and be kept free from obstruction to enable the footman to escape readily in case of danger.

Rule 50. Safety blocks or some other device for the purpose of preventing cars from falling into a shaft or running away on a slope or plane, shall be placed at or near the head of every shaft, slope or plane, and said safety blocks or other device must be maintained in good working order.

Rule 51. No person shall travel on any gravity train while cars are being hoisted or lowered thereon. Whenever ten (10) persons arrive at the bottom or top of any plane on which it is necessary for men to travel, traffic thereon shall be suspended for a period of time long enough to permit them to reach the top or bottom of said plane.

Rule 52. No mine cars shall be used in any mine unless the bumpers are of sufficient length and width to keep the bodies of said cars separated by not less than twelve (12) inches when the cars stand on a straight level road and the bumpers touch each other.

Rule 53. It shall be the duty of the owner, operator or superintendent of any or all coal breakers, to have them properly heated in order to prevent injury to the health of persons employed therein.

Rule 54. For the purpose of making known the rules and the provisions of this act to all persons employed in or about such mine or colliery to which this act applies, an abstract of the act and rules shall be posted up in legible characters in some conspicuous place or places at or near the mine or colliery, where they may be conveniently read by the persons employed, and so often as the same becomes obliterated or destroyed the owner, operator or superintendent shall cause them to be renewed with all reasonable dispatch. Any person who pulls down, injures or defaces such abstract of the act or rules when posted up in pursuance to the provisions of this act, shall be guilty of an offense against this act.

Rule 55. No person or persons working in any coal mine or colliery shall cut any props or timbers while the same are in position to support the roof or sides. When it becomes necessary to remove any of the said props or timbers for the purpose of mining coal that may be supported by the same, to dislodge any of the said props or timbers, it must be done by blasting.

Rule 56. It shall not be lawful for any mine foreman or superintendent of any mine or colliery to employ any person who is not com-

petent to understand the regulations of any mine evolving explosive gases: Provided, That this rule will not apply to a section of mine, free from the said explosive gases.

Rule 57. Any superintendent or mine foreman who prevents the footman from giving an empty car or cage to the number of men designated in a former rule, shall, upon information by any person engaged in the mines, given the mine inspector, be fined the sum of fifty dollars for each offense.

Rule 58. Every person who fails to comply with any of the foregoing rules or any of the provisions of this article, shall be guilty of an offense against this act.

ARTICLE XIII.

Inquests.

Section 1. Whenever loss of life to a miner or other employe occurs in or about a mine or colliery, notice thereof shall be given promptly to the inspector of mines for the district in which the accident occurred, by the mine foreman or outside foreman or other person having immediate charge of the work at the time of the accident; and when death results from personal injury such notice shall be given promptly after the knowledge of death comes to the said foreman or person in charge.

Section 2. Whenever loss of life occurs or whenever the lives of persons employed in a mine or at a colliery are in danger from any accident, the inspector of mines shall visit the scene of the accident as soon as possible thereafter and offer such suggestions, as in his judgment shall be necessary, to protect the lives and secure the safety of the persons employed. In case of death from such accident, and after examination he finds it necessary that a coroner's inquest shall be held, he shall notify the coroner to hold such inquest without delay, and if no such inquest be held by the coroner within twenty-four (24) hours after such notice, the inspector shall institute a further and fuller examination of such accident, and for this purpose he shall have power to compel the attendance of witnesses at such examination and to administer oaths and affirmations to persons testifying thereat. The inspector shall make a record of all such investigations and accidents, which record shall be preserved in his office. The costs of such investigation shall be paid by the county in which the accident occurred in like manner as costs of inquests held by coroners or justices of the peace are now paid.

Section 3. An inquest held by the coroner upon the body of a person killed by explosion or other accident, shall be adjourned by the coroner if the inspector of mines be not present to watch the proceedings, and the coroner in such case shall notify the inspector, in

writing, of such adjourned inquest, and the time and place of holding the same, at least three (3) days previous thereto.

Section 4. Due notice of an intended inquest to be held by the coroner, shall be given by the coroner to the inspector, and at any such inquest the inspector shall have the right to examine witnesses.

Section 5. If, at any inquest held over the body or bodies of persons whose death was caused by an accident in or about a mine or colliery, the inspector be not present, and it is shown by the evidence given at the inquest that the accident was caused by neglect or by any defect in or about the mine or colliery, which in the judgment of the jury, requires a remedy, the coroner shall send notice in writing to said inspector of such neglect or default.

Section 6. No person who is interested personally, nor a person employed in the mine or at a colliery in or at which loss of life has occurred by accident, shall be qualified to serve on a jury empaneled on the inquest, and a constable or other officer shall not summon such a person so qualified as juror, but the coroner shall empanel a majority of the jury from miners who are qualified to judge of the nature of the accident; every person who fails to comply with the provisions of this article shall be guilty of an offense against this act.

ARTICLE XIV.

Returns, Notices, Et Cetera.

Section 1. Notices of death or serious injuries resulting from accidents in or about mines or collieries, shall be made to the inspector of mines, in writng, and shall specify the name, age and occupation of the person killed or injured, and also the nature and character of the accident and of the injury caused thereby.

Section 2. The owner, operator or superintendent of a mine or colliery, shall, without delay, give notice to the inspector of the district in which said mine or colliery is situated in any or all of the following cases:

First. Where any working is commenced for the purpose of opening a new slope or mine to which this act applies.

Second. Where any mine is abandoned or the workings thereof discontinued.

Third. Where the working of any mine is recommenced after any abandonment or discontinuance for a period exceeding three months.

Fourth. Where any new coal breaker is completed and work commenced therein for the purpose of prepring coal for market.

Fifth. Where the pillars of a mine are to be removed or robbed.

Sixth. Where a squeeze or crush or any other cause or change may seem to affect the safety of persons employed in any mine, or where fire occurs or a dangerous body of gas is found in any mine.

Section 3. On or before the first day of February in each year, the owner, operator or superintendent of every mine or colliery, shall send to the inspector of the district, a correct report specifying with respect to the year ending December thirty-first, previously, the name of the operator and officials of the mine, with his postoffice address; the quantity of coal mined, the amount of powder or other explosives consumed; the number of persons employed above and below ground in or about such colliery, classifying the persons so employed. The report shall be in such form as may be from time to time prescribed by the inspectors of the district. Blank forms for said reports shall be furnished by the Commonwealth.

ARTICLE XV.

Injunctions.

Section 1. Upon application of the inspector of mines of the proper district, acting in behalf of the Commonwealth, any of the courts of law or equity having jurisdiction where the mine or colliery proceeded against is situated, whether any proceedings have or have not been taken, shall prohibit, by injunction or otherwise, the working of any mine or colliery in which any person is employed or is permitted to be for the purpose of working in contravention of the provisions of this act, and may award such costs in the matter of the injunctions or other proceedings as the court may think just; but this section shall be without prejudice to any other remedy permitted by law for enforcing the provisions of this act. Written notice of the intention to apply for such injunction in respect to any mine or colliery, shall be made to the owner, operator or superintendent of such mine or colliery not less than twenty-four (24) hours before the application is made.

ARTICLE XVI.

Arbitration.

Section 1. Whenever an inspector finds any mine or colliery or part thereof, or any matter, thing or practice connected with such mine, which in any respect thereof is not covered by or provided against by any provisions of this act or by any rule, to be dangerous or defective, or in his judgment tends to bodily injury to a person, he shall give notice thereof in writing to the owner, operator or superintendent of such mine or colliery, stating in such notice the particular matter or defect requiring remedy and may demand that the same be remedied; but the owner, operator or superintendent of said mine or colliery shall have the right to refer the demand of the inspector to a board of arbitration, and the matter shall then be arbitrated within forty-eight (48) hours of the time such complaint or demand be made. And the party against whom the award is given shall pay

all cost attending the case. The said board of arbitration shall be composed of three (3) persons, one of whom shall be chosen by the inspector, one by the said owner, operator or superintendent and a third by the two thus selected, and the decision of a majority of such board shall be final and binding in the matter.

ARTICLE XVII.

Penalties.

Section 1. Any judge of the court of quarter sessions of the peace of the county in which the mine or colliery, at which the offense, act or omission as hereinafter stated has occurred, is situated, is hereby authorized and required, upon the presentation to him of the affidavit of any citizen of the Commonwealth setting forth that the owner, operator or superintendent, or any other person employed in or about such mine or colliery had been negligently guilty of an offense against the provisions of this act, whereby a dangerous accident had resulted or might have resulted to any person or persons employed in such mine or colliery, to issue a warrant to the sheriff of said county directing him to cause such person or persons to be arrested and brought before said judge, who shall hear and determine the guilt or innocence of the person or persons so charged; and if convicted he or they shall be sentenced to pay a fine not exceeding five hundred dollars, in all cases not otherwise provided for in this act, or an imprisonment in the county jail for a period not exceeding three (3) months, or both, at the discretion of the court: Provided, That any defendant may waive trial before a judge as herein provided and at any time, at or before the time of such trial, demand a trial by a jury in the court of quarter sessions, in which case he may enter into a recognizance before said judge with such surety or sureties and in such sum as said judge may approve, conditioned for his appearance at the next court of quarter sessions to answer the charge against him and abide the orders of the court in the premises, meanwhile to be of good behavior and keep the peace, or in default of such recognizance to be committed to the county jail to await such trial.

Section 2. If any person shall feel himself aggrieved by such conviction and sentence before a judge as aforesaid, he may appeal therefrom subject to the following conditions, namely: The appellant shall, within seven days after the decree has been made, give notice to the prosecutor of his intention to appeal, and within the same time enter into a recognizance, with such surety or sureties and in such sum as shall be approved by said judge, conditioned to appear and try such appeal before the next court of quarter sessions of the peace and to abide the judgment of the court thereon and to pay

all such costs and penalties as may be there awarded, and upon the compliance with such conditions the judge shall release the appellant from custody pending the appeal.

Section 3. Nothing in this act shall prevent any person from being indicted or liable under any other act, to any higher penalty or punishment than is herein provided, and if the court before whom any such proceeding is had shall be of the opinion that proceedings ought to be taken against such persons under any other act, or otherwise, he may adjourn the case to enable such proceedings to be taken.

Section 4. All offenses under this act are declared to be misdemeanors and in default of payment of any penalty or cost by the party or parties sentenced to pay the same, he or they may be imprisoned for a period not exceeding three (3) months and not less than thirty (30) days.

Section 5. For any violation of duty by the mine inspector prescribed by this act, he shall be deemed guilty of a misdemeanor, and upon conviction, be sentenced to pay a fine of not more than three hundred dollars or be imprisoned for a period not exceeding three months, or either, or both, at the discretion of the court.

Section 6. All fines imposed under this act shall be paid into the county treasury for the use of the county.

Section 7. No conviction or acquittal under this act, in any complaint, shall be received in evidence upon the trial of any action for damages arising from the negligence of any owner, operator or superintendent or employe in any mine or colliery.

Section 8. That for any injury to person or property occasioned by any violation of this act or any failure to comply with its provisions by any owner, operator, superintendent, mine foreman or fire boss of any coal mine or colliery, a right of action shall accrue to the party injured against said owner or operator for any direct damages he may have sustained thereby; and in case of loss of life by reason of such neglect or failure aforesaid, a right of action shall accrue to the widow and lineal heirs of the person whose life shall be lost, for like recovery of damages for the injury they shall have sustained.

ARTICLE XVIII.

Definition of Terms.

In this act, unless the context otherwise requires, the term "coal mine or colliery" includes every operation and work, both under ground and above ground, used or to be used for the purpose of mining and preparing coal.

The term "workings" includes all the excavated parts of a mine, those abandoned as well as the places actually at work.

The term "mine" includes all underground workings and excavations and shafts, tunnels and other ways and openings; also all such

shafts, slopes, tunnels and other openings in course of being sunk or driven, together with all roads, appliances, machinery and materials connected with the same below the surface.

The term "shaft" means a vertical opening through the strata and which is or may be used for the purpose of ventilation or drainage or for hoisting men or material in connection with the mining of coal.

The term "slope" means any inclined way or opening used for the same purpose as a shaft.

The term "breaker" means the structure containing the machinery used for the preparation of coal.

The term "owners" and "operators" means any person or body corporate who is the immediate proprietor or lessee or occupier of any coal mine or colliery or any part thereof. The term "owner" does not include a person or body corporate who merely receives a royalty, rent or fine from a coal mine or colliery or part thereof, or is merely the proprietor of the mine subject to any lease, grant or license for the working or operating thereof, or is merely the owner of the soil and not interested in the minerals of the mine or any part thereof. But any "contractor" for the working of a mine or colliery or any part or district thereof, shall be subject to this act as an operator or owner, in like manner as if he were the owner.

The term "superintendent" means the person who shall have, on behalf of the owner, general supervision of one or more mines or collieries.

ARTICLE XIX.

All laws or parts of laws inconsistent or in conflict with the provisions of this act are hereby repealed.

Approved—The 2d day of June, A. D. 1891.

ROBT. E. PATTISON.

AN ACT

Equalizing and fixing the compensation and mileage of the members of the several boards appointed under the provisions of the act approved June second, one thousand eight hundred and ninety-one, to examine candidates for appointment as inspectors, foremen and fire bosses, respectively, in the anthracite coal mines, and providing for the employment and compensation and mileage of a clerk to each of said boards.

Section 1. Be it enacted, &c., That from and after the passage of this act the members of the several boards appointed under the provisions of the act approved June second, one thousand eight hundred and ninety-one, to examine candidates for appointment respectively as inspectors and foremen of anthracite coal mines, shall re-

ceive in lieu of all compensation, mileage, expenses, emoluments or allowances heretofore paid them, as follows: Six dollars per day for each day during which the said members shall be actually in attendance on the sessions of the board, and mileage at the rate of five cents for each mile actually traveled going from the home of the member to the place of meeting of the board and returning from said place to his said home by the shortest practicable railway route: Provided, That mileage shall be paid but once for each continuous session of the board, and by a continuous session shall be meant a session during the course of which no adjournment for a longer period than forty-eight hours shall take place.

Section 2. Each of the boards enumerated or described in the first section of this act shall be and the same is hereby authorized to employ a clerk, whose compensation and mileage shall be the same as that of a member of the board. So much of section four of the act of June second, one thousand eight hundred and ninety-one, as authorizes the boards of examiners of candidates for inspectors of anthracite coal mines to engage the services of a clerk is hereby repealed, and all clerks hereafter appointed by the several boards hereinbefore mentioned shall be appointed under the provisions of this act.

Section 3. The members of the said boards shall, on the final adjournment of each session of their respective boards, submit to the Auditor General sworn statements approved by the president or chairman of their respective boards, setting forth the number of days during which each member shall have been actually in attendance on the sessions of the board of which he is a member during said session, as well as the distance from the home of the member to the place of meeting of his board as aforesaid, by the nearest practicable railway route, and the number of miles actually traveled by him; and the clerks of said boards shall submit like statements, and the Auditor General shall, upon the receipt of such sworn statements draw his warrant upon the State Treasurer in favor of each of such members and clerks for such sums as shall appear to be properly due each.

Section 4. All acts and parts of acts or supplements thereto in conflict herewith are hereby repealed.

Approved—The 26th day of June, A. D. 1895.

DANIEL H. HASTINGS.

AN ACT

To protect the lives and limbs of miners from the dangers resulting from incompetent miners working in the anthracite coal mines of this Commonwealth, and to provide for the examination of persons seeking employment as miners in the anthracite region, and to prevent the employment of incompetent persons as miners in anthracite coal mines, and providing penalties for a violation of the same.

Section 1. Be it enacted, &c., That hereafter no person whomsoever shall be employed or engaged in the anthracite coal region of this Commonwealth, as a miner in any anthracite coal mine, without having obtained a certificate of competency and qualification so to do from the "Miners' Examining Board" of the proper district, and having been duly registered as herein provided.

Section 2. That there shall be established in each of the eight inspection districts in the anthracite coal region, a board to be styled the "Miners' Examining Board" of the .....district, to consist of nine miners who shall be appointed in the same manner as the boards to examine mine inspectors are now appointed from among the most skillful miners actually engaged in said business in their respective districts, and who must have had five years' practical experience in the same. The said persons so appointed shall each serve for a term of two years from the date on which their appointment takes effect, and they shall be appointed upon or before the expiration of the term of the present members of the "Miners' Examining Board," and they shall be and constitute the "Miners' Examining Board" for their respective districts, and shall hold the office for the term for which they were appointed, or until their successors are duly appointed and qualified, and shall receive as compensation for their services three dollars per day for each day actually engaged in this service, and all legitimate and necessary expenses incurred in attending the meetings of said board under the provisions of this act, and no part of the salary of said board or expenses thereof shall be paid out of the State Treasury.

Each of said boards shall organize by electing one of their members president, and one member as secretary, and by dividing themselves in to three sub-committees for the more convenient discharge of their duties, each of said committees shall have all powers hereinafter conferred upon the board; and whenever in this act the words "Examining Board" are used, they shall be taken to include any of the committees thereof.

Every member of said board shall, within ten days of their appointment or being apprised of the same, take and subscribe an oath or affirmation before a properly qualified officer of the county in which they reside, that they will faithfully and impartially discharge the duties of their office.

Any vacancies occurring in said board shall be filled in the manner

hereinbefore provided from among such only as are eligible for original appointment.

Section 3. Each of said examining boards shall designate some convenient place within their districts for the meeting of the several committees thereof, and of which due notice shall be given by advertisement in two or more newspapers of the proper county, and so divided as to reach as nearly as practicable all the mining districts therein; but in no case shall such meeting be held in a building where any intoxicating liquors are sold.

Each of said committees shall open at the designated place of meeting a book of registration, in which shall be registered the name and address of each and every person duly qualified under this act to be employed as a miner in an anthracite coal mine. And it shall be the duty of all persons employed as miners to be properly registered, and in case of a removal from the district in which a miner is registered, it shall be his duty to be registered in the district to which he removes.

Application for registration only may be sent by mail to the board after being properly attested before any person authorized to administer an oath or affirmation in the county in which the applicant resides. The form of application shall be subject to such regulation as may be prescribed by the boards, but in no case shall any applicant be put to any unnecessary expense in order to secure registration.

Section 4. Each applicant for examination and registration and for the certificate hereinafter provided, shall pay a fee of one dollar to the said board, and a fee of twenty-five cents shall be charged for registering any person who shall have been examined and registered by any other board, and the amount derived from this source shall be held by said boards and applied to the expenses and salaries herein provided and such as may arise under the provisions of this act; and the said boards shall report annually, to the court of common pleas of their respective counties and the Bureau of Mines and Mining all moneys received and disbursed under the provisions of this act, together with the number of miners examined and registered under this act and the number who failed to pass the required examination.

Section 5. That it shall be the duty of each of the said boards to meet once every month and not oftener, and said meeting shall be public, and if necessary, the meeting shall be continued to cover whatever portion may be required of a period of three days in succession, and examine under oath all persons who shall desire to be employed as miners in their respective districts; and said board shall grant such persons as may be qualified, certificates of competency or qualification which shall entitle the holder thereof to be employed

as and to do the work of miners as may be expressed in said certificate, and such certificates shall be good and sufficient evidence of registration and competency under this act; and the holder thereof shall be entitled to be registered without an examination in any other of the anthracite districts upon the payment of the fee herein provided.

All persons applying for a certificate of competency, or to entitle them to be employed as miners, must produce satisfactory evidence of having had not less than two years practical experience as a miner, or as a mine laborer in the mines of this Commonwealth, and in no case shall an applicant be deemed competent unless he appear in person before the said board and answer intelligently and correctly at least twelve questions in the English language pertaining to the requirements of a practical miner, and be perfectly identified under oath, as a mine laborer by at least one practical miner holding miners' certificates. The said board shall keep an accurate record of the proceedings of all its meetings, and in said record shall show a correct detailed account of the examination of each applicant, with the questions asked and their answer, and at each of its meetings the board shall keep said record open for public inspection. Any miner's certificate granted under the provisions of this act, and the hereinafter mentioned act approved the ninth day of May, Anno Domini one thousand eight hundred and eighty-nine, shall not be transferable to any person or persons whatsoever, and any transfer of the same shall be deemed a violation of this act. Certificates shall be issued only at meetings of said board, and said certificates shall not be legal unless then and there signed in person by at least three members of said board.

Section 6. That no person shall hereafter engage as a miner in any anthracite coal mine without having obtained such certificate as aforesaid. And no person shall employ any person as a miner who does not hold such certificate as aforesaid, and no mine foreman or superintendent shall permit or suffer any person to be employed under him, or in the mines under his charge and supervision as a miner, who does not hold such certificates. Any person or persons who shall violate or fail to comply with the provisions of this act, shall be guilty of a misdemeanor, and on conviction thereof shall be sentenced to pay a fine not less than one hundred dollars and not to exceed five hundred dollars, or shall undergo imprisonment for a term not less than thirty days and not to exceed six months, or either, or both, at the discretion of the court.

Section 7. The persons who are now serving as members of the Miners' Examining Board as created by the act approved the ninth day of May, Anno Domini one thousand eight hundred and eighty-

nine, entitled "An act to provide for the examination of miners in the anthracite region of this Commonwealth, and to prevent the employment of incompetent persons as miners in anthracite coal mines," shall continue under the provisions of this act to serve as members of the "Miners' Examining Board" until the terms for which they were appointed under the provisions of the said act approved the ninth day of May, Anno Domini one thousand eight hundred and eighty-nine, shall have expired, and in the performance of the duties of their office they shall be subject to the provisions and requirements of this act.

Section 8. Nothing in this act shall be construed to in any way, excepting as herein provided, affect miners' certificates which have been lawfully issued under the provisions of the herein mentioned act, approved the ninth day of May, Anno Domini one thousand eight hundred and eighty-nine.

Section 9. It shall be the duty of the several Miners' Examining Boards to investigate all complaints or charges of non compliance or violation of the provisions of this act, and to prosecute all persons so offending; and upon their failure so to do, then it shall become the duty of the district attorney of the county wherein the complaints or charges are made to investigate the same and prosecute all persons so offending, and it shall at all times be the duty of the district attorney to prosecute such members of the Miners' Examining Board as have failed to perform their duty under the provisions of this act; but nothing herein contained shall prevent any citizen, a resident of this Commonwealth, from prosecuting any person or persons violating this act, with power to employ private counsel to assist in the prosecution of the same; upon conviction of any member of the Miners' Examining Board for any violation of this act, in addition to the penalties herein provided, his office shall be declared vacant, and he shall be deemed ineligible to act as a member of the said board.

Section 10. For the purposes of this act the members of the said "Miners' Board" shall have power to administer oaths.

Section 11. All acts or parts of acts inconsistent herewith are hereby repealed.

Approved—The 15th day of July, A. D. 1897.

DANIEL H. HASTINGS.

AN ACT

To amend the tenth section of article ten of an act, entitled "An act to provide for the health and safety of persons employed in and about the anthracite coal mines of Pennsylvania, and for the protection and preservation of property connected therewith," approved the second day of June, Anno Domini one thousand eight hundred and ninety-one, providing that self-acting doors are used.

Section 1. Be it enacted, &c., That the tenth section of article ten

of an act, entitled "An act to provide for the health and safety of persons employed in and about the anthracite coal mines of Pennsylvania, and for the protection and preservation of property connected therewith," approved the second day of June, Anno Domini one thousand eight hundred and ninety-one, which reads as follows:

"All main doors shall have an attendant whose constant duty it shall be to open them for transportation and travel and prevent them from standing open longer than is necessary for persons or cars to pass through," be and the same is hereby amended to read as follows:

All main doors shall have an attendant, whose constant duty it shall be to open them for transportation and travel and prevent them from standing open longer than is necessary for persons or cars to pass through, unless a self-acting door is used which is approved by the inspector of the district.

Approved—The 20th day of April, A. D. 1899.

WILLIAM A. STONE.

AN ACT.

Relating to anthracite mines, and providing for the care and life and attention of employes injured in and about said mines.

Section 1. Be it enacted, &c., That within six (6) months after the passage of this act, it shall be unlawful to operate any anthracite mine, employing ten (10) men or more, in the State of Pennsylvania, unless said mine is provided with a sufficient quantity of linseed or olive oil bandages, linen, splints, woolen and waterproof blankets. Said articles shall be stored in a room, erected at a convenient place in the mine, which room shall not be less than eight by twelve feet, and sufficiently furnished, lighted, clean and ventilated so that therein medical treatment may be given injured employes in case of emergency. The furnishings shall be sufficient to accommodate two or more persons, in a reclining and sitting posture.

Section 2. It shall be the duty of the mine foreman or his assistants, in case of injury to any employe by explosion of gas or powder, or by any cause while said miners are at work in said mines, to at once visit the scene of accident, see that the injured is carefully wrapped in woolen blankets and removed to the "medical room," and so treated with oils or other remedies as will add to the comfort and care of the patient. After being treated with all the skill known to the foreman or his assistants, the injured person shall be carefully wrapped up and sent to the surface, to be taken home in an ambulance or to

the mining hospital, as may be desired, without expense to the injured party.

Section 3. Where accident to any employe involves injury to limbs or causes loss of blood, the foreman or his assistants shall see that the bandages, splints and linen shall be applied where necessary to prevent loss of blood and relieve pain. The foreman shall, in all cases, see that the injured person is sent to the surface without delay. He shall also keep a book showing required articles on hand, name of persons injured, nature of injury, treatment, and by whom treated at time of accident.

Section 4. It shall be the duty of the mine inspector to visit each of the medical rooms in his district at least once in six months; see that the law is complied with; examine records of the medical room. He shall notify the county coroner of any neglect or non-compliance with the provisions of this act by any operator, which information shall be regarded as evidence on any inquest that may be held on employes, dying from injuries received while working in such anthracite mine.

Section 5. The neglect or refusal to perform the duties required to be performed by any section of this act; by the parties therein required to perform them, or the violation of any of the requirements hereof, shall be deemed a misdemeanor, and shall, upon conviction thereof in the court of quarter sessions of the county wherein the misdemeanor was committed, be punishable by a fine not exceeding five hundred dollars, or imprisoned in the county jail for a period not exceeding six months, or both, at the discretion of the court.

Section 6. That for any injury to employes, occasioned by any violation of the act, or any failure to comply with its provisions, by any owners, operators or superintendent of any coal mine or colliery, a right of action shall accrue to the party injured against said owner or operator, for any direct injuries he may have sustained thereby; and in case of loss of life, limb or bodily power, by reason of such neglect or failure aforesaid, a right of action shall accrue to the person, widow or lineal heirs, for the recovery of damages for the injury he or they shall have sustained.

Section 7. The term "coal mine," as herein used, includes the shafts, slopes, drifts or inclined planes, connected with the excavations penetrating coal stratum or strata, which excavations are ventilated by one general air current, or division thereof, and connected by one general system of mine railroads, over which coal may be delivered to one or more parts outside the mine. The term "mine foreman" means the person who shall have, on behalf of the operators, immediate supervision of a coal mine. The term "operator" means any firm, corporation or individual operating any coal mine.

The term "anthracite mine" shall include any coal mine not now included in the bituminous boundaries.

Section 8. That all acts or parts of acts inconsistent herewith be, and the same are hereby repealed, and all local laws inconsistent herewith are hereby repealed.

Approved—The 29th day of May, A. D. 1901.

WILLIAM A. STONE.

AN ACT

Amending article two of an act, entitled "An act to provide for the health and safety of persons employed in and about the anthracite coal mines of Pennsylvania and for the protection and preservation of property connected therewith," approved the second day of June, Anno Domini one thousand eight hundred and ninety-one.

Section 1. Be it enacted, &c., That article two of an act, entitled "An act to provide for the health and safety of persons employed in and about the anthracite coal mines of Pennsylvania, and for the protection and preservation of property connected therewith," approved the second day of June, Anno Domini one thousand eight hundred and ninety-one, and which reads as follows, to-wit:

ARTICLE II.

Inspectors and Inspection Districts.

"Section 1. The counties of Susquehanna, Wayne, Luzerne, Lackawanna, Carbon, Schuylkill, Northumberland, Columbia, Lebanon and Dauphin, or so much of them as may be included under the provisions of this act, shall be divided into eight (8) inspection districts, as follows:

"Section 2. First, All that portion of the Lackawanna coal field lying northeast of East and West Market streets in the city of Scranton, and of Slocum and Drinker streets in the borough of Dunmore, including the coal fields of Susquehanna and Wayne counties.

"Second. That portion of the Lackawanna coal field in Lackawanna county lying southwest of East and West Market streets in the city of Scranton, and west of Slocum and Drinker streets in the borough of Dunmore.

"Third. That portion of the Wyoming coal field situated in Luzerne county, east of and including Plains and Kingston townships.

"Fourth. The remaining portion of the Wyoming coal field west of Plains and Kingston townships, including the city of Wilkes-Barre and the boroughs of Kingston and Edwardsville.

"Fifth. That part of Luzerne county lying south of the Wyoming coal field together with Carbon county.

"Sixth. That part of the Schuylkill coal field in Schuylkill county

lying north of the Broad Mountain and east of a meridian line through the center of the borough of Girardville.

"Seventh. That part of the Schuylkill coal field in Schuylkill county lying north of the Broad Mountain and west of a meridian line through the center of the borough of Girardville, together with Columbia, Northumberland and Dauphin counties.

"Eighth. All that part of the Schuylkill coal field in Schuylkill county lying south of the Mahanoy Valley, and the county of Lebanon.

"Section 3. In order to fill any vacancy that may occur in the office of Inspector of Mines by reason of expiration of term, resignation, removal for cause, or from any other reason whatever, the judges of the court of Lackawanna county shall appoint an examining board for the counties of Susquehanna, Wayne and Lackawanna, and the judges of the court of Luzerne county shall appoint an examining board for the counties of Sullivan, Carbon and Luzerne, and the judges of Schuylkill county shall appoint an examining board for the counties of Schuylkill, Northumberland, Lebanon, Columbia and Dauphin.

Section 4. The said Board of Examiners shall be composed of three reputable coal miners in actual practice and two reputable mining engineers, all of whom shall be appointed at the first term of court in each year, to hold their places during the year. Any vacancies that may occur in the Board of Examiners shall be filled by the court as they occur. The said Board of Examiners shall be permitted to engage the services of a clerk, and they, together with the clerk, shall each receive the sum of five dollars per day for every day they are actually engaged in the discharge of their duties under this appointment, and mileage at the rate of six cents per mile from their home to the place of meeting and return by the nearest practicable railway route.

"Section 5. Whenever candidates for the office of Inspector are to be examined, the said examiner shall give public notice of the fact in not more than five papers published in the inspection district, and at least two weeks before the meeting, specifying the time and place where such meeting shall be held. The said examiners shall be sworn to a faithful discharge of their duties, and four of them shall agree in their recommendation of all candidates to the Governor who have answered ninety per centum of the questions; the names of the applicants, the questions asked and answers thereto shall be sent to the Secretary of the Commonwealth, and published in at least two local papers, daily or weekly, and shall recommend only such applicants as they find qualified for the office.

"Should the Board of Examiners not be able to agree in their

selection and recommendation of a candidate, the judges of the court of common pleas shall dissolve the said board, and appoint a new board of like qualifications and powers.

"Upon the recommendation of the Board of Examiners as aforesaid, the Governor shall appoint such person or persons to fill the office of inspector of mines under this act, and shall issue to him a commission for the term of five years, subject, however, to removal for neglect of duty or malfeasance in office, as hereinafter provided for.

"Section 6. The person so appointed must be a citizen of Pennsylvania and shall have attained the age of thirty years. He must have a knowledge of the different systems of working coal mines, and he must produce satisfactory evidence to the Board of Examiners of having had at least five (5) years practical experience in anthracite coal mines of Pennsylvania. He must have had experience in coal mines where noxious and explosive gases are evolved.

"Before entering upon the duties of his office he shall take an oath or affirmation before an officer properly qualified to administer the same, that he will perform his duties with fidelity and impartiality; which oath or affirmation shall be filed in the office of the prothonotary of the county. He shall also provide himself with the most modern instruments and appliances for carrying out the intentions of this act.

"Section 7. The salary of each of the said inspectors shall be three thousand dollars per annum, which salary, together with the expenses incurred in carrying into effect the provisions of this act, shall be paid by the State Treasurer out of the Treasury of the Commonwealth upon the warrant of the Auditor General.

"Section 8. In case the inspector becomes incapacitated to perform the duties of his office for a longer period than two weeks, it shall be the duty of the judges of the court of common pleas to deputize some competent person recommended by the board of examiners to fill the office of inspector, until the said inspector shall be able to fulfil the duties of his office; and the person so appointed shall be paid in the same manner as is provided for the inspector of mines.

"Section 9. Each of the said inspectors shall reside in the district for which he is appointed, and shall give his whole time and attention to the duties of the office. He shall examine all the collieries in his district as often as his duties will permit or as often as the exigencies of the case or the condition of the mines require it; see that every necessary precaution is taken to secure the safety of the workmen and that the provisions of this act are observed and obeyed; attend every inquest held by the coroner, or his deputy, upon the bodies of persons killed in or about the collieries in his district; visit the scene of the accident for the purpose of making an examination into the

particulars of the same whenever loss of life or serious personal injury occurs, as elsewhere herein provided for, and make an annual report of his proceedings to the Secretary of Internal Affairs of the Commonwealth at the close of every year, enumerating all the accidents in and about the collieries of his district, marking in tabular form those accidents causing death or serious personal injury, the condition of the workings of the said mines with regard to the safety of the workmen therein, and the ventilation thereof, and the result of his labors generally shall be fully set forth.

"Section 10. The Board of Examiners, each for its respective district as hereinbefore provided for, in order to divide more equitably among the several mine inspectors the labor to be performed of the duties of the office, may, at any time, when they shall deem it desirable or necessary, readjust the several districts by the creation of new boundary lines, thereby adding to or taking from, as the case may be, the districts as at present bounded and described, if the court having jurisdiction approve the same.

"And in case it shall be deemed desirable or necessary to readjust any contiguous district, comprised by more than one judicial district, by the creation of new boundary lines, then in such case the examining boards of the territory affected or requiring such adjustment shall, in joint session, make such change or readjustment as they shall jointly agree upon, if the nearest court having jurisdiction to the territory affected to whom the said joint examining boards shall submit the matter, shall approve the same.

"Section 11. The mine inspector shall have the right and it is hereby made his duty, to enter, inspect and examine any mine or colliery in his district and the workings and machinery belonging thereto, at all reasonable times, either by day or night, but not so as to impede or obstruct the working of the colliery, and shall have power to take one or more of his fellow inspectors into or around any mine or colliery in the district for which he is appointed, for the purpose of consultation or examination.

"He shall also have the right, and it is hereby made his duty, to make inquiry into the condition of such mine or colliery workings, machinery, ventilation, drainage, method of lighting or using lights and into all matters and things connected with or relating to, as well as to make suggestions providing for the health and safety of persons employed in or about the same, and especially to make inquiry whether the provisions of this act have been complied with.

"The owner, operator or superintendent of such mine or colliery is hereby required to furnish the means necessary for such entry, inspection, examination, inquiry and exit.

"The inspector shall make record of the visits, noting the time and material circumstances of the inspection.

"Section 12. No person who shall act or practice as a land agent or as a manager or agent of any coal mine or colliery, who is pecuniarily interested in operating any coal mine or colliery in his district, shall, at the same time, hold the office of Inspector of Mines under this act.

"Section 13. Whenever a petition signed by fifteen or more reputable coal operators or miners, or both, setting forth any inspector of mines neglects his duties, or is incompetent, or is guilty of malfeasance in office, it shall be the duty of the court of common pleas of the Commonwealth to the said inspector to appear at not less than five days notice, on a day fixed, before said court and the court shall then proceed to inquire into and investigate the allegations of the petitioners. If the court find that the said inspector is neglectful of his duties or that he is incompetent to perform the duties of the office for any cause that existed previous to his appointment or that has arisen since his appointment or that he is guilty of malfeasance in office, the court shall certify the same to the Governor of the Commonwealth, who shall declare the office of inspector for the district vacant and proceed, in compliance with the provisions of this act, to appoint a properly qualified person to fill the office.

"The cost of said investigation shall be borne by the removed inspector; but if the allegations in the petition are not sustained the costs shall be paid by the petitioners.

"Section 14. The maps and plans of the mines and the records thereof, together with all the papers relating thereto, shall be kept by the inspector, properly arranged and preserved, in a convenient place in the district for which each inspector has been appointed, and shall be transferred by him, with any other property of the Commonwealth that may be in his possession, to his successor in office.

"Section 15. The persons who, at the time this act goes into effect, are acting as inspectors of mines under the acts hereby repealed shall continue to act in the same manner as if they had been appointed under this act, until the term for which they were appointed has expired," be amended so as to read as follows:

ARTICLE II.

Inspectors and Inspection Districts.

Section 1. The counties of Luzerne, Lackawanna, Carbon, Schuylkill, Northumberland and Columbia, shall be divided into six inspection districts, as follows:

Section 2. First district—The county of Luzerne.

Second district—The county of Lackawanna.

Third district—The county of Carbon.

Fourth district—The county of Schuylkill.

Fifth district—The county of Northumberland.

Sixth district—The county of Columbia.

Section 3. In order to fill any vacancy that may occur in the office of Inspector of Mines by reason of the expiration of term, resignation, removal for cause or from any other reason whatever, the judges of the court of Lackawanna county shall appoint an examining board for the county of Lackawanna, and the judges of the court of Luzerne county shall appoint an examining board for the counties of Carbon and Luzerne, and the judges of Schuylkill county shall appoint an examining board for the counties of Schuylkill, Northumberland and Columbia.

Section 4. The said Board of Examiners shall be composed of three reputable coal miners in actual practice and two reputable mining engineers, all of whom shall be appointed at the first term of court in each year, to hold their places during the year. Any vacancies that may occur in the Board of Examiners shall be filled by the court as they occur. The said Board of Examiners shall be permitted to engage the services of a clerk, and they, together with the clerk shall each receive the sum of five (5) dollars per day for every day they are actually engaged in the discharge of their duties under this appointment, and mileage at the rate of six cents per mile from their home to the place of meeting and return, by the nearest practicable railway route.

Section 5. Whenever candidates for the office of Inspector are to be examined, the said examiner shall give public notice of the fact in not more than five newspapers published in the inspection district, and at least two weeks before the meeting, specifying the time and place where such meeting shall be held. The said examiners shall be sworn to a faithful discharge of their duties, and at least four of them shall sign a certificate, setting forth the fact of the applicants having passed a successful examination, and who have answered ninety per centum of the questions; the names of the applicants, the questions asked and answers thereto, shall be sent to the Secretary of the Commonwealth, and published in at least two papers, daily or weekly, and shall give such certificate to only such applicant as has passed the required examination.

Section 6. The said Board of Examiners shall hold at least one such examination during each year, at least six months before the date of the general election, in the month of November of each year.

Section 7. At the next general election in November, the qualified voters of the first inspection district shall elect five qualified persons to act as Mine Inspectors of this Commonwealth; the qualified voters of the second inspection district shall elect four qualified persons to

act as Mine Inspectors of this Commonwealth; the qualified voters of the third inspection district shall elect one qualified person to act as Mine Inspector of this Commonwealth; the qualified voters of the fourth inspection district shall elect four qualified persons to act as Mine Inspectors of this Commonwealth; the qualified voters of the Fifth Inspection district shall elect one qualified person to act as Mine Inspector of this Commonwealth: Provided, That the present Mine Inspectors in the several inspection districts shall continue in office until the expiration of the terms for which they have been appointed, and the number of inspectors to be elected at the coming election shall be reduced by the number of Inspectors now regularly appointed and serving in said districts. When the terms of the present Inspectors shall expire, their successors shall be elected in accordance with the provisions of this act. At the said first election under this act in November, Anno Domini one thousand nine hundred and two, for said Inspectors, the qualified electors of the First Inspection District shall elect two Inspectors; the qualified electors of the Second Inspection district shall elect two Inspectors; the qualified electors of the Fourth Inspection district shall elect two Inspectors; the qualified electors of the Fifth Inspection district shall elect one Inspector, and the qualified electors of the Sixth Inspection district shall elect one Inspector. At the expiration of the term of office of any of the present Inspectors, who hold office under the appointment of the Governor of the Commonwealth, the qualified electors of the Third Inspection district shall elect one Inspector, and as further vacancies are caused by the expiration of the term of office of the present Inspectors, the qualified electors of the several inspection districts shall elect Inspectors to take their places, beginning with the First Inspection district, then the Second Inspection district, Third Inspection district, Fourth Inspection district, Fifth Inspection district and Sixth Inspection district, until each inspection district has its full quota of elected inspectors under this act. Said Inspectors, elected under this act, shall be under the directions of the Chief of the Bureau of Mines, who shall assign districts to the several Inspectors in the respective counties in which they are elected.

Section 8. Candidates for the office of Mine Inspector shall file with the county commissioners a certificate from the mine examining board, as above set forth, before their names shall be allowed to go upon the ballot as provided by the county commissioners for the general election; and the name of no person shall be placed upon the official ballot except such as has filed the certificate as herein required; and no person shall be qualified to act as such Mine Inspector unless such certificate has been previously filed with the county commissioners of his county.

Section 9. The person so elected must be a citizen of Pennsylvania

and shall have attained the age of thirty years. He must have a knowledge of the different systems of work in coal mines, and he must produce satisfactory evidence to the Board of Examiners of having had at least five years practical experience in anthracite coal mines of Pennsylvania. He must have had experience in coal mines where noxious and explosive gases are evolved.

Before entering upon the duties of his office he shall take an oath or affirmation, before an officer properly qualified to administer the same, that he will perform his duties with fidelity and impartiality; which oath or affirmation shall be filed in the office of the prothonotary of the county. He shall provide himself with the most modern instruments and appliances for carrying out the intentions of this act.

Section 10. The salary of each of the said Inspectors shall be three thousand dollars per annum, which salary, together with the expenses incurred in carrying into effect the provisions of this act, shall be paid by the State Treasurer out of the Treasury of the Commonwealth upon the warrant of the Auditor General.

Section 11. Each of the said Inspectors shall hold said office for a term of three years from the first Monday of January immediately succeeding his election to said office, and until his successor is duly elected and qualified.

Section 12. It shall be the duty of the Chief of Bureau of Mines and Mining to direct one or more of the Inspectors who shall be elected under this act, and it shall be the duty of said Inspectors to obey said orders of the said Chief of Bureau of Mines and Mining, to inspect such collieries as come under the act to which this act is an amendment in counties not mentioned in this amendment to said act, in such manner and at such times as is required by law, and the inspectors inspecting said collieries shall make and include in their return a due report of said inspection.

Section 13. In case of death, resignation, removal from office, or other vacancies in the office of Mine Inspector before the expiration of said term of office, the judges of the court of common pleas of the county in which said vacancy occurs shall appoint a duly qualified person to fill said vacancy for the unexpired term. Said appointee to be one of the persons having filed with the county commissioners of said county a certificate from the Board of Examiners, showing he passed a successful examination before the said Board, and is duly qualified as hereinbefore mentioned.

Section 14. In case the Inspector becomes incapacitated to perform the duties of his office for a longer period than two weeks, it shall be the duty of the judges of the court of common pleas of the county from which said Inspector was elected to deputize some competent person, recommended by the Board of Examiners, to fill the

office of Inspector until the said Inspector shall be able to fulfil the duties of his office, and the person so appointed shall be paid in the same manner as is provided for the Inspector of Mines.

Section 15. Each of the said Inspectors shall reside in the district for which he is elected, and shall give his whole time and attention to the duties of his office. He shall examine all the collieries in his district at least once every two months, as often in addition thereto as the necessities of the case or the condition of the mines require. He shall see that every necessary precaution is taken to secure the safety of the workmen and that the provisions of this act are observed and obeyed; and he shall personally visit each working face, and see that the air-current is carried to the working faces and is of sufficient quantity or volume to thoroughly ventilate the places. He shall every three months make a report of the condition of each working face in each colliery, on a form to be furnished to the inspectors by the Chief of the Bureau of Mines and Mining, designating the gangway in which the working is situated, and the breast number of said working and their condition shall be designated by the words good, fair, or bad, as the circumstances may warrant; and the said report, or a duplicate, shall be placed in a weather and dust-proof case, with a glass front; said case to be furnished by the operator, and placed in a conspicuous place at each mine opening, shaft, slope or drift, so that the workmen have easy access thereto. He shall certify in said report that the employes are hoisted to the surface of the ground or given access thereto according to law; he shall attend every inquest held by the coroner or his deputy upon the bodies of persons killed in or about the collieries in his district; he shall visit the scene of the accident, for the purpose of making an examination into the particulars of the same, wherever loss of life or serious personal injury occurs, as elsewhere herein provided for, and make an annual report of his proceedings to the Secretary of Internal Affairs of the Commonwealth at the close of every year, enumerating all the accidents in and about the collieries in his district, marking in tabular form those accidents causing death or serious personal injury, the condition of the workings of the said mines with regard to the safety of the workmen therein and the ventilation thereof, and the results generally shall be fully set forth; and such other duties as now are or hereafter may be required by law.

Section 16. The nomination and election of said mine inspectors shall be under the general election laws of this Commonwealth.

Section 17. The Mine Inspector shall have the right, and it is hereby made his duty, to enter, inspect and examine any mine or colliery in the territory allotted to him and the workings and machinery belonging thereto, at all reasonable times, either by day or by night, but not so as to obstruct or impede the working of the colliery, and

shall have power to take one or more of his fellow inspectors into or around any mine or colliery in the territory allotted to him, for the purpose of consultation or examination.

He shall also have the right, and it is hereby made his duty, to make inquiry into the condition of such mine or colliery workings, machinery, ventilation, drainage, method of lighting or using lights, and into all matters and things connected with or relating to, as well as to make suggestions providing for, the health and safety of persons employed in or about the same, and especially to make inquiry whether the provisions of this act have been complied with.

The owner, operator or superintendent of such mine or colliery is hereby required to furnish the means necessary for such entry, inspection, examination, inquiry and exit.

The inspector shall make a record of the visit, noting the time and material circumstances of the inspection.

Section 18. No person who shall act or practice as a land agent or as a manager or agent of any coal mine or colliery, who is pecuniarily interested in operating any coal mine or colliery, shall at the same time hold the office of Inspector of Mines under this act.

Section 19. Whenever a petition signed by fifty or more reputable coal miners, or by fifteen or more reputable coal operators, or more, or both, setting forth that any inspector of mines neglects his duties, or is incompetent, or is guilty of malfeasance in office, it shall be the duty of the court of common pleas from which said Inspector was elected to issue a citation, in the name of the Commonwealth, to the said Inspector to appear at not less than five days' notice, on a day fixed, before said court, and the court shall then proceed to inquire into and investigate the allegations of the petitioners. If the court finds that the said Inspector is neglectful of his duties, or is incompetent to perform the duties of his office for any cause that existed previous to his election, or that has arisen since his election, or that he is guilty of malfeasance in office, the court shall declare the said Inspector removed from office and proceed to fill the vacancy. The cost of said investigation shall be borne by the removed Inspector; but if the allegations in the petition are not sustained, the cost shall be paid by the Treasurer of this Commonwealth upon warrant of the Auditor General, or by the petitioners in case the court finds that there was no probable ground for said charge.

Section 20. The maps and plans of the mines and the records thereof, together with all the papers relating thereto, shall be kept by the Inspector, properly arranged and preserved, in a convenient place in the territory to which the inspector has been allotted, and shall be transferred by him, with any other property of the Commonwealth that may be in his possession, to his successor in office.

Section 21. This act shall go into effect from the first day of January, Anno Domini one thousand nine hundred and two.

Section 22. All acts or parts of acts inconsistent with the provisions of this act are hereby repealed.

Approved—The 8th day of June, A. D. 1901.

WILLIAM A. STONE.

Bituminous Mining Laws

LAWS RELATING TO COAL MINING

AN ACT

To protect miners in the bituminous coal region of the Commonwealth.

Section 1. Be it enacted, &c., That after the period of three months from the passage of this act, any miner employed by an individual, firm or corporation for the purpose of mining coal shall be entitled to receive from his employer, and failing to receive then to collect, by due process of law, at such rates as may have been agreed upon between the employer and the employed, full and exact wages accruing to him for the mining of all sizes of merchantable coal so mined by him, whether the same shall exist in the form of nut or lump coal; and in the adjudication of such wages seventy-six pounds shall be deemed one bushel, and two thousand pounds net, shall be deemed one ton of coal: Provided, That nothing contained in this act shall be construed to prevent operators and miners contracting for any method of measuring and screening the coal mined by such miners, as they may contract for.

Section 2. That at every bituminous coal mine in this Commonwealth, where coal is mined by measurement, all cars, filled by miners or their laborers, shall be uniform in capacity at each mine; no unbranded car or cars shall enter the mine for a longer period than three months, without being branded by the mine inspector of the district, wherein the mine is situated; and any owner or owners, or their agents, violating the provisions of this section, shall be subject to a fine of not less than one dollar per car for each and every day as long as the car is not in conformity with this act, and the mine inspector of the district, where the mine is located, on receiving notice from the check-master or any five miners working in the mine, that a car or cars are not properly branded, or not uniform in capacity according to law, are used in the mine where he or they are employed, then inside of three days from the date of receiving said notice, it shall be his duty to enforce the provisions of this section, under penalty of ten dollars for each and every day he permits such car or cars to enter the mine: Provided, That nothing contained in this section shall be construed or applied to those mines which do not use more than ten cars.

Section 3. That at every bituminous coal mine in this Commonwealth, where coal is mined by weight or measure, the miners or a majority of those present at a meeting called for that purpose, shall have the right to employ a competent person as check-weighman, or check-measurer as the case may require, who shall be permitted at all times to be present at the weighing or measurement of coal, also have power to weigh or measure the same, and during the regular working hours to have the privilege to balance and examine the scales, or measure the cars: Provided, That all such balancing or examination of scales shall only be done in such way, and in such time, as in no way to interfere with the regular working of the mines. And he shall not be considered a trespasser during working hours while attending to the interests of his employers. And in no manner shall he be interfered with or intimidated by any person, agent, owner or miner. And any person violating these provisions shall be held and deemed guilty of a misdemeanor, and upon conviction thereof, he shall be punished by a fine of not less than twenty dollars, and not exceeding one hundred dollars, or imprisonment at the discretion of the court. It shall be a further duty of check-weighman or check-measurer to credit each miner with all merchantable coal mined by him, on a proper sheet or book to be kept by him for that purpose. When differences arise between the check-weighman or check-measurer and the agent or owners of the mine, as to the uniformity, capacity or correctness of scales or cars used, the same shall be referred to the mine inspector of the district where the mine is located, whose duty it shall be to regulate the same at once, and in the event of said scales or cars proving to be correct, then the party or parties applying for the testing thereof to bear all costs and expenses thereof; but if not correct then the owner or owners of said mine to pay the cost and charges of making said examination: Provided further, That should any weighman or weighmen, agent or check-measurer, whether employed by operators or miners, knowingly or willfully adopt or take more or less pounds for a bushel or ton than is provided for in the first section of this act, or willfully neglect the balancing or examining of the scales or cars, or knowingly and willfully weigh coal with an incorrect scale, he shall be guilty of a misdemeanor, and upon conviction thereof, shall be imprisoned in the county jail for three months.

Section 4. All acts or parts of acts inconsistent with this act are hereby repealed.

Approved—The 1st day of June, A. D. 1883.

ROBT. E. PATTISON.

AN ACT

Relating to bituminous coal mines and providing for the lives, health, safety and welfare of persons employed therein.

ARTICLE I.

Survey—Maps and Plans.

Section 1. Be it enacted, &c., That the operator or superintendent of every bituminous coal mine shall make, or cause to be made by a competent mining engineer or surveyor, an accurate map or plan of such coal mine, not smaller than on a scale of two hundred feet to an inch, which map shall show as follows:

First. All measurements of said mine in feet or decimal parts thereof.

Second. All the openings, excavations, shafts, tunnels, slopes, planes, main-entries, cross-entries, rooms, et cetera, in proper numerical order in each opened strata of coal in said mine.

Third. By darts or arrows made thereon by a pen or pencil the direction of air currents in said mine.

Fourth. An accurate delineation of the boundary lines between said coal mine and all adjoining mines or coal lands, whether owned or operated by the same operator or other operator, and the relation and proximity of the workings of said mine to every other adjoining mine or coal lands.

Fifth. The elevation above mean tide at Sandy Hook of all tunnels, and entries, and of the face of working places adjacent to boundary lines at points not exceeding three hundred feet apart.

Sixth. The bearings and lengths of each tunnel or entry, and of the boundary or property lines. The said map or plan, or a true copy thereof, shall be kept in the general mine office by the said operator or superintendent for use of the mine inspectors and for the inspection of any person or persons working in said mine whenever said person or persons shall have cause to fear that any working place is becoming dangerous by reason of its proximity to other workings that may contain water or dangerous gas.

Section 2. At least once in every six months, or oftener if necessary, the operator or superintendent of each mine shall cause to be shown accurately on the map or plan of said coal mine, all the excavations made therein during the time elapsing since such excavations were last shown upon said map or plan; and all parts of said mine which were worked out or abandoned during said elapsed period of time shall be clearly indicated by colorings on said map or plan, and whenever any of the workings or excavations of said coal mine have been driven to their destination, a correct measurement of all such workings or excavations shall be made promptly and recorded in a survey book prior to the removal of the pillars or any part of the same from such workings or excavations.

Section 3. The operator or superintendent of every coal mine shall, within six months after the passage of this act, furnish the mine inspector of the district in which said mine is located with a correct copy on tracing muslin or sun print, of the map or plan of said mine hereinbefore provided for. And the inspector of the district shall, at the end of each year or twice a year if he requires it, forward said map or plan to the proper person at any particular mine, whose duty it shall be to place or cause to be placed on said map or plan all extensions and worked out or abandoned parts of the mine during the preceding six or twelve months, as the case may be, and return the same to the mine inspector within thirty days from the time of receiving it. The copies of the maps or plans of the several coal mines of each district as hereinbefore required to be furnished to the mine inspector shall remain in the care of the inspector of the district in which the said mines are situated, as official records, to be transferred by him to his successor in office; but it is provided that in no case shall any copy of the same be made without the consent of the operator or his agent.

Section 4. If any superintendent or operator of mines shall neglect or fail to furnish to the mine inspector any copies of maps or plans as hereinbefore required by this act, or if the mine inspector shall believe that any map or plan of any coal mine made or furnished in pursuance of the provisions of this act is materially inaccurate or imperfect, then, in either case, the mine inspector is hereby authorized to cause a correct survey and map or plan of said coal mine to be made at the expense of the operator thereof, the cost of which shall be recoverable from said operator as other debts are recoverable by law: Provided, however, That if the map or plan which may be claimed by the mine inspector to be inaccurate shall prove to be correct, then the Commonwealth shall be liable for the expense incurred by the mine inspector in causing to be made said test survey and map, and the cost thereof, ascertained by the Auditor General by proper vouchers and satisfactory proof, shall be paid by the State Treasurer upon warrants which the said Auditor General is hereby directed to draw for the same.

ARTICLE II.

Section 1. It shall not be lawful for the operator, superintendent or mine foreman of any bituminous coal mine to employ more than twenty persons within said coal mine, or permit more than twenty persons to be employed therein at any one time unless they are in communication with at least two available openings to the surface from each seam or stratum of coal worked in such mine, exclusive of the furnace upcast shaft or slope: But provided, That in any mine operated by shaft or slope and ventilated by a fan, if the air shaft

shall be divided into two compartments, one of them may be used for an air-way and the other for the purpose of egress and ingress from and into said mine by the persons therein employed and the same shall be considered a compliance with the provisions of this section hereinbefore set forth. And there shall be cut out or around the side of every hoisting shaft, or driven through the solid strata at the bottom thereof, a traveling way not less than five feet high and three feet wide to enable persons to pass the shaft in going from one side of it to the other without passing over or under the cage or other hoisting apparatus.

Section 2. The shaft or outlet, other than the main shaft or outlet shall be separated from the main outlet and from the furnace shaft by natural strata at all points by a distance of not less than one hundred and fifty feet (except in all mines opened prior to June thirtieth, one thousand eight hundred and eighty-five, where such distances may be less, if in the judgment of the mine inspector one hundred and fifty feet is impracticable). If the mine be worked by drift, two openings exclusive of the furnace upcast shaft and not less than thirty feet apart, shall be required (except in drift mines opened prior to June thirtieth, one thousand eight hundred and eighty-five, where the mine inspector of the district shall deem the same impracticable). Where the two openings shall not have been provided as required hereinbefore by this act, the mine inspector shall cause the second to be made without delay; and in no case shall furnace ventilation be used where there is only one opening into the mine.

Section 3. Unless the mine inspector shall deem it impracticable, all mines shall have at least two entries or other passage ways, one of which shall lead from the main entrance and the other from the opening into the body of the mine, and said two passageways shall be kept well drained and in a safe condition for persons to travel therein, throughout their whole length so as to obtain, in cases of emergency, a second way for egress from the workings. No part of said workings shall at any time be driven more than three hundred feet in advance of the aforesaid passageways, except entries, air-ways or other narrow work, but should an opening to the surface be provided from the interior of the mine, the passageways aforesaid may be made and maintained therefrom into the working part of the mine, and this shall be deemed sufficient compliance with the provisions of this act relative thereto; said two passageways shall be separated by pillars of coal or other strata of sufficient strength and width.

Section 4. Where necessary to secure access to the two passage ways required in section three of article two of this act in any slope mine where the coal seam inclines and has workings on both sides of said slope, there shall be provided an overcast for the use of per-

sons working therein, the dimensions of which shall not be less than four feet wide and five feet high. Said overcast shall connect the workings on both sides of said slope and the intervening strata between the slope and the overcast shall be of sufficient strength and thickness at all points for its purpose: Provided, That if said overcast be substantially constructed of masonry or other incombustible material it shall be deemed sufficient.

Section 5. When the opening or outlet, other than the main opening, is made and does not exceed seventy-five feet in vertical depth, it shall be set apart exclusively for the purpose of ingress to or egress from the mine by any person or persons employed therein it shall be kept in a safe and available condition and free from steam and dangerous gases, and all other obstructions, and if such opening is a shaft it shall be fitted with safe and convenient stairs with steps of an average tread of ten inches and nine inches rise, not less than two feet wide and to not exceed an angle of sixty degrees descent with landings of not less than eighteen inches wide and four feet long, at easy and convenient distances: Provided, That the requirements of this section shall not be applicable to stairways in use prior to June thirtieth, one thousand eight hundred and eighty-five, when in the judgment of the mine inspector, they are sufficiently safe and convenient. And water coming from the surface or out of the strata in the shaft shall be conducted away by rings, casing or otherwise and be prevented from falling upon persons who are ascending or descending the stairway of the shaft.

Section 6. Where any mine is operated by a shaft which exceeds seventy-five feet in vertical depth, the persons employed in said mine shall be lowered into and raised from said mine by means of machinery, and in any such mine the shaft, other than the main shaft, shall be supplied with safe and suitable machinery for hoisting and lowering persons, or with safe and convenient stairs for use in cases of emergency by persons employed in said mine: Provided, That any mine operated by two shafts, and where safe and suitable machinery is provided at both shafts for hoisting coal or persons, shall have sufficiently complied with the requirements of this section.

Section 7. At any mine, where one of the two openings required hereinbefore is a slope and is used as a traveling way, it shall not have a greater angle of descent than twenty degrees and may be of any depth.

Section 8. The machinery used for lowering or raising the employes into or out of the mine and the stairs used for ingress or egress, shall be kept in a safe condition, and inspected once each twenty-four hours by a competent person employed for that purpose. And such machinery and the method of its inspection shall be approved by the mine inspector of the district in which the mine is situated.

ARTICLE III.

Hoisting Machinery, Safety Catches, Signaling Apparatus, Et Cetera.

Section 1. The operator or superintendent shall provide and maintain, from the top to bottom of every shaft where persons are raised or lowered, a metal tube suitably adapted to the free passage of sound through which conversation may be held between persons at the top and bottom of said shaft, and also a means of signalling from the top to the bottom thereof, and shall provide every cage or gear carriage used for hoisting or lowering persons with a sufficient overhead covering to protect those persons when using the same, and shall provide also for each said cage or carriage a safety catch approved by the mine inspector. And the said operator or superintendent shall see that flanges, with a clearance of not less than four inches, when the whole of the rope is wound on the drum, are attached to the sides of the drum of every machine that is used for lowering and hoisting persons in and out of the mine, and also that adequate brakes are attached to the drum. At all shafts safety gates, to be approved by the mine inspector of the district shall be so placed as to prevent persons from falling into the shaft.

Section 2. The main coupling chain attached to the socket of the wire rope shall be made of the best quality of iron and shall be tested by weights or otherwise to the satisfaction of the mine inspector of the district where the mine is located, and bridle chains shall be attached to the main hoisting rope above the socket, from the top cross-piece of the carriage or cage, so that no single chain shall be used for lowering or hoisting persons into or out of the mines.

Section 3. No greater number of persons shall be lowered or hoisted at any one time than may be permitted by the mine inspector of the district, and notice of the number so allowed to be lowered or hoisted at any one time shall be kept posted up by the operator or superintendent in conspicuous places at the top and bottom of the shaft, and the aforesaid notice shall be signed by the mine inspector of the district.

Section 4. All machinery about mines from which any accident would be liable to occur shall be properly fenced off by suitable guard railing.

ARTICLE IV.

Section 1. The operator or superintendent of every bituminous coal mine, whether shaft, slope or drift, shall provide and hereafter maintain ample means of ventilation for the circulation of air through the main-entries, cross-entries and all other working places to an extent that will dilute, carry off and render harmless the noxious or dangerous gases, generated in the mine, affording not less than one

hundred cubic feet per minute for each and every person employed therein; but in a mine where fire damp has been detected the minimum shall be one hundred and fifty cubic feet per minute for each person employed therein, and as much more in either case as one or more of the mine inspectors may deem requisite.

Section 2. After May thirtieth, one thousand eight hundred and ninety-four, not more than sixty-five persons shall be permitted to work in the same air current: Provided, That a larger number, not exceeding one hundred, may be allowed by the mine inspector where, in his judgment, it is impracticable to comply with the foregoing requirement; and mines where more than ten persons are employed, shall be provided with a fan, furnace or other artificial means to produce the ventilation, and all stoppings between main intake and return air-ways hereinafter built or replaced shall be substantially built with suitable material, which shall be approved by the inspector of the district.

Section 3. All ventilating fans shall be kept in operation continuously night and day, unless operations are indefinitely suspended, except written permission is given by the mine inspector of the district to stop the same, and the said written permission shall state the particular hours the said fan may not be in operation, and the mine inspector shall have power to withdraw or modify such permission as he may deem best, but in all cases the fan shall be started two hours before the time to begin work. When the fan may be stopped by permission of the mine inspector a notice printed in the various languages used by persons employed in the mine, stating at what hour or hours the fan will be stopped, shall be posted by the mine foreman in a conspicuous place at the entrance or entrances to the mine.

Said printed notices shall be furnished by the mine inspector and the cost thereof borne by the State: Provided, That should it at any time become necessary to stop the fan on account of accident or needed repairs to any part of the machinery connected therewith, or by reason of any other unavoidable cause, it shall then be the duty of the mine foreman or any other officials in charge, after first having provided, as far as possible for the safety of the persons employed in the mine, to order said fan to be stopped so as to make the necessary repairs or to remove any other difficulty that may have been the cause of its stoppage. And all ventilating furnaces in mines shall, for two hours before the appointed time to begin work and during working hours, be properly attended by a person employed for that purpose. In mines generating fire-damp in sufficient quantities to be detected by ordinary safety lamps, all main air bridges or overcasts made after the passage of this act shall be built of masonry or other incombustible material of ample strength or be driven through the solid strata.

In all mines the doors used in guiding and directing the ventilation of the mine shall be so hung and adjusted that they will close themselves, or be supplied with spring or pulleys so that they cannot be left standing open, and an attendant shall be employed at all principal doors through which cars are hauled, for the purpose of opening and closing said doors when trips of cars are passing to and from the workings, unless an improved self-acting door is used, which principal doors shall be determined by the mine inspector or mine foreman. A hole for shelter shall be provided at each door so as to protect said attendant from being run over by the cars while attending to his duties, and persons employed for this purpose shall at all times remain at their post of duty during working hours: Provided, That the same person may attend two doors where the distance between them is not more than one hundred feet. On every inclined plane or road in any mine where haulage is done by machinery and where a door is used, an extra door shall be provided to be used in case of necessity.

ARTICLE V.

Safety Lamps, Fire Bosses, Et Cetera.

Section 1. All mines generating fire-damp shall be kept free of standing gas in all working places and roadways. No accumulation of explosive gas shall be allowed to exist in the worked out or abandoned parts of any mine when it is practicable to remove it, and the entrance or entrances to said worked out and abandoned places shall be properly fenced off, and cautionary notices shall be posted upon said fencing to warn persons of danger.

Section 2. In all mines wherein explosive gas has been generated within the period of six months next preceding the passage of this act, and also in all mines where fire-damp shall be generated, after the passage of this act, in sufficient quantities to be detected by the ordinary safety lamp, every working place without exception and all road ways shall be carefully examined immediately before each shift by competent person or persons appointed by the superintendent and mine foreman for that purpose. The person or persons making such examination shall have received a fire boss certificate of competency required by this act, and shall use no light other than that enclosed in a safety lamp while making said examination. In all cases said examination shall be begun within three hours prior to the appointed time of each shift commencing to work, and it shall be the duty of the said fire boss at each examination to leave at the face and side of every place so examined, evidence of his presence. And he shall also, at each examination, inspect the entrance or entrances to the worked out or abandoned parts which are adjacent

to the roadways and working places of the mine where fire-damp is likely to accumulate, and where danger is found to exist he shall place a danger signal at the entrances to such places, which shall be sufficient warning for persons not to enter said place.

Section 3. In any place that is being driven towards or in dangerous proximity to an abandoned mine or part of a mine suspected of containing inflammable gases, or which may be inundated with water, bore holes shall be kept not less than twelve feet in advance of the face, and on the sides of such working places, said side holes to be drilled diagonally not more than eight feet apart, and any place driven to tap water or gas shall not be more than ten feet wide, and no water or gas from an abandoned mine or part of a mine and no bore holes from the surface, shall be tapped until the employes, except those engaged at such work, are out of the mine, and such work to be done under the immediate instruction of the mine foreman.

Section 4. The fire boss shall at each entrance to the mine or in the main intake air-way near to the mine entrance, prepare a permanent station with the proper danger signal designated by suitable letters and colors placed thereon, and it shall not be lawful for any person or persons, except the mine officials in cases of necessity, and such other persons as may be designated by them, to pass beyond said danger station until the mine has been examined by the fire boss as aforesaid and the same, or certain parts thereof, reported by him to be safe, and in all mines where operations are temporarily suspended the superintendent and mine foreman shall see that a danger signal be placed at the mine entrance or entrances, which shall be a sufficient warning to persons not to enter the mine, and if the ordinary circulation of air through the mine be stopped each entrance to said mine shall be securely fenced off and a danger signal shall be displayed upon said fence and any workman or other person, (except those persons hereinbefore provided for,) passing by any danger signal into the mine before it has been examined and reported to be safe as aforesaid, shall be deemed guilty of a misdemeanor and it shall be the duty of the fire boss, mine foreman, superintendent or any employe to forthwith notify the mine inspector, who shall enter proceedings against such person or persons as provided for in section two of article twenty-one of this act.

Section 5. All entries, tunnels, air ways, traveling ways and other working places of a mine where explosive gas is being generated in such quantities as can be detected by the ordinary safety lamp, and pillar workings and other working places in any mine where a sudden inflow of said explosive gas is likely to be encountered, (by reason of the subsidence of the overlying strata or from any other causes), shall be worked exclusively with locked safety lamps. The use of

open lights is also prohibited in all working places, roadways or other parts of the mine through which fire-damp might be carried in the air current in dangerous quantities. In all mines or parts of mines worked with locked safety lamps the use of electric wires and electric currents is positively prohibited, unless said wires and machinery and all other mechanical devices attached thereto and connected therewith are constructed and protected in such a manner as to secure freedom from the emission of sparks or flame therefrom into the atmosphere of the mine.

Section 6. After January first, one thousand eight hundred and ninety-four, the use of the common Davy safety lamp for general work on any bituminous coal mine is hereby prohibited, neither shall the Clanny lamp be so used unless its gauze is thoroughly protected by a metallic shield, but this act does not prohibit the use of the Davy and Clanny lamps by the mine officials for the purpose of examining the workings for gas.

Section 7. All safety lamps used for examining mines or for working therein shall be the property of the operator, and shall be in the care of the mine foreman, his assistant or fire boss, or other competent person, who shall clean, fill, trim, examine and deliver the same, locked, in a safe condition to the men when entering the mine before each shift, and shall receive the same from the men at the end of each shift, for which service a charge not exceeding cost of labor and material may be made by the operator. A sufficient number of safety lamps, but not less than twenty-five per centum of those in use, shall be kept at each mine where gas has at any time been generated in sufficient quantities to be detected by an ordinary safety lamp, for use in case of emergency. It shall be the duty of every person who knows his safety lamp to be injured or defective, to promptly report such fact to the party authorized herein to receive and care for said lamps, and it shall be the duty of that party to promptly report such fact to the mine foreman.

ARTICLE VI.

Mine Foreman and His Duties.

Section 1. In order to better secure the proper ventilation of the bituminous coal mines and promote the health and safety of the persons employed therein, the operator or superintendent shall employ a competent and practical inside overseer for each and every mine, to be called mine foreman; said mine foreman shall have passed an examination and obtained a certificate of competency or of service as required by this act and shall be a citizen of the United States and an experienced coal miner, and said mine foreman shall devote the whole of his time to his duties at the mine when in opera-

tion, or in case of his necessary absence, an assistant, chosen by him, and shall keep a careful watch over the ventilating apparatus, and the air ways, traveling ways, pump and pump timbers and drainage, and shall often instruct, and as far as possible, see that as the miners advance their excavations all dangerous coal, slate and rock overhead are taken down or carefully secured against falling therein, or on the traveling and hauling ways, and that sufficient props, caps and timbers of suitable size are sent into the mine when required, and all props shall be cut square at both ends, and as near as practicable to a proper length for the places where they are to be used, and such props, caps and timbers shall be delivered in the working places of the mine.

Section 2. Every workman in want of props or timbers and cap pieces shall notify the mine foreman or his assistant of the fact at least one day in advance, giving the length and number of props or timbers and cap pieces required, but in cases of emergency the timbers may be ordered immediately upon the discovery of any danger. (The place and manner of leaving the orders for the timber shall be designated and specified in the rules of the mine.) And if, from any cause, the timbers cannot be supplied when required, he shall instruct the persons to vacate all said working places until supplied with the timber needed, and shall see that all water be drained or hauled out of all working places before the miner enters and as far as practicable kept dry while the miner is at work.

Section 3. It shall be the duty of the mine foreman to see that proper cut-throughs are made in all the room pillars at such distances apart as in the judgment of the mine inspector may be deemed requisite, not more than thirty-five nor less than sixteen yards each, for the purpose of ventilation, and the ventilation shall be conducted through said cut-through into rooms by means of check doors made of canvas or other suitable material, placed on the entries, or in other suitable places, and he shall not permit any room to be opened in advance of the ventilating current. Should the mine inspector discover any room, entry, air-way or other working places being driven in advance of the air current contrary to the requirements of this section, he shall order the workmen working in such places to cease work at once until the law is complied with.

Section 4. In all hauling roads, on which hauling is done by animal power, and whereon men have to pass to and from their work, holes for shelter, which shall be kept clear of obstruction, shall be made at least every thirty yards and be kept whitewashed, but shelter holes shall not be required in entries from which rooms are driven at regular intervals not exceeding fifty feet, where there is a space four feet between the wagon and rib, it shall be deemed sufficient for shelter. On all hauling roads whereon hauling is done by ma-

chinery, and all gravity or inclined planes inside mines upon which the persons employed in the mine must travel on foot to and from their work, such shelter holes shall be cut not less than two feet six inches into the strata and not more than fifteen yards apart, unless there is a space of at least six feet from the side of the car to the side of the roadway, which space shall be deemed sufficient for shelter: Provided, That this requirement shall not apply to any parts of mines which parts were opened prior to the passage of this act if deemed impracticable by the mine inspector.

Section 5. The mine foreman shall measure the air current at least once a week at the inlet and outlet and at or near the faces of the entries, and shall keep a record of such measurements. An anemometer shall be provided for this purpose by the operator of the mine. It shall be the further duty of the mine foreman to require the workmen to use locked safety lamps when and where required by this act.

Section 6. The mine foreman shall give prompt attention to the removal of all dangers reported to him by the fire boss or any other person working in the mine, and in mines where a fire boss is not employed, the said mine foreman or his assistant shall visit and examine every working place therein at least once every alternate day while the miners of such place are or should be at work, and shall direct that each and every working place be properly secured by props or timbers, and that no person shall be directed or permitted to work in an unsafe place unless it be for the purpose of making it safe: Provided, That if the owner or operator of any mine employing a fire boss shall require the mine foreman to examine every working place every alternate day, then it shall be the duty of the mine foreman to do so.

Section 7. When the mine foreman is unable personally to carry out all the requirements of this act as pertaining to his duties, he shall employ a competent person or persons, not objectionable to the operator, to act as his assistant or assistants, who shall act under his instructions, and in all mines where fire-damp is generated the said assistant or assitants shall possess a certificate of competency as mine foreman or fire boss.

Section 8. A suitable record book, with printed head lines, prepared by and approved by the mine inspector, the same to be provided at the expense of the Commonwealth, shall be kept at each mine generating explosive gases, and immediately after each examination of the mine made by the fire boss or fire bosses, a record of the same shall be entered in said book, signed by the person or persons making such examinations, which shall clearly state the nature and location of any danger which he or they may have discovered, and the fire boss or fire bosses shall immediately report such

danger and the location of the same to the mine foreman, whose duty it shall be to remove the danger, or to cause the same to be done forthwith as far as practicable, and the mine foreman shall also each day countersign all reports entered by the fire boss or fire bosses. At all mines the mine foreman shall enter in a book provided as above by the mine inspector, a report of the condition of the mine, signed by himself, which shall clearly state any danger that may have come under his observation during the day, and shall also state whether he has a proper supply of material on hand for the safe working of the mine, and whether all requirements of the law are strictly complied with. He shall, once each week, enter or cause to be entered, plainly, with ink, in said book, a true record of all air measurements required by this act, and such books shall at all times, be kept at the mine office for examination by the mine inspector of the district and any other person working in the mines.

ARTICLE VII.

Timber and Other Mine Supplies, Et Cetera.

Section 1. It shall be the duty of the superintendent, on behalf and at the expense of the operator to keep on hand at the mines at all times, a full supply of all materials and supplies required to preserve the health and safety of the employes as ordered by the mine foreman and required by this act. He shall at least once a week, examine and countersign—(which countersignature of the superintendent shall be held, under this act to have no further bearing than the evidence of the fact that the mine superintendent has read the matter entered on the book)—all reports entered in the mine record book, and if he finds that the law is being violated in any particular, he shall order the mine foreman to comply with its provisions forthwith. If from any cause he cannot procure the necessary supplies or materials as aforesaid, he shall notify the mine foreman, whose duty it shall be to withdraw the men from the mine or part of mine until such supplies or materials are received.

Section 2. The superintendent of the mine shall not obstruct the mine foreman or other officials in their fulfillment of any of the duties required by this act. At mines where superintendents are not employed, the duties that are herein prescribed for the superintendent shall devolve upon the mine foreman.

ARTICLE VIII.

Steam Boilers, Stables, Regulations for the Use of Oil, Powder, Et Cetera.

Section 1. After the passage of this act it shall be unlawful to place a main or principal ventilating fan shed inside of any bituminous coal mine wherein explosive gas has been detected or in which the

air current is contaminated with coal dust. No stationary steam boiler shall be placed in any bituminous coal mine, unless said steam boiler be placed within fifty feet from the bottom of an up-cast shaft, which shaft shall not be less than twenty-five square feet in area, and after May thirtieth, one thousand eight hundred and ninety-five, no stationary steam boiler shall be permitted to remain in any bituminous coal mine, only as aforesaid.

Section 2. It shall not be lawful after the passage of this act to provide any horse or mule stables inside of bituminous coal mines, unless said stables are excavated in the solid strata or coal seams, and no wood or other combustible material shall be used excessively in the construction of said stables, unless surrounded by or incased by some incombustible material. The air current used for ventilating said stable shall not be intermixed with the air current used for ventilating the working parts of the mine, but shall be conveyed directly to the return air current, and no open light shall be permitted to be used in any stable in any mine.

Section 3. No hay or straw shall be taken into any mine, unless pressed and made up into compact bales, and all hay or straw taken into the mines as aforesaid, shall be stored in a storehouse excavated in the solid strata or built in masonry for that purpose. After January first, one thousand eight hundred and ninety-four, no horse or mule stable or storehouse, only as aforesaid, shall be permitted in any bituminous coal mine.

Section 4. No explosive oil shall be used or taken into bituminous coal mines for lighting purposes, and oil shall not be stored or taken into the mines in quantities exceeding five gallons. The oiling or greasing of cars inside of the mines is strictly forbidden unless the place where said oil or grease is used is thoroughly cleaned at least once every day to prevent the accumulation of waste oil or grease on the roads or in the drains at that point. Not more than one barrel of lubricating oil shall be permitted in the mine at any one time. Only a pure animal or pure cotton-seed oil or oils, that shall be as free from smoke as pure animal or pure cotton-seed oil, shall be used for illuminating purposes in any bituminous mine. Any person found knowingly using explosive or impure oil, contrary to this section, shall be prosecuted as provided for in section two of article twenty-one of this act.

Section 5. No powder or high explosive shall be stored in any mine, and no more of either article shall be taken into the mine at any one time than is required in any one shift, unless the quantity be less than five pounds, and in all working places where locked safety lamps are used blasting shall only be done by the consent and in the presence of the mine foreman, his assistant or fire boss, or any competent party designated by the mine foreman for that pur-

pose; whenever the mine inspector discovers that the air in any mine is becoming vitiated by the unnecessary blasting of the coal, he shall have the power to regulate the use of the same and to designate at what hour of the day blasting may be permitted.

ARTICLE IX.

Opening for Drainage, Et Cetera, on Other Lands.

Section 1. If any person, firm or corporation is or shall hereafter be seized in his or their own right of coal lands, or shall hold such lands under lease and shall have opened or shall desire to open a coal mine on said land, and it shall not be practicable to drain or ventilate such mines or to comply with the requirements of this act as to ways of ingress and egress or traveling ways by means of openings on lands owned or held under lease by him, them or it, and the same can be done by means of openings on adjacent lands, he, they or it may apply by petition to the court of quarter sessions of the proper county, after ten days' notice to the owner or owners, their agents or attorney, setting forth the facts under oath or affirmation particularly describing the place or places where such opening or openings can be made, and the pillars of coal or other material necessary for the support of such passageway and such right of way to any public road as may be needed in connection with such opening, and that he or they cannot agree with the owner or owners of the land as to the amount to be paid for the privilege of making such opening or openings, whereupon the said court shall appoint three disinterested and competent citizens of the county to view the ground designated and lay out from the point or points mentioned in such petition, a passage or passages not more than eighty feet area by either drift, shaft or slope, or by a combination of any of said methods by any practicable and convenient route to the coal of such person, firm or corporation, preferring in all cases an opening through the coal strata where the same is practicable. The said viewers shall at the same time, assess the damages to be paid by the petitioner or petitioners to the owner or owners of such lands for the coal and other valuable material to be removed in the excavation and construction of said passage, also for such coal or other valuable material necessary to support the said passage, as well as for a right of way not exceeding fifteen feet in width from any such opening to any public road, to enable persons to gain entrance to the mine through such opening or to provide therefrom, upon the surface, a water course of suitable dimensions to a natural stream to enable the operator to discharge the water from said mine if such right of way shall be desired by the petitioner or petitioners, which damages shall be fully paid before such opening is made. The proceedings shall be recorded in the road docket of the proper county, and the pay of viewers

shall be the same as in road cases; if exceptions be filed they shall be disposed of by the court as speedily as possible, and both parties to have the right to take depositions as in road cases. If, however, the petitioner desires to make such openings or roads or waterways before the final disposition of such exceptions, he shall have the right to do so by giving bond, to be aprpoved by the court securing the damages as provided by law in the case of lateral railroads.

Section 2. It shall be compulsory upon the part of the mine owner or operator to exercise the powers granted by the provisions of the last preceding section for the procuring of a right of way on the surface from the opening of a coal mine to a public road or public roads, upon the request in writing of fifty miners employed in the mine or mines of such owner or operator: Provided however, That with such request satisfactory security be deposited with the mine owner or operator by said petitioners, being coal miners, to fully and sufficiently pay all costs, damages and expenses caused by such proceedings and in paying for such right of way.

Section 3. In any mine or mines, or parts thereof, wherein water may have been allowed to accumulate in large and dangerous quantities, putting in danger the adjoining or adjacent mines and the lives of the miners working therein, and when such can be tapped and set free and flow by its own gravity to any point of drainage, it shall be lawful for any operator or person having mines so endangered, with the approval of the inspector of the district, to proceed and remove the said danger by driving a drift or drifts protected by bore holes as provided by this act, and in removing said danger it shall be lawful to drive across property lines if needful.

And it shall be unlawful for any person to dam or in any way obstruct the flow of any water from said mine or parts thereof, when so set free on any part of its passage to point of drainage.

Section 4. No operator shall be permitted to mine coal within fifty feet of any abandoned mine containing a dangerous accumulation of water, until said danger has been removed by driving a passage way so as to tap and drain off said water as provided for in this act: Provided, That the thickness of the barrier pillars shall be greater and shall be in proportion of one foot of pillar thickness to each one and one-quarter foot of waterhead if, in the judgment of the engineer of the property and that of the district mine inspector, it is necessary for the safety of the persons working in the mine.

Section 5. All operators of bituminous coal mines shall keep posted in a conspicuous place at their mines the general and special rules embodied in and made part of this act, defining the duties of all persons employed in or about said mine, which said rules shall be printed in the English language, and shall also be printed in such

other language or languages as are used by any ten persons working therein. It shall be the duty of the mine inspector to furnish to the operator printed copies of such rules and such translations thereof as are required by this section, and to certify their correctness over his signature. The cost thereof shall be borne by the State.

ARTICLE X.

Inspectors, Examining Boards, Et Cetera.

Section 1. The board of examiners appointed to examine candidates for the office of mine inspectors under the provisions of the act to which this is a supplement, shall exercise all the powers granted, and perform all the duties required by this supplementary act, and at the expiration of their term of office, and every four years thereafter, the Governor shall appoint, as hereinafter provided, during the month of January, two mining engineers of good repute and three other persons, who shall have passed successful examinations qualifying them to act as mine inspectors or mine foremen in mines generating fire-damp, who shall be citizens of this Commonwealth and shall have attained the age of thirty years and shall have had at least five years of practical experience in the bituminous mines of Pennsylvania, and who shall not be serving at that time in any official capacity at mines, which five persons shall constitute a board of examiners whose duty it shall be to inquire into the character and qualification of candidates for the office of inspector of mines under the provisions of this act.

Section 2. The examining board, so constituted shall meet on the first Tuesday of March following their appointment, in the city of Pittsburgh, to examine applicants for the office of mine inspector: Provided, however, The examining board shall meet two weeks previous to the aforesaid time for the purpose of preparing questions, et cetera, and when called together by the Governor on extra occasions at such time and place as he may designate, and after being duly organized and having taken and subscribed before any officer authorized to administer the same the following oath, namely, "We, the undersigned, do solemnly swear (or affirm) that we will perform the duties of examiners of applicants for the appointment as inspectors of bituminous coal mines to the best of our abilities, and that in recommending or rejecting said applicant, we will be governed by the evidence of the qualifications to fill the position under the law creating the same, and not by any consideration of political or personal favor; and that we will certify all whom we may find qualified according to the true intent and meaning of the act and none others."

Section 3. The general examination shall be in writing and the manuscript and other papers of all applicants, together with the

tally sheets and the solution of each question as given by the examining board, shall be filed with the Secretary of Internal Affairs as public documents, but each applicant shall undergo an oral examination pertaining to explosive gases and safety lamps, and the examining board shall certify to the Governor the names of all such applicants which they shall find competent to fill this office under the provisions of this act, which names, with the certificates and their percentages and the oaths of the examiners, shall be mailed to the Secretary of the Commonwealth and be filed in his office. No person shall be certified as competent whose percentage shall be less than ninety per centum, and such certificate shall be valid only when signed by four of the members of the examining board.

Section 4. The qualification of candidates for said office of inspectors of mines to be inquired into and certified by said examiners, shall be as follows, namely: They shall be citizens of Pennsylvania, of temperate habits, of good repute as men of personal integrity, and shall have attained the age of thirty years, and shall have had at least five years of practical experience in working of or in the workings of the bituminous mines of Pennsylvania immediately preceding their examination, and shall have had practical experience with fire-damp inside the mines of this country, and upon examination shall give evidence of such theoretical as well as practical knowledge and general intelligence respecting mines and mining and the working and ventilation thereof, and all noxious mine gases, and will satisfy the examiners of their capability and fitness for the duties imposed upon inspectors of mines by the provisions of this act. And the examining board shall immediately after the examination, furnish to each person who came before it to be examined, a copy of all questions whether oral or written, which were given at the examination on printed slips of paper and to be marked solved, right, imperfect or wrong, as the case may be, together with a certificate of competency to each candidate who shall have made at least ninety per centum.

Section 5. The board of examiners may, also at their meeting, or when at any time called by the Governor together for an extra meeting, divide the bituminous coal regions of the State into inspection districts, no district to contain less than sixty nor more than eighty mines, and as nearly as possible equalizing the labor to be performed by each inspector, and at any subsequent calling of the board of examiners this division may be revised as experience may prove to be advisable.

Section 6. The board of examiners shall each receive ten dollars per day for each day actually employed, and all necessary expenses, to be paid out of the State Treasury. Upon the filing of the certificate of the examining board in the office of the Secretary of the

Commonwealth, the Governor shall, from the names so certified, commission one person to be inspector of mines for each district as fixed by the examiners in pursuance of this supplementary act, whose commission shall be for a full term of four years from the fifteenth day of May following: Always provided however, The highest candidate or candidates in percentage shall have priority to be commissioned for a full term or unexpired term before those candidates of lower percentage, and in case of a tie percentage the oldest candidate shall be commissioned.

Section 7. As often as vacancies occur in said office of inspectors of mines, the Governor shall commission for the unexpired term from the names on file, the highest percentage in the office of the Secretary of the Commonwealth, until the number shall be exhausted, and whenever this may occur, the Governor shall cause the aforesaid board of examiners to meet, and they shall examine persons who may present themselves for the vacant office of mine inspector as herein provided, and the board of examiners shall certify to the Governor all persons who shall have made ninety per centum in said examination, one of whom to be commissioned by him according to the provisions of this act for the office of mine inspector for the unexpired term, and any vacancy that may occur in the examining board shall be filled by the Governor of this Commonwealth.

Section 8. Each inspector of mines shall receive for his services an annual salary of three thousand dollars and actual traveling expenses, to be paid quarterly by the State Treasurer upon warrant of the Auditor General, and each mine inspector shall keep an office in the district for which he is commissioned and he shall be permitted to keep said office at his place of residence: Provided, A suitable apartment or room be set off for that purpose. Each mine inspector is hereby authorized to procure such instruments, chemical tests and stationery and to incur such expenses of communication from time to time, as may be necessary to the proper discharge of his duties under this act at the cost of the State, which shall be paid by the State Treasurer upon accounts duly certified by him and audited by the proper department of the State.

Section 9. All instruments, plans, books, memoranda, notes and other material pertaining to the office shall be the property of the State, and shall be delivered to their successors in office. In addition to the expenses now allowed by law to the mine inspectors in enforcing the several provisions of this act, they shall be allowed all necessary expenses by them incurred in enforcing the several provisions of said law in the respective courts of the Commonwealth, the same to be paid by the State Treasurer on warrants drawn by the Auditor General after auditing the same; all such accounts presented by the mine inspector to the Auditor General shall be item-

ized and first approved by the court before which the proceedings were instituted.

Section 10. Each mine inspector of bituminous coal mines shall, before entering upon the discharge of his duties, give bond in the sum of five thousand dollars, with sureties to be approved by the president judge of the district in which he resides, conditional for the faithful discharge of his duties, and take an oath or affirmation to discharge his duties impartially and with fidelity to the best of his knowledge and ability. But no person who shall act as manager or agent of any coal mine, or as mining engineer or is interested in operating any coal mine, shall, at the same time act as mine inspector of coal mines under this act.

Section 11. Each inspector of bituminous coal mines shall devote the whole of his time to the duties of his office. It shall be his duty to examine each mine in his district as often as possible, but a longer period of time than three months shall not elapse between said examination, to see that all the provisions of this act are observed and strictly carried out, and he shall make a record of all examinations of mines, showing the condition in which he finds them, especially with reference to ventilation and drainage, the number of persons employed in each mine, the extent to which the law is obeyed and progress made in the improvement of mines, the number of serious accidents and the nature thereof, the number of deaths resulting from injuries received in or about the mines with the cause of such accident or death, which record completed to the thirty-first day of December of each and every year, shall, on or before the fifteenth day of March following, be filed in the office of the Secretary of Internal Affairs, to be by him recorded and included in the annual report of his department.

Section 12. It shall be the duty of the mine inspector on examination of any mine, to make out a written, or partly written and partly printed report of the condition in which he finds such mine and post the same in the office of the mine or other conspicuous place. The said report shall give the date of the visit, the number of cubic feet of air in circulation and where measured, and that he has measured the air at the cut through one or more rooms in each heading or entry, and such other information as he shall deem necessary, and the said report shall remain posted in the office or conspicuous place for one year and may be examined by any person employed in or about the mine.

Section 13. In case the inspector becomes incapacitated to perform the duties of his office or receives a leave of absence from the same from the Governor, it shall be the duty of the judge of the court of common pleas of his district to appoint, upon said mine inspector's application or that five miners or five operators of said inspector's

district, some competent person, recommended by the board of examiners to fill the office of inspector until the said inspector shall be able to resume the duties of his office, and the person so appointed shall be paid in the same manner as is hereinbefore provided for the inspector of mines.

ARTICLE XI.

Inspectors' Powers, Et Cetera.

Section 1. That the mine inspectors may be enabled to perform the duties herein imposed upon them, they shall have the right at all times to enter any bituminous coal mine to make examinations or obtain information, and upon the discovery of any violation of this act, they shall institute proceedings against the person or persons at fault under the provisions of section two of article twenty-one of this act. In case, however, where, in the judgment of the mine inspector of the district, any mine or part of mine is in such dangerous condition as to jeopardize life or health, he shall at once notify two of the mine inspectors of the other districts, whereupon they shall at once proceed to the mine where the danger exists and examine into the matter, and if, after full investigation thereof, they shall agree in the opinion that there is immediate danger, they shall instruct the superintendent of the mine in writing to remove such condition forthwith, and in case said superintendent shall fail to do so, then they shall apply, in the name of the Commonwealth, to the court of common pleas of the county, or in case the court shall not be in session, to a judge of the said court in chambers in which the mine may be located for an injunction to suspend all work in and about said mine, whereupon said court or judge shall at once proceed to hear, and determine speedily the same, and if the cause appear to be sufficient after hearing the parties and their evidences, as in like cases, shall issue its writ to restrain the working of said mine until all cause of danger is removed, and the cost of said proceedings shall be borne by the owner, lessee or agent of the mine: Provided, That if said court shall find the cause not sufficient, then the case shall be dismissed and the costs shall be borne by the county wherein said mine is located.

ARTICLE XII.

Inquests, Et Cetera.

Section 1. Whenever, by reason of any explosion or other accidents in any bituminous coal mine or the machinery connected therewith, loss of life or serious personal injury shall occur, it shall be the duty of the person having charge of such mine to give notice thereof

forthwith to the mine inspector of the district and also to the coroner of the county, if any person is killed.

Section 2. If the coroner shall determine to hold an inquest, he shall notify the mine inspector of the district of time and place of holding the same, who shall offer such testimony as he may deem necessary to thoroughly inform the said inquest of the cause of the death, and the said mine inspector shall have authority at any time to appear before such coroner and jury and question or cross-question any witness, and in choosing a jury for the purpose of holding such inquest it shall be the duty of the coroner to empanel a jury, no one of which shall be directly or indirectly interested.

Section 3. It shall be the duty of the mine inspector, upon being notified of any fatal accident as herein provided, to immediately repair to the scene of the accident and make such suggestions as may appear necessary to secure the safety of any persons who may be endangered, and if the results of the accident do not require an investigation by the coroner the said mine inspector shall proceed to investigate and ascertain the cause of the accident and make a record thereof, which he shall file as provided for, and to enable him to make the investigation he shall have power to compel the attendance of persons to testify, and to administer oaths or affirmations, and if it is found upon investigation that the accident is due to the violation of any provisions of this act by any person, other than those who may be deceased, the mine inspector may institute proceedings against such person or persons as provided for in section two of article twenty-one of this act.

Section 4. The cost of such investigation shall be paid by the county in which the accident occurred in the same manner as costs of inquests held by coroners or justices of the peace are paid.

ARTICLE XIII.

Neglect or Incompetence of Inspectors.

Section 1. The court of common pleas in any county or district, upon a petition signed by not less than fifteen reputable citizens, who shall be miners or operators of mines, and with the affidavit of one or more of said petitioners attached setting forth that any inspector of mines neglects his duties or is incompetent, or that he is guilty of a malfeasance in office, shall issue a citation in the name of the Commonwealth to the said mine inspector to appear on not less than fifteen days' notice, upon a day fixed, before said court, at which time the court shall proceed to inquire into and investigate the allegations of the said petitioners.

Section 2. If the court find that the said mine inspector is neglectful of his duties or incompetent to perform the duties of his office or that he is guilty of malfeasance in office, the court shall certify the

same to the Governor, who shall declare the office of said mine inspector vacant and proceed in compliance with the provisions of this act to supply the vacancy; and the costs of said investigation shall, if the charges are sustained, be imposed upon the mine inspector, but if the charges are not sustained, they shall be imposed upon the petitioners.

ARTICLE XIV.

Discretionary Powers of Inspectors, Arbitration, Et Cetera.

Section 1. The mine inspectors shall exercise a sound discretion in the enforcement of the provisions of this act, and if the operator owner, miners, superintendent, mine foreman or other persons employed in or about the mine as aforesaid shall not be satisfied with any decision the mine inspector may arrive at in the discharge of his duties under this act, which said decision shall be in writing signed by the mine inspector, the said owner, operator, superintendent, mine foreman or other person specified above shall either promptly comply therewith or within seven days from date thereof appeal from such decision to the court of quarter sessions of the county wherein the mine is located, and said court shall speedily determine the question involved in said decision and appeal and the decision of said court shall be binding and conclusive.

Section 2. The court or the judge of said court in chambers may in its discretion, appoint three practical, reputable, competent and disinterested persons whose duty it shall be, under instructions of the said court, to forthwith examine such mine or other cause of complaint and report under oath, the facts as they exist or may have been, together with their opinions thereon within thirty days after their appointment. The report of said board shall become absolute unless exceptions thereto shall be filed within ten days after the notice of the filing thereof by the owner, operator, mine superintendent, mine foreman, mine inspector and other persons, as aforesaid, and if exceptions are filed the court shall at once hear and determine the same and the decision shall be final and conclusive.

Section 3. If the court shall finally sustain the decision of the mine inspector, then the appellant shall pay all costs of such proceedings, and if the court shall not sustain the decision of the mine inspector then such costs shall be paid by the county: Provided That no appeal from any decision made by any mine inspector which can be immediately complied with shall work as a supersedeas to such decisions during the pendency of such appeal, but all decisions shall be in force until reversed or modified by the proper court

ARTICLE XV.

Examinations of Mine Foremen and Fire Bosses.

Section 1. On the petition of the mine inspector the court of common pleas in any county in said district shall appoint an examining board of three persons, consisting of a mine inspector, a miner and an operator or superintendent, which said miner shall have received a certificate of competency as mine foreman in mines generating explosive gases, and the members of said examining board shall be citizens of this Commonwealth, and the persons so appointed shall after being duly organized take and subscribe before an officer authorized to administer the same, the following oath, namely: "We, the undersigned, do solemnly swear (or affirm) that we will perform the duties of examiners of applicants for the position of mine foremen and fire bosses of bituminous coal mines to the best of our abilities, and that in certifying or rejecting said applicants we will be governed by the evidence of the qualifications to fill the position under the law creating the same and not by any consideration of personal favor; that we will certify all whom we may find qualified and none others."

Section 2. The examining board shall examine any person applying thereto as to his competency and qualifications to discharge the duties of mine foreman or fire boss.

Applicants for mine foreman or fire boss certificates shall be at least twenty-three years of age, and shall have had at least five years' practical experience, after fifteen years of age, as miners, superintendent at or inside of the bituminous mines of Pennsylvania and shall be citizens of this Commonwealth and men of good moral character and of known temperate habits.

The said board shall be empowered to grant certificates of competency of two grades, namely: certificates of first grade, to persons who have had experience in mines generating explosive gases and who shall have the necessary qualifications to fulfil the duties of mine foreman in such mines; and certificates of second grade, to persons who give satisfactory evidence of their ability to act as mine foreman in mines not generating explosive gases.

Section 3. The said board of examiners shall meet at the call of the mine inspector and shall grant certificates to all persons whose examination shall disclose their fitness for the duties of mine foreman as above classified, or fire boss, and such certificates shall be sufficient evidence of the holder's competency for the duties of said position so far as relates to the purposes of this act: Provided, That all persons holding certificates of competency granted under the provisions of the act to which this is a supplement shall continue to

act under this act: And provided further, That any person acting as mine foreman upon a certificate of service under the act to which this is a supplement may continue to act in the same capacity at any mine where the general conditions affecting the health and safety of the persons employed do not differ materially from those at the mine in which he was acting when said certificate was granted: Provided, however, That if such a mine foreman leaves his present employer and secures employment elsewhere at any mine where in the judgment of the mine inspector of the district the conditions affecting the health and safety of the persons employed do differ materially from those at the mine at which he was employed when his certificate was granted, it shall then be the duty of the mine inspector of the district in which he has secured employment to serve written protest against such mine foreman's employment to the operator of said mine.

Section 4. The examining board shall hold their office for a period of four years from the date of their appointment and shall receive five dollars per day for each day necessarily employed and mileage at the rate of three cents per mile for each mile necessarily traveled, and all other necessary expenses connected with the examination shall be paid by the Commonwealth. Each applicant before being examined shall pay the examining board the sum of one dollar, and one dollar additional for each certificate granted, which shall be for the use of the Commonwealth. The foregoing examination shall be held annually in each inspection district.

ARTICLE XVI.

Suspension of Certificates of Mine Foreman and Fire Bosses.

Section 1. No person shall act as fire boss in any bituminous coal mines, unless granted a certificate of competency by any one of the several examining boards. All applicants applying to any of the examining boards for fire boss certificates shall undergo an oral examination in the presence of explosive gas, and such certificate shall only be granted to men of good moral character and of known temperate habits, and it shall be unlawful for any operator or superintendent to employ any person as fire boss who has not obtained such certificate of competency as required by this act.

Section 2. If the mine foreman or fire boss shall neglect his duties or has incapacitated himself by drunkenness, or has been incapacitated by any other cause for the proper performance of said duties, and the same shall be brought to the knowledge of the operator or superintendent it shall be the duty of such operator or superintendent to discharge such delinquent at once and notify the inspector of the district of such action, whereupon it shall be the duty of

said inspector to inform the court of common pleas of the county who shall issue a citation in the name of the Commonwealth to the said operator, superintendent, mine foreman or fire boss to appear at not less than fifteen days' notice upon a day fixed before said court, at which time the court shall proceed to inquire into and investigate the allegations. If the court finds that the allegations are true, it shall notify the examining board of such finding and instruct the said board to withdraw the certificate of such delinquent during any period of time that said court may deem sufficient, and at the expiration of such time he shall be entitled to a re-examination.

ARTICLE XVII.

Employment of Boys and Females.

Section 1. No boy under the age of twelve years, or any woman or girl of any age, shall be employed or permitted to be in the workings of any bituminous coal mine for the purpose of employment, or for any other purpose; and no boy under the age of sixteen shall be permitted to mine or load coal in any room, entry or other working place, unless in company with a person over sixteen years of age. If the mine inspector or mine foreman has reason to doubt the fact of any particular boy being as old as this act requires for the service which said boy is performing at any mine, it shall be the duty of said mine inspector or mine foreman to report the fact to the superintendent, giving the name of said boy, and the said superintendent shall at once discharge the said boy.

ARTICLE XVIII.

Stretchers.

Section 1. It shall be the duty of operators or superintendents to keep at the mouth of the drift, shaft, or slope, or at such other place about the mine as shall be designated by the mine inspector, a stretcher properly constructed, and a woolen and a waterproof blanket in good condition for use in carrying away any person who may be injured at the mine: Provided, That where more than two hundred persons are employed two stretchers and two woolen and two waterproof blankets shall be kept. And in mines generating fire-damp a sufficient quantity of linseed or olive oil, bandages and linen shall be kept in store at the mines for use in emergencies, and bandages shall be kept at all mines.

ARTICLE XIX.

Annual Reports.

Section 1. On or before the twenty-fifth day of January in each year the operator or superintendent of every bituminous coal mine

shall send to the mine inspector of the district in which said mine is located a correct report, specifying with respect to the year ending the thirty-first day of December preceding, the name of the operator and officers of the mine and the quantity of coal mined. The report shall be in such form and give such information regarding said mines as may be from time to time required and prescribed by the mine inspector of the district. Blank forms for such reports shall be furnished by the Commonwealth.

ARTICLE XX.

Additional Duties of Mine Foreman.

Section 1. Rule 1. The mine foreman shall attend personally to his duties in the mine and carry out all the instructions set forth in this act and see that the regulations prescribed for each class of workmen under his charge are carried out in the strictest manner possible, and see that any deviation from or infringements of any of them are promptly adjusted.

Rule 2. He shall cause all stoppings along the airways to be properly built.

Rule 3. He shall see that the entries at such places where road grades necessitate sprags or brakes to be applied or removed shall have a clear level width of not less than two and one-half feet, between the side of car and the rib to allow the driver to pass his trip safely and keep clear of the cars there.

Rule 4. He shall direct that all miners undermine the coal properly before blasting it and that blasting shall be done at only such hours as he shall direct and shall order the miners to set sprags under the coal, when necessary for safety while undermining at distances not exceeding seven feet apart, and he shall not allow the improper drawing of pillars.

Rule 5. In mines where fire damp is generated when the furnace fire has been put out it shall not be relighted, except in his presence, or that of his assistant under his instructions.

Rule 6. In case of accident to a ventilating fan or its machinery, or the fan itself, whereby the ventilation of the mine would be seriously interrupted, it shall be his duty to order the men to immediately withdraw from the mine and not allow their return to their work until the ventilation has been restored and the mine has been thoroughly examined by him or his assistant and reported to be safe.

Rule 7. He shall see that all dangerous places are properly fenced off and proper danger signal boards so hung on such fencing, that they may be plainly seen; he shall also travel all air roads and examine all the accessible openings to old workings as often as is necessary to insure their safety.

Rule 8. He shall provide a book or sheet to be put in some convenient place, or places, upon which shall be made a place for the numbers used by the miners with space sufficient to each number, so that the miners can write plainly the quantity of props, their approximate length and the number of caps and other timbers which they require, together with the date of the order. Said book or sheets shall be preserved for thirty days from their date.

Duties of Fire Boss.

Rule 9. He shall enter the mine before the men have entered it, and before proceeding to examine the same, he shall see that the air current is traveling in its proper course, and if all seems right, he shall proceed to examine the workings.

Rule 10. He shall not allow any person, except those duly authorized to enter or remain in any part of the mine through which a dangerous accumulation of gas is being passed in the ventilating current from any other part of the mine.

Rule 11. He shall frequently examine the edge and accessible parts of new falls and old gobs and air courses, and he shall report at once any violation of this act to the mine foreman.

Duties of Miners.

Rule 12. He shall examine his working place before beginning work and take down all dangerous slate, or otherwise make it safe by properly timbering the same before commencing to dig or load coal, and in mines where fire bosses are employed, he shall examine his place to see whether the fire boss has left the proper marks indicating his examination thereof, and he shall at all times be very careful to keep his working place in a safe condition during working hours.

Rule 13. Should he at any time find his place becoming dangerous either from gas or roof, or from any unusual condition which may have arisen, he shall at once cease working, and inform the mine foreman or his assistant of such danger, and before leaving such place he shall place some plain warning at the entrance thereto to warn others from entering into the danger.

Rule 14. It shall be the duty of every miner to mine his coal properly and to set sprags under the coal while undermining to secure it from falling and, after each blast, he shall exercise great care in examining the roof and coal and shall secure them safely before beginning work.

Rule 15. When places are liable to generate sudden volumes of fire damp, or where locked safety lamps are used, no miner shall be allowed to fire shots except under the supervision and with the con-

sent of the mine foreman, or his assistant, or other competent person designated by the mine foreman for that purpose.

Duties of Drivers.

Rule 16. When a driver has occasion to leave his trip he must be careful to see that it is left, when possible, in a safe place, secure from cars or other dangers, or from endangering drivers of trip following.

Rule 17. The driver must take great care while taking his trips down grades to have the brakes or sprags so adjusted that he can keep the cars under control and prevent them from running onto himself or others.

Rule 18. He shall not leave any cars standing where they may materially obstruct the ventilating current, except in case of accident to the trip.

Duties of Trip Riders or Runners.

Rule 19. He shall exercise great care in seeing that all hitchings are safe for use and see that all the trip is coupled before starting, and should he at any time see any material defect in the rope, link or chain, he shall immediately remedy such defect or, if unable to do so, he shall detain the trip and report the matter to the mine foreman.

Duties of Engineer.

Rule 20. It shall be the duty of the engineer to keep a careful watch over his engine and all machinery under his charge and see that the boilers are properly supplied with water, cleaned and inspected at proper intervals, and that the steam pressure does not exceed at any time the limit allowed by the superintendent.

Rule 21. He shall make himself acquainted with the signal codes provided for in this act.

Rule 22. He shall not allow any unauthorized person to enter the engine house, neither shall he allow any person to handle or run the engine, without the permission of the superintendent.

Rule 23. When workmen are being raised or lowered he shall take special precautions to keep the engine well under control.

Rule 24. The locomotive engineer must keep a sharp lookout ahead of his engine and sound the whistle or alarm bell frequently when coming near the partings or landings; he must not exceed the speed allowed by the mine foreman or superintendent. He must not allow any person except his attendants, to ride on the engine or on the full cars.

Duties of Firemen.

Rule 25. Every fireman and other person in charge of a boiler or boilers for the generation of steam shall keep a careful watch of the same; he shall see that the steam pressure does not at any time exceed the limit allowed by the superintendent; he shall frequently try the safety-valve and shall not increase the weight on the same; he shall maintain a proper depth of water in each boiler, and if anything should happen to prevent this, he shall report the same without delay to the superintendent, or other person designated by the superintendent, and take such other action as may, under the particular circumstances, be necessary for the protection of life and the preservation of property.

Duties of Fan Engineer.

Rule 26. The engineer in charge of any ventilating fan must keep it running at such speed as the mine foreman directs in writing. In case of accident to the boiler or fan machinery, not requiring the immediate withdrawal of the men from the mine by reason of serious interruption of the ventilation, he shall invariably notify the mine foreman. If ordinary repairs of the fan or machinery becomes necessary, he must give timely notice to the mine foreman and await his instructions before stopping it. He shall also examine at the beginning of each shift all the fan bearings, stays and other parts, and see that they are kept in proper working order. Should it become impossible to run the fan or necessary to stop it to prevent destruction, he shall then at once stop it and notify the mine foreman immediately and give immediate warning to persons in the mine.

Duties of Furnacemen.

Rule 27. The furnace man must attend to his duties with regularity, and in case he should be likely to be off work for any reason whatever, he must give timely notice to the mine foreman.

Rule 28. The furnace man must at all times keep a clear, brisk fire and the fire must not be smothered with coal or slack during working hours, nor shall he allow ashes to accumulate excessively on or under the bars, or in the approaches to the furnace, and ashes shall be cooled before being removed.

Rule 29. The furnace man must promptly obey the instructions of the mine foreman.

SHAFTS AND SLOPES.

Duties of Hookers-On.

Rule 30. The hookers-on at the bottom of any slope shall be very careful to see that the cars are properly coupled to a rope or chain

and that the safety-catch or other device is properly attached to the car before giving the signal to the engineer.

Duties of Cagers.

Rule 31. The cager at the bottom of any shaft shall not attempt to withdraw the car until the cage comes to rest, and when putting the full car on the cage he must be very careful to see that the springs or catches are properly adjusted so as to keep the car in its proper place before giving the signal to the engineer.

Rule 32. At every shaft or slope mine in which provision is made in this act for lowering and hoisting persons, a headman and footman shall be designated by the superintendent or mine foreman, who shall be at their proper places from the time that persons begin to descend until all the persons who may be at the bottom of said shaft or slope, when quitting work, shall be hoisted; such headman and footman shall personally attend to the signals and see that the provisions of this act in respect to lowering or hoisting persons in shafts or slopes shall be complied with.

Rule 33. He shall not allow any tools to be placed on the same cage with men or boys, nor on either cage when persons are being hoisted out of the mine, or being lowered into the mine, except when for the purpose of repairing the shaft or machinery therein. The men shall place their tools in cars provided for that purpose which car, or cars, shall be hoisted or lowered before and after the men have been hoisted or lowered. And he shall immediately inform the mine foreman of any violation of this rule.

Rule 34. He shall also see that no driver, or other person, ascends the shaft with any horse or mule, unless the said horse or mule is secured in a suitable box, or safely penned, and only the driver in charge of said horse or mule shall accompany it in any case.

Duties of Top Man.

Rule 35. The top man of any slope, or incline plane, shall be very careful to close the safety block, or other device, as soon as the cars have reached the landing so as to prevent any loose or runaway cars from descending the slope, or incline plane, and in no case shall such safety block, or other device, be withdrawn until the cars are coupled to the rope or chain and the proper signal given. He shall carefully inspect daily all the machinery in and about the check house, and the rope used for lowering the coal and promptly report any defect discovered to the superintendent, and shall use great care in attaching securely the wagons or cars to the rope and carefully lower the same down the incline. He shall ring the alarm bell in case of accident and when necessary immediately set free to act, the drop logs or safety switch.

Rule 36. The top man of any shaft shall see that the springs or keeps for the cage to rest upon are kept in good working order, and when taking the full car off he must be careful that no coal or other material is allowed to fall down the shaft.

Rule 37. He shall be at his proper place from the time that persons begin to descend until all the persons who may be at the bottom of said shaft or slope when quitting work shall be hoisted. Such headman and footman shall personally attend to the signals, and see that the provisions of this act in respect to lowering and hoisting persons in shafts or slopes shall be complied with.

Rule 38. He shall not allow any tools to be placed on the same cage with men or boys, nor on either cage when persons are being lowered into the mine, except when for the purpose of repairing the shaft or the machinery therein. The men shall place their tools in cars provided for that purpose, which car or cars shall be lowered before and after the men have been lowered.

Rule 39. He shall also see that no driver, or other person, descends the shaft with any horse or mule, unless the said horse or mule is secured in a suitable box or safely penned, and only the driver in charge of said horse or mule shall accompany it in any case.

General Rules.

Rule 40. If any person shall receive any injury in or about the mine and the same shall come within the knowledge of the mine foreman, and if he shall be of the opinion that the injured person requires medical or surgical treatment, he shall see that said injured person receives the same, and in case of inability of such injured person to pay therefor the same shall be borne by the county. The mine foreman shall report monthly to the mine inspector of the district on blanks furnished by said inspector for that purpose, all accidents resulting in personal injury.

Rule 41. No unauthorized person shall enter the mine without permission from the superintendent or mine foreman.

Rule 42. No person in a state of intoxication shall be allowed to go into or loiter about the mine.

Rule 43. All employes shall inform the mine foreman or his assistant of the unsafe condition of any working place, hauling roads or traveling ways, or of damage to doors, brattices or stoppings, or of obstructions in the air passages when known to them.

Rule 44. No person shall be employed to blast coal, rock or slate, unless the mine foreman is satisfied that such a person is qualified by experience to perform the work with ordinary care.

Rule 45. The mine superintendent or mine foreman shall cause to be constructed safety blocks or some other device for the purpose of preventing cars from falling into the shaft, or running away on

slopes or incline planes; and safety switches, drop logs or other device shall be used on all slopes and incline planes; and said safety blocks, safety switches or other device must be maintained in good working order.

Rule 46. Every workman employed in the mine shall examine his working place before commencing work, and after any stoppage of work during the shift he shall repeat such examination.

Rule 47. No person shall be allowed to travel on foot to or from his work on any incline plane, dilly or locomotive roads, when other good roads are provided for that purpose.

Rule 48. Any employe or other person who shall wilfully deface, pull down or destroy any notice board, danger signal, general or special rules or mining laws, shall be prosecuted as provided for in section two, article twenty-one of this act.

Rule 49. No powder or high explosive shall be taken into the mine in greater quantities than required for use in one shift, unless such quantity be less than five pounds, and all powder shall be carried into the mine in metallic canisters.

Rule 50. Powder in quantities exceeding twenty-five pounds, or other explosives in quantities exceeding ten pounds, shall not be stored in any tipple or any weighing office, nor where workmen have business to visit, and no naked lights shall be used while weighing and giving out powder.

Rule 51. All persons except those duly authorized, are forbidden to meddle or tamper in any way with any electric or signal wires in or about the mines.

Rule 52. No greater number of persons shall be hoisted or lowered at any one time in any shaft than is permitted by the mine inspector, and whenever said number of persons shall arrive at the bottom of the shaft in which persons are regularly hoisted or lowered, they shall be furnished with an empty cage and be hoisted, and in cases of emergency a less number shall be promptly hoisted. Any person or persons crowding or pushing to get on or off the cages shall be deemed guilty of a misdemeanor.

Rule 53. Each workman, when engaged shall have his attention directed to the general and special rules by the person employing him.

Rule 54. Workmen and all other persons are expressly forbidden to commit any nuisance or throw into, deposit, or leave coals or dirt, stones or other rubbish in the air way or road so as to interfere with, pollute, or hinder the air passing into and through the mine.

Rule 55. No one, except a person duly authorized by the mine foreman, shall have in his possession a key or other instrument for the purpose of unlocking any safety lamp in any mine where locked safety lamps are used.

Rule 56. Every abandoned slope, shaft, air hole or drift shall be properly fenced around or across its entrance.

Rule 57. No safety lamps shall be entrusted to any person for use in mines until he has given satisfactory evidence to the mine foreman that he understands the proper use thereof and danger of tampering with the same.

Rule 58. No person shall ride upon or against any loaded car or cage in any shaft or slope in or about any bituminous coal mine; no person other than the trip runner shall be permitted to ride on empty trips on any slope, inclined plane or dilly road, when the speed of the cars exceeds six miles per hour. The transportation of tools in and out of the mines shall be under the direction of the mine foreman.

Rule 59. No persons other than the drivers or trip runners shall be permitted to ride on the full cars.

Rule 60. In mines where coal dust has accumulated to a dangerous extent, care shall be exercised to prevent said dust from floating in the atmosphere by sprinkling it with water, or otherwise, as far as practicable.

Rule 61. In cutting of clay veins, spars or faults in entries, or other narrow workings going into the solid coal in mines where explosive gases are generated in dangerous quantities, a bore hole shall be kept not less than three feet in advance of the face of the work, or an advance of any shot hole drilled for a blast to be fired therein.

Rule 62. The engineer placed in charge of an engine whereby persons are hoisted out of or lowered into any mine shall be a sober competent person, and not less than twenty-one years of age.

Rule 63. When a workman is about to fire a blast he shall be careful to notify all persons who might be endangered thereby, and shall give sufficient alarm so that any person or persons approaching shall be warned of the danger.

Rule 64. In every shaft or slope where persons are hoisted or lowered by machinery, as provided by this act, a topman and cager shall be appointed by the superintendent or mine foreman.

Rule 65. Whenever a workman shall open a box containing powder or other explosives, or while in any manner handling the same, he shall first place his lamp not less than five feet from such explosive and in such a position that the air current cannot convey sparks to it, and he shall not smoke while handling explosives.

Rule 66. An accumulation of gas in mines shall not be removed by brushing.

Rule 67. When gas is ignited by blast or otherwise, the person having charge of the place where the said gas is ignited, shall immediately extinguish it if possible, and if unable to do so shall immediately notify the mine foreman or his assistants of the fact. Workmen must see that no gas blowers are left burning upon leaving their working places.

Rule 68. All ventilating fans used at mines shall be provided with recording instruments by which the number of revolutions or the effective ventilating pressure of the fan shall be registered and the registration with its date for each and every day shall be kept in the office of the mine for future reference for one year from its date.

Rule 69. Where the clothing or wearing apparel of employes becomes wet by reason of working in wet places in the mines, it shall be the duty of the operator or superintendent of each mine, at the request in writing of the mine inspector, who shall make such request upon the petition of any five miners of any one mine in the district working in the aforesaid wet places, to provide a suitable building which shall be convenient to the principal entrances of such mine for the use of the persons employed in wet places therein for the purpose of washing themselves and changing their clothes when entering the mine and returning therefrom. The said building shall be maintained in good order and be properly lighted and heated and shall be provided with facilities for persons to wash. If any person or persons shall neglect or fail to comply with the provisions of this article or maliciously injure or destroy, or cause to be injured or destroyed, the said building or any part thereof, or any of the appliances or fittings used for supplying light and heat therein, or doing any act tending to the injury or destruction thereof, he or they shall be deemed guilty of an offense against this act.

Rule 70. In all shafts and slopes where persons, coal or other materials are hoisted by machinery the following code of signals shall be used:

One rap or whistle to hoist coal or other material.

One rap or whistle to stop cage or car when in motion.

Two raps or whistles to lower cage or car.

Three raps or whistles when persons are to be hoisted, and for engineer to signal back ready when persons are to be hoisted, after which persons shall get on the cage or car, then one rap shall be given to hoist.

Four raps or whistles, to turn on steam to the pumps.

But a variation from the above code of signals may be used by permission of the mine inspector: Provided, That in any such case such changed code shall be printed and posted.

Rule 71. No person or persons shall go into any old shaft or abandoned part of the mine or into any other place which is not in actual course of working without permission from the mine foreman, nor shall they travel to and from their work except by the traveling way assigned for that purpose.

Rule 72. No steam pipes through which high pressure steam is conveyed for the purpose of driving pumps or other machinery, shall be permitted on traveling or haulage ways, unless they are encased

in asbestos, or some other suitable non-conducting material, or are so placed that the radiation of heat into the atmosphere of the mine will be prevented as far as possible.

Rule 73. Where a locomotive is used for the purpose of hauling coal out of a mine, the tunnel or tunnels through which the locomotive passes shall be properly ventilated and kept free as far as practicable of noxious gases, and a ventilating apparatus shall be provided by the operator to produce such ventilation when deemed necessary and practicable to do so by the mine inspector.

Rule 74. No inexperienced person shall be employed to mine out pillars unless in company with one or more experienced miners, and by their consent.

ARTICLE XXI.

Penalties.

Section 1. Any person or persons whomsoever, who shall intentionally or carelessly injure any shaft, safety lamp, instrument, aircourse or brattice, or obstruct or throw open air ways, or take matches for any purpose, or pipes or other smokers' articles beyond any station inside of which locked safety lamps are used, or injure any part of the machinery, or open a door in the mine and not close it again immediately or open any door which opening is forbidden, or disobey any order given in carrying out the provisions of this act, or do any other act whatsoever whereby the lives or the health of persons or the security of the miners or the machinery is endangered, shall be deemed guilty of a misdemeanor and may be punished in a manner provided for in this article.

Section 2. The neglect or refusal to perform the duties required to be performed by any section of this act by the parties therein required to perform them, or the violation of any of the provisions or requirements hereof, shall be deemed a misdemeanor and shall upon conviction thereof in the court of quarter sessions of the county wherein the misdemeanor was committed, be punishable by a fine not exceeding five hundred dollars or imprisonment in the county jail for a period not exceeding six months, or both, at the discretion of the court.

Section 3. That for any injury to person or property occasioned by any violation of this act, or any failure to comply with its provisions by any owner, operator or superintendent of any coal mine or colliery, a right of action shall accrue to the party injured against said owner or operator for any direct damages he may have sustained thereby, and in case of loss of life by reason of such neglect or failure aforesaid, a right of action shall accrue to the widow and lineal heirs of the person whose life shall be lost for like recovery of damages for the injury they shall have sustained.

ARTICLE XXII.

Definition.

Section 1. Coal Mine. In this act the term "coal mine" includes the shafts, slopes, adits, drifts or inclined planes connected with excavations penetrating coal stratum or strata, which excavations are ventilated by one general air current or divisions thereof and connected by one general system of mine railroads over which coal may be delivered to one or more common points outside the mine, when such is operated by one operator.

Excavations and Workings. The term "excavations and workings" includes all the excavated parts of a mine, those abandoned as well as the places actually being worked, also all underground workings and shafts, tunnels and other ways and openings, all such shafts, slopes, tunnels and other openings in the course of being sunk or driven, together with all roads, appliances, machinery and material connected with the same below the surface.

Shaft. The term "shaft" means a vertical opening through the strata, and which is or may be used for the purpose of ventilation or drainage or for hoisting men or material or both in connection with the mining of coal.

Slope. The term "slope" means an incline way or opening used for the same purpose as a shaft.

Operator. The term "operator" means any firm, corporation or individual operating any coal mine or part thereof.

Superintendent. The term "superintendent" means the person who shall have, on behalf of the operator, immediate supervision of one or more mines.

Bituminous Mines. The term "bituminous" coal mines shall include all coal mines in the State not now included in the anthracite boundaries.

The provisions of this act shall not apply to any mine employing less than ten persons in any one period of twenty-four hours.

ARTICLE XXIII.

Section 1. That all acts or parts of acts inconsistent herewith be and the same are hereby repealed.

Approved—The 15th day of May, A. D. 1893.

ROBT. E. PATTISON.

AN ACT

Requiring the weighing of bituminous coal before screening, and providing a penalty for the violation thereof.

Section 1. Be it enacted, &c., That it shall be unlawful for any

mine owner, lessee or operator of any bituminous coal mine in this Commonwealth, employing miners at bushel or ton rates, or other quantity, to pass the output of coal mined by said miners over any screen or other device which shall take any part from the weight, value or quantity thereof, before the same shall have been weighed and duly credited to the employe sending the same to the surface and accounted for at the legal rate of weight fixed by laws of this Commonwealth.

Section 2. Any owner, lessee or operator of any bituminous coal mine, violating the provisions of this act, shall be deemed guilty of a misdemeanor, and shall, upon conviction, for each and every such offense be punished by a fine of not less than one hundred ($100) dollars nor more than five hundred ($500) dollars, or by imprisonment in the county jail for a period not to exceed ninety days, or by both such fine and imprisonment, at the discretion of the court; proceedings to be instituted in any court of competent jurisdiction.

Section 3. All acts or parts of acts inconsistent herewith be and the same are hereby repealed.

Approved—The 15th day of July, A. D. 1897.

DANIEL H. HASTINGS.

AN ACT

To amend section four of article eight of an act, entitled "An act relating to bituminous coal mines and providing for the lives, health, safety and welfare of persons employed therein," approved the fifteenth day of May, Anno Domini one thousand eight hundred and ninety-three permitting the use of mineral oils in bituminous mines when used in approved safety lamps.

Section 1. Be it enacted, &c., That section four of article eight of an act, entitled "An act relating to bituminous coal mines and providing for the lives, health, safety and welfare of persons employed therein," approved the fifteenth day of May, Anno Domini one thousand eight hundred and ninety-three, which reads as follows:

"Section 4. No explosive oil shall be used or taken into bituminous coal mines for lighting purposes and oil shall not be stored or taken into the mines in quantities exceeding five gallons. The oiling or greasing of cars inside of the mines is strictly forbidden unless the place where said oil or grease is used is thoroughly cleaned at least once every day to prevent the accumulation of waste oil or grease on the roads or in the drains at that point. Not more than one barrel of lubricating oil shall be permitted in the mine at any one time. Only a pure animal or pure cotton-seed oil or oils that shall be as free from smoke as pure animal or pure cotton-seed oil shall be used for illuminating purposes in any bituminous mine. Any person

found knowingly using explosive or impure oil contrary to this section shall be prosecuted as provided for in section two of article twenty-one of this act," be and the same is hereby amended to read as follows:

Section 4. No explosive oil shall be used or taken into bituminous coal mines for lighting purposes except when used in approved safety lamps and oil shall not be stored or taken into the mines in quantities exceeding five gallons. The oiling or greasing of cars inside of the mines is strictly forbidden unless the place where said oil or grease is used is thoroughly cleaned at least once every day to prevent the accumulation of waste oil or grease on the roads or in the drains at that point. Not more than one barrel of lubricating oil shall be permitted in the mine at any one time. Only a pure animal oil or pure cotton-seed oil or oils that shall be as free from smoke as pure animal or pure cotton-seed oil shall be used for illuminating purposes in any bituminous mine. Any person found knowingly using explosive or impure oil contrary to this section shall be prosecuted as provided for in section two of article twenty-one of this act.

Approved—The 28th day of April, A. D. 1899.

WILLIAM A. STONE.

General Mining Laws

AN ACT

To provide payment to the miner for all clean coal mined by him.

Section 1. Be it enacted, &c., That from and after the passage of this act all individuals, firms and corporations engaged in mining coal in this Commonwealth, who, instead of dumping all the cars that come from the mine into a breaker or chutes, shall switch out one or more of the cars for the purpose of examining them, and determining the actual amount of slate or refuse, by removing said slate or refuse from the car, and who shall, after so doing, willfully neglect to allow the miner in full for all clean coal left after the refuse, dirt or slate is taken out, at the same rate paid at the mine for clean coal less the actual expense of removing said slate or refuse, he shall be deemed guilty of a misdemeanor.

Section 2. That any individual, firm or corporation as aforesaid, violating the provisions of this act, upon suit being brought and conviction had, shall be sentenced by the court to pay a fine of not more than one hundred dollars, and to make restitution by paying to the miner the amount to which, under this act, he would be entitled for the coal mined by him, and for which he was not paid.

Approved—The 13th day of June, A. D. 1883.

ROBT. E. PATTISON

AN ACT

To provide for the recovery of the bodies of workmen enclosed, buried or entombed in coal mines.

Section 1. Be it enacted, &c., That whenever any workman or workmen shall heretofore have been, or shall hereafter be enclosed, entombed or buried in any coal mine in this Commonwealth, it shall be the duty of the court, sitting in equity, in the county wherein such workman or workmen are enclosed, entombed or buried, upon the petition of any of the relatives of those enclosed, entombed or buried, to make an order of court for the petitioner to take testimony in order that the court may ascertain whether such workman or

workmen, or the body or bodies of such workman or workmen, can be recovered or taken out of said mine.

If, after full hearing, it shall appear to the court that such undertaking is feasible or practicable, said court may forthwith issue a peremptory mandamus to the owner or owners, lessee or lessees, operator or operators of such coal company, to forthwith proceed to work for and recover and take out the body or bodies of such work man or workmen, and said court shall have full authority to enforce such peremptory mandamus in the manner already provided for the enforcement of such process.

Approved—The 9th day of May, A. D. 1889.

JAMES A. BEAVER.

AN ACT

For the better protection of employes in and about the coal mines by preventing mine superintendent, mine foremen and assistants from receiving or soliciting any sums of money or other valuable consideration from men while in their employ, and providing a penalty for violation of the same.

Section 1. Be it enacted, &c., That on and after the passage of this act any mine superintendent, mine foreman or assistant foreman, or any other person or persons who shall receive or solicit any sum of money or other valuable consideration, from any of his or their employes for the purpose of continuing in his or their employ, shall be guilty of a misdemeanor, and upon conviction shall be subject to a fine not less than fifty dollars, nor more than three hundred dollars, and undergo an imprisonment of not less than six months, or both, at the discretion of the court.

Section 2. All acts or parts of acts inconsistent herewith be and the same are hereby repealed.

Approved—The 15th day of June, A. D. 1897.

DANIEL H. HASTINGS.

AN ACT

Establishing a Bureau of Mines in the Department of Internal Affairs of Pennsylvania, defining its purposes and authority, providing for the appointment of a chief of said bureau and assistants, and fixing their salaries and expenses.

Section 1. Be it enacted, &c., That there is hereby established in the Department of Internal Affairs of Pennsylvania a bureau to be known as the Bureau of Mines, which shall be charged with the

supervision of the execution of the mining laws of this Commonwealth, and the care and publication of the annual reports of the inspectors of coal mines.

Section 2. The chief officer of the bureau shall be denominated Chief of the Bureau of Mines, and shall be appointed by the Governor, by and with the advice and consent of the Senate, within thirty days after the final passage of this act, and every four years thereafter, who shall be commissioned by the Governor to serve a term of four years from the date of his appointment, and until his successor is duly qualified, and shall receive an annual salary of three thousand dollars and traveling expenses; and in case of a vacancy in the office of Chief of said Bureau, by reason of death, resignation or otherwise, the Governor shall appoint a qualified person to fill such vacancy for the unexpired balance of the term.

Section 3. The Chief of the Bureau of Mines shall be a competent person having had at least ten years practical experience in the working and ventilation of coal mines of this State, and a practical and scientific knowledge of all noxious and dangerous gases found in such mines. The said Chief of the Bureau of Mines so appointed shall, before entering upon the duties of his office, take and subscribe to the oath of office prescribed by the Constitution, the same to be filed in the office of the Secretary of the Commonwealth, and give to the Commonwealth a bond in the penal sum of ten thousand dollars, with surety to be approved by the Governor and Secretary of Internal Affairs, conditioned for the faithful discharge of the duties of his office.

Section 4. It shall be the duty of the Chief of the Bureau to devote the whole of his time to the duties of his office, and to see that the mining laws of this State are faithfully executed; and for this purpose he is hereby invested with the same power and authority as the mine inspectors to enter, inspect and examine any mine or colliery within the State, and the works and machinery connected therewith, and to give such aid and instruction to the mine inspectors from time to time as he may deem best calculated to protect the health and promote the safety of all persons employed in and about the mines, and the said Chief of the Bureau of Mines shall have the power to suspend any mine inspector for any neglect of duty, but such suspended mine inspector shall have the right to appeal to the Secretary of Internal Affairs, who shall be empowered to approve of such suspension or restore such suspended mine inspector to duty, after investigating the causes which led to such suspension. Should the Chief of the Bureau of Mines receive information by petition, signed by ten or more miners, or one or more operators, setting forth that any of the mine inspectors are neglectful of their duty, or are incompetent to perform the duties of their

office, or are guilty of malfeasance in office, he shall at once investigate the matter, and if he shall be satisfied that the charge or charges are well founded, he shall then petition the court of common pleas, or the judge in chambers, in any county within or partly within the inspection district of the said mine inspector; which court, upon receipt of said petition and a report of the character of the charges and testimony produced, shall at once issue a citation in the name of the Commonwealth to the said inspector, to appear on not less than fifteen days' notice, on a fixed day before said court, at which time the court shall proceed to inquire into the allegations of the petitioners, and may require the attendance of such witnesses on the subpoena issued and served by the proper officer or officers, as the judge of the court and the Chief of said Bureau may deem necessary in the case; the inspector under investigation shall also have similar power and authority to compel the attendance of witnesses in his behalf. If the court shall find by said investigation that the said mine inspector is guilty of neglecting his official duties, or is incompetent to perform the duties of his office, or is guilty of malfeasance in office, the said court shall certify the same to the Governor, who shall declare the office vacant, and shall proceed to supply the vacancy as provided for by the mining laws of this State. The cost of said investigation shall, if the charges are sustained, be imposed upon the mine inspector, but if the charges are not sustained the cost shall be paid out of the State Treasury, upon voucher or vouchers duly certified as to correctness by the judge or proper officer of the court where such proceedings are held. To enable the said Chief of the Bureau of Mines to conduct more effectually his examinations and investigations of the charges and complaints which may be made by petitioners against any of the mine inspectors as herein provided, he shall have power to administer oaths and take affidavits and depositions in form and manner provided by law: Provided however, That nothing in this section shall be construed as to repeal section thirteen of article two of the act of Assembly approved the second day of June, Anno Domini one thousand eight hundred and ninety-one, entitled "An act to provide for the health and safety of persons employed in and about the anthracite coal mines of Pennsylvania, and for the protection and preservation of property connected therewith," and also articles thirteen and fourteen of an act of Assembly approved the fifteenth day of May, Anno Domini one thousand eight hundred and ninety-three, entitled "An act relating to bituminous coal mines, and providing for the lives, health, safety and welfare of persons employed therein."

Section 5. It shall be the duty of the Chief of the Bureau of Mines to take charge of and preserve in his office the annual reports of the mine inspectors, and transmit a copy of them, together with

such other statistical data compiled therefrom and other matter relating to the work of the Bureau as may be of public interest, properly addressed to the Secretary of Internal Affairs for transmission to the Governor and the General Assembly of this Commonwealth, on or before the first day of March in each year. It shall also be the duty of the Chief of the Bureau of Mines to see that said reports, or copy of them, are placed in the hands of the Public Printer for publication at the same date; the same to be published under direction of the Secretary of Internal Affairs as other reports of his Department are now required by law to be published, and in order that the Chief of said Bureau may be able to prepare, compile and transmit his annual report to the Secretary of Internal Affairs within the time herein specified, the mine inspectors are hereby required to deliver their annual reports to the Secretary of Internal Affairs on or before the fifteenth day of February in each year. In addition to the annual reports herein required of the mine inspectors, the said mine inspectors shall furnish the Chief of the Bureau of Mines, monthly and also such special reports or information on any subject regarding mine accidents or other matters pertaining to mining interests, or the safety of persons employed in mines as he at any time may require or may deem necessary in the proper and lawful discharge of his official duties. The Chief of the Bureau of Mines shall also establish as far as may be practicable a uniform style and size of blanks for the annual, monthly and special reports of the mine inspectors, and prescribe the form and character of subject matter to be embraced in the text and the tabulated statements of their reports. The Chief of the Bureau of Mines is hereby authorized to make such examinations and investigations as may enable him to report upon the various systems of coal mining practiced in the State, method of mining, ventilation, machinery employed, structure and character of the several coal seams operated, and of the associated strata, the circumstances and responsibility of mine accidents, economy of coal production, coal waste, area and exhaustion of coal territory, and such other matters as may pertain to the general welfare of coal miners and others connected with coal mining, and the interests of coal mine owners and operators in this Commonwealth.

Section 6. The Chief of the Bureau of Mines shall keep in his office a journal or record of all examinations made and work done under his administration, and copies of all official communications, and is hereby authorized to procure such books, instruments and chemical or other tests as may be found necessary to the proper discharge of his duties under this act, at the expense of the State. All instruments, plans, books and records pertaining to the office shall be the property of the State, and shall be delivered to his successor in office.

Section 7. The Chief of the Bureau of Mines shall at all times be accountable to the Secretary of Internal Affairs for the faithful discharge of the duties imposed upon him by law, and the administration of his office and the rules and regulations pertaining to said Bureau shall be subject to the approval of the Secretary of Internal Affairs, who is hereby empowered to appoint an assistant to the Chief of the Bureau, at a salary of fourteen hundred dollars per annum, and a messenger at a salary of three hundred dollars per annum: And provided further, That the salaries of the Chief of the Bureau of Mines, his assistant and the messenger, shall be paid out of the State Treasury in the manner as other employes of the Department of Internal Affairs are now paid. Provided, That the Chief of said Bureau of Mines may be removed or suspended at any time by the Secretary of Internal Affairs, when in the opinion of said Secretary there has been a neglect of duty or a failure to comply with the law, or the instructions of the Secretary of Internal Affairs.

Section 8. No person who is acting as a land agent, or as manager, viewer or agent of any mine or colliery, or who is interested in operating any mine or colliery, shall at the same time serve as Chief of the Bureau of Mines under the provisions of this act.

Section 9. That the mine inspectors of each district of this State shall, within six months after the final passage and approval of this act, deposit in the Bureau of Mines an accurate map or plan of such coal mine, which may be on tracing muslin or sun print, drawn to a prescribed scale; which map or plan shall show the actual location of all openings, excavations, shafts, tunnels, slopes, planes, main headings, cross headings, and rooms or working places in each strata operated; pump, fans or other ventilation apparatus, the entire course and direction of air currents, the relation and proximity of the workings of such coal mines to all other adjoining mines or coal lands, and the relative elevation of all tunnels and headings, and of the face of working places near to or approaching boundary lines or adjacent mines; and on or before the close of each calendar year transmit to the Chief of the Bureau of Mines a supplemental map or plan showing all excavations, changes and additions made in such mine during the year, drawn to the scale of the first mentioned map or plan. All such maps or plans to be and remain in the Bureau of Mines as a part of the records of that office.

Section 10. All acts or parts of acts inconsistent with this act be and the same are hereby repealed.

Approved—The 15th day of July, A. D. 1897.

DANIEL H. HASTINGS.

REPORT

OF THE

BUREAU OF MINES

INTRODUCTION

The year 1902 was the most prosperous for all interested in bituminous mining of any year since mining first was commenced in Pennsylvania, and it would have been far more prosperous had the railroads been enabled to supply the operators with sufficient transportation to carry the coal and coke where the demand for it was greatest.

The year opened very prosperously for the miners and shippers of anthracite coal, but the advent of the great strike blasted the hopes of both operators and operatives. After the strike had been declared off and operations were resumed, the demand for anthracite coal became very great, as winter was approaching and there was only a limited supply in the large cities; in fact, it was almost impossible to secure any except at fabulous prices. It is claimed that many of the individual operators realized enough during the latter part of October, after mining had been resumed, and in November and December, to pay the costs of the long strike, besides having a larger surplus than if the strike had not occurred. Be that as it may, it is a fact that some of the individual operators received for their product from five to eight dollars per ton at the breakers, which excess was paid largely by poor people in the great cities.

1—13—1902

In justice to the great railroad companies, which are the owners of about 66 per cent. of the anthracite mines, it must be acknowledged that they showed a spirit of humanity and Christian charity by selling their product at reasonable figures, or about $1.00 per ton more than they had received previous to the strike.

It is proper here to remark that in the opinion of the writer, the maximum production has been reached in the anthracite region, and I have had no reason to qualify the statement made in the report of 1901, that about 300,000 tons per day is the maximum quantity per day that can be produced in the anthracite region, when the demand will warrant the operators in working their mines from 240 to 250 days per year.

The tonnage from the anthracite region has been greatly increased by the production from washeries, as for 1901 the production from this source was 1,794,521 tons, and for 1902 the production was 2,648,029 tons.

So far the production of bituminous coal is controlled by the demand and the ability of the railroads to transport it to market.

The production of bituminous coal for 1901 was an average of 375,000 tons per day worked, which could easily have been increased to 450,000 tons, which would be an increase of only 20 per cent. per day, and if the demand should be such that 240 days per year would be the average time worked, the bituminous coal mines of this State could produce about 108,000,000 tons per year.

The bituminous mines were operated during 1902 an average of 220 2-3 days, and the average daily production was 447,720 tons, an increased daily production of 72,720 tons over that of 1901.

There were 456 fatal accidents in and about the bituminous mines during 1902, as against 301 during 1901, an increase of 155 for 1902, but this increase was in a great measure caused by the terrible calamity at the Rolling Mill mine on July 10, in which 112 persons lost their lives by an explosion of gas.

There were 861 persons severely injured in and about the bituminous mines in 1902, as against 656 in 1901, an increase of 205 for 1902, which is not so great when the enormous production of coal is considered; besides, a great many of these accidents were of a very trivial nature, that probably did not prevent the injured person from working for more than a day or two. The production of coal per each fatal injury was 216,987.

If the 112 fatal accidents that occurred through the explosion at the Rolling Mill mine were eliminated, there would have been an average production of 287,635 tons for each fatality.

Of the fatal accidents in and about the bituminous mines, 442, or 96.93 per cent., occurred inside, and 14, or 3.07 per cent., outside.

The production of bituminous coal in 1902 was 98,946,203 tons

from mines that are inspected and come under the provisions of the law, while from small mines, where fewer than ten persons are employed, the production was 885,718 tons, making the total production reach the enormous figures of 99,831,921 tons.

The production of bituminous coal for 1901 was 80,914,236 tons from mines that came under the law, which is an increase in 1902 for these mines of 18,031,967 tons.

The production from anthracite mines for 1901 was 59,905,951 tons, and for 1902, 36,911,554 tons, being a decrease for 1902 of 22,994,397 tons.

The combined production of anthracite and bituminous coal for 1901 was 140,820,187 tons, while for 1902 it was 135,857,757 tons, a decrease for 1902 of 4,962,430 tons.

It is interesting in connection with the mining of bituminous coal to note the changes in the method of mining. In 1902, 36,224,155 tons of coal, or 36.81 per cent., were mined by the use of mining machines. These machines were in use in 317 mines, 2,812 of the various types being used, 969 of which were operated by electricity and 1,843 by compressed air; 62,722,048 tons were mined by pick.

There has been some criticism upon the statement made in the report of 1901 that the occupation of the miner can be classed as extra hazardous in as great a degree as that of locomotive engineers, firemen and brakemen, and, consequently, mine workers should be especially well paid. The writer will now emphasize what he asserted in the last report upon that subject, as he has known and faced the dangers of both a miner and laborer. Enumerated as non-fatal accidents are hundreds of cases of persons who have lost legs, arms and eyes, and have sustained fractures of skulls and limbs, and who, in consequence, are incapacitated for any work in or about the mines, and the writer reiterates what he published in 1901, that the attention of philanthropists of this and other states, and of men who have accumulated vast wealth in the business of coal mining, should be called to the necessities of these poor victims of accidents, and they should provide them with a place wherein they could be fitted for lives of usefulness in occupations suited to their disabilities.

If this class of people will not assist in the manner indicated, then it is the opinion of the writer that the State should impose a tax of a half cent per ton on all coal shipped to market. Within the next two years the shipments of coal will probably reach at least 150,000,000 tons which, at a tax of half a cent per ton, would yield $750,000. This tax divided equally between the owners of coal lands and operators, would mean that each interest would pay $375,000 per year. This would scarcely be felt by the parties taxed, but it would furnish a sum that would be ample to provide

for institutions where the crippled or those otherwise incapacitated for performing manual labor could be instructed; also, it would provide a fund for the relief of the widows and orphans of those whose lives had been lost in mine accidents.

The dangers attending anthracite mining are as 3 to 5 compared with bituminous mining, and one of the greatest causes of danger is the great consumption of high explosives in the anthracite, as compared with the bituminous region. The report for 1901 showed that only 1.42 tons of anthracite coal were loosened by each pound of explosive used, while in the bituminous region each pound of explosive loosened 9.46 tons. During 1902, 10,564½ tons of black powder and 1,085½ tons of dynamite were used in the anthracite mines. In the bituminous mines in 1902, there were 4,983 tons of powder and 460 tons of dynamite used in the production of 98,946,203 tons of coal. In the anthracite region the production was 36,911,554 tons.

In the anthracite mines there were produced, in 1902, only 1.12 tons of coal for every pound of explosive used, while in the bituminous mines 9.09 tons of coal were produced for every pound of explosive used.

For some reason, neither region produced quite as many tons of coal for every pound of explosives as were produced in 1901.

The number of employes in and about the anthracite mines in 1902 was 148,141; the number employed in 1901 was 146,651, an increase of 490 in 1902, but in 1901 they worked 194½ days, while in 1902 only 116 days' work was done.

Again, I wish to enter my solemn protest against the use of electricity in the coal mines of this State, unless wires can be so protected as to prevent its being a menace to life. Had I authority, I would prohibit its use in any form in gaseous mines, as it is my firm belief, if the use of it is not prohibited, that sooner or later there will be a terrible loss of life from this cause.

Seven lives were lost from this cause in 1902 and the same number in 1901, making fourteen lives sacrified from the use of this deadly agent in two years. This adds another to the great number of perils incident to the mining of coal.

Table showing the number of each class of employes in each Anthracite district for the year 1902.

Districts.	Occupations of Persons Employed Inside.											Occupations of Persons Employed Outside.									
	Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Bookkeepers and clerks.	All other employes.	Total outside.	Grand total, inside and outside.
First,	48	35	49	5,26	4,373	1,883	418	122	884	648	13,729	20	28	244	437	1,088	794	58	2,082	4,761	18,4 0
Second,	5	20	95	4,60	4,227	1,912	511	101	969	791	13,288	21	55	233	361	1,654	468	95	2,054	4,941	18,229
Third,	6	31	90	4,816	3,576	1,780	451	114	1,015	680	12 6 3	19	46	324	524	1,380	410	103	2,702	5,584	18,197
Fourth,	5	32	161	5,89	4,957	1,958	960	117	2,048	1,271	17,468	8	43	336	696	2,461	556	92	3,161	7,356	24,764
Fifth,	4	57	47	3,1 4	1,663	755	241	158	896	1,242	8,2 5	10	47	361	607	1,015	4 6	96	3,495	6,127	14,364
Sixth,	4	30	132	4,144	3,157	7 4	270	103	871	2,611	12,273	18	46	368	820	2,330	984	93	3,946	8,605	20 8 8
Seventh,	4	37	140	5,46	2,085	966	271	131	1,616	1,847	12,610	11	40	27	660	1,982	371	76	3,833	7,246	19,856
Eighth,	44	22	112	3,13	1,405	547	186	47	923	1,820	8,241	23	43	224	574	1,220	435	67	2,556	5,142	13,383
Totals,	383	264	824	36,3 2	25,443	10,595	3,308	893	9,316	10,893	98,377	130	358	2,433	4,679	13,133	4,520	680	23,829	49,762	148,141

Table showing causes of fatal accidents and number attributable to each cause that occurred in and about the Anthracite mines, also the number of wives left widows and children orphaned by reason of such accidents for the year 1902.

Causes of Accidents.	1st District.		2d District.		3d District.		4th District.		5th District.		6th District.		7th District.		8th District.		Total.		Percentage.	
	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.
By falls of coal, slate and roof,	16	.....	9	.....	22	.....	16	.....	6	.....	27	.....	10	.....	10	.....	116	.....	47.35	.....
By mine cars and machinery,	5	5	5	1	5	4	11	9	9	5	1	6	2	2	4	3	42	35	17.14	63.63
By explosions of gas and dust,	.....	.....	.....	.....	6	.....	1	.....	.....	.....	3	.....	10	.....	1	.....	20	.....	8.16	.....
By explosions of powder, blasts, etc.,	1	.....	7	.....	2	.....	3	.....	2	.....	5	.....	5	.....	1	.....	32	.....	13.06	.....
By falling into shafts, slopes, etc.,	.....	.....	1	.....	3	.....	2	.....	2	.....	1	.....	4	.....	.....	.....	13	.....	5.30	.....
By suffocation, etc.,	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	3	2	.....	.....	3	3	1.22	5.45
By mules	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	2	.....	.81	.....
From miscellaneous causes,	.....	2	1	.....	2	3	2	2	1	.....	4	6	6	1	1	3	17	17	6.94	30.90
Totals,	22	7	23	1	40	8	41	11	21	5	40	12	41	5	17	6	245	55	81.06	18.34

Number of widows, 146.
Number of orphans, 377.

Table showing causes of non-fatal accidents and number attributable to each cause, that occurred in and about the Anthracite mines for the year 1902.

Causes of Accidents.	1st District.		2d District.		3d District.		4th District.		5th District.		6th District.		7th District.		8th District.		Total.		Percentage.	
	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.
By falls of coal, slate and roof,	26	.....	33	.....	27	.....	44	.....	8	.....	19	.....	12	.....	14	.....	183	.....	34.92	.....
By mine cars and machinery,	12	4	29	6	18	9	28	16	8	3	1	1	5	10	10	14	111	63	21.18	53.84
By explosions of gas and dust,	5	.....	5	.....	16	.....	4	.....	1	.....	11	.....	12	.....	11	.....	65	.....	12.40	.....
By explosions of powder, blasts, etc.,	5	.....	18	.....	24	.....	8	.....	3	.....	7	.....	6	.....	8	.....	79	.....	15.07	.....
Falling into shafts, slopes, etc.,	1	.....	.....	.....	.....	.....	2	.....	1	.....	2	.....	1	.....	1	.....	8	.....	1.52	.....
By suffocation,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
By mules,	4	.....	7	.....	7	.....	8	.....	.....	.....	1	.....	1	.....	1	.....	29	.....	5.53	.....
Miscellaneous causes,	3	.....	7	4	9	5	10	14	1	10	14	10	4	7	1	4	49	54	9.35	46 15
Totals,	56	4	99	10	101	14	104	30	22	13	55	11	41	17	46	18	524	117	80.99	19.01

ACCIDENTS IN COAL MINES

A great deal has been said and written about the frequency of accidents in and about the coal mines, and the officials of the mines, as well as the Mine Inspectors, have been censured because they have been unable to reduce the number.

For several years the Mine Inspectors have reported the accidents to the Bureau of Mines under the following heads, viz: Those "Caused by carelessness of victim," "Caused by neglect or carelessness of others," "Unavoidable accidents" and those for which the responsibility could not be fixed.

I have examined thoroughly the reports of fatalities made by the Inspectors, and the following are the results:

In and about the anthracite mines for the year 1902, 300 lives were lost, of which 150, or 50 per cent., were caused by "carelessness of the victims;" 27, or 9 per cent., by "carelessness of others;" 103, or a little more than 34 per cent., "were unavoidable," while in 20, or 6.66 per cent., the responsibility was not fixed.

In and about the bituminous mines for 1902, 456 lives were lost, of which 229, or a little more than 50 per cent., were through "carelessness of victims;" 116, or more than 25 per cent., were through "carelessness of others;" 103, or a little more than 22.5 per cent., were designated as "unavoidable," while the number in which the responsibility was not fixed was 8, or about 2 per cent.

All the Inspectors agree that about 50 per cent. of accidents are caused by the carelessness of the victims, which is a sad commentary, and these results will not be changed unless those directly interested will take all proper and needful precautions to guard against accidents.

The fatal accidents in the anthracite districts were from the following causes: Falls of coal, slate and roof, 116, or 47.35 per cent.; mine cars, 42, or 17.14 per cent.; explosions of gas, 20, or 8.16 per cent.; explosions of powder and blasts, 32, or 13.06 per cent.; and from miscellaneous causes, 22, or 9 per cent.

Of the total number of fatalities, 81.66 per cent. were inside the mines, and 18.34 per cent. were outside. Of the 250 lives that were lost inside, 22 were by six accidents, viz: four explosions of gas, by which 14 were killed; one explosion of dynamite, by which 5 lives were lost, and one accident by mine cars, causing the loss of 3 lives. All the others were by single accidents.

In the bituminous mines the percentages are somewhat different as to causes of fatal accidents. By falls of coal, slate and roof, 223

lives were lost, or 50.45 per cent.; by cars, 47, or 10.63 per cent.; from explosions of gas, 126, or 28.50 per cent.; by explosions of powder, blasts, etc., 8, or 1.81 per cent.; from electric shocks, 7, or 1.58 per cent., and from miscellaneous causes, 31, or 7.01 per cent.

Of the fatalities in and about the bituminous mines, 96.93 per cent. occurred inside and 3.07 per cent. on the surface.

In the bituminous mines, 12 accidents caused the loss of 140 lives, six of which were explosions of gas, whereby 125 lives were lost. This includes the catastrophe at Johnstown, which is fully described in another part of this report, in which 112 persons were killed. By three accidents from falls of coal or slate, 8 lives were lost; by an explosion of a blast 2 lives were lost; by falling from a cage down a shaft, 3 lives were lost at the same time, and 2 lives were lost by one accident from cars.

MINE INSPECTIONS

Mine inspections were conducted during the year with the same regularity as in former years. The Bituminous Inspectors made 2,410 inspections. Some of the mines were inspected six or eight times and others only twice.

The increase in the number of Bituminous Inspectors from twelve to fifteen will result in more frequent inspections being made, and let us hope that the increase will have a tendency to reduce the number of accidents, which is "a consummation devoutly to be wished for;" also, in the improvement of ventilation in some of the non-gaseous mines.

The eight Anthracite Inspectors made 638 inspections, a smaller number than were made in 1901. This is accounted for by the fact that the mines were closed by the great strike for nearly six months. The Inspectors also made more frequent visits to the more important mines and fewer to the smaller ones.

Under the mine law as amended, the number of Anthracite Inspectors has been increased from eight to sixteen, and it is earnestly hoped that the increase in the number of Inspectors will have a tendency to reduce the number of accidents by more frequent visits, yet I am not very sanguine of such a result.

Under the provisions of the anthracite mine law, each Inspector is directed to visit the face of each working place at least once in sixty days, yet any person who is familiar with conditions in the anthracite mines will know that it is a physicial impossibility for him to comply with the law in that respect, and I am free to assert there is no necessity for each working face to be visited once every sixty days. Some of them should be inspected more frequently

than the law provides, while others do not require the same attention. In the opinion of the writer, such frequent visits by the Inspectors are not necessary in gaseous mines, but in non-gaseous ones he cannot make too many visits.

VENTILATION OF ANTHRACITE MINES

By a careful analysis of Table I, it will be seen that the ventilation in mines of the anthracite districts is fairly well up to the standard. In the First District, in mines where the ventilation was the poorest, there was a minimum of 178 cubic feet of air per minute for each employe inside; the maximum quantity in gaseous mines was 800 cubic feet, and the average quantity of air in circulation per employe inside was 500 cubic feet.

In the Second District, the minimum quantity in non-gaseous mines per each employe inside was 231 cubic feet per minute; the maximum quantity in gaseous mines was 850 cubic feet, and the average for all mines in the district was 400 cubic feet per minute.

In the Third District, the minimum quantity in non-gaseous mines was 250 cubic feet per minute for each employe inside; the maximum quantity in gaseous mines was 900 cubic feet per each employe, and the average quantity in all mines in the district was 550 cubic feet.

In the Fourth District, there was a minimum in each non-gaseous mine of 200 cubic feet per minute for each inside employe, and a maximum in gaseous mines of more than 900 cubic feet per minute. The average was 525 cubic feet per minute for each employe inside.

Owing to a change of Inspectors in the Fifth District, there was no report received from it.

In the Sixth District the report shows that there was a minimum of 150 cubic feet of air per minute in circulation in each non-gaseous mine, for each employe inside. The maximum in gaseous mines was 634 cubic feet per minute, and the average for all mines in the district was 260 cubic feet per minute for each employe inside.

Owing to the resignation of the Inspector of the Seventh District no report was received from it.

In the Eighth District, the report shows a minimum quantity of 150 cubic feet of air in circulation in each non-gaseous mine, and a maximum of 650 cubic feet per minute in gaseous ones. The average quantity was 275 cubic feet per minute per employe.

The average for all the districts shows that there were 450 cubic feet of air per minute in circulation for each employe inside of the mines.

REASONS WHY SYSTEMATIC PROPPING SHOULD BE ADOPTED IN COAL MINES

In the last report of this Bureau, in an article on the frequency of fatal accidents from "falls," the following remarks occur:

"During the past twenty years more than 50 per cent. of fatal accidents were caused by 'falls,' but there is no reason why the number from this cause should not be reduced at least 50 per cent. If as much care were taken to guard against falls of coal, roof and sides as is being taken in regard to ventilation for the purpose of keeping the mines clear of what is generally called the 'deadly' gas, a stringent rule should be adopted against the more deadly 'falls.'"

The number killed by gas in the anthracite mines during the past twenty years was 663, or about 9 per cent. of the whole number killed inside of the mines, while the number killed by "falls" during the same period was 3,521, or 50 per cent., or an average of five and one-half persons killed by "falls" to every one killed by explosions of gas; and about the same percentage is found in the bituminous region where, of course, the total number of accidents is not so great.

If the operators would provide a suitable person, who might be designated a timber boss, and whose sole duty should be to look after the safety of the working places and traveling roads, and to see that all dangerous parts were taken down or properly supported by timber, or otherwise, it would certainly lessen the danger from "falls."

A few of the superintendents of coal companies have objected to the remarks on this subject that were incorporated in the report of 1901, urging as a reason that it would add greatly to the expense of producing coal, as the services of three or four persons would be required to attend to the work of superintending the propping. Of course, it is conceded that it would necessitate the employment of from one to three additional men, according to the size of the mine. In a mine where three timber bosses would be required the output would be from 1,500 to 2,000 tons per day, say, an average of 1,750 tons, and the wages of the men would be three dollars each per day, or a total of nine dollars. This would entail only an additional cost of a half cent per ton, which would scarcely be felt by the operator. But even if no return were received for the additional outlay, the writer is of the opinion that the employment of such men, who would attend to their duties and who would be given authority to punish carelessness in some

manner, would save many lives that are now lost through neglect, carelessness or lack of knowledge of the dangerous conditions that environ them. Many employes, especially in the bituminous mines, who mine or load after the mining machines, and have supervision of timbering, do not understand the English language, and being unaccustomed to the perils of mining, have no knowledge of the dangers that surround them.

If every humane superintendent would at once adopt these suggestions, I am sure that the number of accidents from falls would be greatly reduced, for if this were done a rule for systematic propping could be introduced and enforced. At present, the visits of the mine foreman are not sufficiently frequent to instruct the ignorant miner as to his danger, nor to compel the "old miner," who thinks he knows it all, to properly care for his safety.

One large mining company in France has adopted the following rules, viz:

A. Systematic timbering, the timber being inserted as soon as room is made for it.

B. The use of iron bars to support the roof temporarily in advance of the last setting of timber until room is secured for another setting.

In the report of 1901 the system in use by the French company was explained. A light modification of that system would render it applicable to the bituminous mines.

The Royal British Commission that was sent to France to investigate the subject of systematic propping, reported as follows:

"We agree with the emphatic opinion as expressed by the French engineer as to the necessity of enforcing not only systematic timbering, but also the setting of timber immediately when the distance fixed by regulation has been attained."

It can be seen by the following that the loss of life by "falls" during the five years, 1895 to 1900, has been lower in the Courrieres colliers than in mines in other parts of France, or in Great Britain, Germany, Illinois, or in Pennsylvania in the anthracite or bituminous regions:

For every 1,000 persons employed in the Courrieres colliery, only .126 lost their lives by falls; in other parts of France the loss per 1,000 employed was .58, in Great Britain .78, in Germany 1.22, in Illinois 1.34, in the bituminous mines of Pennsylvania 1.35, and in the anthracite mines 1.50.

With the adoption of systematic propping, and with the employment of competent men who would be empowered to enforce the regulations, it is the opinion of the writer that fatalities from "falls" in our bituminous mines can be reduced in the near future to those of France or Great Britain. Perhaps, accidents from this

cause in the anthracite region cannot be reduced to such a low average as in the above countries, yet I am of the opinion that they can be reduced 50 per cent. or .75 for every 1,000 employes.

The writer has gone into these details in the hope that some of the larger companies will introduce this system; otherwise the law-making power of the State should be invoked at the session of 1905 to enact some legislation upon the subject.

Anthracite Coal Counties, as redistricted to conform with amendments to Article 2 of Mine Law, approved June 8, 1901, giving the number of collieries, employes and production of each district, computed from the report of the Bureau for 1901.

Districts.	Counties.	Number of collieries.	Number of employes.	Number of tons produced.
First,	Lackawanna,	18	9,339	3,875,397
Second,	Lackawanna, Susquehanna and Wayne,	21	9,434	3,853,057
Third,	Lackawanna,	21	8,899	4,268,554
Fourth,	Lackawanna,	19	9,045	4,337,411
Fifth,	Luzerne,	23	10,219	3,247,592
Sixth,	Luzerne and Sullivan,	23	10,750	4,078,191
Seventh,	Luzerne,	17	11,563	4,514,170
Eighth,	Luzerne,	17	10,549	4,529,725
Ninth,	Luzerne,	27	11,743	4,717,545
Tenth,	Schuylkill,	20	8,699	3,229,980
Eleventh,	Schuylkill,	12	9,274	3,768,862
Twelfth,	Schuylkill,	19	7,511	2,911,665
Thirteenth,	Schuylkill,	19	7,570	3,472,440
Fourteenth,	Northumberland,	28	14,186	4,850,061
Fifteenth,	Columbia and Dauphin,	7	4,682	1,821,816
Sixteenth,*	Carbon,	7	4,366	1,667,394

*This district will have to be included in the Ninth district until January, 1907, giving the Inspector of that district 34 collieries and 16,109 employes, with a production of 6,372,938 tons, nearly four times the production of the Fifteenth district. The amendment arbitrarily makes the county lines the district boundary lines, therefore the above is the best arrangement that can be made under this amendment, which is entirely unfair to the Inspectors, to the employes and to the operators. During the year 1901, 298 Anthracite collieries produced 59,905,951 tons, and the number of employes was 147,651. If the law had been amended so that these collieries could have been apportioned among the 16 inspectors, each one would have had 18 or 19 collieries and from 9,000 to 9,500 employes with an average production of about 3,700,000 tons. If these figures are compared with those of the foregoing table, it may be seen at a glance how unevenly the work is distributed amongst the Inspectors, as the districts are at present constructed.

Bituminous Districts, as rearranged in January, 1903, in conformity with the law approved 1893, giving the number of collieries, employes and production of each district, computed from the report of this Bureau for 1901.

Districts.	Names of Counties.	Number of collieries.	Number of employes.	Number of tons produced.
First,	Fayette, Green, Washington and Westmoreland,	61	8,329	7,408,124
Second,	Indiana and Westmoreland,	63	8,015	5,469,468
Third,	Armstrong, Butler, Clarion, Lawrence and Mercer,	85	4,703	2,661,353
Fourth,	Clearfield, Clinton, Elk, Jefferson, Lycoming, McKean and Tioga,	72	8,647	5,221,856
Fifth,*	Fayette,	78	11,002	6,004,063
Sixth,	Cambria and Somerset,	70	6, 91	5,040,201
Seventh,	Allegheny, Beaver and Washington,	63	7,853	5,988,034
Eighth,	Centre and Clearfield,	111	6,115	3,383,284
Ninth,	Fayette and Somerset,	61	8,623	7,724,311
Tenth,	Cambria, Bedford, Blair and Huntingdon,	83	6,34[illegible]	3,521,[illegible]19
Eleventh,*	Fayette and Westmoreland,	63	10,450	8,113,5[illegible]1
Twelfth,	Armstrong, Clearfield, Indiana and Jefferson,	60	7,695	5,6[illegible]9,922
Thirteenth,	Allegheny, Washington and Westmoreland,	65	6,689	5,159,[illegible]59
Fourteenth,	Allegheny, Beaver and Westmoreland,	60	7,125	5,381,133
Fifteenth,	Cambria, Centre, Clearfield and Indiana,	87	7,152	4,068,577

*The great excess in the number of employes in the Fifth and Eleventh Districts is caused by the large number employed in the manufacture of coke.

The Bituminous Mine Law provides, in section 5, article 10, that "the board of examiners may also, at their meeting, or when at any time called together by the Governor for an extra meeting, divide the bituminous coal regions of the State into inspection districts, no district to have less than sixty nor more than eighty mines, and as nearly as possible equalizing the labor to be performed by each Inspector, and at any subsequent calling of the board of examiners this division may be revised, as experience may prove to be advisable."

In the last three years the board of examiners has redistricted the bituminous regions twice, once at a regular meeting, and the second time they were called together by the Governor at the suggestion of the Chief of the Bureau of Mines, as it was found that the Inspectors were unable to comply with the part of the act which provided that not more than ninety days shall elapse between the visits of the Inspectors.

At the first redistricting it was thought that two additional Inspectors, making the number twelve, would be sufficient, but it was soon found that even twelve inspectors could not comply with the provisions of the act, and the Chief of the Bureau suggested to the Governor that the number be increased to fifteen.

The board of examiners made an effort to comply with the pro-

visions of the law, and met with some success, but after doing the best they could, they failed, as may be seen by looking at the foregoing table.

While section 5 of article 2 gives the board considerable power, yet it arbitrarily says that "no district shall contain less than sixty or more than eighty mines." With this sentence left in the section, no board can make a fair division of work between the Inspectors. If this obnoxious section were eliminated, the board could intelligently divide the labor between the Inspectors without regard to the number of mines.

I am not advocating here an increase in the number of Inspectors, but do advocate the amending of section five, or in a few years more the number of inspectors will have to be increased again. In my opinion, we have enough Inspectors in this State, even if the production were doubled, but of this I will treat in another place.

By comparing the First District with the Eighth, it will be seen that one has only 61 mines while the other has 111, yet the production of the district with the smaller number of mines is more than double that of the district having the greater number of mines.

If it were possible to make an even distribution of the 1,082 bituminous mines among the fifteen Inspectors, each one would have an average of 72 mines, of 7,840 employes and an average production of nearly 5,400,000 tons. Even that would not be a fair division of the work among the Inspectors, as several of the districts have more than 4,000 persons employed outside, leaving the number employed inside only about 3,840.

In my opinion, the division of the Inspection Districts in the State should be made by the Chief of the Bureau of Mines, without any arbitrary restrictions as to county lines or number of mines.

It may be of interest at this time, when the number of Inspectors in this State has been increased over 50 per cent., and when the public clamor is so loud against employing children of the ages of 12 and 13 years in and about the mines, to pause and endeavor to find out what is being done in other countries, notably in the United Kingdom, comprising England, Scotland, Wales and Ireland. We find that in the year 1902, 3,264 coal mines, 142 iron mines and 722 other mines were in operation. Besides the mines, there were 4,751 quarries in operation during the same year. Under the law, the mines in the United Kingdom are divided into three classes: Those under the Coal Mine Act, including mines of coal, fire clay, stratified iron ore and shale; under the Metalliferous Mine Act are included all mines and underground workings which are not under the Coal Mine Act, while under the Quarry Act are in-

cluded all open workings not more than twenty feet deep in which are obtained slate, stone and other materials.

During the year 1902, 1,018 lives were lost in coal mines in the metalliferous mines 29 lives were lost, and 119 lives were lost in quarries. The number of employes inside of the coal mines was 636,400, and on the surface of coal mines 156,248 were employed. Inside of the coal mines the ages ranged from 13 years upward, and the ages of the employes on the surface ranged from 12 years upward.

The iron ore mines, coming under the Coal Mine Act, numbered 142; the inside employes numbered 12,229, and 4,280 were employed on the surface. The ages of the inside employes were from 13 years upward, while the ages of those employed on the surface ranged from 12 years upward.

The number of metalliferous mines in operation during 1902 was 722; the inside employes numbered 17,977, while 12,014 were employed on the surface. The ages of the inside employes ranged from 13 years and over, and the ages of those on the surface 12 years and over.

The number of quarries in operation during 1902 was 4,751; inside of the quarries 39,938 persons were employed, while the number employed on the surface was 20,188. The ages inside and outside were from 12 years upward.

The total number of employes inside the mines during 1902 was 666,626, and on the surface 173,552, a total of 840,178.

Including the employes of the quarries, we find that in the United Kingdom during 1902, over 900,000 persons were employed, subject to the several acts.

If the mines and employes were equally divided among the 13 Inspectors and the 25 Assistant Inspectors (a total of 38), each one would have 118 mines and nearly 24,000 employes under his charge. In this I have taken no account of the quarries where 119 lives were lost during 1902. How does this compare with the number of mines and number of employes in each anthracite and bituminous district in this State?

ABSTRACT OF ANTHRACITE REPORT 1902.

Total Number Tons of Coal Mined, Shipped, &c., Number of Days Worked, Number of Employes, Number of Employes Killed and Injured, Number Kegs of Powder and Pounds of Dynamite Used, in the Anthracite Districts of Pennsylvania for the Year Ending December 31, 1902.

Districts	Shipments of coal in tons to market or elsewhere	Number of tons used for steam and heat at collieries	Number of tons sold to local trade and used by employes	Total production of coal in tons	Average number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Number of kegs of powder used
First	[illegible]	513 219	56,668	4 932,924	116	16 490	29	60	146 560
Second	[illegible]	306 783	221 766	6,062,725	103	18,229	24	100	170 655
Third	[illegible]	463 443	97,676	5,077,167	104	16,107	46	116	143 787
Fourth	[illegible]	624 624	234,355	5 089 420	106	24 764	52	134	163 356
Fifth	[illegible]	641 621	96 331	3 190,165	120	14,364	38	35	47,447
Sixth	[illegible]	637,357	81,252	4 366,827	113	20,355	32	66	71,709
Seventh	[illegible]	753,615	66 646	3 965,320	121	19,556	46	58	77 105
Eighth	[illegible]	610 295	60 116	2,222,287	136	11 283	22	64	36 506
Totals	[illegible]	4 474 779	834 937	35 911,661	116	145 141	300	641	816 147

Districts	Number pounds of dynamite used	Number of horses and mules in use	Number of boilers: Cylindrical	Horse power	Tubular	Horse power	Total horse power	Locomotives: Steam	Compressed air	Electric	Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity in gallons delivered to surface per minute	Number of electric dynamos	Number of air compressors
First	127,798	1 656	224	5 344	163	21 024	30 486	47	20	12	503	27 877	128	64 260	55,116	10	[illegible]
Second	90,761	2,120	609	5 347	125	15 020	27 077	27		13	382	32 357	90	37 108	35 428	8	[illegible]
Third	218 068	[illegible],213	250	4 937	215	36 577	43,492	46	7	3	653	30 838	115	90 [illegible]	91 318	12	[illegible]
Fourth	281 604	2,570	484	16 031	253	47,452	63,453	37	4	3	520	63 100	61	73 854	36 133	3	[illegible]
Fifth	459,873	1 764	576	17,011	239	25 107	55 [illegible]	104	11		573	32,143	110	129,229	67 665	10	[illegible]
Sixth	322,035	1 529	338	13,114	374	48 380	61 475	41	11		323	78,406	128	100,462	82 978	4	[illegible]
Seventh	295 272	3 015	251	9,919	295	41,730	51,656	48	2	4	487	51 155	125	91,882	68 195	5	[illegible]
Eighth	231,301	1 216	292	5 148	277	15,282	21 425	22		4	364	47 915	63	64 963	63 145	9	[illegible]
Totals	2,130 967	8 136	2 754	85 224	2 074	261 889	351,227	373	65	52	4,494	415 323	837	632 906	431 941	70	[illegible]

Number of gaseous and non-gaseous mines, number of foremen, assistants and fire bosses, production of coal from gaseous and non-gaseous mines, and washeries, and percentage of production from each, in the Anthracite region for 1902.

Districts.	Number of gaseous mines in each district.	Number of foremen and assistant foremen in gaseous mines in each district.	Number of fire bosses in each district.	Number of non-gaseous mines in each district.	Number of foremen and assistant foremen in non-gaseous mines in each district.	Production in tons from gaseous mines in each district.	Production in tons from non-gaseous mines in each district.	Production in tons from washeries in each district.	Percentage of production from gaseous mines.	Percentage of production from non-gaseous mines.	Percentage of production from washeries.
First,	12	37	49	60	46	2,234,573	2,220,658	477,700	45.20	45.02	9.78
Second,	37	63	95	15	10	5,106,736	105,511	840,478	84.37	1.73	13.90
Third,	48	80	90	25	11	3,741,494	741,122	592,545	73.71	14.58	11.70
Fourth,	65	78	161	7	4	5,829,980	179,435	90,006	95.56	2.94	1.49
Fifth,	35	78	45	62	19	2,591,290	552,573	46,907	80.21	14.32	1.46
Sixth,	29	61	132	6	10	3,940,018	242,960	183,840	92.09	5.56	4.20
Seventh,	26	77	140	6	8	3,626,750	300,451	41,136	91.14	7.31	1.03
Eighth,	25	49	112	13	17	2,724,339	123,631	375,427	83.89	3.82	11.64
Totals and percentages,	.....	523	824	.....	125	29,797,196	4,466,341	2,648,029	80.72	12.10	7.17

STATEMENT—Showing the quantity of coal produced by each company that produced 700,000 or more tons, and the number of persons employed by said companies in the Anthracite districts during the year 1902.

Names of Companies.	Number of Inspection Districts.	Production of coal in tons.	Number of employes.
Philadelphia and Reading Coal and Iron Co.,	Sixth, Seventh and Eighth,	5,544,692	27,158
Delaware, Lackawanna and Western Railroad Co.,	First, Second, Third and Fourth,	4,409,847	12,855
Delaware and Hudson Canal Co.,	First, Second, Third and Fourth,	3,243,550	12,011
Lehigh Valley Coal Co.,	Third, Fourth, Fifth, Sixth and Seventh,	2,525,749	9,858
Lehigh and Wilkes-Barre Coal Co.,	Fourth and Sixth,	2,637,457	7,841
Pennsylvania Coal Co.,	First, Second and Third,	1,868,113	6,738
Pennsylvania Railroad Co.,	Fourth, Sixth and Seventh,	1,629,851	8,6 6
Scranton Coal Co.,	First and Second,	1,474,720	5,372
Lehigh Coal and Navigation Co.,	Fifth and Eighth,	1,023,573	3,811
Temple Iron Co.,	First and Third,	866,543	3,427
Kingston Coal Co.,*	Fourth,	634,326	2,284
Hillside Coal and Iron Co.,*	First,	628,371	2,165
Coxe Brothers & Co.,*	Fifth and Sixth,	608,166	2,371
G. B. Markle & Co.,*	Fifth,	476,205	2,363
Totals,		26,971,143	106,960

*Each of these companies produced more than 700,000 tons in 1900, and would have exceeded that quantity in 1902 but for the strike.

Production of coal in tons by districts in the Anthracite coal mines from 1893 to 1902 inclusive.

Districts.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
First,	6,202,131.34	5,907,331	6,510,817	6,217,447	6 249 823	6,515,790	7,374,571	6,368,948.16	7,728,344	4,932 924
Second,	5,936,475.10	5,674,539	6,189,495	5,895.669	5.985 6 0	5,4 6,150	6,774,458	6,429,112.00	8,674,060	6,052 725
Third,	5,629,914.85	5,541,952	6.21 ,834	5,714.929	5.87 .823	5,964,467	6,854.711	6,296,931.08	9,025,598	5,077,167
Fourth,	8,065,768.95	7,162 961	8,066,539	8,017.872	7.467.418	7,8.6.277	8,648,152	8,585,741.05	9,891,332	6,099.420
Fifth,	6,239,058.50	6,132 627	6,5 0.966	5.872.427	5.487.550	5,555,850	6.191,027	6,179,784.00	6,374 9 9	3.190,765
Sixth,	6,674,807.00	6,340,631	7,164.898	6.521.510	6.475,93	6,513,155	7,538,404	7,023,571.05	8,086.320	4.366,827
Seventh,	5,288,892.88	5,404,823	6,184,542	5,594.649	5.108,948	5,074,834	6.308,334	6 070.701.06	7,052.828	3.968.339
Eighth,	3,142,504.63	3,331,315	3,925,013	4.2 9.8.7	4 3 6.2.2	4,158,651	4,344,567	4.274.528.00	5,172,530	3.223.3 7
Totals,	47,179,553.25	45,496,179	50,847,104	48,074,330	46,947,351	47,145,174	54,034,224	51,217,318.00	59,905,951	36,911,5.4

Production of Anthracite coal in tons by counties from 1893 to 1902 inclusive.

Counties.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
Carbon,	1,510,289.50	1,589,395	1,577,146	1,488,550	1,327,235	1,043,663	1,630,595	1,663,961	1,659,392	986,127
Columbia,	741,990.74	510,537	423,042	443,330	481,453	569,175	895,061	875,643	1,080,231	658,991
Dauphin,	640,723.17	699,607	712,856	702,325	662,842	667,460	729,757	695,656	741,582	377,983
Lackawanna,	11,667,550.25	11,179,382	11,859,382	11,638,479	11,946,871	11,588,801	13,248,948	12,282,108	15,409,040	10,581,301
Luzerne,	18,253,141.75	17,243,128	19,143,101	17,964,900	17,141,809	18,195,398	19,899,742	19,179,573	21,396,312	13,616,111
Northumberland,	3,731,464.63	3,893,660	4,573,144	4,117,569	3,774,667	3,519,305	4,319,547	4,188,343	4,849,099	2,823,273
Schuylkill,	9,992,208.97	9,985,092	11,495,388	11,092,772	10,973,943	11,980,740	12,226,938	11,606,161	13,640,766	7,698,316
Sullivan,	70,418.00	.....	152,141	151,758	164,046	147,533	163,555	201,922	136,165	365,194
Susquehanna,	571,956.19	413,578	840,904	474,637	476,488	423,139	624,125	496,432	663,487	404,248
Wayne,	.....	.....	.....	.....	.....	.....	275,955	19,520	329,877	.....
Totals,	47,179,563.20	45,506,179	50,847,104	48,074,330	46,947,354	47,145,174	54,034,224	51,217,318	59,905,951	36,911,534

Number of employes in and about the Anthracite coal mines by districts from 1893 to 1902 inclusive.

Districts.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
First,	15,637	16,014	16,272	17,604	18,066	17,890	17,143	17,285	18,773	18,490
Second,	14,429	15,627	16,269	16,353	16,578	15,725	15,419	16,789	18,023	18,229
Third,	15,779	16,965	17,413	15,577	17,926	18,098	17,156	18,600	17,654	18,197
Fourth,	22,790	22,764	24,669	26,059	25,650	23,377	23,668	23,067	24,317	24,764
Fifth,	17,540	18,361	18,467	17,568	17,119	14,649	14,293	15,111	16,108	14,361
Sixth,	21,872	20,109	19,810	20,979	21,056	20,159	19,905	20,278	20,277	20,818
Seventh,	19,197	19,121	19,399	20,185	19,670	19,557	20,317	20,655	19,844	19,856
Eighth,	10,777	10,734	11,306	13,335	13,492	12,965	12,682	12,041	12,655	13,383
Totals,	138,021	139,695	143,605	147,670	149,557	142,420	140,583	143,726	147,651	148,141

Number of employes in and about the mines of the Anthracite region by counties, from 1893 to 1902 inclusive.

Counties.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
Carbon,	4,410	5,291	4,282	4,153	4,748	2,986	2,338	2,517	6,365	3,805
Columbia,	2,674	2,011	1,756	2,074	1,904	2,436	2,309	2,064	2,329	2,339
Dauphin,	2,094	2,092	1,985	1,988	2,072	2,174	2,3 0	2,577	2,353	1,945
Lackawanna,	29,021	30,629	30,367	32,771	33,892	32,422	30,886	32,813	35,298	35,553
Luzerne,	51,392	52,994	55,798	56,717	55,138	52,817	52,528	53,740	51,280	52 66
Northumberland,	13,487	13,870	14,522	14,787	15,139	13,833	14,697	15,105	14,187	14,763
Schuylkill,	33,611	31,6 6	32,292	35,660	35,098	34,238	33,508	33,228	33,907	34,950
Sullivan,	307	.....	312	234	327	321	351	521	434	752
Susquehanna,	1,045	1,012	2,191	1,186	1,234	1,193	1,210	1,250	909	1,386
Wayne,	.....	.....	.....	.....	.....	.....	466	11	589	.....

List of fatal accidents that occurred in and about the Anthracite mines from 1893 to 1902 inclusive.

Districts.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
First,	51	47	39	51	53	51	68	40	58	29
Second,	35	41	34	39	58	37	49	55	63	21
Third,	64	51	69	108	63	85	62	59	84	48
Fourth,	84	77	74	73	60	75	81	71	78	52
Fifth,	58	58	52	42	33	32	43	40	60	26
Sixth,	60	74	59	67	72	54	72	65	73	52
Seventh,	77	78	59	76	46	46	52	49	62	46
Eighth,	27	20	35	46	38	37	34	32	35	23
Totals,	456	446	421	502	423	415	461	411	513	300

List of non-fatal accidents that occurred in and about the Anthracite mines from 1893 to 1902 inclusive.

Districts.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
First,	96	98	121	134	125	126	116	118	118	60
Second,	173	141	192	161	149	154	159	152	186	109
Third,	178	148	167	209	145	201	206	139	173	115
Fourth,	221	229	221	225	269	278	188	244	322	134
Fifth,	99	95	102	91	114	72	86	76	89	35
Sixth,	139	94	52	99	73	72	99	130	144	66
Seventh,	119	76	114	106	119	112	90	91	95	58
Eighth,	44	40	106	140	112	119	86	107	116	64
Totals,	1,069	921	1,075	1,165	1,106	1,134	1,030	1,057	1,243	641

Classification of employes who were killed or fatally injured in and about the Anthracite mines from 1883 to 1902 inclusive.

Years.	Inside Employes.								Outside Employes.						
	Mine foremen.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys, etc.	All others.	Total inside.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All others.	Total outside.	Grand total.
1883,	2	1	136	67	47	18	26	297	.....	7	11	7	1	26	323
1884,	1	1	132	81	28	13	30	286	.....	4	9	12	6	31	317
1885,	.....	3	160	86	16	6	28	299	.....	6	7	13	8	34	333
1886,	2	3	131	68	18	6	18	245	1	1	5	9	16	33	278
1887,	1	5	102	57	23	10	30	228	3	3	3	9	13	31	259
1888,	1	2	169	87	33	9	31	332	.....	1	3	6	22	32	364
1889,	4	2	194	79	33	10	20	348	1	1	9	10	16	37	385
1890,	1	5	146	95	37	8	26	318	1	13	8	12	26	60	378
1891,	.....	6	180	119	38	7	37	387	.....	2	3	11	25	41	428
1892,	3	4	189	129	39	8	16	379	.....	1	4	7	27	39	418
1893,	3	1	195	108	47	12	24	390	2	2	.....	11	41	56	446
1894,	1	.....	218	91	38	5	32	385	.....	.....	4	12	45	61	446
1895,	5	1	179	115	33	7	28	368	.....	3	4	13	38	58	426
1896,	3	4	214	134	46	10	48	449	.....	3	4	12	31	53	502
1897,	3	2	210	99	26	4	43	387	.....	4	2	6	25	37	424
1898,	5	4	176	124	33	6	22	370	1	.....	4	18	23	41	411
1899,	2	5	199	114	39	18	22	396	1	2	5	10	46	65	461
1900,	.....	5	181	95	33	8	27	352	.....	2	2	9	46	59	411
1901,	5	2	224	122	45	6	37	441	.....	.....	.....	5	9	64	72	513
1902,	2	3	114	62	27	5	31	244	.....	2	7	2	35	56	300

Number of fatalities and causes of fatal accidents that occurred in and about the Anthracite mines from 1883 to 1902 inclusive.

Years.	Inside of Mines.														Outside of Mines.						
	By Falls of		By mine cars.	By Explosions of			By Falling into			Crushed at batteries.	By mules.	By suffocation.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
	Coal.	Slate and roof.		Gas and dust.	Powder, dynamite.	Blasts, etc.	Shafts.	Slopes.	Manways and breasts.												
1883,	58	66	52	32	11	28	14	.....	.....	.....	.....	.....	16	277	24	12	.....	4	6	46	323
1884,	74	61	61	19	5	29	11	5	.....	2	.....	.....	11	281	16	13	.....	3	19	51	332
1885,	65	87	35	25	13	18	11	11	.....	.....	.....	.....	*53	318	19	9	.....	7	5	40	358
1886,	67	61	35	24	7	18	5	3	.....	.....	.....	.....	20	240	12	11	.....	5	10	38	278
1887,	74	75	49	19	7	14	9	1	.....	.....	.....	.....	26	274	17	11	.....	1	12	41	315
1888,	85	89	58	20	11	24	9	3	.....	.....	.....	.....	20	319	16	12	.....	.....	15	43	362
1889,	81	100	58	29	10	24	3	5	.....	.....	.....	.....	20	330	27	14	.....	6	8	55	385
1890,	67	70	56	60	3	16	17	8	.....	.....	.....	.....	29	326	25	9	.....	7	11	52	378
1891,	75	97	†9	29	13	23	11	6	1	2	4	17	30	387	12	14	.....	2	13	41	428
1892,	88	104	57	57	7	29	6	1	7	.....	2	1	20	379	19	11	5	.....	4	39	418
1893,	80	110	74	45	11	30	7	2	4	1	7	17	19	416	14	13	1	2	10	40	456
1894,	83	104	53	29	18	28	13	5	1	1	4	26	20	385	23	13	4	10	11	61	446
1895,	66	123	52	31	24	27	7	7	4	3	5	3	11	363	26	15	1	4	12	58	421
1896,	68	†187	49	41	9	28	13	3	8	2	6	9	9	432	18	17	4	9	22	70	502
1897,	84	120	40	36	10	28	8	3	5	1	.....	20	16	382	21	9	1	.....	10	41	423
1898,	58	128	44	33	11	21	7	4	4	.....	8	16	28	365	15	14	5	2	10	46	411
1899,	78	148	51	28	11	27	5	4	7	2	8	5	23	367	26	12	12	.....	14	64	461
1900,	61	114	60	38	14	2	13	4	2	.....	.....	11	9	335	28	10	4	.....	14	56	471
1901,	66	160	69	33	15	36	15	5	4	1	.....	5	32	411	39	12	1	1	39	72	5 3
1902,	40	77	42	20	19	13	6	3	4	.....	2	3	17	245	19	16	3	.....	18	55	300
Totals, ...	1,480	2,156	1,105	683	234	529	203	88	55	15	49	133	438	7,170	409	260	41	64	270	987	8,213

*Nanticoke disaster; 26 persons were entombed by an inrush of quicksand.
†Twin shaft disaster; 58 persons were entombed.

Fatal accidents per each 1,000 employes in and about the Anthracite coal mines, and tons of coal mined for each fatal accident from 1870 to 1902 inclusive.

Years.	Employes.	Fatal accidents.	Fatal accidents per 1,000 employes.	Number of tons of coal produced.	Number of tons mined for each fatal accident.
1870,	35,600	211	5.929	12,653,575	59,970
1871,	37,488	210	5.601	13,808,087	66,8 8
1872,	44,475	166	3.709	13,899,976	83,734
1873,	48,199	224	4.647	18,751,358	83,711
1874,	53,402	23.	4.325	17,794,857	77,034
1875,	64,966	238	3.401	20,8 5,220	87,798
1876,	65,357	226	3.458	20,529,166	90,837
1877,	66,842	199	2.977	21,574,154	108,413
1878,	63,964	187	2.923	20,3.0,945	108,720
1879,	68,847	262	3.807	26,725,475	102,005
1880,	73,373	201	2.739	24,977,265	124,265
1881,	76,021	269	3.538	30,537. 98	113,524
1882,	82,344	292	3.546	31,301,278	107,196
1883,	90,921	323	3.552	33,703,010	104,313
1884,	101,3 8	332	3.274	32,561,374	98,076
1885,	100,311	315	3.140	33,468,911	116,250
1886,	102,878	279	2.624	34,777,618	124,650
1887,	106,547	319	2.994	37,614,023	118,006
1888,	117,160	364	3.1 6	41,638,427	114,391
1889,	119,500	385	3.222	38,983,952	101,257
1890,	115,190	378	3.281	40,088,356	106,054
1891,	123,277	428	3.472	44,320,950	103,553
1892,	128,763	396	3.075	45,738,373	115,561
1893,	138,060	449	3,252	47,219,562	105 163
1894,	139,544	439	3.146	45,506,179	103,659
1895,	143,288	421	3.636	50,847,102	120,777
1896,	150,080	502	3.345	48,074,330	95,766
1897,	149,557	424	2.842	46,947,350	110,725
1898,	142,546	411	2.877	47,145,175	114,708
1899,	140,583	461	2.923	54,034 224	131,446
1900,	143,726	411	2.861	51,217,318	124,616
1901,	147,651	513	3.474	59,905,951	116,775
1902,	148,141	300	2.700	36,911,554	123,037

THE GREAT ANTHRACITE COAL STRIKE OF 1902

The strike that existed in the anthracite coal regions for approximately six months was, for the number engaged and involved in it, and the results brought about by it, the greatest labor difficulty that has ever occurred on this continent, if not in the world.

In 1901, the total production of anthracite coal was 59,905,951 tons, and the number of employes in and about the mines was 147,651. In 1902, the production was 36,911,554 tons, a decrease from that of the previous year of 22,994,397 tons.

The number of employes in 1902 was 148,141, a number greater than was employed in 1901, but the average number of days worked in 1901 was 194.5, while in 1902 the average was 116 days. At a conservative estimate, over 95 per cent. of this number were engaged in the strike, while the number indirectly affected by it is almost beyond computation, as iron works and industrial establishments of all classes were obliged to suspend operations for longer or shorter periods, until such changes could be made in their boilers as would enable them to burn bituminous coal.

The loss of time and consequent loss of earnings were not the only misfortunes brought about by this suspension of labor at the mines, as, of course, owing to the cessation of mining, the stock of anthracite coal in the cities and towns soon became exhausted, and the result was that what was on hand brought fabulous prices, advancing in some cases to $20.00 per ton, thus rendering one of the greatest necessities of life one of its luxuries.

Of course, this state of affairs bore hardest on the poor of the cities, who, from necessity are obliged to purchase coal by the bucket, as they felt the pinch first. As the strike was not brought to a close until late in October, there was much suffering from cold, and, according to physicians, a great increase in mortality from pneumonia and other diseases of the lungs resultant upon poorly heated rooms and houses. But, like the proverbial "ill wind that does not blow good to somebody," this state of affairs in the anthracite region was the means of creating a great demand for bituminous coal, and the mines in that region were pushed to their greatest capacity, with the result that the production of bituminous coal increased from 80,914,236 tons in 1901 to 98,947,117 tons in 1902, while the number of employes in and about the bituminous mines increased from 117,602, in 1901, to 135,386, in 1902, and the price advanced to a figure never before known in the history of mining.

This Department has no intention of going into the question of the causes which led to this great disturbance in the labor world, nor of making any comment on the justice of either the

operators' or if the workmen's side of the question. Suffice it to say, that the strike commenced on May 12, and was the result of a demand made by the "United Mine Workers of America," through their president, Mr. John Mitchell, for an increase of wages and a reduction in the hours of labor to all employes who were paid by contract or day work. These demands were refused by the operators and a strike was ordered by the president of the United Mine Workers' Society. The causes that led up to the strike, however, had their origin more than a year previous, as, on February 15, 1901, a communication was sent to President Olyphant, of the Delaware and Hudson Company, as follows:

"Will you kindly wire if your company will participate in a joint conference with the Anthracite miners during the month of March, for the purpose of agreeing upon a scale of wages for a period which would be mutually agreeable to operators and miners?"

"Signed. JOHN MITCHELL."

President Olyphant's reply was as follows:

"I understood that the matter of wages was satisfactorily adjusted last October, and we have no present intention of departing from the arrangement then made. I therefore see no object in the conference which you suggest, even if that method of procedure were desirable, which seems very doubtful."

February 26, 1901, Mr. Mitchell sent a letter to Mr. Olyphant, in which he stated that his letter was "for the purpose of inviting your company to be represented at a joint conference of mine workers, which has been called to meet at Hazleton, Pa., on March 15."

Mr. Olyphant declined to join in the conference and closed his communication as follows:

"So far as concerns conferences with its own employes in any branch of its service, regarding questions of mutual concern, I may again say that the officers of this company are at all times ready."

In April, 1901, the operators proposed to continue the advanced rate of wages until April, 1902. On February 14, 1902, the United Mine Workers of America invited the representatives of the railroads and coal companies operating in the anthracite region of Pennsylvania, to a joint conference of operators and miners on March 12, at Scranton, Pa., the object of the conference to be the formulation of a wage scale for the year commencing April 1, 1902, and ending March 31, 1903. The presidents of the companies to whom this communication was sent replied, declining the conference.

On March 22, 1902, Mr. Mitchell sent a communication to Mr. George F. Baer, president of the Philadelphia and Reading Coal and Iron Company, who represented the operators, as follows:

"By direction of the Miners' Convention, I wish to ascertain if your company

will join other Anthracite coal companies in conference with a committee representing Anthracite workers, for the purpose of discussing and adjusting grievances which affect all companies and all employes alike? Please reply."

To which Mr. Baer replied as follows:

"Always willing to meet our employes to adjust any grievances."

The Anthracite Mine Workers who were members of the United Mine Workers of America, held a convention at Shamokin, Pa., which remained in session from March 18 to 24, 1902, during which resolutions were passed demanding an eight hour day, the weighing of coal, and a uniform scale, with notice that after April 1st the miners would work only three days a week until the operators should come to some agreement with them, and they appealed to the Civic Federation to assist them in securing their demands.

In response to an invitation from the Industrial Department of the Civic Federation, Mr. Mark A. Hanna, United States Senator from Ohio, and Chairman of the Federation, invited some of the coal operators, especially the presidents of the large companies, to meet the officers of the United Mine Workers and the Civic Federation, to discuss the subject of the mine workers' demands.

The conference was held in New York, where Mr. Thomas, of the Erie Company, submitted the following propositions, which were understood to be the basis of the conference:

First. The anthracite companies do not undertake in the slightest manner to discriminate against members of the United Mine Workers of America, but they do insist that members of that organization shall not discriminate against nor decline to work with non-members of that organization.

Second. That there shall be no deterioration in the quantity or quality of the work and that there shall be no effort to restrict the individual exertions of men who, working by the ton or car, may, for reasons satisfactory to themselves and their employers, produce such a quantity of work as they may desire.

Third. By reason of the different conditions, varying not only with the districts but with the mines themselves, thus rendering absolutely impossible anything approaching uniform conditions, each mine must arrange either individually, or through its committees, with the superintendents or managers, any questions affecting wages or grievances.

After discussing at great length the questions relating to labor in the anthracite region, an adjournment was taken for thirty days. At the expiration of that time, another meeting was held with the Civic Federation, at which Mr. Mitchell and the District Presidents of the United Mine Workers, together with a large committee of miners, were present, when another free and full dis-

cussion took place without, however, any conclusion having been reached. At the suggestion of the Civic Federation, a committee composed of Mr. Mitchell and the Mine Workers' District Presidents and Messrs. Baer, Truesdale and Thomas, representing the operators, was appointed to further consider the points at issue, and to report to the Civic Federation at a date to be fixed by its chairman. This committee spent two days in discussion, but without result, and the Civic Federation was not again called together. Mr. Mitchell, however, convened his District Executive Committee, and on May 8 he sent the following communication to Messrs. Baer, Thomas, Truesdale and Olyphant:

"Scranton, Pa., May 8, 1902.

"Conscious of the disastrous effects upon mine workers, mine operators and the public in general, which would result from a long suspension of work in the Anthracite coal regions of Pennsylvania, and with the earnest desire and hope of avoiding the impending calamity, the representatives of the Anthracite Mine Workers have authorized us to submit the following propositions:

"First. Inasmuch as the mine operators have proposed to continue the present wage scale for one year, and inasmuch as the Anthracite Mine Workers have unanimously resolved to ask that an increase of 20 per cent. should be paid on present prices to all men performing contract work; that eight hours should constitute a day's labor for all persons employed by the hour, day or week, without any reduction in their present wage rate, and that coal should be weighed and paid for by weight wherever practicable, and inasmuch as in our recent conferences the Anthracite Mine Workers and operators have failed to agree upon any of the questions at issue, we propose that the industrial branch of the National Civic Federation select a committee of five persons to arbitrate and decide all or any of the questions in dispute, the award of such board of arbitration to be binding upon both parties, and effective for a period of one year.

"Second. Should the above proposition be unacceptable to you, we propose that a committee composed of Archbishop Ireland, Bishop Potter and one other person whom these two may select, be authorized to make an investigation into the wages and conditions of employment existing in the Anthracite field, and if they decide that the average annual wages received by Anthracite mine workers are sufficient to enable them to live, maintain and educate their families in a manner conformable to established American standards and consistent with American citizenship, we agree to withdraw our claims for higher wages and more equitable conditions of employment, providing that the Anthracite mine operators agree to comply with any recommendations the above committee may make affecting the earnings and conditions of labor of their employes."

Each of the four gentlemen to whom the above was addressed, replied as follows:

"May 8, 1902.

"John Mitchell:

"Not only from our standpoint, but from yours as well, the matter has had such full and careful consideration in all its features at our several interviews last week, as leaves little to be discussed. In addition, my letter of February

20th cannot fail to make it clear to you, as it is to us, that the subject cannot be practically handled in the manner suggested by your communication.

"E. B. THOMAS."

"May 8, 1902.

"John Mitchell:

"Your message of this date is received. You fail to state in it that the notices posted by this company not only agree to continue paying the 10 per cent. increase granted our mine employes in 1900 until April 1, 1903, and thereafter, subject to sixty days' notice, but it also states that our mining superintendent will take up and adjust any grievances with our employes.

"The reasons why we cannot grant your demand have been most fully explained in our recent conferences, and in my letter to you of February 18th last. In view of all these facts, I am sure you cannot expect us to concur in either of the propositions contained in your communication.

"W. H. TRUESDALE."

"Philadelphia, May 9, 1902.

"John Mitchell:

"I was out of town, hence the delay in answering your dispatch. By posted notices, the present rates of wages were continued until April 1, 1903, and thereafter, subject to sixty days' notice. Local differences to be adjusted as heretofore with our employes at the respective collieries.

"By written communications, by full discussion before the Civic Federation, by protracted personal conferences with yourself and the district presidents, we have fully informed you of our position. We gave you the figures showing cost of mining and marketing coal, and the sums realized therefrom in the markets, in the hope of convincing you that it was absolutely impracticable to increase wages.

"To your suggestion that the price of coal should be increased to the public, our answer was that this was not only undesirable, but in view of the sharp competition of bituminous coal, it was impossible.

"We offered to permit you, or your experts to examine our books to verify our statements.

"Anthracite mining is a business, and not a religious, sentimental, or academic proposition.

"The laws organizing the companies I represent, in express terms impose the business management on the president and directors. I could not if I would delegate this business management even to so highly a respectable body as the Civic Federation, nor can I call to my aid as experts in the mixed problem of business and philanthropy, the eminent prelates you have named.

"GEORGE F. BAER."

"New York, May 8, 1902.

"John Mitchell, Esq.,

"President United Mine Workers of America, Scranton, Pa.:

"Your telegram is received. The concessions made by the mine operators in your last strike, added to the wages of the mine workers $6,000,000 or more per

annum. You now propose changes adding a charge of many millions more, and suggest that you will make a further demand a year hence.

"The public will not meet such advances by submitting to an increase in the price of coal, and the operators cannot meet them without such aid. I must, therefore, decline your proposition.

"R. M. OLYPHANT."

These various preliminary discussions having failed to accomplish any result looking to the peaceful settlement of the difficulty, the executive committee of the Mine Workers decided to order a temporary strike, and to submit the question as to whether it should be continued or not to a general convention. The order of the Executive Committee was as follows:

"To the United Mine Workers of the Anthracite Region of Pennsylvania:

"The Executive Committee of the Anthracite Mine Workers which was delegated by the Shamokin Convention to represent you in the negotiations with the mine operators and railroad presidents, to obtain if possible shorter hours and better conditions of employment, after exhausting all feasible conciliatory and honorable means at its command, and after failing to secure any concessions of a tangible nature, and while under the resolutions adopted by the Shamokin Convention, authority was vested in the Executive Committee, should it fail in the negotiations, to inaugurate a strike at whatever time it decided, in its judgment, held out the greatest prospect of success. The members of the committee after three days' serious deliberation, feel that in justice to themselves and the Anthracite Mine Workers and those dependent upon them, before a joint strike is inaugurated, the question should be further considered by a delegate convention, in which representatives from the local unions shall be fully instructed by their constituents, and be prepared to vote either in favor of or in opposition to a complete cessation of work.

"In the meantime, all persons employed in or about the collieries, strippings, washeries and breakers are instructed to temporarily abstain from work, commencing Monday, May 12, 1902, and continuing thereafter until a final decision shall have been reached by a delegate convention, which will convene at Hazleton on Wednesday, May 14th.

"The basis of representation in the convention shall be one vote for each 100 miners, and one vote for each additional 100 members or majority thereof.

"The instructions for all men to suspend work on May 12th do not include firemen, engineers, pump-runners or other laborers who are necessary to preserve the property of the operators."

Under this order, work was suspended on May 12, and on the 15th the convention having assembled, it voted to continue the strike.

The total number of votes cast was 811; the number for the strike was 461 and the number against it 350, so that the majority in favor of the strike was 111.

When the strike was inaugurated, the engineers, firemen and pumpmen were not involved, but at a meeting of the three Anthracite Executive Committees of the United Mine Workers, held in

Wilkes-Barre on May 21, it was decided to call out the above employes also, the order for which was as follows:

"Presidents of local unions and mine committees are hereby instructed to wait upon mine superintendents and notify them that on and after Monday, June 22d, all engineers, firemen and pumpmen are expected to work only eight hours per day and to receive present wages."

These demands not having been acceded to, on June 2 a majority of the above named employes ceased work, so that on the above date about 95 per cent. of the entire number of mine employes, which, as per the report of the State Bureau of Mines for 1901 was 147,651, stopped work and the great strike was on.

Of course, as was to be expected, trouble began shortly afterward, as some employes who were not affiliated with the United Mine Workers' Society persisted in working and were attacked by the strikers, the encounters finally becoming so frequent that the sheriffs of the counties in which the anthracite mines are located appealed to the Governor of the State, stating their inability to cope with the situation with the small force at their command, and on July 30 the Governor ordered part of the State Militia to the anthracite coal region.

This force, while it might have had a tendency to suppress disorder, accomplished practically nothing in the matter of bringing the strike to an end, or inducing the strikers to resume work.

On October 6, the Governor ordered the entire National Guard of the State, a force of some 9,000 men of all arms, to the anthracite region.

The general distress throughout that part of the country in which anthracite coal is used, finally became so great that the President of the United States, after having received numerous appeals from people in all stations of life, and recognizing the suffering that would ensue when cold weather should set in, finally resolved to make a strenuous endeavor to settle the difficulty, and in furtherance of this, he summond to Washington the presidents of the various coal and railroad companies of the anthracite region, also Mr. John Mitchell, of the United Mine Workers and the District Presidents of that organization. The conference was held on October 3, at the temporary White House, and was attended by George F. Baer, President, Philadelphia and Reading Coal and Iron Company; E. B. Thomas, Chairman of Board, Erie Railway Company; Thomas P. Fowler, President, New York and Western Railway Company; David Wilcox, President, Delaware and Hudson Company; John Markle, representing the independent operators; John Mitchell, President, United Mine Workers, and Messrs. Thomas D. Nicholls, Thomas Duffy and John Fahy, District Presidents, United Mine Workers; United States Attorney General Knox, Carrol D.

Wright, United States Commissioner of Labor, and Private Secretary Cortelyou.

President Roosevelt expressed his hearty thanks to the gentlemen for their attendance, and stated that owing to his peculiar relations to the situation, he felt that he should make to them a very careful statement of his position and of his intentions in requesting them to meet.

The President's statement was as follows:

"I wish to call your attention to the fact that there are three parties affected by the situation in the anthracite trade—the operators, the miners and the general public. I speak for neither the operators nor the miners, but for the general public. The questions at issue, which led to the situation, affect immediately the parties concerned—the operators and the miners—but the situation itself vitally affects the public.

As long as there seemed to be a reasonable hope that these matters could be adjusted between the parties, it did not seem proper for me to intervene in any way. I disclaim any right or duty to intervene in this way, either on legal grounds or on any official relations that I bear to the situation, but the urgency and the terrible nature of the catastrophe impending over a large portion of our people in the shape of a winter fuel famine, impels me, after much anxious thought, to believe that my duty requires me to use whatever influence I personally can to bring to an end a situation which has become literally intolerable.

"I wish to emphasize the character of the situation, and to say that its gravity is such that I am constrained urgently to insist that each one of you realize the heavy burden of responsibility upon him. We are upon the threshold of winter, with an already existing coal famine, the future terrors of which, we can hardly yet appreciate.

"The evil possibilities are so far reaching, so appalling, that it seems to me that you are not only justified in sinking, but required to sink, for the time being, any tenacity as to your respective claims in the matter at issue between you. In my judgment, the situation imperatively requires that you meet on the common plan of the necessities of the public. With all the earnestness that is in me, I ask that there be an immediate resumption of operations in the coal mines, in some such way as will, without a day's unnecessary delay, meet the crying needs of the people.

"I do not invite a discussion of your respective claims and positions, but I appeal to your patriotism, to the spirit that sinks personal considerations and make individual sacrifices for the general good."

In response to the above appeal, the following answers were made

by the operators, through Mr. George F. Baer, and the United Mine Workers, through President John Mitchell and his colleagues:

"Washington, Oct. 3, 1902.

"Mr. President: At the conference this morning we, the accredited representatives of the Anthracite coal mine workers, were much impressed with the views you expressed and the dangers to the welfare of our country from a prolongation of the coal strike that you so clearly pointed out. Conscious of the responsibility resting upon us, conscious of our duty to society, conscious of our obligations to the one hundred and fifty thousand mine workers whom we have the honor to represent, we have after most careful consideration, and with the hope of relieving the situation and averting the sufferings and hardships which would inevitably follow in the wake of a coal famine, decided to propose a resumption of coal mining upon the lines hereinafter suggested.

"Before doing so, Mr. President, we desire to say that we are not prompted to suggest this course because of any doubts of the justice of our claims. In deferring to your wishes we are prompted by no fear on our part of our ability to continue the contest to a successful issue, thanks to the generous assistance rendered us by our fellow workers in this and other lands; thanks to a justice loving American public whose sympathies are always on the side of right, we are able to continue the struggle indefinitely. But, confident of our ability to demonstrate to any impartial tribunal the equity of our demands for higher wages and improved environment, we propose that the issues culminating in this strike shall be referred to you and a tribunal of your own selection and agree to accept your award on all or any of the questions involved. If you accept this responsibility and the representatives of the coal operators will signify their willingness to have your decision incorporated in an agreement for not less than one year nor more than five years, as may be mutually determined between themselves and the Anthracite coal mine workers, and will pay the scale of wages which you and the tribunal appointed by you shall award, we will immediately call a convention and recommend a resumption of work on the understanding that the wages which shall be paid are to go into effect from the day upon which work is resumed.

JOHN MITCHELL,
President, U. M. W. of A.
JOHN FAHY,
THOMAS DUFFY,
T. D. NICHOLLS,
District Presidents, U. M. W. of A."

The operators also addressed the President as follows:

"To the President of the United States:

"We understand your anxiety, as forcibly expressed in the statement you read to us this morning, to bring about 'an immediate resumption of operations in the coal mines in some such way as will without a day's unnecessary delay meet the crying needs of the people.' We infer that you desired us to consider the offer of Mr. Mitchell, verbally made this morning, expressing and speaking for the United Mine Workers, to go back to work if you would appoint a Commission to determine the question at issue.

"You distinctly say that you 'do not invite a discussion of your respective

claims and positions.' But we assume that a statement of what is going on in the coal regions will not be irrelevant. We represent the owners of coal mines in Pennsylvania. There are from fifteen to twenty thousand men at work mining and preparing coal. They are abused, assaulted, injured and maltreated by the United Mine Workers. They can work only under the protection of armed guards. Thousands of other workmen are deterred from working by intimidation, violence and crimes inaugurated by the United Mine Workers, over whom John Mitchell, whom you invited to meet you, is chief.

"I need not picture the daily crimes committed by the members of this organization. The 'domestic tranquility' which every constitution declares is the chief object of government, does not exist in the coal regions. There is a terrible reign of lawlessness and crime there. Only the lives and property of the members of the secret oath-bound order which declared that the locals should 'have full power to suspend operations at collieries' until the non-union men joined their order, are safe. Every effort is made to prevent the mining of coal, and when mined Mitchell's men dynamite bridges and tracks, mob trainmen, and by all manner of violence try to prevent its shipment to relieve the public.

"The Constitution of Pennsylvania guarantees protection to life and property; in express terms it declares the right of acquiring, possessing and defending property 'to be inalienable.'

"When riot and anarchy too great to be appeased by the civil power occur, the Governor of Pennsylvania is bound to call out the State troops to suppress it. He must fearlessly use the whole power of the State to protect life and property and to establish peace—not an armed truce, but the peace of the law which protects every man at work and going to and from work. He has sent troops to the coal regions. Gradually the power of the law is asserting itself. Unless encouraged by false hopes order will soon be restored, and then we can mine coal to meet the public wants. If the power of Pennsylvania is insufficient to re-establish the reign of law, the Constitution of the United States requires the President when requested by the Legislature and the Governor, 'to suppress domestic violence.' You see there is a lawful way to secure coal for the public.

"The duty of the hour is not to waste time negotiating with the fomenters of this anarchy and insolent defiance of law, but to do as was done in the war of the rebellion, restore the majesty of law, the only guardian of a free people, and to re-establish order and peace at any cost.

"The government is a contemptible failure if it can protect the lives and property and secure the comfort of the people only by compromising with the violators of law and the instigators of violence and crime.

"Just now it is more important to teach ignorant men, dwelling among us, misled and used as tools by citizens of other States, that at whatever cost and inconvenience to the public, Pennsylvania will use the whole power of government to protect, not only the man who wants to work, but his wife and children while he is at work, and to punish every man who, by instigation or by overt acts, attempts to deprive any man of his liberty to work.

Under this condition we decline to accept Mr. Mitchell's considerate offer to let our men work on terms he names. He has no right to come from Illinois to dictate terms on the acceptance of which anarchy and crime shall cease in Pennsylvania. He must stop his people from killing, maiming and abusing Pennsylvania citizens and from destroying property. He must stop it because it is unlawful and not because of any bargain with us.

"We will add to our offer 'to continue the wages existing at the time of the strike and to take up at each colliery and adjust any grievance,' this further condition—if the employers and employes at any particular colliery cannot reach a satisfactory adjustment of any alleged grievances it shall be referred

to the judges of the court of common pleas of the district in which the colliery is situated for final determination.

"GEORGE F. BAER,
"President Philadelphia and Reading Coal and Iron Company, Lehigh and Wilkes-Barre Coal and Iron Company, and Temple Iron Company."

The presidents of the coal companies, after a conference, agreed to refer the matter to a commission to be appointed by the President of the United States, which should be empowered to thoroughly investigate the causes of the strike, and to recommend such changes in the hours of work and payment of wages as, in the opinion of the Commission, were just and equitable and that its award should be binding. They addressed the President as follows:

"We suggest a Commission be appointed by the President of the United States (if he is willing to perform that public service) to whom shall be referred all questions at issue between the respective companies and their own employes, whether they belong to a union or not, and the decision of that Commission shall be accepted by us.

"The Commission to be constituted as follows:

"1. An officer of the engineer corps of either the military or naval service of the United States.

"2. An expert mining engineer, experienced in the mining of coal and other minerals and not in any way connected with coal mining properties, either anthracite or bituminous.

"3. One of the judges of the United States courts of the eastern district of Pennsylvania.

"4. A man of prominence eminent as a sociologist.

"5. A man who by active participation in mining and selling coal is familiar with the physical and commercial features of the business.

"It being the understanding that immediately upon the constitution of such commission, in order that idleness and non-production may cease instantly, the miners will return to work, and cease all interference with or persecution of any non-union men who are working or shall hereafter work. The findings of this commission shall fix the date when the same shall be effective, and shall govern the conditions of employment between the respective companies and their own employes for a term of at least three years.

"GEORGE F. BAER,
"President Philadelphia and Reading Coal and Iron Company, Lehigh and Wilkes-Barre Coal and Iron Company, and Temple Iron Company."
"E. B. THOMAS,
"Chairman, Pennsylvania Coal Company, Hillside Coal and Iron Company.
"W. H. TRUESDALE,
"President Delaware, Lackawanna and Western Railroad Company.
"T. P. FOWLER,
"President Scranton Coal Company, Elk Hill Coal and Iron Company.
"R. M. OLYPHANT,
"President Delaware and Hudson Company.
"ALFRED WALTER,
"President Lehigh Valley Coal Company."

Upon receipt of the suggestion of the anthracite presidents, President Roosevelt telegraphed to John Mitchell as follows:

"White House, Washington, Oct. 16, 1902.

"Mr. John Mitchell, President United Mine Workers of America, Wilkes-Barre, Penn'a:

"I have appointed as commissioners Brigadier General John M. Wilson, Mr. E. W. Parker, Judge George Gray, Mr. E. E. Clark, Mr. Thomas H. Watkins, and Bishop John L. Spalding, with Hon. Carroll D. Wright as recorder. These names are accepted by the operators, and I now most earnestly ask and urge that the miners likewise accept this commission. It is a matter of vital concern to all our people, and especially to those in our great cities who are least well off, that the mining of coal should be resumed without a day's unnecessary delay.

"THEODORE ROOSEVELT."

To which Mitchell replied:

"Wilkes-Barre, Pa., Oct. 16, 1902.

"Hon. Theodore Roosevelt, President of the United States, Washington, D. C.:

"Dear Sir: Replying thereto (to the above telegram), I beg to inform you that your recommendations were submitted to the members of the Executive Boards of Districts 1, 7 and 9, United Mine Workers of America, and they have unanimously agreed to call a delegate convention, to be held next Monday, and will recommend to the convention that all men now on strike return to the positions and working places formerly occupied by them, and submit to the commission appointed by you all questions at issue between the operators and mine workers of the Anthracite coal fields.

"JOHN MITCHELL,
"President United Mine Workers of America."

The subject of the reference of the controversy to the commission appointed by President Roosevelt was taken up by a convention of United Mine Workers, which assembled at Wilkes-Barre, and the result was communicated to him as follows:

"Wilkes-Barre, Pa., Oct. 21, 1902.

"Hon. Theodore Roosevelt, President of the United States, Washington, D. C.:

"Dear Sir: We, the representatives of the employes of the various coal companies engaged in operating mines in the Anthracite coal fields of Pennsylvania, in convention assembled, having under consideration your telegram of October 16, 1902, addressed to John Mitchell, president United Mine Workers of America, have decided to accept the proposition therein embodied and submit all the questions at issue between the operators and mine workers of the Anthracite coal region for adjustment to the commission which you have named. In pursuance of that decision we shall report for work on Thursday morning, October 23d, in the positions and working places occupied by us prior to the inauguration of the strike. We have authorized John Mitchell, president of the United Mine Workers of America, with such assistance as he may select, to represent us in all hearings before the commission.

"JOHN MITCHELL,
"Chairman of Convention.
"W. B. WILSON,
"Secretary of Convention."

It will thus be seen that the commission was authorized by two parties to the controversy to make, as to them, a binding award. The language of the proposition made by the operators is that "A commission be appointed by the President * * * * to whom shall be referred all questions at issue between the respective companies and their own employes, whether they belong to a union or not, and the decision of that commission shall be accepted by us," and that of the acceptance by the representative convention of mine workers being that they "accept the proposition (for a commission as proposed by the operators) * * * * and submit all the questions at issue between the operators and mine workers of the anthracite coal region for adjustment to the Commission which you have named."

The signatory operators and their employes represented in the Wilkes-Barre convention were, therefore, in substantial agreement as to the fact and the scope of the submission proposed.

Hon. Carroll D. Wright, who was appointed recorder of the Commission, was afterwards made a member of it by reason of his knowledge and experience in labor matters, he being the Chief of the United States Department of Labor.

The claims of the United Mine Workers of America were presented to the Commission by their President, John Mitchell, and were as follows:

"First. An increase of 20 per cent. upon the prices paid during the year 1901 to employes performing contract or piece work.

"This demand is made on account of the following reasons:

"(1.) The present rate of wages is much lower than the rate of wages paid in the bituminous coal fields for substantially similar work.

"(2.) The present rate of wages is lower than is paid in other occupations requiring equal skill and training.

"(3.) The average annual earnings in the anthracite coal fields are much less than the average annual earnings in the bituminous coal fields for substantially similar work.

"(4.) The average annual earnings in the anthracite coal fields are much less than the average annual earnings for occupations requiring equal skill and training.

"(5.) The rate of wages in the anthracite coal fields is insufficient to compensate the mine workers in view of the dangerous character of the occupation, in relation to accidents, the liability to serious and permanent disease, the high death rate and the short trade life incident to this employment.

"(6.) The annual earnings of the mine workers are insufficient to maintain the American standard of living.

"(7.) The increased cost of living has made it impossible to main-

tain a fair standard of life upon the basis of present wages and has not only prevented the mine workers from securing any benefit from increased prosperity, but has made their condition poorer on account of it.

"(8.) The wages of the anthracite mine workers are so low that their children are prematurely forced into the breakers and mills instead of being supported and educated upon the earnings of their parents.

"(9.) Wages are below the fair and just earnings of mine workers in this industry.

"Second. A reduction of 20 per cent. in hours of labor without any reduction of earnings for all employes paid by the hour, day or week.

"The second demand is similar to the first in that it is designed to increase the hourly rate of wages of mine workers, employed by the hour, day or week, and all the reasons applicable to the first demand are asked to be applied to the second without repetition.

"In addition thereto we submit the following:

"(10.) The ten-hour day is detrimental to the health, life, safety and well-being of the mine workers.

"(11.) Shorter hours improve the physical, mental and moral condition of the workers.

"(12.) Shorter hours increase the intensity and efficiency of labor.

"(13.) The tendency of National and State Governments, of organized trade and of production generally is toward shorter hours.

"(14.) A working day of eight hours is sufficiently long for the best interests of the workingmen and of the community.

"Third. The adoption of a system by which coal shall be weighed and paid for by weight wherever practicable, the minimum rate per ton to be 60 cents for a legal ton of 2,240 pounds, the differentials now existing at the various mines to be maintained.

"This demand is made on account of the following reasons:

"(1). Measurement by the legal ton wherever practicable is the only honest and just system of measuring the earnings of the mine workers.

"(2.) When the operators sell or transport coal it is on the basis of a legal ton of 2,240 pounds.

"(3.) The excessive ton was originally intended to compensate the operator for the weight of the small sizes of coal which were then discarded, but which are now utilized and sold and, therefore, there is no present necessity for the use of any other than the legal ton.

"(4.) The adoption of this system would remove an incentive, both to the operator and the worker, to cheating and dishonesty.

and would allay jealousy among the miners and prevent unjust discrimination and favoritism.

"(5.) The change of the present system to the one asked for would prove a strong factor in allaying suspicion and discontent amongst the mine workers.

"Fourth. The incorporation in an agreement between the United Mine Workers of America and the anthracite coal companies of the wages which shall be paid and the conditions of employment which shall obtain, together with satisfactory methods for the adjustment of grievances which may arise from time to time, to the end that strikes and lockouts may be unnecessary.

"In support of this demand we submit the following reasons:

"(1.) The anthracite mine workers should not be compelled to make or sign individual agreements but should have the right to form such organization and choose such agents and officers as they desire to act collectively instead of individually whenever they deem that their best interests are subserved thereby.

"(2.) Agreements between employers and employes through workingmen's organizations are the ordinary method of regulating production and wages in the bituminous coal fields and in other large industries, and are beneficial, successful and in keeping with the spirit of the times.

"(3.) Unions of workingmen tend to better discipline of the men and to the improvement of their physical, moral and mental condition and to the preservation of friendly relation between employer and employe.

"(4.) Experience shows that the trade agreement is the only effective method by which it is possible to regulate questions arising between employers and employed in large industries, and that a trade agreement is the only possible way 'to establish the relations between employers and the wage workers in the anthracite fields on a just and permanent basis and as far as possible to do away with any causes for the recurrence of such difficulties as those you (the Anthracite Coal Strike Commission) have been called in to settle.'"

The Philadelphia and Reading Coal and Iron Company, replying to the demands of John Mitchell, representing certain anthracite mine workers, says:

First. That it owns thirty-seven collieries, situate in the counties of Schuylkill, Northumberland and Columbia, and that it did operate previous to the strike inaugurated by the United Mine Workers of America thirty-three collieries and four washeries, and that at that time it had twenty-six thousand eight hundred and twenty-nine employes in and about the mines.

Second. The first demand for "twenty per cent. increase upon the

price paid during the year 1901 to employes performing contract or piece work" is arbitrary, unreasonable and unjust.

This company denies that there is any such similarity between the mining of bituminous and of anthracite coal as to make wages paid in one a standard for the other. It avers that the bituminous coal fields extend over many States of the Union; that they differ widely in the physical and local trade conditions which largely control wages; that the work of mining anthracite coal is not substantially similar work to the mining of bituminous coal, and making all necessary allowances for differences in conditions, it denies that the rate of wages in the mines operated by this company is lower than that paid in the bituminous coal fields, whose coal output competes actively with the products of this company's mines.

Third. This company denies that the present rate of wages is lower than is paid in other occupations in the same locality and controlled by like conditions.

This company is not informed as to the average annual earnings in the bituminous coal fields, but it avers that nearly all of its former employes who, during the past five months worked in the bituminous mines, have returned to the anthracite regions, preferring to work in the anthracite mines. And it further avers that the annual earnings of the anthracite mine workers is largely reduced by their refusal to work as many days as it is customary to work in other occupations, and that by reason thereof this company is subjected to great loss, and the cost of producing coal is largely increased and the annual earnings of its employes diminished.

Fourth. This company denies that the average annual earnings of the men working full time in the anthracite coal field is less than the average annual earnings for occupations requiring equal skill and training.

Fifth. This company denies that "the rate of wages in the anthracite coal fields is insufficient to compensate the mine workers in view of the dangerous character of the occupation in relation to accidents, liability to serious and permanent disease, the high death rate and the short trade life incident to this employment."

Sixth. This company avers that whilst the sixth specification is too general and vague for specific answer thereto, that it is true that the anthracite coal regions (almost entirely dependent on the anthracite mining industry) are among the most prosperous in the United States; that employes of temperate and economic habits have saved money, and invested their savings in houses, building associations and other property, and that deposits in savings, State and National banks, aggregating millions of dollars, have been made by such employes; that the standard of living is equal to that

of the average American workmen; that the towns and cities are better than any mining towns in the bituminous coal fields of the United States.

This company denies that the alleged increased cost of living has made it impossible to maintain a fair standard of life upon the basis of present wages or from securing any benefit from increased prosperity, and that the condition of the workmen is poorer on account of it.

This company further denies that "the children of the anthracite mine workers are prematurely forced into the breakers and mills instead of being supported and educated upon the earnings of their parents because of low wages of such parents, or that such wages are below the fair and just earnings of mine workers in this industry." It avers that the State of Pennsylvania makes large annual appropriations to schools, and that the school districts levy local taxes for school purposes; that text books are supplied from public funds, and that the laws provide for compulsory attendance at public schools. In the county of Schuylkill this company paid for school taxes in the year 1901 $80,000.

The local school boards are elected by the qualified voters of the townships, boroughs and cities. The means of education provided by the State, through its system of free schools and compulsory attendance, are not fully utilized, because of the failure of the local school boards to enforce compulsory attendance, but the wages paid are ample to insure a good common school education for all children in the coal regions desiring to attend school.

No boys are employed in and about the mines and breakers in violation of the statutes fixing the ages of employment.

In addition to provisions for education, ample hospitals for the care of the sick and injured are maintained in the anthracite coal regions.

This company avers that there is not anywhere else in the world a mining region where the workmen have so many comforts, facilities for education, general advantages and such profitable employment.

Seventh. This company denies that the second demand "for a reduction of twenty per cent. in hours of labor without any reduction of earnings for all employes by the hour, day or week" is either just or equitable, and avers that the reasons assigned in support of the demand are impracticable, in so far as they relate to the mining of anthracite coal. The certified miners, under present conditions, seldom work eight hours a day. The greater cost in the production and preparation of anthracite coal for market is not the cutting of the coal. Many employes are paid by the month, the pumping continues day and night, the machinery is

expensive and the cost of coal is largely conditioned on the collieries running full time. The output is entirely dependent on the quantity of coal a certified miner is willing to cut daily, and because of this it is seldom practicable to work the full breaker time.

In general, we deny that, in so far as they relate to anthracite mining, "that the ten hour day is detrimental to the health, life, safety and well being of the mine workers;" that "shorter hours improve the physical, mental and moral conditions of the workers;" that "shorter hours increase the intensity and efficiency of labor."

It admits that the tendency of National and State Governments and of labor organizations is towards shorter hours, but denies that a working day of less than ten hours will be of real advantage to the workmen engaged in and about the anthracite mines and collieries. In some exceptionally exhausting work, a day of ten hours is too long, but there is no exhausting labor which justifies a reduction of hours of work in the anthracite coal operations.

Any increase in wages will necessarily increase the price of coal to the public, restrict its use, and seriously affect the ability of the industries using it as fuel to compete with the industries using bituminous coal; it will bear heavily on the workmen and necessarily oppress the general public and injure the general business of the country. Because of the injury to the mines by the strike of the United Mine Workers of America, the cost of producing coal has been greatly increased and a temporary advance in price was made by this company, but it will be impracticable to continue such increase when mining operations become normal.

Eighth. This company, replying to the third demand, says: That it has had no disagreements with any of its employes about the weighing of coal. The quantity is usually determined by measurement; that when coal is mined by the ton it is customary and necessary to make allowances for slate and impurities. But this company does not mine by the ton. It denies that there is anything unreasonable or unfair in the method it has practiced in arriving at the measurement of the coal from its mines.

Ninth. This company, replying to the fourth demand, says: That the United Mine Workers of America are primarily a bituminal coal organization; that bituminous coal is a rival competitor in the market with anthracite coal; that ever since the advent of the United Mine Workers of America in the anthracite fields, the business conditions in the anthracite mines have become intolerable; the output of the mines has decreased, discipline has been destroyed, strikes have been of almost daily occurrence, men worked when and as they pleased, and the cost of mining has been greatly increased.

At the Shamokin Convention of the United Mine Workers of America, referred to in the statement, it was resolved: "That the United Mine Workers at any colliery, when the employes refused to become members of the organization and wear the button, the local governing such colliery, after using all persuasive measures to get such employes to join, and failing in such shall have full power to suspend operations at such collieries until such employes become members of the organization."

Subsequently, to wit, on May 12, the United Mine Workers of America inaugurated a strike, and by threats and intimidation, caused a suspension of work at all mines. Under date of May 21, they issued a formal official order requiring all pumpmen, firemen and engineers to desert their posts of duty, with intent to force submission to their unjust demands by the destruction of the mines. By threats and violence, they tried to prevent other men from taking the places of the firemen, pumpmen and engineers. The said United Mine Workers of America well knew that if this company did not succeed in keeping the pumps going the mines would be so greatly injured that it would be impossible to mine coal for many months after the strike ended, and that by reason thereof the workmen of the anthracite fields would be deprived of employment and the public be made to suffer untold hardships because of inability to procure fuel during the winter months.

In obedience to the strike and pump orders, and the power expressly given by its Shamokin Convention "to suspend operations at such collieries until such employes become members of the organization"—all manner of force and violence was used to prevent pumping of the mines to save them from destruction, and to prevent non-union men from working. The situation is well described in the proclamation of the Governor of the State of Pennsylvania, to which we beg to refer as part of this answer.

This company avers that these acts of intimidation, of injury to persons and property, and disturbance of the public peace, were contrary to the law of the land.

This company, further answering, avers that the jurisdiction of this Commission is limited to the conditions named in the statement of the coal company presidents, by virtue of which the Commission was appointed, and that by express terms, as well as by necessary implication, the investigation is confined to matters affecting its employes, and excludes the United Mine Workers of America from any part or recognition in the proceedings, recommendations or decisions of this Commission.

Further answering, it says that if when a labor organization, limited to workers in anthracite mines, is created which shall obey the laws of the land, respect the right of every man to work

whether he belongs to a union or not, and shall honestly co-operate with the employers in securing good work, efficiency, fair production and necessary discipline, trade agreements may become practicable.

And, further answering, the company says that it does not and will not discriminate against workmen belonging to the United Mine Workers of America, or any other labor organization, so long as they perform satisfactory work, and behave as law abiding people should, but that the company will at all times employ any person it sees fit, and will not permit any labor organization to limit the right of employment to the members of its organization.

Respectfully submitted,

GEORGE F. BAER,
President.

The Commission commenced its labors in Scranton, where the United Mine Workers' side of the case was heard, and afterwards adjourned to Philadelphia, where the operators' and the non-union men's testimony was heard, and after an almost continuous session, which lasted nearly three months, it adjourned to prepare its report, which was finally submitted to the President on March 21.

Following is the Commission's own summary of the awards made:

I. That an increase of 10 per cent. over and above the rates paid in the month of April, 1902, be paid to all contract miners for cutting coal, yardage and other work for which standard rates or allowances existed at that time, from and after November 1, 1902, and during the life of this award. The amount of increase under the award due for work done between November 1, 1902, and April 1, 1903, to be paid on or before June 1, 1903.

II. That engineers who are employed in hoisting water shall have an increase of 10 per cent. on their earnings between November 1, 1902, and April 1, 1903, to be paid on or before June 1, 1903, and from and after April 1, 1903, and during the life of the award, they shall have eight-hour shifts, with the same pay which was effective in April, 1902, and where they are now working eight-hour shifts the eight-hour shifts shall be continued, and these engineers shall have an increase of 10 per cent. on the wages which were effective in the several positions in April, 1902.

Hoisting engineers and other engineers and pumpmen other than those employed in hoisting water, who are employed in positions which are manned continuously, shall have an increase of 10 per cent. on their earnings between November 1, 1902, and April 1, 1903, to be paid on or before June 1, 1903, and from and after April 1, 1903, and during the life of the award, they shall have an increase of 5 per cent. on the rate of wages which were effective in the several positions in April, 1902;

and, in addition, they shall be relieved from duty on Sundays, without loss of pay, by a man provided by the employer to relieve them during the hours of the day shift.

That firemen shall have an increase of 10 per cent. on their earnings between November 1, 1902, and April 1, 1903, to be paid on or before June 1, 1903, and from and after April 1, 1903, and during the life of the award, they shall have eight-hour shifts, with the same wages per day, week, or month as were paid in each position in April, 1902.

All company men other than those for whom the commission makes special awards shall be paid an increase of 10 per cent. on their earnings between November 1, 1902, and April 1, 1903, to be paid on or before June 1, 1903, and from and after April 1, 1903, and during the life of this award they shall be paid on the basis of a nine-hour day, receiving therefor the same wages as were paid in April, 1902, for ten hour day. Overtime in excess of nine hours in any day to be paid at a proportional rate per hour.

III. During the life of this award the present methods of payment for coal mined shall be adhered to unless changed by mutual agreement.

In all the above awards it is provided that allowances like those made shall be paid to the legal representatives of such employes as may have died since November 1, 1902.

IV. Any difficulty or disagreement arising under this award, either as to its interpretation or application, or in any way growing out of the relations of the employers and employed, which cannot be settled or adjusted by consultation between the superintendent or manager of the mine or mines, and the miner or miners directly interested, or is of a scope too large to be settled or adjusted, shall be referred to a permanent joint committee, to be called a board of conciliation, to consist of six persons, appointed as hereinafter provided. That is to say, if there shall be a division of the whole region into three districts, in each of which there shall exist an organization representing a majority of the mine workers of such district, one of said board of conciliation shall be appointed by each of said organizations and three other persons shall be appointed by the operators, the operators in each of said districts appointing one person.

The board of conciliation thus constituted shall take up and consider any question referred to it as aforesaid, hearing both parties to the controversy, and such evidence as may be laid before it by either party; and any award made by a majority of such board of conciliation shall be final and binding on all parties. If, however, the said board is unable to decide any question submitted, or point related thereto, that question or point shall be referred

to an umpire, to be appointed, at the request of said board, by one of the circuit judges of the Third Judicial Circuit of the United States, whose decision shall be final and binding in the premises.

The membership of said board shall at all times be kept complete, either the operators' or miners' organizations having the right, at any time when a controversy is not pending, to change their representation thereon.

At all hearings before said board the parties may be represented by such person or persons as they may respectively select.

No suspension of work shall take place, by lockout or strike, pending the adjudication of any matter so taken up for adjustment.

V. Whenever requested by a majority of the contract miners of any colliery, check weighmen or check-docking bosses or both shall be employed. The wages of said check weighmen and check-docking bosses shall be fixed, collected and paid by the miners in such a manner as the said miners shall by a majority vote elect, and when requested by a majority of said miners the operators shall pay the wages fixed for check weighmen and check-docking bosses out of deductions made proportionate from the earnings of the said miners, on such basis as the majority of said miners shall determine.

VI. Mine cars shall be distributed among miners who are at work as uniformly and as equitably as possible, and there shall be no concerted effort on the part of the miners or mine workers of any colliery or collieries to limit the output of the mines or to detract from the quality of the work performed, unless such limitation of output be in conformity to an agreement between an operator or operators and an organization representing a majority of said miners in his or their employ.

VII. In all cases where miners are paid by the car the increase awarded to the contract miners is based upon the cars in sizes, the topping required, and the rates paid per car which were in force on April 1, 1902. Any increase in the size of car or in the topping required shall be accompanied by a proportionate increase in the rate paid per car.

VIII. The following sliding scale of wages shall become effective April 1, 1903, and shall affect all miners and mine workers included in the awards of the commission. The wages fixed in the awards shall be the basis of and the minimum under the sliding scale:

For each increase of five cents in the average price of white ash coal of sizes above pea coal, sold at or near New York, between Perth Amboy and Edgewater, and reported to the Bureau of Anthracite Coal Statistics above $4.50 per ton f. o. b., the employes shall have an increase of 1 per cent. in their compensation, which shall continue until a change in the average price of said coal

works a reduction or an increase in said additional compensation hereunder; but the rate of compensation shall in no case be less than that fixed in the award. That is, when the price of said coal reaches $4.55 per ton, the compensation will be increased 1 per cent., to continue until the price falls below $4.55 per ton, when the 1 per cent. increase will cease, or until the price reaches $4.60 per ton, when an additional 1 per cent. will be added, and so on.

These average prices shall be computed monthly by an accountant or commissioner, named by one of the circuit judges of the Third Judicial Circuit of the United States, and paid by the coal operators such compensation as the appointing judge may fix, which compensation shall be distributed among the operators in proportion to the tonnage of each mine.

In order that the basis may be laid for the successful working of the sliding scale provided herein, it is also adjudged and awarded:

That all coal operating companies file at once with the United State Commissioner of Labor a certified statement of the rates of compensation paid in each occupation known in their companies, as they existed April 1, 1902.

IX. No person shall be refused employment or in any way discriminated against on account of membership or non-membership in any labor organization, and there shall be no discrimination against or interference with any employe who is not a member of any labor organization by members of such organizations.

X. All contract miners shall be required to file within a reasonable time before each pay day a statement of the amount of money due from them to their laborers, and such sum shall be deducted from the amount due the contract miner and paid directly to each laborer by the company. All employes when paid shall be furnished with an itemized statement of account.

XI. The awards herein made shall continue in force until March 31, 1906, and any employe, or group of employes, violating any of the provisions thereof shall be subject to reasonable discipline by the employer; and, further, that the violation of any provision of these awards, either by employer or employe, shall not invalidate any of the provisions thereof.

Too much commendation can hardly be given to President Roosevelt for his timely interference in the controversy, as by it much suffering was saved the public, and work was resumed much earlier than it otherwise would have been. There is not another instance on record of the ruler of a nation offering his services in the settlement of a labor trouble, and it is to be hoped that some other and better way will be found in the future for settling labor troubles than the costly and senseless one of strikes.

A computation of the losses of the operators and em-

ployes, as made by the Strike Commission shows them to be approximately as follows :

Mine operators lost,	$46,100,000
Employes lost wages,	25,000,000
Transportation companies lost,	28,000,000
Total,	$99,100,000

Another item of expense not included in this, is that of the State of Pennsylvania for the pay and maintenance of troops called out to preserve order, which amounted to, approximately, $1,000,000.

BITUMINOUS

Ventilation of Bituminous Mines

In the First District the minimum quantity of air in non-gaseous mines was 135 cubic feet per minute for each employe inside, and the maximum in gaseous mines was 1,000 cubic feet; the average was 488 cubic feet.

In the Second District, the minimum quantity of air in non-gaseous mines was 112 cubic feet for each employe inside; the maximum in gaseous mines was 1,219 cubic feet; the average was 340 cubic feet.

In the Third District the minimum quantity of air in non-gaseous mines was 100 cubic feet for each employe inside, and the maximum for gaseous mines was 1,545 cubic feet; the average was 299 cubic feet for each person employed inside.

In the Fourth District the minimum quantity of air in non-gaseous mines was 106 cubic feet for each employe inside; the maximum in gaseous mines was 902 cubic feet and the average was 342 cubic feet.

In the Fifth District the minimum quantity of air in non-gaseous mines was 115 cubic feet for each employe inside; the maximum in gaseous mines was 1,237 cubic feet, and the average was 538 cubic feet.

In the Sixth District the minimum for non-gaseous mines was 106 cubic feet for each employe inside; the maximum for gaseous mines was 530 cubic feet, and the average was 244 cubic feet.

In the Seventh District the minimum for non-gaseous mines was 125 cubic feet; the maximum for gaseous mines was 617 cubic feet; the average was 283 cubic feet.

In the Eighth District the minimum for non-gaseous mines was

89 cubic feet for each employe inside; the maximum for gaseous mines was 555 cubic feet; the average was 280 cubic feet.

In the Ninth District the minimum quantity of air in non-gaseous mines was 44 cubic feet for each employe inside; the maximum for gaseous mines was 550 cubic feet; the average was 226 cubic feet.

In the Tenth District the minimum quantity of air in non-gaseous mines was 75 cubic feet for each employe inside; the maximum in gaseous mines was 550 cubic feet; the average was 219 cubic feet.

In the Eleventh District the minimum in non-gaseous mines for each employe inside was 91 cubic feet; the maximum in gaseous mines was 378 cubic feet; the average was 244 cubic feet.

In the Twelfth District the minimum for non-gaeous mines was 121 cubic feet for each employe inside; the maximum in gaseous mines was 568 cubic feet; the average was 274 cubic feet.

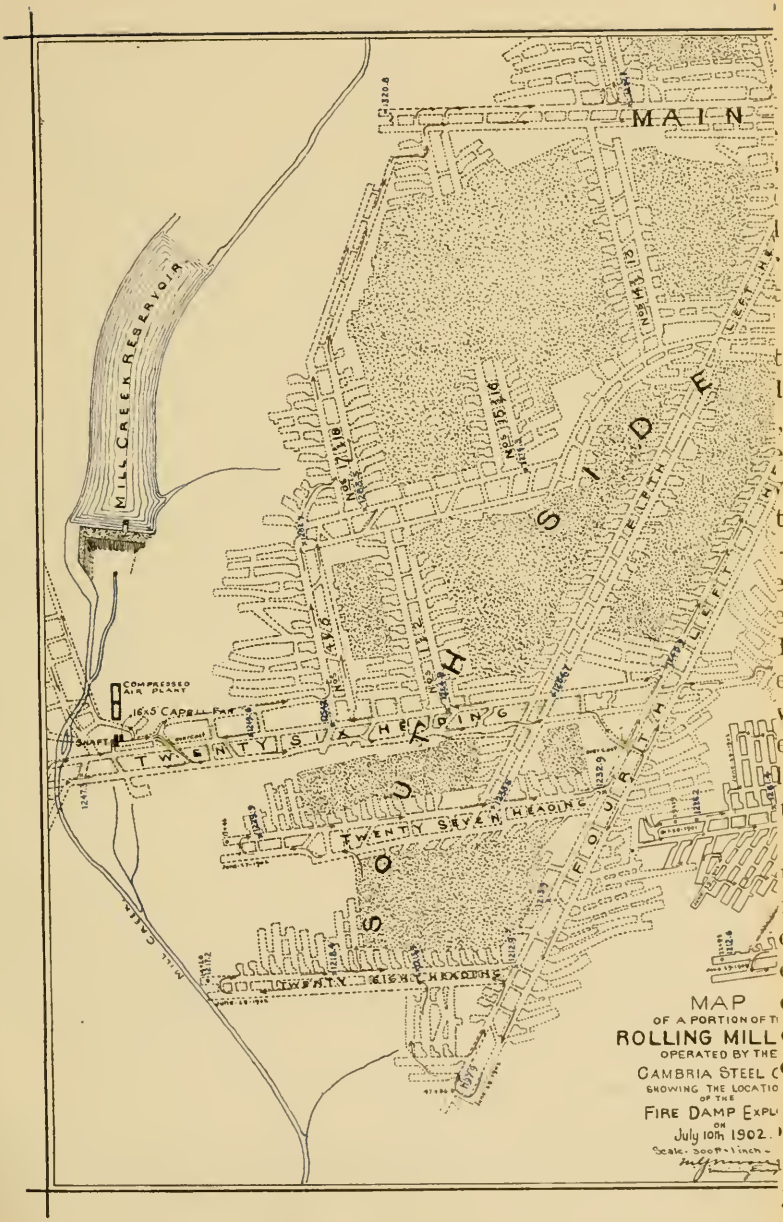
The returns from all the districts show that the average quantity of air per minute for each employe inside was about 300 cubic feet.

The Bituminous Mine Law provides that there shall be a minimum of 100 cubic feet of air per minute provided for each inside employe in non-gaseous mines. It will be seen, however, that the minimum quantity furnished in some of the bituminous districts was below this quantity, and in one district it was less than half. This defect the Inspector, should have remedied at once.

The law should be so amended that the minimum quantity of air per each inside employe would not be less than 150 cubic feet per minute in non-gascous mines, and 250 cubic feet in gaseous ones.

THE GREAT CATASTROPHE AT THE ROLLING MILL MINE, JOHNSTOWN, PA., BY AN EXPLOSION OF GAS WHICH CAUSED THE LOSS OF 112 LIVES.

I spent the night of July 9 at Altoona, a few miles east of Johnstown, and on the morning of the 10th started for Atlantic City, reaching there in the evening. While on the boardwalk about 10 P. M., I heard the newsboys crying out "Night extra. Great explosion at Johnstown, 200 or 300 lives lost." I bought a paper and saw by the head lines that a terrible disaster had occurred at the Rolling Mill Mine, Johnstown. I gave the report very little credence, as I could not conceive how anything so serious could have happened at this mine, which was one of the safest and best conducted in the State. Yet I became very uneasy, as I concluded that


MAIN
SOUTH SIDE
MILL CREEK RESERVOIR
COMPRESSED AIR PLANT
1645 CAPELL FAN
SHAFT
TWENTY SIXTH HEADING
TWENTY SEVENTH HEADING
TWENTY EIGHTH HEADING
MILL CREEK
MAP
OF A PORTION OF TH
ROLLING MILL
OPERATED BY THE
CAMBRIA STEEL C
SHOWING THE LOCATIO
OF THE
FIRE DAMP EXPL
ON
July 10th 1902.
Scale. 300 ft. 1 inch.


MAIN
HEADING
DIST
SIDE
SOUTH
KLONDIKE
DIST
MAP
OF A PORTION OF THE
ROLLING MILL MINE
OPERATED BY THE
CAMBRIA STEEL CO
SHOWING THE LOCATION OF
THE
FIRE DAMP Explosion
ON
July 10th 1902

something had happened, and that possibly a "cave in" had occurred, causing the fire damp, which I knew existed to some extent above the falls in one part of the mine, to be driven on the men working with naked lights, and that perhaps a few might have been seriously or possibly fatally burned. In this state of uncertainty I went to bed and arose early the next morning in order to get the Philadelphia papers, and to my dismay the morning papers more than verified what the papers of the previous night had published. I took the first train for Philadelphia, and by hiring a carriage at the ferry was enabled to arrive in time to take the train which was due at Johnstown a little after 4 P. M. While on the train I received a telegram from Governor Stone, requesting that I should repair to Johnstown at once. Later, I found that the Governor had telegraphed to my home, and was apprised by my wife that he could reach me at Atlantic City.

I reached Johnstown a little after 4 P. M. of the 11th, and at once saw by the excited crowd that some terrible calamity had occurred. The streets were filled with anxious and excited people, while in the street opposite the Rolling Mill Mine and at the entrance where the dead bodies were laid out they were nearly impassable. I mingled unknown with the sorrowful crowd that was viewing the dead bodies which were laid out in rows waiting to be identified by relatives and friends. Indeed, the scene was heart rending. I noticed that the great majority of the people viewing the bodies were people who did not speak one word that I could understand, but their grief touched my heart. While mingling unknown among these thousands of people, I asked many questions, but soon found that no person among them knew how the accident occurred. While passing to and fro in this excited crowd, I did not hear a word of censure on the company's management, but often heard it remarked that the mine was considered a safe one.

About 7 P. M., the Inspector of the district, Mr. Evans, came out of the mine and for the first time I had an intelligent version of the disaster and the approximate number of lives lost, and he also gave me his version of the cause of the explosion so far as he had gathered from observation, as he had been continually in the mine from Thursday evening until Friday evening, helping to locate and rescue the living, and after that locating and taking out the dead bodies.

After discussing the condition of the mine and the number of dead bodies supposed to be in it, I arrived at the conclusion that more help was needed, as Evans had overtaxed himself, and really was not in condition to re-enter the mine that night, so I persuaded him to go to bed so that he would be able to go inside on Saturday again. Later, I telegraphed Inspectors C. B. Ross, Greensburg, I. G. Roby, Uniontown, and Joseph Williams, Altoona,

requesting them to report at Johnstown at once and to be equipped so as to enter the mine. These Inspectors reached Johnstown on Saturday evening, and I at once called them and Inspector Evans together for consultation. Mr. Evans was emphatic in his statement that all the bodies had been recovered and taken out, and that being the case, I decided that it would be best not to enter the mine on Saturday night, so that the mine officials might have a breathing spell, and some necessary repairs might be made in the affected district, such as temporary closing of holes, bratticing and replacing some doors that had been blown down by the explosion.

Early on Sunday morning, the 13th, the three Mine Inspectors, with J. T. Evans, the Inspector of the District, entered the mine. They were piloted by Fire Bosses Griffith Powell and Benjamin Hartell, Dr. C. E. Hannan, Assistant Mine Foreman Charles Crocker and others.

The Inspectors spent the whole day in the mine, but most of the time was pent in the "Klondike" section, and especially in the section that was mostly affected by the explosion. I met them at the mine office, where we held a long conference. Afterwards, I asked them to send me a brief report of the exploration, which is as follows:

"Mr. Jas. E. Roderick, Chief of the Bureau of Mines:

"Dear Sir: We, the undersigned, have this day made a thorough and careful examination of the Rolling Mill Mine of the Cambria Steel Company, where the recent explosion occurred, known as the Klondike district, and after a thorough search, we failed to find a trace of gas at the face of the workings so examined or even on the 'Falls.' Therefore we are of the opinion that operations can be commenced to-morrow except in the Klondike district. This district will need some repairs before operations can be resumed. Later on we will make a full report to you of our investigation.

"Yours truly,

"J. T. EVANS, Inspector Sixth District.
"I. G. ROBY, Inspector Fifth District.
"C. B. ROSS, Inspector Second District.
"JOS. WILLIAMS, Inspector Tenth District."

Later, I sent the following letter:

"Johnstown, Pa., 7. P. M., July 13, 1902.

"Mr. Charles Price, General Manager:

"Dear Sir: To-day Inspectors Evans, Roby, Ross and Williams made a thorough examination of the locality of the recent explosion in the Rolling Mill Mine of the Cambria Steel Company, and have unanimously reported that they did not find a trace of fire-damp even on the 'falls,' and that they consider the mine in a safe condition.

"Therefore, you are at liberty to resume operations in said mine (except in the Klondike section) at your convenience. When the repairs are completed,

please notify the district Inspector, who will make another inspection before operations are resumed in that part.

"Yours truly,
"JAMES E. RODERICK,
"Chief of Bureau of Mines."

Later in the evening, Mr. Price sent me the following letter:

"Johnstown, Pa., July 13th.

"Mr. James E. Roderick, Chief of Bureau of Mines:

"Dear Sir: I am just in receipt of your notification of the 13th instant advising of the favorable report of Messrs. Evans, Roby, Ross and Williams, and conveying your authorization to the company's starting the Rolling Mill Mine to-morrow morning in all its parts but the Klondike section.

"This last to be again inspected by Mr. Evans after repairs are completed before being operated.

"Orders will be given in accordance with your communication.

"Yours truly,
"C. S. PRICE,
"General Manager Cambria Steel Company."

The Inspectors and myself were in conference again until late in the night, and as some points in their report were not quite clear, we again met on the day following and it was decided that the Inspectors should make another tour of examination in the morning, Tuesday the 16th.

The following is the full report of the four Inspectors, who spent two days in making as thorough an examination as possible in the limited time at their command:

Johnstown, Pa., July 23, 1902.

Mr. James E. Roderick, Chief of Bureau of Mines, Harrisburg, Pa.:

Dear Sir: In obedience to your instructions, we made a rigid and thorough examination of the Klondike section of the Rolling Mill mine, owned and operated by the Cambria Steel Company, Johnstown, Pa., where the recent terrible explosion occurred on the 10th day of July, 1902, at 11.30 A. M., said mine being located, or the entrance thereto, in Lower Yoder township, Cambria county, Pa., near the stone bridge on the main line of the Pennsylvania Railroad, this examination being made for the purpose of ascertaining the causes leading to said catastrophe. At 9.30 o'clock A. M., July 13, 1902, we met Charles H. Crocker, Assistant Superintendent, and Griff Powell, fire boss, two of the officials of the mine, and Dr. C. E. Hannan, a physician, and others, at the mine office of the mine, and after some preliminary arrangements, in company with the persons named, we entered the mine by way of river entrance near the stone bridge. We were conveyed from the main entrance in the haulage trip to the safety lamp station, near the entrance

to Klondike section. Here the party were all equipped with locked safety lamps and all persons who had in their possession matches, smokers' articles, etc., were required to deposit them with the person in charge of the safety lamp station. We measured the return air at the entrance to the Klondike section, and found 20,000 cubic feet of air per minute in circulation. We were then taken by an air motor to a siding near the entrance to No. 5 entry, right. On our way down the main Klondike entry we noticed numbers of dinner pails scattered here and there along the entry where their respective owners were overcome by the after-damp as they endeavored to escape. From the siding where we were landed by the air motor, we proceeded to No. 6 entry right; passing into this entry we turned into what is known as first long-wall room, which had been driven at ninety degrees, or at right angles to No. 6 entry right. We made an examination of Nos. 1, 2 and 4, long-wall rooms, and also of No. 1 room off No. 6 entry, right, and found that Nos. 2 and 4 long-wall rooms had been worked on the day of the explosion, from the fact that tools, dinner pails, coats and smokers' articles were found therein. We then returned to No. 6 entry and passed along the same to No. 7 room. On our way up this entry we observed that the compressed air pipe line was lying upon the road in some places, presumably the result of the force of the explosion. At the entrance to No. 7 room we consulted the mine map, after which we returned to No. 2 room. On reaching it, we found that miners had been at work therein when the explosion occurred, as coats, tools, a can of blasting powder and a miner's open lamp were found near the face of the room. We found that this room, No. 2, had been cut through to the rib fall on No. 5 entry, right, where gas was known to exist. The finding of the miner's open lamp filled with oil and cotton, ready for use, so near this fall, which, from inquiry, we learned contained fire damp since the first break or rib falls were made, seemed to indicate that this might be the point where the gas was ignited. Upon continuing our explorations, we found drilling tools in cut-through between Nos. 6 and 7 rooms off same entry where day men were blasting down roof, and as it was commonly reported that the explosion of gas might have occurred from the blasting, we made a very careful examination of the place, and found that the slate loosened by the last shot had been nearly all taken down, and we were further informed that two of the unfortunate victims were found with their tools beside them, and that the third was found just across the No. 7 room, which would naturally lead us to believe that they were not firing a shot at the time of the explosion, as it would naturally be supposed they would all be out of their place if they were about firing a shot. These facts would prove that

the men were at work taking down the loosened slate when the explosion of gas occurred.

Continuing our examination, we found in cut-through between Nos. 6 and 7 the first conclusive evidence of force from the explosion. Here we found that some posts had been blown out and other unmistakable evidence that the force was in the direction of the main Klondike entrance or from No. 7 room through the cut-through to No. 6 room. From this point, we continued until we reached No. 12 room, off No. 6 entry, right, and passed through this room to No. 5 entry, right, then turned to the right, passed down along No. 5 entry to cross cut from No. 5 to No. 4. Here we found a stone stopping blown out and the air pipe disconnected by the force of the explosion. The stopping was blown in the direction of No. 4. We then proceeded down No. 5 a short distance and turned into a room with a view of examining the gob or accessible parts of the gob fall. After passing into this room a short distance, some of the party went forward to make further examinations, while the rest remained at this point. The parties who went ahead soon returned, stating that they had discovered unmistakable evidence of where the force had come down off the fall. These parties then conducted us to their discovery by way of No. 5 entry and out along No. 12 room, where they had made the discovery, and there we found the evidence of the explosion as reported to us. The force of the explosion, after coming down off the fall through the cut-through from No. 11 to No. 12 rooms, divided itself naturally, part passing out to No. 5 entry, which blew out the stopping and disconnected the air line above mentioned. We followed the other lines of force which went or led toward No. 6 entry, right, until we reached the first cut-through to the left; passing through this cut-through, crossing rooms and ribs by way of cross cuts until we came back to No. 2 room off No. 6 entry.

Failing in our careful search and examination to find any evidence that would warrant a change in our former opinion as to the gas being ignited at the face of No. 2 room, where the miner's open lamp, before mentioned, was found, caused us to return to the face of this room for the purpose of making a more rigid and careful examination. On arriving at the face of this room, a close observation of the coal face on either side of the opening, before mentioned, which connected the fall on No. 5 entry, right, disclosed the fact that blasting had been done in close proximity to the fall. The bottom end of one blast, where a shot had been located, was plainly discernible and would not exceed a distance of more than four feet from the fall, but as the coal from this blast had been brought down and loaded, we were satisfied that the explosion did not occur from this blast. Further search revealed

another miner's open lamp, containing oil and cotton ready for use, The distance from where this lamp was picked up to the fall was 18 feet. This was the second lamp found in this room, and from their location when found we believe that both lamps were lighted and in use at the time the explosion occurred. If the lamps had not been in use, they would have been back along the rib or on the outside of the danger board, the latter place being the proper place as required by law.

After leaving the face of No. 2 room off No. 6 entry, right, we proceeded to No. 5 entry, right, for the purpose of making an examination of this entry, in order to make a complete circuit of the point where the explosion occurred. The first evidence of the force of the explosion near the entrance of this entry was found where a door, used in directing the air current, had been destroyed. Here the evidence was very plain that the destruction of this door caused the loss of many lives, because it allowed the deadly after-damp, which resulted from the explosion, to rush out in large volumes on the main Klondike entry through which the persons working in all entries right and left of the Klondike entry had to pass on their way out of the mine. At the entrances to Nos. 1, 2 and 3 rooms off No. 5 entry, right, the force of the explosion was plainly seen, as slate and other mine refuse which had been previouly placed in the entrances to these rooms had been blown out upon the roadway. From here we passed on to No. 11 room, which adjoins No. 12, before mentioned, as the room in which the force of the explosion was found. An examination of room No. 11, which connects with the fall, was made, and here the first evidence of fire was discovered; small splinters on posts were burned to ashes. We then passed to No. 10 room, where evidence of fire was also discovered near the edge of the fall, but not so great as in No. 11. The other parts of the rooms, all of which connect with said fall, down to No. 3 room, were examined and no evidence of fire was discovered. The force of the explosion was scarcely discernible in any of these places, which proved conclusively that the main force of the explosion took an easterly and westerly course from the fall on No. 5 entry, right, and that the explosion occurred on the fall. A careful examination of this fall was made on the way but no explosive gas was found. We then returned from the mine.

On the 14th instant, a consultation was held at the Merchant's Hotel, Johnstown, Pa., and we decided to re-enter the mine on the morning of the 15th instant, and make further investigations. We entered the mine on the 15th instant about 9 o'clock A. M., and proceeded to the Klondike section, where we made an examination of Nos. 1, 2 and 4 long-wall rooms, also Nos. 1, 2, 3 and 4 rooms, off No. 6 entry, right. In No. 1 long-wall room a place was found

driven to the right which connected with No. 2 room, off No. 5 entry, right. Upon entering this room we found coal dust coked to the thickness of one-half inch in many places on the sides of the last cut-through into said fall. A watch was found in a coat near face of No. 2 long-wall room. Explosive gas was found on No. 5 entry, right, rib fall at face of No. 4 room long-wall and Nos. 2 and 3 rooms. The face of all places on No. 6 entry, right, near the fall on No. 5 entry right where the explosion occurred, was carefully examined for the purpose of ascertaining, if possible, whether or not a blast could have been placed in the coal and in exploding failed to bring down the coal, but instead blew through to the fall, the flame from which would certainly ignite the gas. No blasts of this kind were discovered. We proceeded to the cut-through leading from the fall in No. 11 room to No. 12 room, off 5 entry, right, the place where the first unmistakable evidence of the force of the explosion as it came down from the fall had been discovered by us on July 13. We found, on the fall, explosive gas. From this point we proceeded on our way out of the mine. You will notice that we found no gas on the 13th instant, but did find it, as stated above, on the 15th, which shows that gas was accumulating again on said fall.

And now, July 23, 1902, after having made the said examination, and after due consultation and deliberation, we are agreed in the opinion that the explosion occurred on rib fall on No. 5 entry, right, in what is known as the Klondike section of the Rolling Mill mine. And further, we are of the opinion that the gas which caused said explosion, was ignited at the face of No. 2 room off 6 entry, right, by coming in contact with one or both of the miner's open lamps, which were found by us at the face of said room. And we further find that under the facts and law that none but locked safety lamps should have been used in that part of the mine where the explosion occurred.

Respectfully yours,

J. T. EVANS,
Inspector, Sixth Bituminous District.

C. B. ROSS,
Inspector, Second Bituminous District.

I. G. ROBY,
Inspector, Fifth Bituminous District.

JOSEPH WILLIAMS,
Inspector, Tenth Bituminous District.

A synopsis of the above report was forwarded by me to the Governor.

After completing our labors at Johnstown, the Inspectors before named and myself proceeded to Pittsburg to attend a general

meeting of the Bituminous Inspectors, all of whom were present. There was a lengthy discussion on matters pertaining to the safety of persons employed in coal mines, but more especially in gaseous ones. We were in session for two days and the following circular letter is the fruit of our deliberations, a copy of which was sent by the several Inspectors to each mine foreman and superintendent in their respective districts:

CIRCULAR LETTER.

Dear Sir: Knowing that explosive gas or other noxious gases have been generated in the ———————— Mine, of which you are the ————————, and realizing the danger in connection therewith, I desire to call your attention to some of the most important provisions of the Bituminous Mining Law, and to urge upon you the necessity of a strict compliance therewith in order to better safeguard the lives of the employes under your charge.

Therefore, I would respectfully call your attention to section 5, of article 5, of the above act, relative to the use of safety lamps in gaseous mines, which is as follows:

"All entries, tunnels, airways, traveling ways and other working places of a mine, *where explosive gas is being generated in such quantities as can be detected by the ordinary safety lamp, and pillar workings and other working places where a sudden inflow of said explosive gas is likely to be encountered* (by reason of the subsidence of the overlying strata or from any other causes) *shall be worked exclusively with locked safety lamps.*"

From the wording of this part of the foregoing section, I am of the opinion that in order to insure greater safety to the employes of said mine, or mines, the exclusive use of locked safety lamps in any division of a mine which is ventilated by a separate air current or split where gas is being generated in sufficient quantities to be detected by the ordinary safety lamp, must be insisted upon, and especially should the proper mine official require the exclusive use of locked safety lamps where pillars are being extracted, when gas has been detected, or when it is likely to be encountered, and I would further recommend the use of locked safety lamps by employes while they are cutting through clay veins in solid workings, where a sudden inflow of gas is *likely to be encountered, and there should be no standing gas left in any part of a mine* where it will be a menace to life, if it be practicable to remove it.

When safety lamps are given to employes to be used in a mine, an official should make a thorough test of the employes, to ascertain their knowledge as to the use of the lamps, and should they not thoroughly understand how to use and care for them, they

should not be permitted to use them until they are fully instructed, and the official is satisfied that they thoroughly understand their use. The mine foreman shall instruct the official issuing the safety lamps to see that no open light, lamp, matches or smoker's articles are in possession of any person beyond the safety lamp station, and no person or persons (except such as are duly authorized by the mine foreman, and the name of such person or persons shall appear in the mine foreman's daily record book), shall be in possession of a key or other device for opening a safety lamp.

In my opinion, the mine foreman, or his assistants, should examine the workings and other places in gaseous mines frequently during the day, while mining or other work is being done.

Section 5, of article 5, relative to the use of electricity in mines, is as follows:

In all mines or parts of mines worked with locked safety lamps, the use of electric wires and electric currents is positively prohibited unless said wires, machinery and all other mechanical devices attached thereto and connected therewith, are constructed and protected in such a manner as to secure freedom from the emission of sparks or flame therefrom into the atmosphere of the mine."

Up to the present time there has been no device perfected, so far as is known to me, that will positively prevent the emission of sparks or flame from such electric wire or machinery; therefore, whenever they are placed in any such mine, or parts of such mine, *they are placed there in direct violation of said law*, and I respectfully request you to comply strictly with the provisions of the law.

Your attention is also called to section 4, of article 8, relative to the use of oil by the employes in your mine, which is as follows:

"Only a pure animal oil or a pure cottonseed oil, or oils, that shall be as free from smoke as pure animal or pure cottonseed oil is, shall be used for illuminating purposes in any bituminous mine."

I earnestly request that you see that only such quality of oil is used by your employes as is required by the above section of this act, and that you prohibit miners, machine runners and scrappers from using any other than the common-sized miner's lamp.

The above is submitted for your earnest consideration, and I trust that you will make every effort to comply with these recommendations and the provisions of the law quoted herein.

Please acknowledge receipt of this circular.

Yours respectfully,

_____, _____,

Mine Inspector.

SYNOPSIS OF THE EVIDENCE AT THE INQUEST HELD JULY 23, 24 AND 25, 1902, AT JOHNSTOWN, ON THE BODIES OF THE VICTIMS OF THE EXPLOSION OF "FIRE-DAMP" IN THE ROLLING MILL MINE ON JULY 10, 1902, BY WHICH 112 PERSONS LOST THEIR LIVES.

Jacob Brush, a miner, testified as follows:

"Worked in the Rolling Mill mine; have worked in the Klondike section for six years; worked on night shift on July 9 and left the mine at 2.30 A. M. on the day of the explosion. Always worked with safety lamps, as we were instructed that gas was to be found on the face and that it was dangerous to work with open lamps. I do not know the name of the safety lamp we used.

"We were continually warned by the foreman to be very careful, but as an experienced miner, I knew how to make the test for gas."

In reply to the question as to whether he had ever found gas when making tests, he said that he never had in the place in which he then worked, but in another section he had found a little. He said he was a German, as were also the other men with whom he worked, and they were all experienced miners.

John Wilthowiski, a miner, after having been sworn, testified that he worked with Jacob Brush, the former witness, and had worked for the Cambria Steel Company for seven years, the most of the time in the Klondike section of the Rolling Mill mine. Had worked on the night shift on the night before the explosion; safety lamps were used exclusively; they were kept locked and were received from the fire boss shanty by the men before they commenced work on each shift. Had never found gas where he worked, but there was a "danger mark" there to give notice that no person should enter without a safety lamp. He had made tests for gas in the same manner that the former witness, Brush, had illustrated, and he had been instructed by the bosses to make such tests and the orders were very strict in that regard. He had received notices of instruction in various languages posted at the mine entrance and in other places, and had read them. Had good air in his working place, so that after a shot the smoke would clear away in about two minutes. He said that they had fired three blasts on the night before the explosion; had extra lamps with which to fire the shots, but always tested for gas before firing. If a lamp became defective a report was made to the fire boss or foreman, and the lamp was taken to the shanty. He had never carried a pipe or matches into the mine.

Herman Schonsek, a miner, after having been sworn, testified as follows:

"I worked in the Rolling Mill mine for ten years and in the Klondike section about three years. I went away but returned, and at the time of the explosion had worked in that section of the mine about four months. Worked on the night before the explosion with Brush and Wilthowiski, the former witnesses. We worked in what is known as the "Long wall" room; used safety lamps exclusively." He recognized the lamp shown as the kind he used. He said that he always tested for gas before firing a shot, and that the fire boss always opened the lamp with which to ignite the shot. In answer to the question as to whether he went to the fire boss whenever he wanted to blast coal, he replied that he did not, but that the fire boss left one lamp open for that purpose. He said that he had worked in mines for twenty years and knew all about gas; that there was no gas in the room in which he worked, as he had tried for it and would not have fired a shot had there been any gas.

In answer to the question as to whether he considered the Klondike section of the mine any more dangerous from gas than any other part of the mine, he said that they were all about the same, and that while there was some gas in the mine, he had never encountered it except in small quantities. He said that he had worked at mining in Germany and at several places in Pennsylvania, and that the mines in which he had worked in Westmoreland county were a great deal more gaseous than the Rolling Mill mine. In answer to the question as to how he would test for gas, he illustrated the method with a safety lamp. He said he never had worked where there was an explosion of gas.

Valentine Salla testified, through an interpreter, as follows:

He said that he had worked in the Rolling Mill mine for eighteen months and in the Klondike section one year; that he worked on the day of the explosion and was in the mine at work until an hour after it occurred, but knew nothing about it, only that he felt a rush of warm air, which extinguished his light. He then went to No. 4 room, fourth right heading, refilled and relighted his lamp and resumed his work of loading a car, when a fire boss came to him and asked him where the explosion was, and he replied that he did not know there had been an explosion. The fire boss then left, but in a few minutes the foreman came to him and told him to go home. He started, but soon came on some bodies of dead men, and some men who were alive lying beside the track, but in a few minutes he fell and arose and tried to walk, but fell

again and remembered nothing more until he was rescued and taken from the mine.

George Bogie sworn and testified as follows:

He said that he was a "gauger" in the Rolling Mill mine; was born in Hungary and was a Slav; that he had worked in the mine for ten years, and in the Klondike section for eight years, where he dug coal previous to his appointment as gauger. On the day of the explosion he had been in No. 6, right, about half an hour before the explosion occurred, but at the time of the occurrence was in the main heading, near the oil shanty, where there is a telephone, when he felt something like a strong wind and heard a strange sound and feared that something was wrong. About ten minutes afterwards, two men came up from the Klondike, who said there were men lying in it who could not rise; he then thought there had been an explosion and tried to get a safety lamp, but could not get into the fire boss' shanty, as it was locked, and he did not wish to use an open light.

In answer to a question as to whether he had ever seen gas in the sixth heading, he replied that he had. He said he had a wide experience in the mine and was well acquainted with the workmen; that the Klondike section was not any more dangerous than any other part of the mine, and if the miners had ever mentioned it as being dangerous, he would have heard of it. There were about twenty Hungarians working in the Klondike and about six English-speaking people.

W. H. Morris was sworn and testified as follows:

"I live in Johnstown; am a mine manager at Boswell, in this State, and also at Elk Lick, West Virginia. Prior to assuming my present position, I was superintendent for the Cambria Steel Company, and the Rolling Mill mine was under my supervision for more than ten years. There had always been gas in the mine, more particularly in the pillar work, and that was considered the only work which was really dangerous, as there never had been much trouble with advance work. The rule of the company was that no person should be employed at pillar work without a safety lamp, which rule was strictly observed. The duty of the fire boss is to examine each working place every morning before work is commenced, and if there was a double turn working he would make the examination between 3 and 4 o'clock A. M., and if any place was not examined the men were not permitted to go into it, but waited at the fire boss' shanty until the place was pronounced safe. If there was danger the men were notified personally, and a sign board was put up with 'GAS—DANGER,' written on it, and no person was

permitted to pass such sign. If there was a pillar to be taken out and gas was encountered, work was suspended until the place was in a safe condition, and the company was very careful to keep the surveys close and accurate. I was in the mine after the explosion, and saw the bodies of the men; the first that I saw were on the side track to the Klondike. I counted twenty-five bodies in that place and they had all been more or less severely burned. I thought that the gas was not at its highest explosive point; that there was a larger proportion of gas than air, or probably the reverse was the case. Judging from that map there, the area that the explosion covered reached from the room at the point where the explosion occurred to near the top of the sixth right heading, but I do not know whether the men we took from the top of that heading were burned or not. I think the others were burned by gas."

In answer to the question as to what course he pursued in cases where men were detected in using open light in disobedience of orders, he replied that only two such cases had occurred in the ten years of his superintendency, and the men were promptly discharged. He said that he had frequently received letters from the mining engineer, Mr. Marshall G. Moore. (The letters were produced.) He also said that Mr. Robinson was his assistant, and that he gave Mr. Robinson copies of all such letters and also wrote letters to the foremen and fire bosses.

In answer to the question of how he, as an expert mining man, considered the Rolling Mill, compared with other mines, he replied that he thought there was not a better conducted mine in the State, as the company never counted the cost nor spared any expense in making the mine safe; the crossings were all either of brick or steel and practically indestructible by explosions.

In answer to the question as to whether he had formulated any theory as to the cause of the explosion, he replied that he did not care to advance any opinion, but it was certain that the gas was ignited by some person. He said that during his incumbency there had been but one explosion of gas, which was caused by one of three men, who worked together in a heading and who had been miners all their lives, practically speaking, going over a danger mark and igniting the gas by which one of them lost his life.

Paul Schilling, after having been sworn, testified as follows:

"I am a German; have worked in the Rolling Mill mine nearly eleven years, and in the Klondike section five years; worked in No. 4, right, on the day of the explosion, and went out of the mine through No. 4, left (shows location on map). I was running a machine; there was no gas where I worked and there were no stop

marks or danger signals. I know what danger signals mean and have seen testing for gas, and when the fire boss would find it, he would mark the place and warn men not to go in until it had been cleared away, and until such time there would be no work done in such places.

"I felt the force of the explosion and remained about forty minutes afterwards; then, knowing there had been an explosion and seeing the loaders starting out, I followed on the Klondike side track. I saw the first body at No. 19 room, and felt the after-damp so strongly that I turned back to find fresh air. The "scraper" was with me; six loaders worked with me, who started out, while my "butty" and myself were putting our tools away; if they had gone out with us they could have been saved, but they went straight to the Klondike.

"The fire boss always stopped men who passed where he thought it was not safe, and gave them safety lamps at his shanty. The fire boss was Joe Tomlinson; I saw him every day."

Griffith Powell, after having been sworn, testified as follows:

"I am a fire boss in the Rolling Mill mine; had charge of the Klondike section up to five months previous to the explosion, but not since. Saw no indications of gas on falls in sixth right heading (shows location on map). I have had fire boss' certificate for eighteen months. The duties of a fire boss are to see that there is proper ventilation and to go inside the mine and examine each place carefully and put up danger signals when necessary. I knew nothing of the condition of the Klondike for upwards of a month previous to the explosion. I visited each room under my charge every morning before work was commenced, and made tests for gas, which required but a few seconds in each room. My round commenced about 4 o'clock, and occupied about two hours; about fifty men were employed in my district. (Illustrated how test for gas is made.) I enter each room every day, and if gas is found I mark the place with chalk and place props across, so that no person can enter without touching them. The majority of miners in my district were foreigners, whose language I could not understand, but they all understood what a safety lamp was for; also, what danger marks signified. Safety lamps are under the control of the fire boss and are given to the miners when they enter the mine. I have never given out an unlocked lamp. Was in the mine on the day of the explosion with four other fire bosses, and we were seated in an empty car on the main heading waiting to go home. We felt the explosion and, fearing that something was wrong, went back to the shanty and got safety lamps and reached No. 4, right,

in the Klondike, when Foster, another fire boss, and myself, went to the second right and notified all the men we met to go home.

"I keep a record of my work as fire boss in a book provided for the purpose by the State (book shown and identified). If gas should be found, a record is made in the book, which is kept in the fire boss' shanty, where it is examined by the mine foreman, and if he finds anything wrong noted, he investigates it. (Record book offered in evidence and accepted, and witness read the report made by John Retallick, fire boss, on the morning of the explosion.)

Mr. H. L. Rogers, mine foreman, was called for the purpose of explaining the record book and indicating upon the map the locations referred to by the report of Retallick on July 10, which was as follows: "Gas found on falls on fifth and sixth west entry, and on falls on fourth and sixth east. There is practically no gas in rooms this morning; all on falls and pillars. Signed, John Retallick."

The examination of Griffith Powells was resumed, and he said that it was not always practicable to remove gas from falls, from the difficulty of getting at it. Fire bosses made two rounds each day; they finished the first about 6.30 A. M., and commenced the second about 8 o'clock, to see than men were using safety lamps where ordered.

Two men had been discharged about two months before for disregarding danger signals; they were foreigners, who could not speak English; and two others were discharged, prosecuted and fined for passing a signal with open lights, but I do not know where they got the lamps, as the company provides plenty of safety lamps. It is customary for fire bosses to have open lights to use as far as a danger signal, and the men understand perfectly well that they must not go any further. I have personally searched men to ascertain if they had matches on them.

H. L. Rogers, mine foreman, testified that he was born in Wales and had thirty years' experience in mines, twenty-two of which were in this country. My duties are to see that the work in the mine is properly done, and that the rules and regulations are obeyed; in short, the mine is under my charge and direction. I see all the reports made by the fire bosses, and if gas is reported at any place, I investigate it and consult with the fire boss; we get rid of it by putting more air on it, and if it is caused by an obstruction, it is removed; the volume of air passing is measured with an anemometer. (Described how it is used.)

If we find there is an obstruction that causes the air to be weak, we ascertain what the cause is. Lamps are issued to men according to the places in which they work, but they are never permitted to go near gas with an open light, if we know it. In employing men

for the mine, I see them first, and if they are employed they are sent to the general office for record, and in any case, if I cannot understand their language we have an interpreter all the time. Have always made efforts to employ men who understand the nature of gas in mines. On the morning of the explosion, I was in the fire boss' shanty eating lunch. Fire bosses had just finished their day's work when I heard the concussion, and knew that an explosion had occurred, and we went to the Klondike and saw what had happened and found that a door was down and we replaced it as best we could. I told the men to go home; one of them was a witness yesterday. We went through the old workings until we got to second right heading, where we knew the air would be fresher, but found that the after-damp was becoming too strong and retraced our steps to the second right heading, and I remember no more. Messrs. Robinson, Retallick and Blanch were with me, and we saw Whitney when we got back, and he was still alive, and I remember nothing more until I was taken to the hospital.

"When I examined the fire boss' report, if there was a note that the air was 'fairly good,' I took measures to improve it."

Thomas J. Lewis testified as follows:

"I am a miner and worked in the Rolling Mill mine for more than eight years; have worked in the Klondike and have had sixteen years' experience in gaseous mines; have a certificate as fire boss, and have made tests for gas many times. I do not know anything about the explosion, but was one of the rescuing party. As soon as I heard of the explosion, I started in at the drift mouth; saw George Robinson, the superintendent, and the machine boss, Thomas Owens, and we prepared lamps to start into the mine. I was sent by Mr. Moore to the office to stop any person from coming in. I then followed Mr. Moore and the others to the Klondike (course they took shown on map). I then assisted in getting out the bodies, but did not notice how many of them had been burned and how many were suffocated."

Thomas Foster testified as follows:

"I am assistant mine foreman in the Rolling Mill mine, and have been since December last, have been connected with this mine for seven years. My duties are to consult with the labor bosses and take up with them anything that needs any attention. It is customary for the foreman and fire bosses to consult as to the condition of the mine, and where it is best to proceed with the work. I go with one of the fire bosses every morning, taking each in turn. Was in sixth right heading about thirty minutes before the ex

plosion; had no safety lamp with me; saw no men with open lights; the men who worked in this locality were practical and experienced miners, some of whom had worked in that part of the mine before I went there.

"The cause of the explosion, in my opinion, was gas—fire-damp. I never knew of a safety lamp exploding. I have a fire boss' certificate. I was almost continuously with the rescuing party until I collapsed. There were from 575 to 600 men employed in the mine; there was always plenty of air; blasting coal was not permitted except by practical men, and before a shot would be fired, the place would be examined. The attention of foreign miners is called to the rules which were posted in the power house outside.

"If a fire boss failed to report in the morning, his district would be 'stopped,' until another one could examine it, and no work was permitted until that time. I saw Retallick's report on that morning and heard Mr. Rogers ask him how No. 6, right, was, and he intimated that it was the same as usual."

George F. Robinson testified that he was superintendent of the Rolling Mill mine and other mines of the Cambria Steel Company, and had been for more than thirteen months; previous to that time he was manager of the company's mines and coke ovens near Connellsville. Had not been in the mine on the day of the explosion, but was on the previous day; met Mr. Rogers by appointment on that day, and on the way into the mine we met Fire Boss Retallick coming up, and in answer to my inquiry as to how matters were, he replied "Pretty good—better than yesterday." The reason for this answer was that I had a conversation with him on the previous day as to the condition with reference to gas.

"The precautions used were safety lamps and danger signals; the miners were not permitted to use the "Davy" lamp, but the "Bonneted Clany Safety Lamb." (Witness placed in evidence a check taken from one of the empty cars in No. 2 room, sixth right heading; the check was numbered 108, and was Michael Evok's, who worked in No. 2 room; the following are the names of the men who worked there: Michael Evok, Gust Leavansdroskey, William Schonzik and Gotfried Hopke. These men were Germans. They are dead and I do not know where their bodies were found, but know they worked in that place.

"The Klondike district has never given us more trouble than any other part of the mine, only that for several weeks previous, it was the only part of the mine in which gas had been found, but not in sufficient quantities to cause any uneasiness. I consider myself a practical miner; commenced work when I was twelve years of age. My instructions to the mine foreman were to see that at all times and in every case, the law was obeyed. I had frequent

conversations with the mine foreman, Mr. Rogers, as to the part of the mine where gas was produced, and I frequently cautioned him not to allow men to go into such places without safety lamps.

"Men were working on the morning of the 10th on the 'long wall' and in No. 2 room. We tried always to have a thorough and sufficient current of air passing through that place.

"I examine the record books that are kept at the mine once a week and oftener, if necessary, and countersign them. When I heard of the explosion I was at my home, and left for the mine immediately; when I reached the mine, I inquired if any men were in, and when I found there were, I immediately set about the work of rescuing them, if possible. (Following this, the witness described the measures that were taken to rescue the men who were alive and to secure the bodies of the dead.)

"There were four fire bosses in the Rolling Mill mine and they were sober and experienced men. There were men of various nationalities employed, Slavs, Huns, Poles, Germans, English, Irish, Scotch and Welsh. I cannot say just how often the mine was inspected by the Inspector of Mines, but every two or three months. I think the last inspection was on July 2, but the Inspector goes into the mine without notifying me; in fact, I never went into the mine with him, but inspected it myself, taking sometimes two or three days to do so, but I have no stated times for making such inspections. I do not instruct men who fire shots, as that is the duty of the fire bosses. Mine supplies are kept outside of the mine and are sent in as needed; there is a 'supply house' in the mine, where some of them are kept. Safety lamps are kept in the fire boss' shanty, which is about one and one-half miles from the entrance to the mine, and there is about enough powder kept there for one day's supply.

"I never saw a miner working with an open lamp where gas was known to be. A report was made to me several weeks ago of two men who had crossed a danger signal with open lights, and I immediately took measures to have it brought to the Mine Inspector's notice, and the men were discharged. The explosion could not have occurred from taking down rock in No. 7 room.

"As to employing 'green' men, my instructions are that any inexperienced man should always be put to work with one who was experienced, and a man of that description was not permitted to go where there was gas in any case; none but competent men were allowed in such places.

"As to removing an accumulation of gas, I would consider any such dangerous, no matter how small it should be. I believe that the company had made every effort to safeguard the miners and mines that was possible."

Harry L. Rogers, mine foreman, was recalled, but being too ill to appear before the inquest, it was adjourned to his home. He testified as follows:

"I talked to the fire bosses every morning before they made their second round, and saw them on the morning of the explosion before they started on their second inspection, and they reported nothing new. I noticed the explosion. There was concussion of air. I do not remember the exact day when I last signed the fire boss' book.

"I had found gas on the falls myself and was careful to use every known precaution; have examined the falls frequently and found no gas. In going amongst the miners who had closed lamps, I never found them careless, nor did I ever find matches or smokers' articles on or near them. Open lights were permitted as far as 'danger marks' and there never were but one or two cases of violations of the rules. The work of the day and night shifts is continuous, as the night shift always starts before the day shift goes off, but the majority work on day turn. As to the boxes in the mine, the miners kept their tools in them, where they were locked to keep them safe. Boxes were not for the purpose of keeping open lights in.

"I can advance no theory as to the cause of the explosion; with the precautions taken there, it would seem to be impossible for an explosion to have occurred unless some one had disobeyed instructions, or some precaution had been neglected."

Josiah T. Evans testified as follows:

"I am Inspector of the Sixth Bituminous District, which takes in all of Cambria county and part of Somerset. My duties as Mine Inspector are to visit the mines that come under the provisions of the mine law and to see that the law is complied with. The last time I was in the Rolling Mill mine before the explosion was on July 2 .

"My duties with reference to the safety of miners are to see that they have proper ventilation and the means to protect themselves from falls of coal and roof, and it is my duty to make recommendations looking to the welfare of the miners and the safety of the mine. The mine on July 2 was in good condition. I was in the Klondike region at that time; met Retallick, the fire boss, on that morning, also Mine Foreman Rogers, who went with me.

In reply to a question by James E. Roderick, Chief of the Bureau of Mines, he said: "I have made three visits to the Rolling Mill mine during this year; on the first and second visits I found the mine in good condition, but on the third visit I found gas in the fourth, left, but the place was fenced off and there was no one

working in it. I measured the air with the anemometer. I found the men all working with safety lamps. I was nearly eight hours making the last examination of the mine, and made a very thorough examination of the Klondike. I had always found everything in good condition on my visits."

(The Chief of the Bureau of Mines directed that any person in the room who wished to question the Mine Inspector was at liberty to do so, but there was no response.)

"The officials of the mine were all first class men. As to ventilation, I consider the fan sufficient to supply the mine. As to mining machines, those that are operated by electricity are cheaper than the ones operated by compressed air, but the latter are the safer. Whenever I made suggestions as to improvements to the mine officials, they were always complied with. I have been an Inspector in this district nearly eighteen years, and in that time there has been only one man killed by an explosion of gas in the Rolling Mill mine.

"Inspectors visit mines at any time they wish, and the officials do not know of my visits until they see me in the mine. Whenever I receive a complaint from miners, I make it a point to immediately make investigation as to its truth, but I have never had any complaint from a miner in the Rolling Mill mine."

Messrs. C. B. Ross, Isaac G. Roby and Joseph Williams, Mine Inspectors from the adjoining districts, who were called by the Chief of the Bureau of Mines to assist Mine Inspector Evans in the investigation as to the cause of the disaster, also testified at the inquest, and the substance of their evidence is practically the same as that embodied in the reports made by them to the Chief, which are given as part of this article.

The inquest in connection with this disaster was held over the remains of but one person, Gust Leavendroskey, miner, and the verdice rendered in his case applies to all the other 211 victims. The verdicts is as follows:

Gust Leavendroskey, a miner, came to his death as the result of an explosion of gas occuring in Rilling Mill Mine, of the Cambria Steel Company, of Johnstown, Cambria county, Pa., on the 10th day of July, 1902. That said explosion was caused by a person or persons, to the jury unknown, taking into room No. 2, right heading, where gas was known to exist, an open lamp and using same in direct violation of the mining rules and regulations of the Cambria Steel Company."

ABSTRACT OF BITUMINOUS REPORT 1902.

Total Number of Tons of Coal Mined and Tons of Coke Produced, Number of Days Worked, Number of Employes, Number of Employes Killed and Injured, Number Kegs of Powder, &c., Used in the Bituminous Districts of Pennsylvania for the Year Ending December 31, 1902.

DISTRICTS	Shipments of coal in tons by rail or otherwise	Number of tons used for steam and heat at collieries	Number of tons sold to local trade and used by employes	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Average number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Number of kegs of powder used	Number pounds of dynamite used	Number horses and mules in use	Number of Boilers: Cylindrical	Number of Boilers: Horse power	Number of Boilers: Tubular	Number of Boilers: Horse power	Number of Boilers: Total horse power	Locomotives: Steam	Locomotives: Compressed air	Locomotives: Electric	Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity in gallons delivered to surface per minute	Number of electric dynamos	Number of air compressors
First,	10 773 728	151 799	53 202	10,956 683		- -	216 7	11,133	30	130	47,155	70,000	957	48	1 172	180	10 257	11 430	1		42	194	16,876	94	12 955	7,955	54	11
Second	7,678,700	926 418	73 833	11,101,423	1 799,906	6 548	246 9	14 516	42	67	10 831	60 530	1 252	67	2,934	277	19,000	22 610	14	1	24	186	19 930	100	81,789	11,585	29	30
Third	6 063 504	515,565	143 020	6 515,329	166 300	413	236 0	10,153	15	37	23,094	26 615	715	36	22,000	121	12 165	14,285	5		12	90	6,670	80	11,154	16,729	7	40
Fourth,	8,956,563	69 000	50,250	9,418,510	133,181	652	248 3	9,674	11	33	34 325	36,715	756	11	480	96	10 128	10,913	10	1	20	77	7,925	14	32 016	9,180	17	11
Fifth,	2,833,850	211 171	74 068	9,540,895	4 255 463	10,009	265 7	17,794	54	30	12,273	478,915	1,326	50	2,620	163	17 725	20,345	21		7	183	10,409	73	20 445	10,107	37	28
Sixth	9 192,680	178 619	30,167	9 110,561	600	37	204 6	12,111	*134	30	55,009	20 000	774	40	9 255	134	10,617	19,372		4	72	127	15,078	73	25 075	18 115	47	61
Seventh	9 183 964	955,560	180 471	9,523 687			194 6	13 609	40	134	37,631	6,124	1 066	48	3 161	275	22 145	20,304	13	1	43	250	17 003	118	18,670	16 433	41	50
Eighth,	4 249,594	63,194	11,936	4,210 762	64 731	106	182 8	7,454	3	25	20,761	18,906	533	22	6.0	63	6 120	6 456	1		20	50	5 261	85	20 580	13,125	11	6
Ninth,	8,178,801	300 906	77 450	10,158,976	2 961,734	8,333	236 0	12 151	30	71	60,565	60,772	1,834	83	1 878	183	15,906	16 236	6	4	24	183	12,225	54	21,450	16,372	29	27
Tenth,	6 829,220	101,956	42 648	6,781 563	634 956	1,707	233 0	10,798	34	48	45,837	41,985	587	45	1,670	183	9 156	14,886	6		30	106	7,772	83	13,604	14,117	23	21
Eleventh,	1,450 150	146,957	115,501	6,067,132	4 956,787	9,026	200 6	10,731	30	79	17,641	28,840	1,205	33	2 824	135	17,911	16,124	22	-	5	139	10 111	79	87,871	11,230	11	15
Twelfth	5,587,106	140,036	19 123	6 833,963	571,875	1,827	144 6	6,060	15	86	37,377	31,906	680	16	456	134	16,115	6,201	14		22	80	5,636	30	81,977	22,4[illegible]	17	23
Totals.	74 092 062	1 903 490	830 054	80,846,303	14 941,081	34,423	220⅘	135 966	456	861	396,060	821,149	11,833	451	49 647	1,833	161 048	183 118	131	16	333	1 613	143 417	581	335 043	183 372	306	330

*112 persons were killed by an explosion of gas at the Rolling Mill Mine, Johnstown July 10

Table showing the number of each class of employes in each Bituminous district for the year 1902.

Districts.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Bookeepers and clerks.	All other employes.	Total outside.	Grand total, inside and outside.
First,	72	11	90	2,321	421	5,422	410	869	201	365	410	10,592	62	21	180	236	.....	84	957	1,540	12,132
Second,	74	21	51	7,482	175	1,444	174	968	227	500	201	11,317	57	54	223	233	1,545	77	1,007	3,199	14,516
Third,	117	17	3	4,958	329	1,974	309	621	121	303	161	8,916	78	13	155	170	145	82	594	1,237	10,153
Fourth,	62	11	3	6,493	75	676	75	498	176	173	248	8,490	26	22	140	117	75	56	748	1,184	9,674
Fifth,	67	9	71	5,725	74	422	74	716	101	381	412	8,082	56	67	196	218	3,084	88	1,016	4,712	12 794
Sixth,	85	37	11	4,950	353	3,291	353	628	200	443	511	10,826	53	27	172	233	3	79	702	1,249	12 111
Seventh,	80	16	78	3,739	607	4,889	580	898	195	408	342	11,832	51	10	252	262	.....	87	1,075	1,737	13,569
Eighth,	126	15	.....	5,514	29	327	34	422	77	329	57	6,940	70	10	99	79	41	93	162	554	7,494
Ninth,	76	18	62	5,502	145	1,787	130	763	127	486	262	9 4 3	40	51	171	210	1,757	94	831	3,163	12,451
Tenth,	116	21	2	4,724	270	2,326	270	643	251	442	157	9,232	60	25	168	177	583	60	488	1,561	10,793
Eleventh,	65	8	49	4,720	54	647	52	618	121	398	310	6 42	48	64	151	203	2,930	72	721	4,189	10.731
Twelfth,	69	4	7	3,207	408	2,581	481	417	96	246	91	7,697	37	18	105	141	529	43	298	1,271	8.968
Totals,	1,009	188	427	59,025	2,940	25,796	2,942	8,061	1,813	4,484	3,195	110,015	647	382	1,992	2,282	10,602	915	8,699	25,371	135,386

Table showing causes of fatal accidents and number attributable to each cause, that occurred in and about the Bituminous mines, and number of wives widowed and children left orphans by such casualties during the year 1902.

Causes of Accidents.	1st Dist.		2d Dist.		3d Dist.		4th Dist.		5th Dist.		6th Dist.		7th Dist.		8th Dist.		9th Dist.		10th Dist.		11th Dist.		12th Dist.		Total.		Percentage.	
	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.
By falls of coal,	2	..	10	....	....	....	....	....	2	....	5	....	2	....	1	....	7	....	4	....	....	....	1	....	34	.....	7.69	.....
By falls of slate and roof,	36	..	25	....	14	....	6	....	14	....	8	....	26	....	....	....	19	....	11	....	20	....	10	....	189	.....	42.76	.....
By mine cars,	4	1	2	....	....	....	1	....	11	....	2	....	7	....	1	....	5	....	4	....	6	....	4	....	47	1	10.63	7.14
By machinery,	..	1	..	1	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	.....	4	.....	28.57
By explosions of gas and dust,	9	....	....	....	....	....	2	....	1	....	112	....	1	....	....	....	....	....	....	....	....	....	1	....	126	.....	28.50	.....
By explosions of powder and dynamite,	....	....	1	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	3	.....	.68	.....
By explosions of blasts,	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	4	....	....	....	....	....	5	.....	1.13	.....
By electric shocks,	....	....	....	....	....	....	....	....	....	....	5	....	....	....	....	....	....	....	....	....	....	....	2	....	7	.....	1.58	.....
By falling into shafts, etc.,	....	....	....	....	....	....	....	....	4	....	....	....	....	....	....	....	4	....	....	....	3	....	....	....	11	.....	2 49	.....
From miscellaneous causes,	12	1	2	1	....	1	....	1	1	....	....	....	3	1	....	1	2	1	....	1	....	..	..	1	20	9	4 52	64.29
Totals,	63	3	40	2	14	1	10	1	33	1	134	....	39	1	2	1	37	1	23	1	29	1	18	1	442	14	96.93	3.07

Wives made widows, 262.
Children orphaned, 621

Table showing causes of non-fatal accidents and number attributable to each cause, that occurred in and about the Bituminous mines for the year 1902.

Causes of Accidents.	1st Dist.		2d Dist.		3d Dist.		4th Dist.		5th Dist		6th Dist.		7th Dist.		8th Dist.		9th Dist.		10th Dist.		11th Dist.		12th Dist.		Total.		Percentage.	
	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.
By falls of coal,	13	....	10	...	8	....	3	....	10	..	4	....	18	....	12	....	3	....	14	....	5	....	1	....	111	.....	13.72	.....
By falls of slate and roof,	75	....	27	...	15	....	13	....	21		12	....	61	....	8	....	42	....	11	....	21	....	17	....	323	.....	3 .10	.....
By mine cars,	31	1	15	3	8	....	9	2	23	2	11	....	37	2	5	2	18	1	11	1	40	3	30	1	241	18	29.30	50.00
By machinery,	...	..	...	...	..	....	...	....	....	...	...	....	...	....	....	....	....	....	....	2	....	....	..	....	.....	2	.....	5.55
By explosions of gas and dust,	3	..	...	...	..	....	5	....	1		..	....	3	....	....	....	....	....	....	....	....	....	6	....	18	.....	2.19	.....
By explosions of powder and dynamite,	1	..	...	...	..	....	1	....	....	...	1	....	....	....	1	....	1	....	1	....	1	....	4	...	11	.....	1.33	.....
By explosions of blasts,	5	..	5	...	3	...	1	....	7	...	1	....	3	....	....	....	....	....	2	....	....	....	3	....	30	.....	3.63	.....
By suffocation,	....	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	.....	.....	.....	.....
By falling into shafts, etc.,	1	..	...	...	.	....	....	....	....	...	1	....	....	....	....	....	2	....	....	....	3	....	..	....	7	.....	.84	.....
By mules,	...	..	...	...	..	....	....	....	....	...	....	....	1	....	....	....	....	....	....	....	....	....	1	....	2	.....	.24	.....
From miscellaneous causes,	47	3	5	2	1	1	3	1	4	...	...	....	5	4	....	....	3	1	1	....	3	3	7	1	79	16	9.57	44 44
Totals,	176	4	62	5	36	1	35	3	66	2	30	....	128	6	26	2	69	2	40	3	73	6	84	2	825	36	99.92	99.99

Nationality by birth of employes who were killed or fatally injured in and about the mines of the Bituminous region, from 1899 to 1902, inclusive.

Years.	Americans	English.	Welsh.	Scotch.	Irish.	Germans.	Slavs.	Italians.	Poles.	Hungarians.	Austrians.	Swedes.	Russians.	Belgians.	Bohemians.	French.	Finns.	Canadians.	Lithuanians.
1899,	62	14	7	10	10	16	46	26	20	16	13	5	4	4	3	2	.....	.....	.....
1900,	71	12	2	8	11	10	56	29	29	13	12	7	3	2	3	3	.....	.....	.....
1901,	72	5	5	5	11	13	59	32	28	13	24	4	3	.....	3	5	3	1	.....
1902,	59	25	5	5	7	14	84	60	90	36	33	4	17	2	1	1	2	.....	6

Statement showing quantity of coal produced by each company that produced 700,000 tons or more: the inspection districts in the Bituminous region in which such companies' mines are located, and number employed by each of these companies, for the year 1902.

Names of Companies.	Number of Inspection Districts.	Production of coal in tons.	Number of employes.
Pittsburg Coal Co.,	First, Third, Fifth, Seventh, Ninth and Eleventh,	11,965,479	14,482
H. C. Frick Coal and Coke Co.,	Second, Fifth, Ninth and Eleventh,	7,987,668	10,349
Monongahela River Consolidated Coal and Coke Co.,	First, Fifth, Seventh and Ninth,	6,441,971	7,499
Berwind-White Coal Mining Co.,	Sixth, Eighth and Twelfth,	4,354,006	6,661
Rochester and Pittsburg Coal and Iron Co.,	Fourth and Twelfth,	3,382,328	3,744
Jefferson and Clearfield Coal and Iron Co.,	Third, Fourth and Twelfth,	2,398,549	2,697
Keystone Coal and Coke Co.,	Second,	2,156,657	2,354
S. W. Connellsville Coke Co.,	Fifth and Eleventh,	2,046,633	2,890
W. J. Rainey,	Fifth, Ninth and Eleventh,	1,758,448	2,3 0
Westmoreland Coal Co.,	Second,	1,568,748	1,705
Beech Creek Coal Co.,	Eighth, Tenth and Twelfth,	1,543,824	2,055
Vesta Coal Co.,	First,	1,465,179	1,238
Webster Coal and Coke Co.,	Sixth and Tenth,	1,336,571	2 328
Clearfield Bituminous Coal Corporation,	Fourth, Tenth and Twelfth,	1,390,295	1,722
Cambria Steel Co.,	Sixth and Ninth,	1,300,550	1,509
New York and Cleveland Gas Coal Co.,	Third and Seventh,	1,172,987	1,397
Continental Coke Co.,	Fifth and Eleventh,	950,935	1,204
Somerset Coal Co.,	Ninth,	935,245	1,252
Washington Coal and Coke Co.,	Ninth,	920,473	1,202
Penn Gas Coal Co.,	Second and Eleventh,	894,032	1,296
North West Mining and Ex. Co.,	Fourth,	828,366	1,144
Peale, Peacock & Kerr, Inc.,	Third, Eighth and Twelfth,	758,841	970
Totals,		57,547,785	71,258

Number and percentage of each class of fatal accidents that occurred in and about the Bituminous coal mines from 1893 to 1902 inclusive.

Causes of Accidents.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	Totals.	Percentages
By falls of coal, slate and roof,	105	94	102	115	110	142	163	170	186	223	1,410	66.13
By mine cars,	14	20	28	22	20	21	37	39	48	47	296	13.88
By explosions of gas,	1	.....	4	10	2	11	29	8	28	126	228	10.69
By explosions of powder and blasts,	2	3	5	1	4	5	7	9	8	8	52	2.4
By falling into shafts and slopes,	.....	4	1	.....	1	1	3	6	1	11	28	1.31
By machinery,	.....	.....	.....	1	1	.....	.....	1	2	.....	5	.23
By mules,	.....	.....	1	1	.....	.....	.....	1	4	.....	7	.3.
By electric shocks,	.....	.....	.....	2	2	2	5	6	7	7	31	1.45
By suffocation,	4	.....	.....	3	.....	4	.....	1	1	.....	13	.60
From miscellaneous causes,	3	3	7	5	2	1	4	11	6	20	62	2.90
Totals, accidents inside,	129	124	148	160	142	187	248	252	291	442	2,132	99.94
By cars,	2	.....	4	6	1	6	3	10	5	1	38	45.28
By machinery,	.....	.....	2	.....	2	2	2	.....	2	4	14	16.69
By suffocation,	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.84
By boiler explosions,	.....	.....	.....	2	3	.....	1	.....	.....	.....	6	7 19
From miscellaneous causes,	.....	.....	1	2	.....	3	4	2	4	9	25	29.7[illegible]
Totals, accidents outside,	2	.....	7	10	7	11	10	12	11	14	84	99.8[illegible]

Number of gaseous and non-gaseous mines, number of foremen, assistants and fire bosses, production from gaseous and non-gaseous mines, and percentage of production from each district in the Bituminous region for 1902.

Districts.	Number of gaseous mines in each district.	Number of foremen and assistants in gaseous mines.	Number of fire bosses.	Number of non-gaseous mines in each district.	Number of foremen and assistants in non-gaseous mines.	Production in tons from gaseous mines.	Production in tons from non-gaseous mines.	Percentage of production from gaseous mines.	Percentage of production from non-gaseous mines.
First,	50	63	90	23	20	9,242,827	1,737,706	84.17	15.82
Second,	27	36	51	50	59	6,711,585	4,311,838	60.91	39.08
Third,	3	4	3	119	130	150,610	6,667,713	2.20	97.79
Fourth,	2	4	3	81	69	508,057	5,940,777	7.91	92.08
Fifth,	34	47	71	39	31	8,374,227	1,174,668	87.69	12.30
Sixth,	5	7	11	88	122	786,968	7,624,793	9.34	90.65
Seventh,	41	53	78	40	43	7,485,658	2,037,979	78.62	20.38
Eighth,	.....	.....	.....	126	141	.....	4,376,702	.....	100.00
Ninth,	14	44	62	68	50	7,506,192	2,672,784	73.88	26.11
Tenth,	1	2	2	120	135	222,408	6,551,477	3.27	96.72
Eleventh,	31	35	49	37	38	5,816,880	2,210,253	72.56	27.43
Twelfth,	7	8	7	67	65	2,282,845	4,556,140	33.39	66.61
Totals and percentages,	215	301	427	858	903	49,125,353	49,820,850	49.64	50.35

Production of coal in tons from the Bituminous mines, from 1893 to 1902 inclusive.

Districts.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	*1901.	1902.
First,	4,876,307	5,282,181	5,539,951	6,697,601	6,459,200	8,969,339	9,295,676	8,651,281	8,108,678	19,980,533
Second,	6,675,908	6,424 633	9,128,787	7,364,771	9,123,797	9,820,673	12,077,460	13,6 8,199	8,222,731	1 ,031,423
Third,	3 224 130	2,641,120	3,254,947	3,243,851	3,400,302	3,761,085	4,230,692	4,92 ,877	5 601,07	6 531,197
Fourth,	4,870,122	4,296,796	9,294,371	5,762,765	6,541,943	7,516,944	7,246,641	8,13 ,027	5,8 2,779	6,418,810
Fifth,	3,629,559	3,908,318	6,423,8 2	4,979,410	6,5 1,547	7,754,435	8,872,514	9,96 ,273	7,204,623	9,548 8 6
Sixth,	3,140,284	2 981 088	4,406,750	4,722,8 3	5,501,611	7,161,383	8,5 4,067	10,694,027	6,848,951	8,410 861
Seventh,	4,435,416	2,438,875	4,693,508	5,624,825	5,000,375	5,943,567	6,489,157	6,933,576	8,22 ,705	9 523,610
Eighth,	5,013,478	3,454,078	4,709,932	3,809,472	3,798,138	3,352,840	4,476,814	4,342,17	3,283,281	4,3 6,762
Ninth,	4 814.178	4,690,811	5,652,813	5,210, 92	5,074,385	6,625,738	7,807,490	7,571,774	9 1 4,543	10,158,976
Tenth,	2,772,116	1,882,530	2,708,271	2,857,096	3,261,976	3,401,281	3,886,762	4,390,572	5,022,3 5	6,680,786
Eleventh,	.....	.....	.....	.....	.....	.....	.....	.....	8,172,143	8,057,136
Twelfth,	.....	.....	.....	.....	.....	.....	.....	.....	5,173,992	6,838,985

*Two additional districts were created in 1901.

Production of coke in tons from 1893 to 1902 inclusive.

Districts.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
First,										
Second,	1,511,871	1,625 243	2,569,085	1,902,643	2,505,350	3,049,537	4,075,882	4,280,374	1,498,520	1,996,976
Third	27 039	3,488		24,523	39,020	95,107	88.717	95,591	151,585	186 898
Fourth,	289 844	242,810	306,198	409,080	441,946	573,349	495,264	480,674	44.376	133,121
Fifth,	2,092,993	2,264,971	3,756,487	2,629,541	3,403,209	3,961,669	4,421, 23	4,477 602	3.300,546	4,255,453
Sixth,	109,348	41,662	133,992	151,134	240,559	236,663	267,787	256,481		300
Seventh,	3,000	6,000	5,000	7,450	4,500	525				
Eighth,	50 857	13,302	24,140	47,877	23,500	15,693	45,975	20,721	2,557	44 731
Ninth,	1,240.164	1,473,982	1,985,206	1,265,218	1,593,225	2,028,177	2,525,141	2,241,153	2.875,541	2,661,731
Tenth,	224,181	147,786	42,221	175,614	191,882	208,210	252,461	332,533	423,642	534 366
Eleventh,									4,360,559	4,255,707
Twelfth,									527,837	571,875

Production of Bituminous coal in tons by counties from 1893 to 1902 inclusive.

Counties.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
Allegheny,	6,894,540	6,415,611	7,146,699	7,858,414	7,122,227	9,079,104	9,978,790	10,313,039	11,248,921	13,146,167
Armstrong,	300,222	577,928	649,174	566,771	570,343	843,495	1,037,396	1,290,059	1,686,075	1,972,517
Beaver,	151,346	135,752	267,863	236,587	183,149	205,345	264,877	273,227	169,110	234,273
Bedford,	490,416	288,753	430,804	319,575	353,489	351,091	489,781	530,648	476,985	777,235
Blair,	170,144	269,211	351,209	281,237	317,535	202,008	115,701	251,997	294,015	355,699
Bradford,	42,739	25,474	57,711	52,467	41,588	22,568	31,835	32,065	22,359	.....
Butler,	160,443	154,331	220,895	223,015	227,499	161,224	203,170	251,613	325,451	482,722
Cambria,	3,777,459	3,005,261	4,461,629	4,899,048	5,571,751	6,564,959	7,272,614	11,583,053	8,614,492	10,259,761
Centre,	1,259,351	174,548	203,813	145,268	406,442	568,128	872,771	997,820	812,980	1,017,468
Clarion,	772,622	401,088	428,675	364,782	581,766	266,476	270,956	366,985	376,429	453,292
Clearfield,	6,081,324	4,156,310	5,442,249	4,889,783	5,342,472	4,885,780	5,860,397	2,819,109	5,232,054	6,422,836
Clinton,	94,582	160,000	94,692	134,568	157,388	166,226	221,090	288,881	306,228	370,232
Elk,	617,878	515,070	602,428	799,669	765,110	873,448	1,212,102	1,246,783	1,231,200	1,424,855
Fayette,	6,105,845	6,681,153	10,124,541	8,562,571	10,112,944	13,090,756	14,765,844	15,013,277	15,478,041	18,921,301
Greene,	.....	.....	.....	.....	.....	.....	.....	.....	.....	36,400
Huntingdon,	291,739	187,070	289,092	333,935	285,676	286,020	327,106	303,243	350,463	446,945
Indiana,	359,170	406,878	483,795	392,029	532,989	512,923	614,378	895,547	815,659	1,852,721
Jefferson,	3,072,297	3,467,481	4,528,774	4,717,303	5,309,450	6,648,980	6,412,506	6,989,656	6,034,656	7,223,582
Lawrence,	197,277	135,411	227,594	198,666	196,506	186,024	191,224	177,807	168,489	191,841
Lycoming,	53,192	80,160	83,830	82,740	91,775	98,118	101,924	98,064	107,095	112,320
McKean,	19,463	19,844	38,207	56,989	47,022	29,631	25,435	27,618	15,873	7,245
Mercer,	486,049	297,662	502,945	502,317	426,302	340,582	476,618	528,557	587,544	690,871
Somerset,	483,770	434,188	521,995	621,980	1,166,324	1,720,662	2,686,239	4,263,239	3,898,738	5,191,006
Sullivan,*	.....	90,538	.....	.....	.....	.....	.....	.....	.....	.....
Tioga,	942,252	684,627	781,814	800,658	925,883	917,026	634,301	922,701	859,077	1,073,923
Washington,	3,414,444	3,373,778	3,410,694	4,366,518	3,761,244	4,661,180	4,779,097	4,884,828	5,602,593	7,480,514
Westmoreland,	7,583,346	7,739,080	10,325,245	8,566,705	10,127,965	11,475,891	14,189,423	14,872,546	16,199,709	18,799,904
Totals,	43,421,498	38,000,260	55,813,112	50,273,655	54,674,322	64,247,635	†73,066,943	79,318,362	80,914,236	98,946,203

*Since 1894, in anthracite region.
†26,278 tons production of small mines not under provisions of law.

Production of coke in tons by counties from 1893 to 1902 inclusive.

Counties.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
Allegheny,	3,000	6,000	5,000	250	4,500	525	.....	.....	.....	.....
Armstrong,	6,556	.....	.....	.....	.....	.....	.....	1,000	6,000	8,850
Beaver,	100	80	.....	.....	.....	.....	.....	.....	.....	.....
Bedford,	3,000	6,016	40,420	39,200	.....	39,708	51,636	101,546	67,887	91,516
Blair,	29,361	8,200	28,700	36,943	36,904	30,680	17,932	72,599	73,323	90,784
Bradford,	.....	42,747	142,047	165,435	263,474	.....	.....	.....	.....	.....
Cambria,	122,219	.....	.....	.....	.....	265,282	313,424	318,228	302,342	341,494
Centre,	83,203	13,669	.....	.....	.....	.....	.....	.....	.....	.....
Clearfield,	131,369	45,574	117,830	157,756	191,040	173,108	277,722	155,451	106,379	218,867
Elk,	29,421	8,257	.....	.....	.....	.....	293	850	.....	25,453
Fayette,	3,011,054	3,426,791	5,334,887	3,692,397	4,851,918	5,660,209	6,421,534	6,276,854	7,023,390	8,030,620
Huntingdon,	19,103	.....	.....	.....	.....	.....	3,750	.....	.....	32,700
Indiana,	33,620	5,250	7,172	22,798	16,300	15,712	48,760	68,303	2,646	107,057
Jefferson,	235,473	219,655	276,578	407,865	445,013	619,731	535,427	536,239	594,849	661,627
Somerset,	9,953	5,027	6,862	9,086	.....	14,937	23,971	21,759	13,549	27,816
Tioga,	984	450	976	1,032	476	503	.....	.....	.....	.....
Washington,	.....	.....	.....	7,200	.....	.....	.....	.....	.....	.....
Westmoreland,	1,700,890	1,937,128	2,956,908	2,073,291	2,723,636	3,351,525	4,548,121	4,632,243	4,935,782	5,304,307
Totals,	5,459,297	5,724,244	8,922,380	6,613,253	8,533,291	10,171,920	12,192,570	12,185,112	13,125,156	14,941,091

Number of employes in and about the Bituminous Mines from 1893 to 1902 inclusive.

Districts.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
First,	10,114	11,175	11,086	10,977	10,665	9,720	9,880	10,942	10,195	12,132
Second,	10,993	12,148	11,195	11,040	12,[illegible]72	12,501	14,758	17,552	11,517	14 516
Third,	6,112	6,7.4	6,211	5,964	6,134	6,538	6,181	7,650	8,811	10,153
Fourth,	8,293	9,036	8,578	8,558	9,581	9,961	9,630	10,383	9,581	9,674
Fifth,	6,663	7,619	8,389	7,524	8 659	9,321	10,448	13,867	11,002	12 7 4
Sixth,	6,353	6,944	7,081	8,010	8,[illegible]66	10,488	11,611	14,879	10,066	12,111
Seventh,	9,398	9,844	9,838	10,564	9,93	9,656	8,390	10,045	10,758	13,569
Eighth,	9,423	8,160	8,071	7,197	6,283	5,812	6,140	7,330	6,115	7,4 3
Ninth,	8,754	9,279	8,557	8,273	8,509	8,152	8,021	8,969	12,001	12,4 1
Tenth,	5,697	6,247	6,098	5,389	5,493	5,653	5,778	7,401	9,177	10,793
Eleventh,	.....	.....	.....	.....	.....	.....	.....	.....	10,755	10,731
Twelfth,	.....	.....	.....	.....	.....	.....	.....	.....	7,624	8,968
Totals,	81,950	86,186	84,104	83,796	86,483	87,802	91,440	109,018	117,602	135,38[illegible]

Number of employes in and about the mines of the Bituminous region by counties from 1893 to 1902 inclusive.

Counties.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
Allegheny,	14,351	15,345	15,022	14,732	14,395	14,052	13,160	15,000	14,9[illegible]3	17,317
Armstrong,	6 2	1,204	1,139	1,100	971	1,527	1,436	2,105	2,483	3,261
Beaver,	293	455	592	608	417	441	473	451	442	368
Bedford,	967	845	863	831	80[illegible]	915	978	1,112	1,200	1,436
Blair,	536	707	788	523	5 6	566	297	510	508	68[illegible]
Bradford,	83	90	109	115	127	76	68	66	57	.....
Butler,	328	461	483	500	590	426	341	513	659	1,071
Cambria,	6,691	7,048	7,2.9	8,237	8,[illegible]18	9,284	9,782	17,652	14,152	14,98[illegible]
Centre,	2,416	647	632	773	664	996	1,165	1,3[illegible]7	1,217	1,282
Clarion,	1,626	1,021	842	828	1,[illegible]85	575	5[illegible]8	735	802	900
Clearfield,	10,9[illegible]3	9,733	9,4 6	8,989	9,[illegible]16	7,947	8,072	4,127	9,202	10,573
Clinton,	180	151	198	211	236	206	235	254	351	4 8
Elk,	1,332	1,2[illegible]7	1,093	1,2[illegible]7	1 2[illegible]	1,[illegible]67	1,786	1,949	2,197	2,311
Fayette,	11,185	12,566	13,387	12,250	13.8 2	14,563	15,838	18,290	21,513	23,312
Greene,	.....	.....	.....	.....	.....	.....	.....	.....	.....	99
Huntingdon,	630	689	630	701	593	490	5[illegible]2	675	815	1,099
Indiana,	873	760	707	800	675	696	733	1,791	1,760	3 249
Jefferson,	4,234	6,312	6,166	5,972	6,[illegible]39	7,278	7,029	7,705	7,353	8,474
Lawrence,	460	494	503	424	5[illegible]8	500	3[illegible]2	410	435	422
Lycoming,	118	166	164	166	190	193	203	200	225	2[illegible]5
McKean,	39	42	86	94	95	70	53	51	50	18
Mercer,	1,010	1,136	1,118	1,022	1,0[illegible]8	938	792	918	970	1,143
Somerset,	677	865	618	860	1,4[illegible]9	2,671	3,779	5,672	5,245	7,486
Sullivan,*	.....	337	.....	.....	.....	.....	.....	.....	.....	.....
Tioga,	2,230	2,207	2,685	1,988	2 [illegible]89	2,207	1,940	2,024	2 113	2,201
Washington,	7,110	6,998	6,835	7,3 5	6,532	5,294	5,263	6,5[illegible]5	6 971	8,[illegible]86
Westmoreland,	13,016	14,570	14,203	13,389	14,270	14,519	16,615	18,897	21,869	24,377

*In anthracite region since 1894.

List of fatal accidents that occurred in and about the Bituminous coal mines from 1893 to 1902 inclusive.

Districts.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
First,	25	25	25	44	22	42	44	37	41	66
Second,	14	18	32	26	21	30	36	56	29	42
Third,	3	9	7	3	10	3	8	6	7	15
Fourth,	5	11	14	26	8	15	21	21	13	11
Fifth,	12	13	13	18	25	14	50	40	41	34
Sixth,	12	13	8	11	8	32	28	30	18	134
Seventh,	21	9	18	22	22	26	28	23	35	40
Eighth,	20	13	13	6	7	7	11	9	3	3
Ninth,	15	11	20	19	19	28	23	21	41	38
Tenth,	4	2	5	4	7	11	9	21	8	24
Eleventh,	.....	.....	.....	.....	.....	.....	.....	.....	45	30
Twelfth,	.....	.....	.....	.....	.....	.....	.....	.....	20	19
Totals,	131	124	155	179	149	198	258	264	301	456

List of non-fatal accidents that occurred in and about the Bituminous coal mines from 1893 to 1902 inclusive.

Districts.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
First,	77	101	66	123	89	109	114	144	142	180
Second,	28	39	55	31	52	66	42	56	82	67
Third,	25	12	23	17	24	22	21	53	40	37
Fourth,	22	20	32	19	32	28	33	50	44	38
Fifth,	44	47	70	48	71	62	70	56	45	68
Sixth,	15	17	19	16	20	30	33	38	31	30
Seventh,	44	47	55	49	58	66	64	72	73	134
Eighth,	31	17	34	36	29	22	29	27	33	98
Ninth,	35	40	40	41	33	26	43	37	42	71
Tenth,	25	17	25	18	18	27	38	50	21	43
Eleventh,	.....	.....	.....	.....	.....	.....	.....	.....	53	79
Twelfth,	.....	.....	.....	.....	.....	.....	.....	.....	60	86
Totals,	346	357	419	398	426	458	487	583	656	861

Classification of employes who were killed or fatally injured in and about the Bituminous mines from 1893 to 1902 inclusive.

Years.	Inside Employes.							Outside Employes.				
	Mine foremen.	Miners.	Laborers.	Company men.	Drivers and runners.	Doorboys and helpers.	Total inside.	Blacksmiths and carpenters.	Engineers and firemen.	Company men.	Total outside.	Grand total.
1893	1	114	7	2	6	1	131	.....	.....	.....	.....	131
1894	.....	89	5	4	12	1	111	.....	1	1	2	113
1895	3	120	5	5	20	1	154	.....	1	2	3	157
1896	1	132	3	12	16	1	185	1	3	4	8	193
1897	3	117	10	7	7	1	145	.....	2	1	3	148
1898	.....	135	20	29	11	3	198	.....	1	1	2	200
1899	2	174	12	4	15	.....	251	.....	4	.....	4	255
1900	4	200	9	15	29	3	251	.....	3	10	13	264
1901	6	202	7	44	29	2	290	.....	.....	11	11	301
1902	4	314	9	90	23	2	442	1	2	11	14	456

Number of fatalities and causes of fatal accidents that occurred in and about the mines of the Bituminous region from 1893 to 1902 inclusive.

Years.	Inside of Mines.															Outside of Mines.						
	By Falls of		By mine cars.	By machinery	By explosions of gas.	Explosions of powder and dynamite.	Explosions of blasts.	Electric shocks.	By Falling Into			By mules.	By suffocation.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	Boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
	Coal.	Slate and roof.							Shafts.	Slopes.	Manways and breasts.											
1893,	18	85	16	.....	1	2	.....	.....	.....	.....	.....	.....	4	2	128	1	.....	.....	.....	.....	1	129
1894,	23	60	22	.....	....	1	3	.....	3	.....	.....	.....	.....	1	113	.....	1	.....	.....	.....	1	114
1895,	16	88	31	2	4	.....	4	.....	1	.....	.....	1	.....	5	152	4	.....	.....	.....	.....	4	156
1896,	28	71	22	1	17	1	.....	2	2	.....	.....	1	2	4	151	2	.....	.....	2	.....	4	155
1897,	21	92	20	1	2	1	3	2	1	.....	.....	.....	1	.....	141	1	.....	1	3	1	6	150
1898,	26	105	35	.....	11	1	4	3	1	.....	.....	.....	4	.....	190	5	4	.....	.....	1	10	200
1899,	26	137	40	.....	29	4	4	5	3	.....	.....	.....	.....	3	261	1	3	.....	2	1	7	268
1900,	38	129	49	1	6	8	1	6	10	.....	.....	.....	2	10	260	4	.....	.....	.....	1	5	265
1901,	34	152	48	2	28	2	6	7	1	.....	.....	4	.....	6	290	5	2	.....	.....	4	11	301
1902,	34	189	47	.....	126	3	5	7	8	3	.....	.....	.....	20	442	1	4	.....	1	8	14	456

Statement Showing Production of Bituminous Coal, Quantity of Explosives Used, Number of Tons of Coal Produced for each Pound of Explosives Used, and Average Quantity of Coal Produced for each Employe Inside of Mines, from 1892 to 1902 Inclusive.

Years.	Production of coal in tons.	Average number of tons produced per each employe inside.	Number of pounds of black powder used.	Number of pounds of dynamite used.	Average number of tons produced per pound of explosives used.
1892,	46,225,552	702	2,696,450	.....	17.16
1893,	43,422,498	622	3,004,425	.....	14.45
1894,	39,800,210	541	2,918,875	.....	13.64
1895,	51,813,112	726	3,731,700	.....	13.88
1896,	50,273,656	702	3,639,650	.....	13.81
1897,	54,674,272	736	4,318,425	*73,874	12.44
1898,	64,247,635	871	5,526,250	141,336	11.63
1899,	73,066,943	975	6,660,760	222,076	10.62
1900,	79,318,362	884	7,409,925	243,517	13.07
1901,	80,914,236	846	7,851,500	693,801	9.47
1902,	98,946,203	899	9,965,725	921,149	11.10

*Quantity of dynamite used was not reported until 1897.

Number of Mines in which Mining Machines are used; Number of Machines in each Bituminous District; Motive Power used to Operate them, and Number of Tons of Coal Produced in each District by Machines in 1902.

Districts.	Number of mines in which machines are used.	Number of machines operated by electricity.	Number operated by compressed air.	Total number of mining machines in use.	Production of coal in tons in each district by mining machines.	Production from pick mining.
First,	59	239	98	337	8,493,184	2,487,349
Second,	15	45	115	160	1,982,828	9,048,595
Third,	34	18	302	320	1,264,956	5,553,367
Fourth,	12	46	115	161	1,257,597	5,161,213
Fifth,	16	44	45	89	1,508,125	8,040,770
Sixth,	26	9	386	395	4,204,040	4,206,821
Seventh,	61	363	235	598	5,804,866	3,718,771
Eighth,	9	8	53	61	481,661	3,895,101
Ninth,	23	87	24	111	2,988,538	7,170,438
Tenth,	42	71	195	266	3,060,574	8,712,291
Eleventh,	12	34	16	50	971,158	7,085,975
Twelfth,	8	5	259	264	4,197,628	2,641,357
Totals,	317	969	1,843	2,812	36,224,155	62,722,048

Fatal Accidents per each 1,000 Employes in and about the Bituminous Coal Mines and Tons of Coal Mined for each Fatal Accident from 1884 to 1902 Inclusive.

Years.	Employes.	Fatal accidents.	Fatal accidents per 1,000 employes.	Number of tons of coal mined.	Number of tons mined for each fatal accident.
1884,	39,994	105	2.625	20,553,090	195,743
1885,	44,145	72	1.630	24,030,919	333,763
1886,	51,846	81	1.562	28,607,173	353,175
1887,	57,774	103	1.783	33,902,030	329,146
1888,	61,564	89	1.445	33,832,285	380,138
1889,	55,600	105	1.888	34,625,449	329,766
1890,	66,851	146	2.183	40,740,521	279,045
1891,	74,166	236	3.182	41,831,456	177,252
1892,	78,784	133	1.688	46,225,552	347,560
1893,	79,834	131	1.640	43,422,498	331,449
1894,	86,177	124	1.441	39,800,210	324,194
1895,	84,904	155	1.825	51,813,112	334,278
1896,	83,796	179	2.136	50,273,656	280,858
1897,	86,483	149	1.723	54,674,272	366,941
1898,	87,802	198	2.215	64,247,635	323,483
1899,	91,440	258	2.821	72,866,943	282,429
1900,	109,018	265	2.430	79,318,362	311,311
1901,	117,602	301	2.559	80,914,236	268,818
1902,	135,386	456	3.368	98,946,203	216,967

ANTHRACITE MINE DISTRICTS.

First Anthracite District.

LACKAWANNA, SUSQUEHANNA AND WAYNE COUNTIES.

Scranton, Pa., March 31, 1903.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.

Sir: I have the honor of herewith transmitting to you my report as Inspector of Mines for the First Anthracite District for the year ending December 31, 1902.

The total production of coal was 4,932,924 tons, or 2,795,420 tons less than in 1901. This, as you are aware, was owing to the strike, which lasted nearly six months.

The average number of days worked by forty collieries was 115.28 against 198.7 in the preceding year.

There were 18,490 persons employed, 29 of whom lost their lives, leaving 10 widows and 20 children orphaned. For every life lost there were 170,100 tons of coal produced, and for each non-fatal accident 82,215 tons were produced. Fifty-five per cent. of the fatal accidents were caused by falls of rock and coal at the "working faces." The condition of the mines at the end of the year was good. The report contains the usual tables of statistics, descriptive tables of accidents a table showing volume of air in circulation, etc.

Respectfully submitted,

EDWARD RODERICK,
Inspector.

SUMMARY OF STATISTICS FOR 1902.

First Anthracite District.

Number of mines in district,	72
Number of mines in operation during 1902,	68
Number of tons of coal produced,	4,932,924
Number of tons shipped to market,	4,357,117
Number of tons sold at mines to local trade,	56,588
Number of tons consumed at mines in generating steam and heat,	519,219
Number of persons employed inside the mines,	13,729
Number of persons employed outside,	4,761
Number of fatal accidents inside the mines,	22

Number of tons produced for each fatal accident inside,	224,224
Number of persons employed per fatal accident inside,	624
Number of fatal accidents outside,	7
Number of persons employed per fatal accident outside,	680
Number of wives made widows by fatal accidents,	10
Number of children orphaned by fatal accidents,	20
Number of non-fatal accidents inside of mines,	56
Number of persons employed per non-fatal accident inside,	245
Number of non-fatal accidents outside,	4
Number of persons employed per non-fatal accident outside,	1,190
Number of steam locomotives used inside,	47
Number of compressed air locomotives used inside,	20
Number of electric motors used inside,	12
Number of fans used for ventilation,	60
Number of gaseous mines in operation during 1902,	12
Number of non-gaseous mines in operation during 1902,	60

A. Production of Coal During the Year 1902.

Names of Companies.	Tons.
Delaware and Hudson Company,	1,849,892
Delaware, Lackawanna and Western Railroad Company,	382,908
Temple Iron Company,	481,917
Price Pancoast Coal Company,	350,453
Pennsylvania Coal Company,	251,023
Scranton Coal Company,	671,714
Riverside Coal Company,	66,002
Carney & Brown,	43,444
Hillside Coal and Iron Company,	628,371
Dolph Coal Company,	123,224
Mt. Jessup Coal Company,	31,661
Moosic Mountain Coal Company,	26,610
Black Diamond Coal Company,	25,705
Barton Coal Company, local sales,	No report.
Clark Tunnel Coal Company,	Idle.
Total,	4,932,924

B. Showing the number of fatal and non-fatal accidents inside and outside the mines; number of tons of coal produced per fatal and non-fatal accident inside the mines; number of persons employed inside and outside; and the number employed inside and outside for every fatal and non-fatal accident for each company during 1902.

Names of Companies.	Number of lives lost inside	Number of lives lost outside.	Total number of lives lost.	Number severely injured inside.	Number severely injured outside.	Total number severely injured.	Tons of coal produced per each life lost inside.	Tons of coal produced per serious injury inside.	Number employes inside of mines.	Number employes outside of mines.	Total number employed.	Number of employes inside for each life lost.	Number of employes inside for each severe injury.	Number of employes outside for each life lost.	Number of employes outside for each severe injury.
Delaware and Hudson Co.,	6	2	8	25	.....	25	308,315	73,906	5,160	1,582	6,742	860	2,064	791	1,582
Delaware, Lacka. and Western R. R. Co....	6	.....	6	3	1	4	65,818	127,656	1,008	198	1,206	167	335	198	198
Temple Iron Co.,	2	1	3	7	.....	7	240,958	68,845	1,340	573	1,913	670	191	573	573
Price Pancoast Coal Co.,	2	.....	2	5	1	6	175,526	70,0 0	655	277	932	466	186	277	277
Pennsylvania Coal Co.,	.....	.....	.....	2	.....	2	.....	125,511	787	218	1,005	.....	3 3	.....	.....
Scranton Coal Co.,	1	3	4	4	1	5	671,714	167,928	2,070	894	2,9 4	2,070	5'7	2 8	894
Riverside Coal Co.,	.....	.....	.....	1	.....	1	.....	66,002	216	69	285	.....	216	.....	.....
Carney & Brown, ..	.....	.....	.....	.....	.....	.....	.....	.....	93	34	127	.....	.....	.....	.....
Hillside Coal Co.,	2	1	3	6	1	7	314,185	104,728	1,649	516	2,165	824	275	516	516
Dolph Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	281	211	492	.....	.....	.....	.....
Mt. Jessup Coal Co.,	1	.....	1	.....	.....	.....	31,661	.....	125	93	218	125	.....	.....	.....
Moosic Mt. Coal Co.,	.....	.....	.....	1	.....	1	.....	26,610	219	38	257	.....	219	.....	.....
Black Diamond Coal Co.,	1	.....	1	.....	.....	.....	25,705	.....	126	58	184	126	.....	.....	.....
Burton Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clark Tunnel Coal Co.,*	1	.....	1	2	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals and averages,	22	7	29	56	4	60	224,224	170,100	13,729	4,761	18,490	624	245	680	1,190

*Idle.

C. Classification of Fatal Accidents for the Year 1902.

	Inside of Mines.														Outside of Mines.						
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling Into		Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total Inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Tramways, breasts, etc.											
January,	1		1	1											3							3
February,			1	1											3							3
March,	1		1				1								2	1					1	3
April,				1											1							1
May,			1	1											2	1				2	3	5
October,			3												3							3
November,	1		1												1		1				1	2
December,	1		1	1											3	1				1	2	5
Totals,	4		12	5			1								22	4	1			2	7	29

D. Classification of Non-fatal Accidents for the Year 1902.

	Inside of Mines.															Outside of Mines.						
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling Into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total Inside.	By cars.	By machinery.	By suffocation.	By boiler explosions	Miscellaneous causes.	Total outside.	Grand total.
	Coal.	Slate.	Roof.						Shafts	Slopes.	Manways, breasts, etc.												
January,	.....	.....	2	1	.....	.....	.....	.....	1	.....	.....	.....	1	.....	1	6	.....	.....	.....	.....	.....	.....	6
February,	1	.....	3	2	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	6	.....	.....	.....	.....	.....	.....	6
March,	3	.....	3	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	8	.....	1	.....	.....	.....	1	9
April,	1	.....	4	3	2	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	12	.....	1	.....	.....	.....	1	13
May,	.....	.....	4	1	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	1	.....	.....	.....	.....	1	9
November,	.....	.....	5	1	.....	.....	.....	3	.....	.....	.....	.....	1	.....	1	11	.....	1	.....	.....	.....	1	12
December,	2	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	5
Totals,	7	.....	19	12	5	.....	.....	5	1	.....	.....	.....	4	.....	3	56	1	3	.....	.....	.....	4	68

E. Occupations of Employes Killed or Fatally Injured Inside and Outside the Mines of the First Anthracite District during 1902.

Months.	Inside.											Outside.									
	Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Doorboys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Book-keepers and clerks.	All other employes.	Total outside.	Grand total.
January,	.....	.....	.....	2	.....	1	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
February,	.....	.....	.....	2	.....	1	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
March,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	.....	1	2
April,	.....	.....	.....	1	.....	1	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
May,	.....	.....	.....	1	2	1	.....	.....	.....	.....	4	.....	.....	.....	2	.....	.....	.....	.....	2	6
July,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1
September,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1
October,	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
November,	.....	.....	.....	1	3	1	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	1	1	6
December,	.....	.....	.....	1	1	.....	1	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	1	1	4
Totals,	.....	.....	.....	9	7	5	1	.....	.....	.....	22	.....	.....	.....	2	.....	1	.....	4	7	29

F. Occupations of Employes Severely Injured Inside and Outside the Mines of the First Anthracite District during 1902.

Months.	Inside.											Outside.									
	Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers	Drivers and runners.	Doorboys and helpers.	Pumpmen.	Company men.	All other employes.	Total Inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Book-keepers and clerks.	All other employes.	Total outside.	Grand total.
January,	.....	.....	.....	1	2	2	.....	1	.....	.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	6
February,	.....	.....	.....	2	1	.....	2	.....	1	.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	6
March,	.....	.....	.....	4	1	1	.....	.....	3	.....	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	9
April,	.....	1	.....	7	1	2	.....	.....	1	.....	12	.....	.....	.....	.....	.....	.....	.....	1	1	13
May,	.....	.....	1	.....	2	.....	1	.....	3	2	9	.....	.....	.....	.....	1	.....	.....	.....	.....	9
November,	.....	.....	.....	5	4	1	.....	.....	1	.....	11	.....	.....	.....	.....	.....	.....	.....	.....	1	12
December,	.....	.....	.....	1	1	2	1	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
Total,	.....	1	1	20	12	8	4	1	9	2	58	.....	.....	.....	.....	1	.....	.....	1	2	60

G. Nationality of Employes Killed or Fatally Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Welsh.	Irish.	Poles.	Hungarians.	Slavs.	Lithuanians.	Russians.	Totals.
January,	.....	.....	.....	1	1	1	.....	.....	.....	3
February,	1	2	.....	.....	.....	.....	.....	.....	.....	3
March,	2	.....	.....	.....	1	.....	.....	.....	.....	3
April,	1	.....	.....	.....	.....	.....	1	.....	.....	2
May,	3	.....	.....	.....	1	.....	1	1	1	7
October,	1	.....	.....	.....	.....	.....	.....	1	.....	2
November,	1	1	1	.....	.....	1	1	.....	.....	5
December,	3	1	.....	.....	.....	.....	.....	.....	.....	4
Total,	12	4	1	1	3	2	3	2	1	29

H. Nationality of Employes Severely Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Welsh.	Irish.	Germans.	Poles.	Hungarians.	Italians.	Slavs.	Russians.	Swedes.	Totals.
January,	2	.....	.....	1	.....	.....	.....	1	1	1	.....	6
February,	3	.....	1	.....	.....	1	1	.....	.....	.....	.....	6
March,	2	1	1	1	.....	.....	1	1	2	.....	.....	9
April,	4	1	2	1	1	1	.....	1	2	.....	.....	13
May,	.....	3	2	1	.....	1	.....	.....	1	.....	.....	9
November,	3	.....	2	.....	.....	2	.....	.....	4	.....	1	12
December,	3	.....	.....	.....	.....	1	.....	.....	1	.....	.....	5
Total,	17	6	8	4	1	6	2	3	11	1	1	60

I. Giving names of operators and mines, kind of openings, type and size of fans; size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number employed inside, and quantity of air produced for each employe per minute in the mines of First Anthracite District for the year 1902.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Temple Iron Co.														
Lackawanna,	Shaft,	Gaseous,	Fan,	20	2	Guibal,	Steam,		4	85,835	70,025	90,000	235	383
Lackawanna,	Tunnel,	Non-gas.	Fan,	18	2.2	Guibal,	Steam,		2	52,230	48,000	53,110	65	817
Sterrick Creek,	Shaft,	Non-gas.	Fan,	16	.8	Guibal,	Steam,		3	31,440	22,635	33,600	111	302
Edgerton,	Drifts,	Non-gas.	Fan,			Guibal,	Steam,		1	11,700	10,600	12,700	71	178
Edgerton,*	Drifts,	Non-gas.	Natural,										107	
Simpson,	Slope,	Non-gas.	Fan,	16		Guibal,	Steam,		3	103,380	99,880	110,336	133	829
Price Pancoast Coal Co.														
Pancoast,	Shaft,	Gaseous,	Fan,	35	1.9	Guibal,	Steam,		6	119,426	102,073	129,718	361	359
Pancoast,	Shaft,	Gaseous,	Fan,	35	1.9	Guibal,	Steam,		4	64,634	54,320	72,210	193	376
Pennsylvania Coal Co.														
No. 1,	Shaft,	Gaseous,	Fan,	18	.7	Guibal,	Steam,		6	101,740	73,450	103,190	212	486
No. 2,	Shaft,	Non-gas.	Fan,	18	.3	Guibal,	Steam,		2	28,170	24,770	29,800	106	281
Gipsy Grove,	Shaft,	Non-gas.	Fan,	18	1	Guibal,	Steam,		6	75,200	65,000	75,200	242	310
Scranton Coal Co.														
Johnsons No. 1,	Shaft,	Gaseous,	Fan,	30	1.3	Gulbal,	Steam,		10	169,000	86,100	169,900	234	726
Johnsons No. 2,	Slope,	Gaseous,	Fan,	18	1.7	Guibal,	Steam,		4	59,700	40,875	71,950	228	315
Raymond,	Shaft,	Non-gas.	Fan,	18	.5	Guibal,	Steam,		6	85,760	76,950	93,625	377	248
Delaware and Hudson Co.														
Leggitts Creek No. 1,	Shaft,	Gaseous,	Fan,	20	1.1	Gulbal,	Steam,		5	232,760	118,080	243,960	149	1,650
Leggetts Creek, Clark Vein,	Shaft,	Gaseous,	Fan,	20	1.3	Guibal,	Steam,		4	101,580	95,870	115,390	54	3,136
Leggitts Creek No. 2,	Shaft,	Gaseous,	Fan,	22	1.9	Guibal,	Steam,		2	195,300	171,500	223,600	139	1,609

*Robbing pillars.

I—Continued

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Marvine, Fourteen-foot Vein,	Shaft,	Gaseous,	Fan,	20	1.4	Guibal,	Steam,		6	275,810	229,785	284,000	2 5	1,0.1
Marvine, Clark Vein,	Shaft,	Gaseous,	Fan,	20	1.4	Guibal,	Steam,		3	183,385	165,455	201,545	138	1,461
Olyphant,	Shaft,	Gaseous,	Fan,	20	2	Guibal	Steam,		8	154,680	135,600	167,975	287	585
Eddy Creek, "Birds Eye,"	Drift,	Non-gas.	Fan,	12	1	Guibal,	Gasoline,		2	44,600	38,700	54,150	43	1,2.9
Grassy Island,	Shaft & slope	Non-gas.	Fan,	20-16		Guibal	Steam,		9	191,800	179,200	230,700	3 6	582
White Oak,†	Drifts,													
Jermyn,	Shaft,	Non-gas.	Fan,	16	1	Guibal	Steam,		7	138,960	76,900	145,500	440	330
Powderly,	Drift & slope	Non-gas.	Nat-Fan	16	1	Guibal,	Steam,		7	91,112	79,468	100,560	287	350
No. 1,	Drift & slope	Non-gas.	Natural,						8	118,000	107,000	129,000	283	455
Coal Brook,	Drift & slope	Non-gas.	Fan,	17		Guibal,	Steam,		4	55,260	53,830	57,785	162	356
Coal Brook,	Drifts,	Non-gas.	Fan,	24	1.6	Guibal,	Steam,		7	85,870	81,270	91,430	301	303
Clinton,	Slope,	Non-gas.	Fan,	17	1.1	Guibal,	Steam,		4	84,338	81,024	84,558	236	358
Clinton,	Slope No. 2,	Non-gas.	Fan,	10	.38	Guibal,	Gasoline,		4	85,294	83,306	86,462	240	36
Del., Lack'a and West. R. R. Co.														
Storrs No. 1,	Shaft,	Gaseous,	Fan,	16	1 4	Guibal,	Steam,		7	111,917	87,615	128,641	280	459
Storrs No. 2,	Shaft,	Gaseous,	Fan,	16	.9	Guibal,	Steam,		10	165,225	130,005	170,244	293	581
Storrs No. 3,	Shaft,	Gaseous,	Fan,	16	.85	Guibal,	Steam,		8	214,700	190,900	283,190	258	1,189
Hillside Coal and Iron Co.														
Keystone,	Drifts,	Non-gas.	Natural.						2	87,280	85,120	64,000	88	727
Erie,	Shaft,	Non-gas.	Fan,	12		Guibal,	Steam,		6	70,537	71,008	72,549	310	234
Glenwood,*	Shaft,	Non-gas.	Fan,											
Forest City Slope,	Slope,	Non-gas.	Fan,	14		Guibal	Steam,		6	77,000	71,800	81,750	248	329
Forest City shaft,	Shaft,	Non-gas.	Fan,	16		Guibal	Steam,		7	95,083	88,424	103,147	423	2 3
Clifford,	Shaft,	Non-gas.	Fan,	16		Guibal,	Steam,		5	146,730	20,840	57,800	213	2 1
Dolph Coal Co.														
Dolph,	Drift,	Non-gas.	Fan,	16		Guibal	Steam,		3	101,790	99,080	99,875	157	636
Hannah Bell,	Slope,	Non-gas.	Fan,	24		Guibal,	Steam,		5	45,284	40,781	45,815	157	291

*Robbing pillars.
†Robbing pillars; air not measured

Riverside Coal Co.																
Riverside,	Shaft,	.....	Gaseous,	Fan,	22	.....	Gulbal,	Steam,	.....	3	51,195	44,990	51,115	140	365	
Carney & Brown.																
Murrays,	Shaft,	.....	Non-gas.	Fan,	.....	.....	Gulbal,	Steam,	.....	2	29,470	22,018	28,332	63	287	

The annual examination of applicants for mine foreman and assistant mine foreman certificates of qualification was held at Carbondale on August 4 and 5.

The board consisted of Edward Roderick, Inspector, Scranton; M. G. Robertson, Superintendent, Jessup; Joseph T. Roberts, Jermyn, and Thomas Llewellyn, Peckville.

The following named persons were recommended to receive mine foreman certificates: John E. Jones, Scranton; William R. Jones, Olyphant; George R. Mason, Olyphant; William H. Himmelreich, Olyphant; John R. Pettigrew, Olyphant; Charles H. Robinson, Olyphant; Michael Moran, Olyphant; David McElroy, Olyphant; William E. Griffith, Jermyn; John B. Jones, Jermyn; Edward H. Stahl, Scranton; Frank Igo, Scranton; John M. Jehu, Scranton; William Davison, Scranton; John R. Thomas, Scranton, William J. Thomas, Taylor; Frank A. Gleason, Dickson, and John H. Robertson, Old Forge.

The following were recommended to receive assistant mine foreman certificates of qualification:

Morgan E. Griffith, Taylor; George Knight, Olyphant; Richard O. Lloyd, Scranton; Thomas J. Richards, Scranton; John W. Proudlick, Scranton; George Hall, Scranton; Edward Gleason, Scranton; John R. Howells, Scranton; John Phillips, Scranton; Thomas Laird, Scranton; Frank McHale, Scranton; Thomas H. Lewis, Scranton; Sylvester Foster, Scranton; Benjamin Davis, Scranton; William H. Freize, Scranton; David A. Jones, Scranton; Henry E. Jones, Scranton; Thomas Lewis, Scranton; John H. Phillips, Scranton; John Ward, Scranton; James Jones, Scranton; David E. Evans, Scranton; Alfred Pierce, Scranton; Evan Phillips, Scranton; Alfred Pugh, Scranton; William J. Lewis, Scranton; David M. Morgan, Scranton; Joseph Williams, ————; Henry G. Williams, Scranton; James W. Nichols, Olyphant; Edward M. Hoban, Olyphant; Rees Maggs, Olyphant; Michael J. McGlaughlin, Olyphant; Samuel J. Lewis, Olyphant; Francis J. Kearney, Archbald; Patrick McAuvic, Archbald; John J. Barrett, Archbald, and John Durkin, Archbald.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the First Anthracite District for the year 1902.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Delaware and Hudson Co.						
Leggitts Creek,	Lackawanna,	C. C. Rose,	Scranton,	J. L. Atherton,	Scranton,	Delaware and Hudson.
Leggitts Creek washery,	Lackawanna,	C. C. Rose,	Scranton,	J. L. Atherton,		Delaware and Hudson.
Marvine,	Lackawanna,	C. C. Rose,	Scranton,	J. L. Atherton,		Delaware and Hudson.
Grassy Island,	Lackawanna,	C. C. Rose,	Scranton,	J. L. Atherton,		Delaware and Hudson.
Olyphant,	Lackawanna,	C. C. Rose,	Scranton,	J. L. Atherton,		Delaware and Hudson.
Eddy Creek,	Lackawanna,	C. C. Rose,	Scranton,	J. L. Atherton,		Delaware and Hudson.
White Oak,	Lackawanna,	C. C. Rose,	Scranton,			Delaware and Hudson.
Jermyn,	Lackawanna,	C. C. Rose,	Scranton,			Delaware and Hudson.
Powderly,	Lackawanna,	C. C. Rose,	Scranton,			Delaware and Hudson.
No. 1,	Lackawanna,	C. C. Rose,	Scranton,			Delaware and Hudson.
Coal Brook,	Lackawanna,	C. C. Rose,	Scranton,			Delaware and Hudson.
Clinton,	Lackawanna,	C. C. Rose,	Scranton,			Delaware and Hudson.
Racket Brook washery,	Lackawanna,	C. C. Rose,	Scranton,			Delaware and Hudson.
Grassy Island,	Lackawanna,	C. C. Rose,	Scranton,			Delaware and Hudson.
Del., Lack. & W. R. R. Co.						
Storrs,	Lackawanna,	R. A. Phillips,	Scranton,	H. G. Davis,	Scranton,	Del., Lack. & Western.
Temple Iron Co.						
North West,	Lackawanna,	S. B. Thorne,	Scranton,	Frank Hemelright,	Jermyn,	D. & H. and Erie.
Edgerton,	Lackawanna,	S. B. Thorne,	Scranton,			D. & H. and Erie.
Sterrick Creek,	Lackawanna,	S. B. Thorne,	Scranton,			D. & H. and Erie.
Lackawanna,	Lackawanna,	S. B. Thorne,	Scranton,			D. & H. and Erie.
Price Pancoast Coal Co.						
Pancoast,	Lackawanna,	John R. Bryden,	Scranton,	John J. Aitken,	Priceburg,	D., L. & W., and O. and W.
Pancoast washery,	Lackawanna,	John R. Bryden,	Scranton,	John J. Aitken,	Priceburg,	D., L. & W., and O. and W.
Pennsylvania Coal Co.						
Gipsy Grove,	Lackawanna,	W. A. May,	Scranton,	James Young,	Dunmore,	Erie.
No. 1,	Lackawanna,	W. A. May,	Scranton,	James Young,	Dunmore,	
Scranton Coal Co.						
Richmond No. 3,	Lackawanna,	John R. Bryden,	Scranton,	John J. Aitken,	Priceburg,	Ontario and Western.
Johnsons,	Lackawanna,	John R. Bryden,	Scranton,	John J. Aitken,	Priceburg,	Ontario and Western.
Ontario,	Lackawanna,	John R. Bryden,	Scranton,	John J. Aitken,	Priceburg,	Ontario and Western.
Raymond,	Lackawanna,	John R. Bryden,	Scranton,	John J. Aitken,	Priceburg,	Ontario and Western.
Raymond washery,	Lackawanna,	John R. Bryden,	Scranton,	John J. Aitken,	Priceburg,	Ontario and Western.
Richmond No. 4,	Lackawanna,	John R. Bryden,	Scranton,	John J. Aitken,	Priceburg,	Ontario and Western.

TABLE I —Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Riverside Coal Co.						
Riverside,	Lackawanna,	J. M. Rice,	Scranton,	Eugene Taylor,	Peckville,	Ontario and Western.
Carney & Brown.						
Murrays,	Lackawanna,	John Carney,	Dunmore,			Del., Lack. & Western.
Hillside Coal and Iron Co.						
Clifford	Susquehanna,	V. L. Peterson,	Scranton,	S. J. Jennings,	Forest City,	Erie.
Forest City,	Susquehanna,	V. L. Peterson,	Scranton,	S. J. Jennings,	Forest City,	Erie.
Erie	Lackawanna,	V. L. Peterson,	Scranton,	John F. Gallagher,	Mayfield,	Erie.
Keystone,	Lackawanna,	V. L. Peterson,	Scranton,	John F. Gallagher,	Mayfield,	Erie.
Glenwood,	Lackawanna,	V. L. Peterson,	Scranton,	John F. Gallagher,	Mayfield,	Erie.
Glenwood washery,	Lackawanna,	V. L. Peterson,	Scranton,	John F. Gallagher,	Mayfield,	Erie.
Dolph Coal Co.						
Dolph,	Lackawanna,	W. G. Robertson,	Jessup,			Erie.
Mt. Jessup Coal Co.						
Mt. Jessup,	Lackawanna,	Chas. P. Ford,	Winton,			D., L. & W., and Erie and O. & W.
Moosic Mountain Coal Co.						
Moosic Mountain,	Lackawanna,	Chas. P. Ford,	Winton,			D., L. & W., and Erie and O. & W.
Black Diamond Coal Co.						
Black Diamond,	Lackawanna,	W. G. Thomas,	West Pittston,	G. J. Thomas,	Carbondale,	Ontario and Western.
Barton Coal Co.						
Barton,	Lackawanna,	W. L. Barton,	Carbondale,			Local sales.
Clark Tunnel Coal Co.						
Clark Tunnel,	Lackawanna,	Morgan Davis,	Scranton.			

TABLE II—Gives the total number of tons of coal mined in each colliery, number of days worked, number of employes, number of employes killed and injured, number of kegs of powder, etc., used in the First Anthracite District for the year ending December 31, 1902.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Delaware and Hudson Co.												
Leggitts Creek,	Lackawanna, ...	147,739	38,056	4,225	190,000	131.75*	687	1	9	6,990	3,553	55
Leggitts Creek washery,	Lackawanna, ...	5,262	102	2	5,367	11.	21	.....	.....	.....	.....	.....
Marvine,	Lackawanna, ...	176,582	22,625	2,335	200,942	143.25	676	.....	5	6,502	1,749	63
Grassy Island,	Lackawanna, ...	.....	.....	.....	.....	.....	425	1	2	4,069	2,617	42
Olyphant,	Lackawanna, ...	296,973	42,011	5,272	284,229	135	603	1	1	5,600	1,812	47
Eddy Creek,	Lackawanna, ...	143,131	10,113	104	143,348	125.25	657	2	2	6,546	1,770	57
White Oak	Lackawanna, ...	85,841	31	918	87,723	108.50	458	1	.....	1,233	5,566	55
Jermyn	Lackawanna, ...	149,292	14,812	3,007	167,021	144.25	596	2	.....	3,605	350	51
Powderly,	Lackawanna, ...	37,009	14,899	.....	51,958	115.25	341	.....	1	2,535	712	57
No. 1,	Lackawanna, ...	21,377	13,522	.....	34,859	71.75	401	.....	1	1,318	1,232	41
Coal Brook,	Lackawanna, ...	302,600	7,000	.....	309,600	135.25	995	.....	2	6,721	3,249	74
Clinton,	Lackawanna, ...	192,331	20,320	1,425	214,684	131.50	679	.....	1	7,754	19,475	63
Racket Brook washery,	Lackawanna, ...	59,567	4,900	.....	64,467	232.5	30	.....	.....	.....	.....	.....
Grassy Island washery,	Lackawanna, ...	91,594	4,100	.....	95,694	206.5	53	.....	.....	.....	.....	.....
Totals,	.....	1,639,767	192,797	17,328	1,849,892	127.8	6,656	8	24	52,919	42,085	610
Delaware, Lack. & Western R. R. Co.												
Storrs,	Lackawanna, ...	353,846	26,576	2,486	382,908	133.8	1,206	6	4	14,740	4,024	104
Temple Iron Co.												
North West,	.....	17,038	2,999	49	20,086	37.5	335	.....	.....	455	175	67
Edgerton,	Lackawanna, ...	132,774	8,015	270	141,059	119.8	305	1	1	2,771	150	53
Sterrick Creek,	Lackawanna, ...	161,217	18,123	1,037	180,377	112.3	720	2	5	5,876	11,620	81
Lackawanna,	Lackawanna, ...	102,081	32,563	2,751	137,395	111.9	553	.....	2	3,740	882	76
Totals,	.....	416,110	61,700	4,107	481,917	102.8	1,913	3	8	12,842	12,827	277

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Price Pancoast Coal Co.						*						
Pancoast,	Lackawanna,	170,479	25,500	1,686	197,665	154	871	2	5	8,552	6,750	88
Pancoast washery,	Lackawanna,	152,788	.....	.....	152,788	156	51	.....	1	.....	.....	.....
Totals,		323,267	25,500	1,686	350,453	155	926	2	6	8,552	6,750	88
Pennsylvania Coal Co.												
Gipsy Grove,	Lackawanna,	93,577	1,801	.....	95,378	124.6	360	.....	1	3,466	790	39
No. 1,	Lackawanna,	148,402	7,243	.....	155,645	124.7	645	.....	1	6,892	1,412	47
Totals,		241,979	9,044	.....	251,023	124.65	1,005	.....	2	10,358	2,202	86
Scranton Coal Co.												
Richmond No. 3,	Lackawanna,	13,203	6,488	81	19,772	36.4	231	.....	1	775	300	18
Johnsons,	Lackawanna,	183,436	30,000	2,488	215,924	110.6	954	2	3	6,273	10,350	95
Ontario,	Lackawanna,	114,035	23,750	2,176	139,961	132.3	867	1	1	5,775	24,100	87
Raymond,	Lackawanna,	139,508	12,600	771	152,879	116.6	689	.....	.....	4,567	5,589	31
Raymond washery,	Lackawanna,	121,610	4,000	729	126,339	124.5	63	1	.....	.....	.....	.....
Richmond No. 4,	Lackawanna,	12,006	4,380	453	16,839	50.1	160	.....	.....	600	1,000	20
Totals,		583,798	81,218	6,698	671,714	95.1	2,964	4	5	17,990	41,339	251
Riverside Coal Co.												
Riverside,	Lackawanna,	58,206	7,320	476	66,002	111.6	285	.....	1	2,249	250	36
Carney & Brown.												
Murrays,	Lackawanna,	35,275	60	8,109	43,444	130	127	.....	.....	1,625	93	23
Hillside Coal and Iron Co.												
Clifford,	Susquehanna,	169,096	6,048	1,543	105,390	110.15	470	1	.....	4,451	3,562	44
Forest City,	Susquehanna,	204,355	14,956	8,249	298,858	153.7	916	2	4	10,311	5,688	76
Erie,	Lackawanna,	82,968	12,132	2,715	97,815	111.35	413	.....	2	2,772	2,527	49

*Totals in this column are averages.

							*						
Keystone,	Lackawanna,	34,494	810	.....	35,304	104.85	117	.....	.....	714	110	17
Glenwood,	Lackawanna,	36,717	22,831	.....	59,548	61.3	238	.....	1	999	788	26
Glenwood washery,	Lackawanna,	28,990	2,467	.....	31,456	201.	11	.....	.....	.....	.....	.....
Totals,	.....	556,620	59,244	12,507	628,371	123.5	2,165	3	7	19,247	12,675	212
Dolph Coal Co.												
Dolph,	Lackawanna,	101,715	19,000	918	121,633	115.1	492	.....	.....	3,896	2,400	48
Dolph washery,	Lackawanna,	1,591	.....	.....	1,591	.....	.....	.....	.....	.....	.....	.....
Totals,	.....	103,306	19,000	918	123,224	115. 1	492	.....	.....	3,896	2,400	48
Mt. Jessup Coal Co.												
Mt. Jessup,	Lackawanna,	6,369	25,000	292	31,661	41.3	218	1	.....	204	1,503	30
Moosic Mountain Coal Co.												
Moosic Mountain,	Lackawanna,	17,089	8,760	761	26,610	38.4	257	.....	1	725	250	51
Black Diamond Coal Co.												
Black Diamond,	Lackawanna,	21,485	3,000	1,220	25,705	96.2	184	1	.....	1,203	1,400	20
Clark Tunnel Coal Co.												
Clark Tunnel,	Lackawanna,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand Totals,	.....	4,357,117	519,219	56,588	4,932,924	115.28	18,490	29	60	146.550	127,793	1,856

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Number of boilers.				Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.	Horse power.		Steam.	Air.	Electric.							
Delaware and Hudson Co.,	Lackawanna,	164	2 900	35	6 74	9.890	11	20	.....	211	12,075	41	35,225	23.775	1	8
Delaware, Lack. and Western R. R. Co.,	Lackawanna,	12	540	11	1.38	1,926	3	.....	.....	26	1,860	2	2,160	1,150	.....	.....
Temple Iron Co.,	Lackawanna,	52	2 0 4	12	1.83	3,864	12	.....	.....	33	3,330	11	8,050	5,872	1	3
Price Pancoast Coal Co.,	Lackawanna,	12	240	6	1,09	1,338	.....	.....	.....	21	1,546	2	1,200	800	2	1
Pennsylvania Coal Co.,	Lackawanna,	.....	.....	7	1,000	1,000	2	.....	.....	31	1 416	7	4 326	1,100	.....	1
Scranton Coal Co.,	Lackawanna,	44	1,000	38	3,955	5,155	8	.....	6	78	5,920	22	13.582	9,704	5	3
Riverside Coal Co.,	Lackawanna,	9	180	5	400	580	.....	.....	.....	12	828	2	1.750	800	.....	.....
Carney & Brown,	Lackawanna,	.....	.....	3	90	270	.....	.....	.....	4	115	.....	.....	.....	.....	.....
Hillside Coal and Iron Co.,	Lackawanna,	26	460	35	2.835	3 295	4	.....	6	38	3,455	22	11,778	9 195	7	.....
Dolph Coal Co.,	Lackawanna,	4	320	7	965	1 285	2	.....	.....	13	761	3	970	200	1	2
Mt. Jessup Coal Co.,	Lackawanna,	20	500	9	675	1,175	1	.....	.....	12	700	7	3,600	2,600	.....	1
Moosic Mountain Coal Co.,	Lackawanna,	10	400	1	50	450	2	.....	.....	5	175	2	800	450	.....	1
Black Diamond Coal Co.,	Lackawanna,	3	270	.....	.....	270	.....	.....	.....	2	50	.....	.....	.....	.....	.....
Clark Tunnel Coal Co.,	Lackawanna,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand totals,		356	8.844	169	21.024	30,498	47	20	12	503	32,877	124	84,360	55,446	18	24

TABLE III—Showing the number of each class of employes at each colliery in the First Anthracite District during the year 1902.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.											Occupation of Persons Employed Outside.									Grand total inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miner's laborers.	Drivers and runners.	Door boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Book-keepers and clerks.	All other employes.	Total outside.	
Delaware and Hudson Co.																						
Leggitts Creek,	Lackawanna.	1	1	6	182	182	42	17	6	71	18	526	....	1	7	24	48	.....	1	80	161	687
Leggitts Creek washery,	Lackawanna.	....	....	....	....	....	....	....	....	....	....	....	....	1	.....	1	7	.....	....	18	27	27
Marvine,	Lackawanna.	2	....	8	152	152	94	34	2	93	.....	542	....	1	8	14	42	14	....	55	134	676
Grassy Island,	Lackawanna.	1	2	2	130	145	48	5	.....	27	5	365	....	1	1	18	.....	.....	....	40	60	425
Olyphant,	Lackawanna.	1	1	4	140	156	59	10	3	35	4	413	....	1	9	12	58	32	2	76	190	603
Eddy Creek,	Lackawanna.	1	2	3	164	188	81	12	3	32	12	498	....	1	7	11	40	29	1	70	159	657
White Oak,	Lackawanna.	1	2	....	151	123	59	2	.....	23	12	373	....	1	4	5	29	9	....	63	116	489
Jermyn,	Lackawanna.	1	1	....	145	229	60	20	2	31	21	510	....	1	7	7	12	28	....	31	86	596
Powderly,	Lackawanna.	1	1	....	204	7	45	4	2	20	10	294	....	1	3	9	2	.....	....	32	47	341
No. 1,	Lackawanna.	1	2	....	308	18	41	6	2	20	11	409	....	....	5	8	5	8	....	49	75	484
Coal Brook,	Lackawanna.	1	4	....	324	208	75	35	2	35	31	715	....	1	6	9	24	47	....	77	164	879
Clinton,	Lackawanna.	1	3	....	186	199	66	20	4	21	15	515	....	1	1	2	.....	4	....	22	30	30
Racket Brook washery,	Lackawanna.	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	....	1	1	3	10	.....	1	37	53	53
Grassy Island washery,	Lackawanna.	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	....	1	1	3	10	.....	1	37	53	53
Totals,	.....	12	19	23	2,186	1,607	670	165	25	413	139	5,160	....	13	70	133	307	288	6	705	1,582	6,742
Dela., Lack. & West. R. R. Co.																						
Storrs,	Lackawanna.	3	2	7	342	335	115	21	6	146	11	1,008	1	1	12	15	66	10	3	90	198	1,206
Temple Iron Co.																						
North West,	Lackawanna.	1	1	....	82	80	29	8	3	11	3	218	1	1	7	10	18	25	2	53	117	335
Edgerton,	Lackawanna.	2	....	....	96	80	24	1	.....	9	4	186	1	1	9	10	19	22	2	55	119	305
Sterrick Creek,	Lackawanna.	2	2	1	202	173	75	16	4	31	33	538	1	1	10	16	54	.....	2	98	182	720
Lackawanna,	Lackawanna.	2	....	1	135	117	68	11	8	48	8	398	1	1	7	18	62	6	2	58	155	553
Totals,	.....	7	3	2	485	450	196	36	15	98	48	1,340	4	4	33	54	153	53	8	261	573	1,913

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.											Occupation of Persons Employed Outside.									Grand total inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miner's laborers.	Drivers and runners.	Door boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Book-keepers and clerks.	All other employes.	Total outside.	
Price Pancoast Coal Co.																						
Pancoast,	Lackawanna,	1	2	6	193	195	103	36	10	109	.....	655	1	1	10	13	30	79	3	89	226	881
Pancoast washery,	Lackawanna,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	2	1	7	.....	....	39	51	51
Totals,	.....	1	2	6	193	195	103	36	10	109	.....	655	2	2	12	14	37	79	3	128	277	932
Pennsylvania Coal Co.																						
Gipsy Grove,	Lackawanna,	1	....	....	191	56	46	11	2	12	19	268	....	1	2	5	42	8	....	34	92	360
No. 1,	Lackawanna,	2	....	1	135	184	67	14	2	9	45	519	....	1	4	12	36	31	4	38	126	645
Totals,	.....	3	....	1	386	240	113	25	4	21	64	787	....	2	6	17	78	39	4	72	218	1,005
Scranton Coal Co.																						
Richmond No. 3,	Lackawanna,	1	....	2	60	45	20	4	2	.....	25	159	1	1	4	15	8	12	1	30	72	231
Johnsons,	Lackawanna,	2	....	5	253	209	100	34	14	.....	76	693	1	1	11	22	66	43	2	115	261	954
Ontario,	Lackawanna,	2	3	....	290	170	76	5	5	.....	56	607	1	1	12	21	58	58	3	106	260	867
Raymond,	Lackawanna,	1	1	....	215	193	56	13	3	.....	23	505	1	1	8	19	84	21	2	48	184	689
Raymond washery,	Lackawanna,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	3	6	7	.....	....	45	63	63
Richmond No. 4,	Lackawanna,	1	....	....	30	35	16	1	3	.....	20	106	1	1	4	5	7	15	1	20	54	160
Totals,	.....	7	4	7	848	652	268	57	27	.....	200	2,070	6	6	42	88	230	149	9	364	894	2 964
Riverside Coal Co.																						
Riverside,	Lackawanna,	1	1	1	100	51	32	7	2	10	11	216	1	1	6	9	28	.....	2	22	69	285
Carney & Brown.																						
Murrays,	Lackawanna,	1	....	....	29	29	21	4	.....	6	3	93	1	....	2	2	15	.....	1	13	34	127

Hillside Coal and Iron Co.																					
Clifford,	Susquehanna,	1	....	....	128	107	54	6	3	2	30	331	....	1	3	6	16	38	3	72	139	470
Forest City,	Susquehanna,	2	1	....	276	281	87	23	5	11	69	755	1	1	16	17	28	21	2	75	161	916
Erie,	Lackawanna,	1	1	....	102	102	58	11	2	.....	32	309	1	1	7	70	29	17	1	38	104	413
Keystone,	Lackawanna,	1	....	....	30	30	17	.....	.....	.....	6	84	....	1	2	2	8	5	1	14	33	117
Glenwood,	Lackawanna,	1	1	....	56	62	21	6	6	.....	17	170	....	1	4	11	18	8	2	24	68	238
Glenwood washery,	Lackawanna,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	.....	.....	.....	4	....	7	11	11
Totals,		6	3	....	592	582	237	46	16	13	154	649	2	5	32	46	99	93	9	230	516	2,165
Dolph Coal Co.																					
Dolph,	Lackawanna,	2	....	....	114	86	56	6	2	10	5	281	1	1	14	15	41	75	4	60	211	492
Mt. Jessup Coal Co.																					
Mt. Jessup,	Lackawanna,	3	....	1	30	27	12	2	12	28	10	125	1	1	6	30	18	.....	3	34	93	218
Moosic Mountain Coal Co.																					
Moosic Mountain,	Lackawanna,	1	1	....	90	53	40	12	2	20	.....	219	1	1	7	11	.....	.....	5	13	38	257
Black Diamond Coal Co.																					
Black Diamond,	Lackawanna,	1	....	1	44	46	20	1	.....	10	3	126	....	1	2	3	16	8	1	27	58	184
Totals,		48	35	49	5,269	4 373	1,883	418	122	884	648	13,729	20	38	244	437	1,088	754	58	2,082	4,761	18,490

TABLE III —Continued.

Names of Operators and Collieries	County.	Number of Days Worked Each Month in Breaker.												
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Totals.
Delaware and Hudson Co.,	Lackawanna.	15 93	13.26	15.34	14.14	6 55	.....	2.6	3 62	3.96	7 81	18.91	18 41	118.6
Delaware, Lackawanna and Western R. R. Co.,	Lackawanna.	21.1	15.4	18	22.1	7 5	.....	.....	.....	.....	6.1	21.2	22.4	1 3 8
Temple Iron Co.,	Lackawanna.	12.8	11	12	13.4	4.7	.....	.....	5.85	7.4	8.1	16.95	15.92	107 9
Price Pancoast Coal Co.,	Lackawanna.	22.75	15.75	21.25	16 25	8.75	.....	.....	7 25	9.25	1 .25	22.375	20.25	1 5
Pennsylvania Coal Co.,	Lackawanna.	14 3	10 3	21 1	22.3	8.25	.....	1.13	.....	.....	5 9	21.6	20.95	124.45
Scranton Coal Co.,	Lackawanna.	12 56	8.3	1 1 21	12 4	6 08	.....	1 3	3.6	3.03	6 8	16 4	14 62	10 08
Riverside Coal Co.,	Lackawanna.	19 4	14.4	18.6	19.2	7	.....	.....	.....	.....	.8	13 3	18.9	111.6
Carney & Brown,	Lackawanna.	23.5	18.7	16.4	21 6	7 5	.....	.....	.....	.....	4 7	17	23	1 0.4
Hillside Coal and Coke Co.,	Lack'a & Sus.	16 67	12.43	11 41	16.57	6 36	1 66	3	4 25	5.06	1 .76	17 51	15	123 7
Dolph Coal Co.,	Lackawanna.	17.7	16.8	16	21	6.3	.....	.....	.....	.....	2 1	16.6	18 6	115.1
Mt Jessup Coal Co.,	Lackawanna.	1.6	.....	.....	.....	.....	.....	.....	.....	.....	3 3	16 1	20.3	41 3
Mossic Mountain Coal Co.,	Lackawanna.	.6	.....	.....	.....	.....	.....	.....	.....	.....	2 8	18.1	16.9	38 4
Black Diamond Coal Co.,	Lackawanna.	14.1	13.1	12.8	14.2	5.4	.....	.....	.....	.....	3 4	16.2	17	96 2
Average number of days,	.....	16 76	12.06	13.89	14.99	6.23	0.25	1 53	3.39	3.92	6 82	17.81	17.72	115.38

TABLE IV—List of fatal accidents that occurred in and about the mines of the First Anthracite District for the year ending December 31, 1902.

Date of accident.		Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan.	9	Bernard Loftus, ...	Irish, ...	Miner, ...	58	M.	....	....	Sterrick Creek, ...	Lackawanna.	He was caught by a fall of rock at the face of his chamber while he was getting ready to drill a hole.
	16	Henry Willen, ...	Polish, ...	Miner, ...	36	M	1	4	Storrs No. 2, ...	Lackawanna.	While mining out a piece of bottom coal a piece of top coal fell on him.
	21	George Savage, ...	Hungarian, .	Driver, ...	16	S.	...	....	Pancoast, ...	Lackawanna.	While driving a mule hitched to a loaded car he fell under the car.
Feb.	7	George Daily, ...	English, ...	Miner, ...	27	M	1	1	Olyphant, ...	Lackawanna	He was thawing dynamite by placing his lamp under a cover of a tin powder keg in which the dynamite was placed, when it exploded and killed him.
	7	Thomas H. Murphey,....	American, ...	Miner, ...	29	S	...	....	White Oak, ...	Lackawanna.	While drilling a hole at the face of his chamber a piece of roof fell and fatally injured him. He and his laborer had tried to pull the piece down on the preceding day but failed, then a prop was placed, as they supposed, under it, but as was later discovered, had been placed inside of a break in the roof.
	20	Albert W. Ware, ...	English, ...	Driver, ...	19	S.	....	....	Storrs No. 1, ...	Lackawanna.	He undertook to get on the bumper of a moving car and fell under.
March	5	Andrew Lee, ...	American, ..	Slate picker	14	S.	....	....	Jermyn, ...	Lackawanna,	While pushing coal in a schute he was caught in the machinery.
	6	Frank H. Filarski, ...	Polish, ...	Miner, ...	28	M	1	2	Johnsons No. 2,...	Lackawanna,	After firing a blast in the roof which did not bring down the piece, he passed under the roof to push out a car, and while so doing a slab fell on him.
	22	Owen McHugh, ...	American, ..	Timberm'n	38	M	1	5	Clark Tunnel, ...	Lackawanna,	While re-timbering a gangway, a fall of coal and rock occurred, which instantly killed him.
April	3	John Polko, ...	Slavonic, ...	Driver, ..	16	S.	....	....	Edgerton, ...	Lackawanna,	While driving a team of mules hitched to empty cars, a trip of loaded cars came out and crushed him.

TABLE IV--Continued.

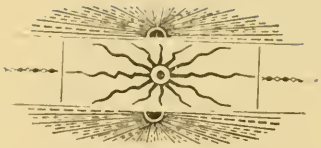
Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
26	William Snyder, ...	American, ...	Miner, ...	39	M.	1	....	Black Diamond, ..	Lackawanna,	While barring down coal at the face of his chamber, a piece of rock fell on him, causing injuries from which he died in a short time.
May 2	Michael Gorham, ...	Slavonic, ...	Laborer, ..	24	S.	....	....	Eddy Creek, ...	Lackawanna,	While loading a car at the face, a "bell" of rock fell from an otherwise safe roof and killed him.
3	Joseph Mitchelus, ...	Lithuanian, ..	Laborer, ..	27	M.	1	....	Storrs No. 3, ...	Lackawanna,	Killed by a fall of "saddle rock" from a sand rock roof.
3	Michael Manley, ...	American, ...	Driver, ...	21	S.	....	....	Mt. Jessup, ...	Lackawanna,	While riding up a slope on a trip, the front car jumped the track and he fell, and two cars passed over him.
3	James Scanlon, ...	American, ...	Fireman, .	30	S.	....	....	Leggitts Creek, ...	Lackawanna,	While cooling flue dust, preparatory to cleaning the flues, water was forced in and transformed into steam, which exploded, burning fireman so severely that he died.
7	Peter Conimski, ...	Russian.	Footman.	25	S.	....	....	Johnsons.	Lackawanna,	When putting cars on at foot of breaker tower, the headman gave signal too soon, and cage was taken away before car was properly on, and caught him.
9	William Lucas, ...	Polish, ...	Miner, ...	28	M.	1	3	Storrs No. 2, ...	Lackawanna,	When drilling a hole in bottom coal, a piece of middle rock fell on him.
11	Thomas Kemmerer, ...	American, ...	Fireman, .	35	M.	1	1	Ontario, ...	Lackawanna,	Breaker burned on Sunday and on Monday his remains were found in the ruins.
Oct. 17	Robert Dunn, ...	American, ...	Footman,	67	M.	1	....	Forest City, ...	Susquehanna,	Attempted to uncouple cars while they were in motion at foot of plane, and his head was crushed.
30	Anth. Shotunis, ...	Lithuanian, ..	Laborer, ..	21	S.	....	....	Clifford, ...	Susquehanna,	While shoveling coal at face of chamber, a "bell" rock fell on him.
Nov. 4	Michael Cavallo, ...	Slavonic, ...	Laborer, ..	15	S.	....	....	Sterrick Creek, ...	Lackawanna,	While the cover on rolls was temporarily removed, by some person unknown, he in some manner fell into them and was instantly killed.

Nov.	7	Alfred Chamber, ...	English, ...	Miner, ...	57	S.	....	....	Forest City, ...	Susquehanna,	While mining out loose coal after a shot, a small piece of top coal fell on him, causing injuries from which he died on the 12th.
	28	Benjamin Jones, ...	Welsh, ...	Miner, ...	56	M.	1	4	Storrs No. 3, ...	Lackawanna,	He had just fired a shot which displaced a prop, which he was replacing, when a slab of rock fell on him.
	28	George King, ...	American, ...	Runner, ..	18	S.	....	....	Grassy Island, ...	Lackawanna,	While standing near the face of a chamber waiting for the men to load their car, a piece of roof fell on him, causing injuries from which he died on the following day.
	29	John Moritz, ...	Hungarian, ..	Miner, ...	36	S.	....	....	Pancoast, ...	Lackawanna,	Just after firing a blast he went back to face to see results, when a large mass of rock fell on him.
Dec.	1	Patrick Fadden, ...	American, ...	Miner, ...	21	S.	....	....	Birds Eye, Eddy Creek.	Lackawanna,	While working out loose coal after a blast, a portion of the overhanging top coal fell on him, causing fatal injuries.
	5	William McHale, ...	American, ...	Switchman	17	S.	....	....	Raymond washery	Lackawanna,	Squeezed between car and locomotive; was riding on front end of latter when car jumped the track.
	17	William Rains, ...	English, ...	Laborer, ..	24	S.	....	....	Storrs No. 1, ...	Lackawanna,	While standing near a prop which his miner was wedging, a "bell" of rock fell on him. He died twelve hours later.
	31	John Cunningham, ...	American, ...	Doorboy, .	21	S.	....	....	Jermyn, ...	Lackawanna,	While standing near his door he in some way was struck by a trip of cars that was slowly passing through, and crushed to death.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the First Anthracite District for the year ending December 31, 1902.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 12	James O'Malley,	Irish,	Pump runner.	30	S.	Olyphant,	Lackawanna,	Injured by cage falling in shaft.
15	Vandodge W. Vort,	Italian,	Laborer,	30	M	Ontario,	Lackawanna,	Injured by falling from cage.
17	Robert Stewart,	American,	Driver,	16	S.	Marvine,	Lackawanna,	Arm fractured by falling from mule.
20	John Lucas,	Slavonic,	Laborer,	25	M.	Forest City,	Susquehanna	Leg fractured by fall of rock.
24	John amuels,	American,	Driver,	17	S.	Leggetts Creek,	Lackawanna,	Foot fractured by cars.
29	Alex. Pawlick,	Russian,	Miner,	42	M.	Erie,	Lackawanna,	Back and leg bruised by falling rock.
Feb. 1	Joseph Roman,	Polish,	Door boy,	14	S.	Forest City,	Susquehanna,	Arm fractured: kicked by a mule.
5	Michael Rebels,	Hungarian,	Miner,	36	M	Eddy Creek,	Lackawanna,	Leg and arm fractured by fall of rock.
6	James Price,	American,	Brakeman,	19	S.	Leggetts Creek,	Lackawanna,	Leg severely cut by being struck by cars.
10	Thomas Rawley,	American,	Laborer,	30	S.	Clark's Tunnel,	Lackawanna,	Leg fractured by a fall of coal.
27	David Lewis,	Welsh,	Miner,	52	M	Grassy Island,	Lackawanna,	Severely injured by a fall of rock.
28	Jerry Gerry,	American,	Doorboy,	18	S.	Marvine,	Lackawanna,	Leg fractured: struck by a car.
March 10	John Lighter,	Hungarian,	Co. laborer,	28	S	Pancoast washery,	Lackawanna,	Arm crushed by machinery.
11	Joe Lege,	Italian,	Laborer,	23	S.	Riverside,	Lackawanna,	Head cut by fall of coal.
13	Pat. Convery,	Irish,	Miner,	38	M	Leggetts Creek,	Lackawanna,	Leg fractured by a prop falling on it.
14	David J. Jones,	Welsh,	Miner,	31	M	Leggetts Creek,	Lackawanna,	Back severely injured by a falling rock.
22	William P Smith,	American,	Driver,	16	S.	Marvine,	Lackawanna,	Nose fractured: kicked by a mule.
22	Craddock Morris,	American,	Timberman,	38	M	Clark Tunnel,	Lackawanna,	Severely injured by a fall of coal.
25	John Hizen,	Slavonic,	Miner,	41	M.	No. 2 shaft, No. 1 colliery.	Lackawanna.	Back bruised by a fall of coal.
27	John Brooks,	English,	Miner,	24	M	Grassy Island,	Lackawanna.	Thigh fractured by a fall of coal.
31	Stanley Miller,	Slavonic,	Footman,	15	S	Forest City,	Susquehanna,	Leg fractured by cars.
April 2	Andrew Dubish,	Slavonic,	Footman,	26	M	Sterrick Creek,	Lackawanna,	Leg fractured by cars.
3	Thomas Simpson,	English,	Miner,	41	M	Marvine,	Lackawanna,	Thumb injured by fall of rock.
5	John Moritz,	Slavonic,	Miner,	32	S	Pancoast,	Lackawanna,	Leg fractured by flying coal from a blast
10	Michael Ochipan,	Italian,	Miner,	50	M	Parcoast,	Lackawanna,	Badly injured by flying coal from a blast
11	Denn's McGuire,	American,	Runner,	22	S.	Marvine,	Lackawanna,	Leg fractured by cars.
15	John Schuster,	German,	Runner,	24	M	Erie,	Lackawanna,	Badly injured by cars.
18	Peter Howney,	Polish,	Miner,	26	M.	Edgerton,	Lackawanna,	Shoulder injured by fall of rock.
22	Isaac Williams,	Welsh,	Miner,	35	M	Leggetts Creek,	Lackawanna,	Hip dislocated by fall of coal.
23	Levi Emmanuel,	Welsh,	Asst. foreman.	45	M	Leggetts Creek,	Lackawanna,	Face and hands burned by explosion of gas.
23	Jerry Arnold,	American,	Laborer,	31	M.	Leggetts Creek,	Lackawanna,	Face and hands burned by explosion of gas.

	23	Henry Nelson,	Irish,	Miner,	42	S.	No. 1, D. & H.,	Lackawanna,	Badly injured by a fall of rock.
	23	William Keller,	American,	Miner,	2?	S.	Coal Brook,	Lackawanna,	Hip injured by a fall of rock.
	24	Chas. Guernsey,	American,	Sawyer,	2	M.	Storrs No. 1,	Lackawanna,	Hand cut in saw mill.
May	1	Andrew Nichail,	English,	Fire boss,	40	M	Pancoast,	Lackawanna,	Burned on hands and face by an explosion of gas.
	1	Anth. Finnerty,	Irish,	Brattice man,	40	M.	Pancoast,	Lackawanna,	Burned on hands and face by an explosion of gas.
	1	Henry Abbott,	English,	Brattice man,	26	M.	Pancoast,	Lackawanna,	Burned on hands and face by an explosion of gas.
	1	Herman Griffith,	Welsh,	Doorboy,	15	S.	Leggetts Creek,	Lackawanna,	Leg fractured by cars.
	2	Andrew Leishjack,	Slavonic,	Laborer,	35	M.	Eddy Creek,	Lackawanna,	Injured by fall of rock.
	7	Walter Kelepski,	Polish,	Footman,	27	S.	Johnsons,	Lackawanna,	Injured by cars.
	17	John Larmouth,	English,	Laborer,	34	M.	Richmond No. 3,	Lackawanna,	Leg fractured by fall of rock.
	29	Thomas Llewellyn,	Welsh,	Rock man,	31	M	Sterrick Creek,	Lackawanna,	Leg fractured by fall of rock.
	29	Charles W. Cook,	English,	Rock man,	31	M	Sterrick Creek,	Lackawanna,	Leg fractured by fall of rock.
Nov.	1	John Stenski,	Polish,	Slate picker,	14	S.	Forest City,	Susquehanna,	Arm cut off by machinery of patent slate picker.
	3	Joseph Corsick,	Slavonic,	Laborer,	20	S.	Sterrick Creek,	Lackawanna,	Injured by flying coal from a blast.
	4	Joe Stockbein,	American,	Laborer,	38	M.	Gipsy Grove,	Lackawanna,	Hips bruised by a fall of rock.
	7	Owen Moran,	American,	Miner,	40	M	Storrs No. 3,	Lackawanna,	Injured by blast.
	7	John Schl bodu,	Slavonic,	Laborer,	23	S.	Mosic Mt.,	Lackawanna,	Crushed between cars.
	10	Thomas Reese,	Welsh,	Timberman,	58	M	Storrs No. 1,	Lackawanna,	Arm fractured by falling from platform.
	15	John Neaster,	Polish,	Miner,	30	M	Glenwood,	Lackawanna,	Bruised by fall of rock.
	18	William Evans,	Welsh,	Miner,	42	M.	Leggetts Creek,	Lackawanna,	Injured by flying coal from blast.
	19	Patrick McGerrity,	American,	Driver,	18	S	Johnsons No. 1,	Lackawanna,	Fractured skull; kicked by a mule.
	21	Andrew Gramshy,	Slavonic,	Miner,	37	M	Lackawanna,	Lackawanna,	Body bruised by fall of rock.
	21	Jos. Marbon,	Slavonic,	Laborer,	24	M.	Lackawanna,	Lackawanna,	Body bruised by fall of rock.
	21	Charles Anderson,	Swedish,	Miner,	57	M	Clinton,	Lackawanna,	Body bruised by fall of rock.
Dec.	3	Jacob Petroski,	Polish,	Miner,	39	M	Storrs No. 2,	Lackawanna,	Foot injured by a fall of coal.
	8	Michael Russian,	Slavonic,	Laborer,	38	S.	Grassy Island,	Lackawanna,	Arm injured by a fall of coal.
	19	William Wayman,	American,	Driver,	16	S.	Coal Brook,	Lackawanna,	Leg fractured by cars.
	23	John Carden,	American,	Driver,	16	S.	Powderly,	Lackawanna,	Leg fractured by cars.
	24	John Cavenaugh,	American,	Doorboy,	15	S.	Johnsons No. 1,	Lackawanna,	Arm fractured by cars.



Second Anthracite District.

LACKAWANNA COUNTY.

Scranton, Pa., February 19, 1903.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.

Dear Sir: I have the honor of presenting my report as Inspector of Mines for the Second Anthracite District for the year 1902, as required by section 9, article 2, Anthracite Mine Law, 1891, etc. It contains the usual statistics. The accidents which occurred during the year are in tabulated form.

Respectfully submitted,

H. O. PRYTHERCH,
Inspector.

SUMMARY OF STATISTICS FOR 1902.

Number of mine in district,	52
Number of mines in operation during 1902,	52
Number of tons of coal produced,	6,052,725
Number of tons shipped to market,	5,522,149
Number of tons sold at mines to local trade,	224,788
Number of tons consumed at mines in generating steam and heat,	305,788
Number of persons employed inside the mines,	13,288
Number of persons employed outside,	4,941
Number of fatal accidents inside the mines,	23
Number of tons produced for each fatal accident inside,	263,162
Number of persons employed per fatal accident inside,	577
Number of fatal accidents outside,	1
Number of persons employed per fatal accident outside,	4,941
Number of wives made widows by fatal accidents,	12

Number of children orphaned by fatal accidents, ...	31
Number of non-fatal accidents inside of mines, ...	97
Number of persons employed per non-fatal accident inside, ...	137
Number of non-fatal accidents outside, ...	12
Number of persons employed per non-fatal accident outside, ...	412
Number of electric motors used inside, ...	13
Number of fans used for ventilation, ...	52
Number of furnaces used for ventilation, ...	2
Number of gaseous mines in operation during 1902, .	37
Number of non-gaseous mines in operation during 1902, ...	15

A. Production of Coal During the Year 1902.

Name of Companies.	Tons.
Delaware, Lackawanna and Western Railroad Company, ...	3,368,152
Austin Coal Company, ...	23,614
Delaware and Hudson Company, ...	330,211
The Hudson Coal Company, ...	139,225
Scranton Coal Company, ...	803,006
Green Ridge Coal Company, ...	30,489
Pennsylvania Coal Company, ...	281,289
Wm. Connell & Co., ...	65,608
Connell Coal Co., ...	233,776
Jermyn & Co., ...	286,614
Ellitt McClure & Co., ...	88,381
A. D. & T. M. Spencer, ...	30,815
Nay Aug Coal Co., ...	44,963
Gibbons Coal Co., ...	11,096
North American Coal Company, ...	104,462
Bull's Head Coal Company, ...	23,182
People's Coal Company, ...	179,836
J. J. Gibbons, ...	5,468
Mountain Lake, ...	2,538
Total, ...	6,052,725

B. Showing the number of fatal and non-fatal accidents inside and outside the mines; number of tons of coal produced per fatal and non-fatal accident inside the mines; number of persons employed inside and outside; and the number employed inside and outside for every fatal and non-fatal accident for each company during 1902.

Names of Companies.	Number of lives lost inside.	Number of lives lost outside.	Total number of lives lost.	Number severly injured inside.	Number severely injured outside.	Total number severely injured	Tons of coal produced per each life lost inside.	Tons of coal produced per serious injury inside.	Number employes inside of mines.	Number employes outside of mines.	Total number employed.	Number of employes inside for each life lost.	Number of employes inside for each severely injured.	Number of employes outside for each life lost.	Number of employes outside for each severely injured.
Delaware, Lackawanna and Western R. R.,	9	.....	9	56	3	59	363,128	60 145	6,012	2,17[illegible]	8,190	668	107	.....	726
Austin Coal Co.,	.....	.....	.....	1	.....	1	.....	23 61[illegible]	4	[illegible]	12[illegible]	.....	84	.....	.....
Delaware and Hudson Co.,	1	.....	1	1	.....	1	330,211	330,211	1,012	231	1,246	1,012	1 012	.....	.....
The Hudson Coal Co.,	1	.....	1	3	2	5	179,22	46,408	614	319	93[illegible]	614	201	.....	159
Scranton Coal Co.,	5	.....	5	16	1	17	167 661	50,1[illegible]8	1,708	7[illegible]	2,40[illegible]	341	106	.....	700
Glen Ridge Coal Co.,	.....	.....	.....	3	.....	3	.....	10,162	344	83	427	.....	114	.....	.....
Pennsylvania Coal Co.,	1	.....	1	2	1	3	281,289	110,641	886	248	1,134	886	443	.....	248
Wm. Connell & Co.,	.....	.....	.....	4	.....	4	.....	16,102	2[illegible]0	110	390	.....	7[illegible]	.....	.....
Connell Coal Co.,	2	.....	2	4	3	7	163,888	[illegible]8,[illegible]41	545	2[illegible]	781	272	136	.....	74
Jermyn & Co.,	2	.....	2	5	1	6	14[illegible],207	57,322	9[illegible]5	28[illegible]	1 222	468	187	.....	286
Nay Aug Coal Co.,	2	.....	2	.....	.....	.....	22 481	.....	[illegible]0	[illegible]3	113	30	.....	.....	.....
Gibbons Coal Co.,	.....	.....	.....	.....	1	1	.....	.....	2[illegible]	2	4[illegible]	.....	.....	.....	20
Peoples Coal Co.,	.....	.....	.....	2	.....	2	.....	89 918	272	[illegible]6	3[illegible]8	.....	136	.....	.....
Mountain Lake,	.....	1	1	.....	.....	.....	2,538	.....	7	11	[illegible]8	.....	.....	1	.....
Totals and averages,	23	1	24	97	12	109	163,162	62,799	13,288	4,941	18,229	577	137	4,941	412

C. Classification of Fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines						Grand total.
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling Into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
January,			1	4				2								2							2
February,			1	1																			
March,			2						1							2							2
April,								2								2							2
May,			1					2							1	4							4
October,			1													1							1
November,			3													3		1				1	4
December,								1								1							1
Totals,			9	5				7	1						1	23		1				1	24

D. Classification of Non-fatal Accidents for the Year 1902.

	Inide of Mines.																Outside of Mines						
	By Falls of								By Falling Into														
	Coal.	Slate.	Roof.	By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	Shafts.	Slopes.	Manways, breasts, etc.	Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total Inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
January,	.....	.....	9	4	1	.....	.....	1	.....	.....	.....	.....	.....	.....	2	17	.....	.....	.....	.....	.....	.....	17
February,	.....	.....	3	4	1	.....	.....	1	.....	.....	.....	.....	.....	.....	1	10	.....	.....	.....	.....	.....	.....	10
March,	.....	.....	5	2	1	.....	.....	1	.....	.....	.....	.....	1	.....	.....	10	.....	.....	.....	.....	1	1	11
April,	.....	.....	3	5	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	10	.....	.....	.....	.....	.....	.....	10
May,	.....	.....	1	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	1	1	4
August,	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	1	2
September,	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
October,	.....	.....	2	1	.....	.....	.....	4	.....	.....	.....	.....	2	.....	.....	9	2	.....	.....	.....	.....	2	11
November,	.....	.....	5	8	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	1	16	.....	1	.....	.....	.....	1	17
December,	.....	.....	4	5	2	.....	2	3	.....	.....	.....	.....	4	.....	2	22	2	.....	.....	.....	2	4	26
Totals,	.....	.....	33	29	5	.....	2	16	.....	.....	.....	.....	7	.....	7	99	5	1	.....	.....	4	10	109

E. Occupations of Employes Killed or Fatally Injured Inside and Outside the Mines of the Second Anthracite District During 1902.

Months.	Inside.											Outside.									
	Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door-boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Bookkeepers and clerks.	All other employes.	Total outside.	Grand total.
January,	.....	.....	.....	3	.....	4	.....	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	7
February,	.....	.....	.....	.....	1	1	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
March,	.....	.....	.....	1	1	.....	.....	.....	1	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
April,	.....	.....	.....	1	1	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
May,	.....	.....	.....	1	2	.....	1	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
October,	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
November,	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	1	.....	.....	1	4
December,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Totals,	.....	.....	.....	10	6	5	1	.....	1	.....	23	.....	.....	.....	.....	.....	1	.....	.....	1	24

F. Occupations of Employes Severely Injured Inside and Outside the Mines of the Second Anthracite District During 1902.

Months	Inside.											Outside.									
	Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door-boys and helpers.	Pumpmen.	Company men.	All other employes.	Total Inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Bookkeepers and clerks.	All other employes.	Total outside.	Grand total.
January,	....	.....	.....	7	6	1	.....	.....	.....	3	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	17
February,	.....	.....	.....	4	1	2	1	.....	1	.....	9	.....	.....	.....	.....	.....	.....	.....	1	1	10
March,	.....	.....	.....	3	4	2	1	.....	.....	.....	10	.....	.....	.....	1	.....	.....	.....	.....	1	11
April,	.....	.....	.....	3	2	5	.....	.....	.....	.....	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	10
May,	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3	.....	.....	1	.....	.....	.....	.....	.....	1	4
August,	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	1	2
September,	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
October,	.....	.....	.....	1	.....	3	.....	.....	1	4	9	.....	.....	.....	.....	.....	.....	.....	2	2	11
November,	.....	.....	.....	6	4	5	....	.....	.....	1	16	.....	.....	.....	.....	.....	.....	.....	1	1	17
December,	.....	.....	.....	7	4	4	4	.....	1	2	22	.....	.....	1	1	.....	.....	.....	2	4	26
Totals,	.....	.....	....	34	23	22	6	.....	3	10	98	.....	.....	2	2	.....	.....	.....	7	11	109

G. Nationality of Employes Killed or Fatally Injured Inside and Outside the Mines During 1902.

	American.	English.	Welsh.	Scotch.	Irish.	German.	Polish.	Lithuanian.	Total.
January,	3	.....	1	.....	2	.....	1	.....	.....
February,	1	.....	.....	.....	.....	.....	.....	1	.....
March,	2	.....	.....	.....	1	.....	.....	.....	.....
April,	.....	.....	.....	.....	.....	1	1	.....	.....
May,	.....	1	.....	.....	.....	1	2	.....	.....
October,	.....	.....	.....	.....	1	.....	.....	.....	.....
November,	.....	.....	1	.....	1	2	.....	.....	.....
December,	.....	.....	.....	.....	1	.....	.....	.....	.....
Total,	6	1	2	.....	6	4	4	1	24

H. Nationality of Employes severely Injured Inside and Outside the Mines During 1902.

	American.	English.	Welsh.	Irish.	German.	Polish.	Italian.	Slavonic.	Lithuanian.	Russian.	Total.
January,	2	.....	5	5	.....	4	.....	.....	.....	1	.....
February,	.....	.....	5	1	1	3	.....	.....	.....	.....	.....
March,	1	.....	1	1	3	2	1	1	1	.....	.....
April,	3	1	3	1	.....	.....	.....	.....	2	.....	.....
May,	1	.....	1	1	.....	1	.....	.....	.....	.....	.....
August,	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....
September,	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
October,	2	.....	5	3	1	.....	.....	.....	.....	.....	.....
November,	4	.....	2	1	2	6	.....	2	.....	.....	.....
December,	6	2	2	8	.....	5	2	1	.....	.....	.....
Total,	19	3	24	21	7	22	4	5	3	1	109

I. Giving names of operators and mines, kind of openings, type and size of fans; size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each employe per minute in the mines of Second Anthracite District for the year 1902.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Delaware, Lack'a & Western R. R. Co.													
Archbald,	Shaft,	Yes,	Fan,	16 x 3.5	.6	Open running,	Steam,	7	148,860	133,840	153,020	290	461
Bellevue shaft,	Shaft,	Yes,	Fan,	14 x 4 16 x 4.5	1.3-1.2	Open running,	Steam,	12	205,880	140,866	139,524	426	330
Bellevue slope,	Slope,	No,	Fan,	12 x 3.5	1.0	Open running,	Steam,	2	43,600	24,695	47,969	29	851
Brisbin,	Shaft,	Yes,	Fan,	14 x 4	1.0	Open running,	Steam,	8	140,512	98,003	144,850	363	269
Cayuga,	Shaft,	Yes,	Fan,	12 x 3.5	1.1	Open running,	Steam,	10	145,500	126,000	139,800	321	392
Sloan,	Shaft,	Yes,	Fan,	12 x 3.5	1.2	Open running,	Steam,	5	56,140	45,225	86,640	169	269
Central,	Shaft,	Yes,	Fan,	14 x 4	.6	Open running,	Steam,	5	62,933	58,602	79,235	167	350
Continental,	Shaft,	Yes,	Fan,	14 x 4	.75	Open running,	Steam,	10	107,795	84,743	125,332	276	397
Dodge,	Shaft,	Yes,	Fan,	16 x 4.5	1.25	Open running,	Steam,	10	119,025	100,350	154,200	311	322
Diamond and Tripp shafts,	Shaft,	Yes,	Fan,	14 x 4 16 x 6	.8	Open running,	Steam,	8	132,260	123,880	164,120	246	503
Tripp drift,	Drift,	No,	Fan,	14 x 4									
Tripp slope,	Slope,	Yes,	Fan,	14 x 4	.8	Open running,	Steam,	6	96,100	80,050	100,100	255	314
Hyde Park,	Shaft,	Yes,	Fan,	14 x 4	.....	Open running,	Steam,	6	114,024	92,515	102,608	286	323
Manville,	Shaft,	Yes,	Fan,	20 x 6 20 x 6	.9 1.2	Open running,	Steam,	10	172,355	139,165	200,510	225	618
Holden,	Shaft,	Yes,	Fan,	25 x 8	.5	Open running,	Steam,	3	.....	.....	.....	.....	.....
Hampton,	Shaft,	Yes,	Fan,	12 x 4	.9	Open running,	Steam,	5	76,808	68,384	86,302	205	333
Pyne,	Shaft,	Yes,	Fan,	14 x 4	1.2	Open running,	Steam,	12	148,151	136,083	160,780	381	357
Taylor shaft,	Shaft,	Yes,	Fan,	14 x 4 12 x 3.5	1.5	Open running,	Steam,	10	123,474	109,930	143,168	305	360
Taylor drift,	Shaft,	No,	Fan,	.....	.7	Open running,	Steam,	.....	.....	.....	.....	.....	.....
Austin Coal Co.													
Austin tunnel,	Drift,	No,	Fan,	12 x 3.5	.5	Open running,	Steam,	2	42,200	31,150	48,400	45	691

TABLE I—Continued.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Delaware and Hudson Co.													
Dickson,	Shaft,	Yes,..	Fan,....	20 x 20 x	1. 1.1	.....	Steam,	12	302,640	219,400	321,500	457	480
Von Storch,	Shaft & slope	Yes,..	Fan,....	20 x 22 x 5	1.2 2.2	Guibal, ...	Steam,	9	171,410	170,910	187,520	328	521
Scranton Coal Co.													
Pine Brook,	Shaft,	Yes,..	Fan,....	17 x 4 17 x 6	1.2	Opening, ...	Steam,	9	144,180	124,050	157,060	369	336
Capouse,	Shaft,	Yes,..	Fan,....	20 x 5.5 18 x 5	.7 1.0	Opening, ...	Steam,	8	115,000	102,000	127,000	270	377
Mount Pleasant,	Shaft,	Yes,..	Fan,....	20 x 5	.9	Opening, ...	Steam,	10	96,800	85,926	106,960	251	342
West Ridge,	Slope,	Yes,..	Fan,....	20 x 5	1.5	Opening, ...	Steam.	5	47,950	42,550	54,830	93	455
Pennsylvania Coal Co.													
No. 5,	Shaft,	Yes,..	Fan,....	20 x 5.5	1.2	Opening, ...	Steam,	7	100,028	100,233	248,018	200	501
Old Forge No. 1,	Shaft,	Yes,..	Fan,....	20 x 5	.9	Opening, ...	Steam,	7	101,190	89,890	113,270	190	473
Old Forge No. 2,	Shaft,	Yes,..	Fan,....	20 x 5	.6	Opening, ...	Steam,	5	81,908	76,271	123,362	209	365
Old Forge slope,	Slope,	No,...	Fan,....	17 x 4.5	.4	Opening, ...	Steam,	2	46,760	41,130	47,410	120	342
William Connell & Co.													
No. 4 or Meadow Brook,	Tunnel,	No,...	Fan,....	16 x 4	1.	Opening, ...	Steam,	4	51,100	50,174	53,118	143	350
National,	Shaft,	Yes,..	Fan,....	16 x 4	1.5	Opening, ...	Steam,	3	56,100	54,180	62,880	92	585
William A.,	Shaft,	Yes,..	Fan,....	16 x 5	.9	Opening, ...	Steam,	5	89,000	80,100	98,200	231	376
Lawrence shafts and drifts,	Shaft,	Yes,.	Fan,....	18 x 5	.4	Opening, ...	Steam,	4	45,800	40,040	49,500	87	459
The Hudson Coal Co.													
Greenwood, New, No. 1,	Shaft,	Yes,..	Fan,....	17 x 5	.4	Opening, ...	Steam,	3	32,600	30,410	37,600	102	298
Greenwood, Old, No. 1,	Shaft,	No,..	Natural,	.....	.....	Nat. ventilation	Steam,	2	27,600	30,750	29,800	99	310
Greenwood, New County Vein,	Drift,	No,...	Natural,	.....	.....	.....	.....	1	6,400	5,300	8,000	11	457

Greenwood No. 12,	Drift,	No,...	Furnace,					1	14,300	13,550	15,300	52	230
Greenwood, No. 8,	Drift,	No,...	Furnace,					1	18,150	17,550	19,650	58	3 2
Greenwood No. 5,	Drift,	No,...	Natural,					1	11,000	10,000	11,500	12	83.
Greenwood No. 13,	Drift,	No,...	Furnace,			Opening out only							
Greenwood No. 2,	Shaft,	Yes,...	Fan,	17 x 5	.4	Open runn.ng,..	Steam,	2	28,240	26,520	30,400	88	3 1
Greenwood drift,	Drift,	No,...	Natural,					1	12,2 0	12,240	13,640	50	2 4
Green Ridge Coal Co.													
Green Ridge,	Slope,	Yes,..	Fan,		2.5	Open running,..	Steam,	4	97,920	89,220	105,790	255	349
Jermyn & Co.													
Jermyn Nos. 1 and 3,	Shafts,	Yes,...	Fans,	14 x 4.5 18 x 4.6	1.1	Open running,..	Steam,	9	131,310	120,215	133,775	361	333
Jermyn No. 2,	Shaft,	Yes,...	Fan,	18 x 4.25	1.	Open running,..	Steam,	8	98,051	88,104	99,458	347	253
Elliott, McClure & Co.													
Sibly,	Shaft,	Yes,..	Fan,	15 x 4	1.3	Open running,..	Steam,	6	75,000	61,000	81,000	264	231
A. D. & F. M. Spencer,	Shaft,	Yes,...	Fan,	12 x 3	.3	Open runn.ng,..	Steam,	6	77,240	70,110	84,410	123	570
Nay Aug Coal Co.													
Nay Aug,	Slope,	No,...	Fan,	8 x 4	.7	Open running,..	Steam,	1	20,300	10,300	24,000	50	206
Bulls Head Coal Co.													
Bull's Head,	Slope,	No,...	Natural,					2	36,200	17,000	36,300	29	586
People's Coal Co.													
Oxford,	haft,	Yes,..	Fan,	16 x 4.7	.5	Open running...	Steam,	5	67,7 0	53,760	75,610	210	255
The Hudson Coal Co.													
Spring Brook,	Shaft,	Yes,..	Fan,	15 x 3	.3	Open running...	Steam.	1	18,360	11,970	37,660	29	413
Spring Brook,	Slope,	No,...	Fan,	15 x 4	.3	Open running...	Steam.	1	16,750	12,980	26,530	40	324
J. J. Gibbons,	Drift,	No,...											
Mountain Lake,	Drift,	No,...											

General Review.

The Second Anthracite District, which consisted of the collieries included between the lines of East and West Market streets, in the city of Scranton, and Slocum and Drinker streets, in the borough of Dunmore, on the north, the Lackawanna and Luzerne county line on the south, and the outcrops of the coal measures on the east and west, was created by the provisions of the Anthracite Mine Law of 1891, and as such ceased to exist December 31, 1902, when the Mine Inspectors who were elected to office under the provisions of an act amending article 2 of the Mine Law, and approved the 8th day of June, A. D. 1901, assumed their positions. These amendments required that the boundaries of the district should be changed December 31, 1901, but inasmuch as the eight additional Inspectors which the same amendments provided for, could not be elected until November, 1902, so as to enter on the duties of their respective offices January 1, 1903, the boundaries of the district were left undisturbed until December 31, 1902. The future Second Anthracite District has been constructed out of the original First District, and the original Second will be divided into two equal parts and be known as the Third and Fourth Inspection Districts.

The period of the existence of the Second Inspection District, as referred to in this report, and the tables which accompany it, is eleven years, 1892 to 1902, inclusive. At this time, therefore, it will be well to review the results as to the number of persons employed, total production of coal, number of fatal and non-fatal accidents, the number of tons of coal produced per life lost, and the number of tons of coal produced per non-fatal accident for each year in this period, and on these undeniable facts can be based an intelligent and sound judgment as to whether the conditions in the mines, as they affect the life and limb of those employed, are being improved or not. The following table has been compiled from the reports for each year named, which will present the results in concise form:

Table of Production and Accidents, 1892—1902.

Year.	Number employed.	Total production, tons.	Fatal accidents.	Non-fatal accidents.	Tons per life lost.	Tons per non-fatal accident.
1892,	14,111	6,013,537	33	181	182,228	33,224
1893,	14,491	5,936,475	35	173	169,613	34,315
1894,	15,473	5,674,579	41	141	138,404	40,245
1895,	16,269	6,189,495	34	192	182,044	32,237
1896,	16,247	5,895,669	39	161	151,171	36,619
1897,	16,578	5,985,630	58	149	103,200	40,172
1898,	15,851	5,496,150	31	154	177,295	35,689
1899,	15,419	6,774,458	49	159	138,254	42,607
1900,	16,787	6,429,112	55	152	116,893	42,297
1901,	18,624	8,674,060	63	186	137,683	46,634
1902,	18,229	6,052,725	24	109	252,197	55,529
Average,	16,144	6,283,808	44	159	148,968	39,340

1892—1902 Compared.

It will be noticed that the total number of persons employed has increased 4,118 in the course of eleven years; the production has increased from 6,013,537 tons in 1892, when there was no suspension of work, to 6,052,725 in 1902, when there was a strike during the year that lost over five months.

In the matter of accidents, those resulting in loss of life have decreased nine, and the non-fatal ones 72.

In 1902, 252,197 tons of coal were produced, as compared with 182,228 tons in 1892, per life lost, an increase in favor of 1902 of 69,969 tons per life lost.

Again, as to the production per non-fatal accident, in 1902, 55,529 tons of coal were produced per non-fatal accident, against 33,224 tons in 1892, an increase in favor of the former of 22,305 tons per accident.

Having compared the results attained in the last year of the period with those of the first, I will proceed to

Compare 1902 with the Average for Eleven Years.

Quoting again from the same table, an average of 16,144 persons per year were engaged in the work of mining coal and preparing it for the market. This number is 2,085 below the number employed in the same business in 1902.

Again, as to production, the average tonnage per year is 6,283,808, which is in excess of the production for 1902 by 231,083. In this connection, I would again note that the mines of the district were

idle for five months, and mining at a much reduced capacity for a considerable time thereafter in 1902.

The average number of fatal accidents per year for the period of eleven years is 44, while 24 deaths are reported as having occurred in and about the mines of the district in 1902, being 20 in favor of the latter year.

The average number of non-fatal accidents is 159, which is 50 in excess of the returns for 1902.

Finally, as to the average production in tons per life lost and per non-fatal accident, there are 148,968 and 39,340 to compare with 252,197 and 55,529 in 1902, being an increase of 103,329 tons per life lost, and an increase of 16,189 tons per non-fatal accident, all in favor of 1902.

Other favorable comparisons can readily be made from the same table.

Without indulging in any comments, the table made up of facts which have already appeared from year to year, will show the condition of the mines of the district as to safety. I am conscious of the fact that I am treating of accidents, and as such no mathematical formula can be applied with any degree of accuracy, nor deductions made on which predictions as to future results can be based.

Remarks on the Accidents of 1902.

In the report for 1901 it was found necessary to call attention to the increase in the number of fatalities occurring outside. The object in view at the time appears to have been reached, inasmuch as the number of lives lost from this cause have been reduced from 7, in 1901, to 1, in 1902, and while the total number of accidents, fatal and non-fatal, have been materially decreased in 1902, I feel it my duty to call attention at this time to the increase in the number of deaths from blasts inside. Five out of the 63 deaths reported in 1901 resulted from blasts, while 7 out of 24 fatalities reported in 1902 are attributed to blasts.

The care and use of powder, etc., is confined to the miner, and his knowledge and skill in this particular is a special qualification for the business of mining coal. Special attention is called to this important item, as it indicates less care on the part of the miner. My purpose is to stimulate the miners to a greater effort for self-preservation.

Mine officials' attention is invited to the same fact, and their co-operation with the Mine Inspector in demanding a strict enforcement of the provisions of the law as to the care and use of explo-

sives in mines and the precautions to be used and alarms to be given before blasts are to be exploded.

Mine Hospitals.

With one year's experience in the use of the mine hospitals required by law, I would say that this humane provision has resulted in much benefit to the unfortunate victims of mine accidents.

Mine Foreman's Examination.

The annual examination of candidates for certificates as mine foremen and assistant mine foremen was held in the city hall, August 19 and 20, 1901, and resulted in the following named persons being recommended to the Secretary of Internal Affairs to receive certificates as mine foremen:

William C. Jones, D. C. Young, Rudolph Lynn, Wm. Robertson, Benjamin Amos, Joseph H. Davies, P. J. Gaujhan, Anthony McHale, William Hopkins and William M. Howell.

Sixteen persons were recommended to receive certificates as assistant mine foremen.

Conclusion.

In conclusion, I would say that the work done by this office during the year has been reported in the monthly Narrative Reports to the Chief of the Bureau of Mines.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Second Anthracite District for the year 1902.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Del., Lack. & W. R. R. Co. Archbald,	Lackawanna,	R. A. Phillips; C. E. Toby asst.	Scranton,	Thos. J. Williams,	Scranton,	D., L. & W. R. R.
Bellevue shaft,	Lackawanna,	R. A. Phillips; C. E. Toby asst.	Scranton,	E. J. Evans,	Scranton,	D., L. & W. R. R.
Bellevue slope,	Lackawanna,	R. A. Phillips; C. E. Toby asst.	Scranton,	E. J. Evans,	Scranton,	D., L. & W. R. R.
Brisbin,	Lackawanna,	R. A. Phillips; C. E. Toby asst.	Scranton,	H. G. Davis,	Scranton,	D., L. & W. R. R.
Cayuga,	Lackawanna,	R. A. Phillips; C. E. Toby asst.	Scranton,	H. G. Davis,	Scranton,	D., L. & W. R. R.
Sloan,	Lackawanna,	R. A. Phillips; C. E. Toby asst.	Scranton,	Thos. J. Williams,	Scranton,	D., L. & W. R. R.
Central,	Lackawanna,	R. A. Phillips; C. E. Toby asst.	Scranton,	Thos. J. Williams,	Scranton,	D., L. & W. R. R.
Continental,	Lackawanna,	R. A. Phillips; C. E. Toby asst.	Scranton,	Thos. J. Williams,	Scranton,	D., L. & W. R. R.
Dodge,	Lackawanna,	R. A. Phillips; C. E. Toby asst.	Scranton,	E. J. Evans,	Scranton,	D., L. & W. R. R.
Diamond,	Lackawanna,	R. A. Phillips; C. E. Toby asst.	Scranton,	H. G. Davis,	Scranton,	D., L. & W. R. R.
Tripp shaft,	Lackawanna,	R. A. Phillips; C. E. Toby asst.	Scranton,	H. G. Davis,	Scranton,	D., L. & W. R. R.
Tripp slope,	Lackawanna,	R. A. Phillips; C. E. Toby asst.	Scranton,	H. G. Davis,	Scranton,	D., L. & W. R. R.
Tripp drift,	Lackawanna,	R. A. Phillips; C. E. Toby asst.	Scranton,	H. G. Davis,	Scranton,	D., L. & W. R. R.
Hyde park,	Lackawanna,	R. A. Phillips; C. E. Toby asst.	Scranton,	Thos. J. Williams,	Scranton,	D., L. & W. R. R.
Manville,	Lackawanna,	R. A. Phillips; C. E. Toby asst.	Scranton,	H. G. Davis,	Scranton,	D., L. & W. R. R.
Holden,	Lackawanna,	R. A. Phillips; C. E. Toby asst.	Scranton,	E. J. Evans,	Scranton,	D., L. & W. R. R.
Hampton,	Lackawanna,	R. A. Phillips; C. E. Toby asst.	Scranton,	Thos. J. Williams,	Scranton,	D., L. & W. R. R.
Pyne,	Lackawanna,	R. A. Phillips; C. E. Toby asst.	Scranton,	Thos. J. Williams,	Scranton,	D., L. & W. R. R.
Taylor,	Lackawanna,	R. A. Phillips; C. E. Toby, asst.	Scranton,	E. J. Evans,	Scranton,	D., L. & W. R. R.

Washeries—						
Bellevue,	Lackawanna,	R. A. Phillips; C. E. Toby asst.	Scranton,	Fred. C. Smith,	Scranton,	D., L. & W. R. R.
Diamond,	Lackawanna,	R. A. Phillips; C. E. Toby, asst.	Scranton,	Fred. C. Smith,	Scranton,	D., L. & W. R. R.
Hampton,	Lackawanna,	R. A. Phillips; C. E. Toby, asst.	Scranton,	Fred. C. Smith,	Scranton,	D., L. & W. R. R.
Oxford,	Lackawanna,	R. A. Phillips; C. E. Toby asst.	Scranton,	Fred. C. Smith,	Scranton,	D., L. & W. R. R.
Taylor,	Lackawanna,	R. A. Phillips; C. E. Toby, asst.	Scranton,	Fred. C. Smith,	Scranton,	D., L. & W. R. R.
Austin Coal Co.						
Austin tunnel,	Lackawanna,	W. G. Robertson,	Scranton,	John H. Robertson,	Old Forge,	Lehigh Valley R. R.
Delaware and Hudson Co.						
Dickson,	Lackawanna,	C. C. Rose,	Scranton,	C. C. Rose,	Scranton,	Delaware & Hudson R. R.
Von Storch,	Lackawanna,	C. C. Rose,	Scranton,	C. C. Rose,	Scranton,	Delaware & Hudson R. R.
The Hudson Coal Co.						
Greenwood No 1 shaft,	Lackawanna,	C. C. Rose,	Scranton,	C. C. Rose,	Scranton,	Delaware & Hudson R. R.
Greenwood No. 2 shaft,	Lackawanna,	C. C. Rose,	Scranton,	C. C. Rose,	Scranton,	Delaware & Hudson R. R.
Greenwood No. 5 drift,	Lackawanna,	C. C. Rose,	Scranton,	C. C. Rose,	Scranton,	Delaware & Hudson R. R.
Greenwood No. 8 drift,	Lackawanna,	C. C. Rose,	Scranton,	C. C. Rose,	Scranton,	Delaware & Hudson R. R.
Greenwood No. 12 drift,	Lackawanna,	C. C. Rose,	Scranton,	C. C. Rose,	Scranton,	Delaware & Hudson R. R.
Greenwood No. 13 drift,	Lackawanna,	C. C. Rose,	Scranton,	C. C. Rose,	Scranton,	Delaware & Hudson R. R.
Greenwood No. 2 shaft,	Lackawanna,	C. C. Rose,	Scranton,	C. C. Rose,	Scranton,	Delaware & Hudson R. R.
Greenwood drift,	Lackawanna,	C. C. Rose,	Scranton,	C. C. Rose,	Scranton,	Delaware & Hudson R. R.
Greenwood No. 6 drift,	Lackawanna,	C. C. Rose,	Scranton,	C. C. Rose,	Scranton,	Delaware & Hudson R. R.
Spring Brook shaft,	Lackawanna,	C. C. Rose,	Scranton,	C. C. Rose,	Scranton,	Delaware & Hudson R. R.
Spring Brook slope,	Lackawanna,	C. C. Rose,	Scranton,	C. C. Rose,	Scranton,	Delaware & Hudson R. R.
Scranton Coal Co.						
Pine Brook,	Lackawanna,	John R. Bryden,	Scranton,	J. F. Cumings (outside); J. Van Bergen (inside).	Scranton,	Ontario & Western R. R.
Capouse,	Lackawanna,	John R. Bryden,	Scranton,	J. F. Cumings (outside); J. Van Bergen (inside).	Scranton,	Ontario & Western R. R.
Mount Pleasant,	Lackawanna,	John R. Bryden,	Scranton,	J. F. Cumings (outside); J. Van Bergen (inside).	Scranton,	Ontario & Western R. R.
West Ridge,	Lackawanna,	John R. Bryden,	Scranton,	J. K. Berkheiser,	Olyphant,	Ontario & Western R. R.
Capouse washery,	Lackawanna,	John R. Bryden,	Scranton,	J. F. Cumings,	Scranton,	Ontario & Western R. R.
Mount Pleasant drift,	Lackawanna,	John R. Bryden,	Scranton,	J. F. Cumings,	Scranton,	Ontario & Western R. R.
Green Ridge Coal Co.						
Green Ridge,	Lackawanna,			W. L. Connell,	Scranton,	Erie R. R.
Pennsylvania Coal Co.						
Old Forge No. 1 shaft,	Lackawanna,	W. A. May,	Scranton,	H. F. McMillan,	West Pittston,	E. & W. V. R. R.
Old Forge slope,	Lackawanna,	W. W. Inglis,	Scranton,	H. F. McMillan,		E. & W. V. R. R.
Old Forge No. 2 shaft,	Lackawanna,	W. W. Inglis,	Scranton,	H. F. McMillan,		E. & W. V. R. R.
No. 5 shaft,	Lackawanna,	W. W. Inglis,	Scranton,	Jas. Young,	Dunmore,	E. & W. V. R. R.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Wm. Connell & Co.						
National,	Lackawanna,	Col. E. H. Ripple,	Scranton,	S. T. Jones,	Scranton,	D., L. & W. R. R.
Meadow Brook tunnel,	Lackawanna,	Col. E. H. Ripple,	Scranton,	S. T. Jones,	Scranton,	D., L. & W. R. R.
Connell Coal Co.						
William A., shaft,	Lackawanna,	S. D. Warriner,	Wilkes-Barre,	Thomas Thomas,	West Pittston,	Lehigh Valley R. R.
Lawrence,	Lackawanna,	S. D. Warriner,	Wilkes-Barre,	Thomas Thomas,	West Pittston,	Lehigh Valley R. R.
Drifts 1 and 2,	Lackawanna,	S. D. Warriner,	Wilkes-Barre,	Thomas Thomas,	West Pittston,	Lehigh Valley R. R.
Jermyn & Co.						
Jermyn No. 1,	Lackawanna,	E. B. Jermyn,	Rendham,	E. B. Jermyn,	Rendham,	N. Y., O. & W. R. R.
Jermyn No. 2,	Lackawanna,	E. B. Jermyn,	Rendham,	E. B. Jermyn,	Rendham,	N. Y., O. & W. R. R.
Jermyn No. 3,	Lackawanna,	E. B. Jermyn,	Rendham,	E. B. Jermyn,	Rendham,	N. Y., O. & W. R. R.
Elliott, McClure & Co.						
Sibley,	Lackawanna,	James C. McClure,	Scranton,	James C. McClure,	Scranton,	Lehigh Valley R. R.
A. D. and F. M. Spencer.						
Spencer,	Lackawanna,	A D. Spencer,	Scranton,	H. M. Spencer,	Dunmore,	E. & W. V. R. R.
Nay Aug Coal Co.						
Nay Aug slope,	Lackawanna,			J. D. Caryl,	Dunmore,	D., L. & W. R. R.
Nay Aug washery,	Lackawanna,			J. D. Caryl,	Dunmore,	D., L. & W. R. R.
Gibbons Coal Co.						
Gibbons mine,	Lackawanna,	Michael Gibbons,	Scranton,	Michael Gibbons,	Dunmore.	
North American Coal Co.						
Meadow Brook washery,	Lackawanna,	H. W. Sanns,	Wilkes-Barre,	Chas. B. Sharkey,	Dunmore,	Delaware & Hudson R. R.
National drift,	Lackawanna,	H. W. Sanns,	Wilkes-Barre,	Chas. B. Sharkey,	Dunmore,	Delaware & Hudson R. R.
Bulls Head Coal Co.						
Bulls Head slope,	Lackawanna,	Thos. Baggott,	Scranton,	Thos. Braggott,	Dunmore,	
People's Coal Co.						
Oxford,	Lackawanna,	Jas. H. Shephard,	Scranton,	Jno. G. Hayes,	Scranton,	D., L. & W. R. R.
J. J. Gibbons.						
Gibbons mine,	Lackawanna,	J. J. Gibbons,	Dunmore.			
Mountain Lake.						
Mountain Lake,	Lackawanna,	J. D. Caryl,	Scranton.			

TABLE II—Gives the total number of tons of coal mined in each colliery, number of days worked, number of employes, number of employes killed and injured, number of kegs of powder, etc., used in the Second Anthracite District for the year ending December 31, 1902.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Delaware, Lackawanna & West R. R.												
Archbald,	Lackawanna,	195,562	8,528	612	204,702	1 1	691	2	4	7,476	273	76
Bellevue,	Lackawanna,	173,[illegible]6	5,662	12,057	191,665	122	767	1	5	5,975	800	96
Brisbin,	Lackawanna,	141,777	20,933	2,678	165,388	130	553	1	1	5,124	1,137	71
Cayuga,	Lackawanna,	163,154	12,825	6,588	182,567	129	601	.....	3	5,773	2,902	52
Sloan and Central,	Lackawanna,	175,071	850	6 6	176,357	128	675	.....	9	5,491	.....	80
Continental,	Lackawanna,	133,352	2,017	883	136,272	138	511	1	3	5,181	403	68
Dodge,	Lackawanna,	188,250	3,160	718	192,128	184	577	.....	9	7,506	245	61
Diamond,	Lackawanna,	205,892	21,803	4,637	232,332	1 2	684	1	6	6,467	1,718	85
Hyde Park,	Lackawanna,	145,184	2,751	11,396	159,331	137	534	1	3	5,547	150	84
Manville,	Lackawanna,	91,920	8,647	2,445	103,021	126	429	1	3	6,272	7,500	40
Holden,	Lackawanna,	17,405	1,800	12	19,217	43	242	.....	5	709	50	26
Hampton,	Lackawanna,	105,302	.....	448	105,750	1 2	3 1	.....	1	3,567	.....	53
Pyne,	Lackawanna,	238,082	9,763	1,617	249,462	121	713	.....	3	6 127	725	103
Taylor,	Lackawanna,	1[illegible]7,745	328	4,378	262 451	132	640	1	3	6,573	200	79
Totals,	.....	2,172,701	98,817	49,105	2,320,623	129.3	7,918	9	58	77,344	16,233	975
Washeries—												
Bellevue,	Lackawanna,	238,583	.....	.....	238,583	245	54	.....	.....	.....	.....	4
Diamond,	Lackawanna,	324,547	12 775	.....	337, 22	291	59	.....	.....	.....	.....	4
Hampton,	Lackawanna,	274,426	.....	.....	274,426	314	54	.....	.....	.....	.....	.....
Oxford,	Lackawanna,	61,516	.....	.....	61 516	195	27	.....	.....	.....	.....	.....
Taylor,	Lackawanna,	131,792	3,890	.....	135,682	111	59	.....	1	.....	.....	.....
Totals,	.....	1,0[illegible]0,684	16 665	.....	1,047,524	231	253	.....	1	.....	.....	8
Hampton Central Boiler Plant,	Lackawanna,	.....	.....	.....	.....	.....	19	.....	.....	.....	.....	.....

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Austin Coal Co.						*						
Austin tunnel,	Lackawanna,	19,678	1,705	2,231	23,614	65	124	.....	1	716	1,300	18
Delaware and Hudson Co.												
Dickson,	Lackawanna,	161,038	5,955	3,482	170,475	166	587	1	1	8,277	8,031	61
Von Storch,	Lackawanna,	117,385	38,600	3,751	159,736	123	659	.....	.....	6,251	5,951	68
Totals,		278,423	44,555	7,233	330,211	145	1,246	1	1	14,528	13,982	129
The Hudson Coal Co.												
Greenwood No. 1,	Lackawanna,	66,470	5,866	1,270	73,606	74	493	.....	.....	5,655	6,391	84
Greenwood No. 2,	Lackawanna,	40,679	4,335	146	45,160	73	273	.....	2	1,976	3,043	41
Spring Brook,	Lackawanna,	16,424	3,206	823	20,459	86	167	1	3	1,414	.....	22
Totals,		123,573	13,407	2,245	139,225	77	933	1	5	9,045	9,344	147
Scranton Coal Co.												
Pine Brook,	Lackawanna,	144,278	11,200	3,382	158,860	98	737	1	.....	7,794	4,123	87
Capouse,	Lackawanna,	166,140	10,000	2,195	178,335	111	659	2	4	4,336	2,756	85
Mount Pleasant,	Lackawanna,	81,948	11,200	10,796	103,944	90	585	2	7	6,707	3,550	49
West Ridge,	Lackawanna,	42,179	4,500	3,061	49,740	91	298	.....	5	2,792	1,352	34
Totals,		434,545	36,900	19,434	490,879	97	2,279	5	16	21,629	11,791	255
Washeries—												
Capouse,	Lackawanna,	139,726	3,000	898	143,624	127	61	.....	1	.....	.....	.....
Mt. Pleasant,	Lackawanna,	138,764	5,000	24,739	168,503	205	68	.....	.....	.....	.....	.....
Totals,		278,490	8,000	25,637	312,127	166	129	.....	1	.....	.....	.....
Green Ridge Coal Co.												
Green Ridge,	Lackawanna,	15,544	1,103	13,842	30,489	41	427	.....	3	1,236	600	42

*Totals in this column are averages.

Pennsylvania Coal Co.							*						
Old Forge,	Lackawanna,	157,580	12,659	.....	170,239	107	738	1	2	6,258	6,645	68
No. 5 drift,	Lackawanna,	107,363	3,687	.....	111,050	122	396	.....	1	4,549	899	33
Totals,		264,943	16,346	.....	281,289	114	1,134	1	3	10,807	7,544	101
William Connell & Co.												
National,	Lackawanna,	51,792	7,200	6,616	65,608	96	390	.....	4	3,326	7,550	52
Connell Coal Co.												
William A.,	Lackawanna,	164,551	10,038	2,331	176,920	126	635	2	6	6,260	7,025	67
Lawrence,	Lackawanna,	53,646	3,210	.....	56,856	74	146	.....	1	1,969	3,500	13
Totals,		218,197	13,248	2,331	233,776	100	781	2	7	8,229	10,525	80
Jermyn & Co.												
Jermyn No. 1,	Lackawanna,	128,906	8,837	4,197	141,940	105	672	2	3	7,045	3,050	46
Jermyn No. 2,	Lackawanna,	137,074	7,600	.....	144,674	108	550	.....	3	6,225	6,375	35
Totals,		265,980	16,437	4,197	286,614	106	1,222	2	6	13,270	9,425	81
Elliott, McClure & Co.												
Sibley,	Lackawanna,	78,633	8,480	1,268	88,381	91	495	.....	.....	3,018	900	40
A. D. and F. M. Spencer.												
Spencer,	Lackawanna,	27,909	2,000	906	30,815	33	.....	.....	.....	.....	.....	.....
Nay Aug Coal Co.												
Nay Aug mine,	Lackawanna,	19,071	.....	83	19,154	74	113	2	.....	363	550	20
Nay Aug washery,	Lackawanna,	24,205	1,529	75	25,809	75						
Totals,		43,276	1,529	158	44,963	74	113	2	.....	363	550	20
Gibbons Coal Co.												
Gibbons,	Lackawanna,	2,360	800	7,936	11,096	131	49	.....	1	455	125	10
North American Coal Co.												
Meadow Brook washery,	Lackawanna,	11,123	1,000	440	12,563	71	24	.....	.....	.....	.....	2
National drift washery,	Lackawanna,	86,338	5,561	.....	91,899	167	33	.....	.....	.....	.....	1
Totals,		97,461	6,561	440	104,462	119	57	.....	.....	.....	.....	3
Bulls Head Coal Co.												
Bulls Head,	Lackawanna,	10,377	1,500	11,305	23,182	100	90	.....	.....	700	50	24
People's Coal Co.												
Oxford,	Lackawanna,	107,403	10,179	62,254	179,836	234	368	.....	2	5,700	875	87
J. J. Gibbhons,	Lackawanna,	.....	286	5,182	5,468	143	16	.....	.....	144	.....	1
Mountain Lake,	Lackawanna,	.....	70	2,468	2,538	68	18	1	.....	75	.....	2
Grand totals,		5,522,149	305,788	224,788	6,052,725	108	18,229	24	109	170,855	90,784	2,120

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries	County.	Number of Boilers.				Total horse power.	Locomotives.		Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.	Horse power.		Steam.	Electric.							
Delaware, Lackawanna & Western R. R., ..	Lackawanna, ...	12.	4,100	37	6,610	10,719	16	9	216	15 697	40	28,063	17.61	4	.....
Dela., Lack & West R. R Co., washeries, .	Lackawanna, ...	.....	.....	7	740	740	.....	.....	2.	1,66.	.....	.....	.....	....	.....
Hampton Central Boiler Plant, ...	Lackawanna, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	.....
Austin Coal Co., ...	Lackawanna, ...	7	140	1	100	240	1	.....	19	550	1	550	2 0	1	2
Delaware and Hudson Co., ...	Lackawanna, ...	.....	.....	8	2,000	2,000	.....	.....	57	3,69.	4	3,600	2,.60	....	1
The Hudson Coal Co., ...	Lackawanna, ...	2.	595	8	800	1,395	3	.....	27	1 246	5	1,90(	1.1 3	...	2
Scranton Coal Co., ...	Lackawanna, ...	12	180	17	2,330	2,510	3	2	36	3,3.2	12	6,605	5,705	1	.....
Scranton Coal Co., washeries, ...	Lackawanna, ...	.....	.....	6	855	855	.....	.....	3	105	5	3,500	3,500	....	.....
Green Ridge Coal Co., ...	Lackawanna, ...	21	52.	.....	.....	525	.....	2	11	1. 6	2	60	500	1	.....
Pennsylvania Coal Co., ...	Lackawanna, ...	.....	.....	11	1,610	1 610	2	.....	36	1 840	5	2.81(	1.660	.....	1
William Connell & Co., ...	Lackawanna, ...	18	4 0	2	150	60	1	.....	9	40	3	1.8 0	1,.00	.....	.....
Connell Coal Co., ...	Lackawanna, ...	33	990	.....	.....	9	.....	.....	18	.....	2	1.2 (	1,0.0	1	1
Jermyn & Co., ...	Lackawanna, ...	2	55	7	1 050	1,600	1	.....	20	1.519	4	2 80(	1.9 0	.....	.....
Elliott, McClure & Co., ...	Lackawanna, ...	8	200	4	55	750	.....	.....	12	.....	3	1,.0(	1,500	.....	.....
A. D. & F. M Spencer, ...	Lackawanna, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nay Aug Coal Co., ...	Lackawanna, ...	.....	.....	3	180	180	.....	.....	6	218	.....	.....	.....	.....	.....
Gibbons Coal Co., ...	Lackawanna, ...	1	40	1	2.	60	.....	.....	2	3.	....	.....	.....	.....	.....
North American Coal Co., ...	Lackawanna, ...	.....	.....	8	170	680	.....	.....	6	320	.....	.....	.....	.....	.....
Bulls Head Coal Co., ...	Lackawanna, ...	3	52	.....	.....	52	.....	.....	5	1.4	.....	.....	.....	.....	.....
People's Coal Co., ...	Lackawanna, ...	2	4.0	5	750	1,20(	.....	.....	7	4.0	3	1,575	75(	1	1
J. J. Gibbons.	Lackawanna, ...	.....	.....	1	5	5(	.....	.....	2	20	.....	.....	.....	.....	.....
Mountain Lake, ...	Lackawanna, ...	.....	.....	1	2.	2.	.....	.....	1	15	.....	.....	.....	.....	.....
Grand totals, ...	.....	289	8,547	128	18,020	27,077	27	13	532	32,587	90	57 103	39,458	9	8

TABLE III—Showing the number of each class of employes at each colliery in the Second Anthracite District, during the year 1902.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.											Occupations of Persons Employed Outside.									Grand total Inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	Pumpmen.	Company men.	All other employes.	Total Inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Bookkeepers and clerks.	All other employes.	Total outside.	
Del., Lack'a & West. R. R. Co.																						
Archbald,	Lackawanna	1	1	3	190	180	60	12	2	81	.....	530	...	1	8	9	48	40	2	61	169	699
Bellevue,	Lackawanna	3	....	5	183	187	87	27	6	48	19	565	....	1	7	10	77	9	2	46	152	717
Brisbin,	Lackawanna,	1	1	4	150	150	75	16	5	30	13	445	...	1	7	10	34	2	2	52	108	553
Cayuga,	Lackawanna,	1	1	4	154	151	60	14	2	5	60	455	....	2	8	9	75	4	2	45	145	600
Sloan,	Lackawanna,	1	....	3	76	80	30	13	2	38	11	274	...	1	5	4	74	13	2	73	172	426
Central,	Lackawanna	1	....	2	73	73	25	21	6	39	.....	240	..	...	2	7	.....	.....	.....	.....	9	249
Continental,	Lackawanna	2	....	3	124	124	54	14	2	18	41	382	...	1	5	6	44	16	2	58	132	514
Dodge,	Lackawanna,	1	1	3	155	155	56	17	2	21	48	459	..	1	5	7	35	.....	2	68	118	577
Diamond,	Lackawanna,	2	....	6	181	185	60	22	4	48	16	524	...	1	8	18	50	11	2	70	160	684
Hyde Park,	Lackawanna	1	1	3	134	134	53	17	.....	24	37	404	...	1	4	4	50	20	3	48	130	534
Manville,	Lackawanna,	1	....	5	120	120	42	13	1	27	.....	329	...	1	5	11	45	.....	2	36	100	429
Holden,	Lackawanna,	1	....	1	55	55	14	8	2	5	31	172	...	1	2	4	25	6	1	31	70	242
Hampton,	Lackawanna	1	....	3	81	83	26	9	2	27	2	234	...	1	3	2	46	5	1	49	107	341
Pyne,	Lackawanna,	1	1	3	173	173	66	12	2	53	26	510	...	3	8	11	53	35	2	91	203	713
Taylor,	Lackawanna,	2	....	3	161	151	58	20	2	61	.....	458	...	1	6	10	76	13	3	73	182	640
Totals,	.....	20	6	51	2,010	2,001	766	235	40	525	304	5,961	...	17	83	122	732	174	28	801	1,957	7,918
Washeries—																						
Bellevue,	Lackawanna,	1	....	.....	.....	.....	.....	.....	.....	7	.....	8	...	1	1	3	3	.....	1	37	46	54
Diamond,	Lackawanna,	...	....	1	.....	.....	.....	.....	1	12	.....	14	...	2	1	4	4	.....	2	32	45	59
Hampton,	Lackawanna,	1	....	.....	.....	.....	.....	.....	.....	.....	6	7	...	1	.....	3	.....	.....	1	42	47	54
Oxford,	Lackawanna	1	....	....	1	2	.....	.....	3	.....	.....	7	..	1	.....	3	.....	.....	1	15	20	27
Taylor,	Lackawanna,	1	....	....	1	3	.....	.....	.....	10	.....	15	...	1	2	4	3	2	1	31	44	59
Totals,	.....	4	....	1	2	5	.....	.....	4	29	6	51	...	6	4	17	10	2	6	157	202	253

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.											Occupations of Persons Employed Outside.									Grand total inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Bookkeepers and clerks.	All other employes.	Total outside.	
Hampton Central Boiler Plant,	Lackawanna,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	....	2	.....	7	.....	.....	.....	10	19	19
Totals,	.....	24	6	52	2,012	2,009	766	235	44	554	310	6,012	....	25	87	146	742	176	34	968	2,178	8,190
Austin Coal Co.																						
Austin tunnel,	Lackawanna,	1	....	....	28	26	13	.....	1	6	9	84	1	1	4	3	8	7	1	15	40	124
Delaware and Hudson Co.																						
Dickson,	Lackawanna,	1	2	5	157	157	72	18	2	59	4	477	....	1	3	11	36	9	1	49	110	587
Von Storch,	Lackawanna,	1	1	4	177	177	80	18	2	.....	75	535	1	1	14	14	13	23	2	56	124	659
Totals,	.....	2	3	9	334	334	152	36	4	59	79	1,012	1	2	17	25	49	32	3	105	234	1,246
The Hudson Coal Co.																						
Greenwood No. 1,	Lackawanna,	1	1	2	131	99	53	16	3	20	11	337	....	1	11	10	59	5	1	69	156	493
Greenwood No. 2,	Lackawanna,	1	....	1	64	54	25	2	2	9	5	163	....	1	8	8	22	6	1	64	110	273
Spring Brook,	Lackawanna,	1	....	....	43	28	24	4	1	12	1	114	....	1	2	4	25	.....	1	20	53	167
Totals,	.....	3	1	3	238	181	102	22	6	41	17	614	....	3	21	22	106	11	3	153	319	933
Scranton Coal Co.																						
Pine Brook,	Lackawanna,	1	1	4	156	166	98	64	5	.....	61	556	1	1	9	11	54	37	5	63	181	737
Capouse,	Lackawanna,	1	1	3	151	161	90	19	6	.....	70	502	1	1	9	9	59	22	5	51	157	659
Mount Pleasant,	Lackawanna,	2	2	3	155	135	57	25	3	.....	67	449	1	1	6	11	50	12	2	53	136	585
West Ridge,	Lackawanna,	1	....	2	70	60	23	5	1	.....	39	201	1	1	3	4	39	14	2	33	97	298
Totals,	.....	5	4	12	532	522	268	113	15	.....	237	1,708	4	4	27	35	202	85	14	200	571	2,279

Washeries--																							
Capouse,	Lackawanna,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	2	5	7	.....	5	40	61	61
Mt. Pleasant,	Lackawanna,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	2	4	10	.....	.....	50	68	68
Totals,		....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	2	2	4	9	17	.....	5	90	129	129
Grand totals,		5	4	12	532	522	268	113	15	.....	237	1,708	6	6	31	44	219	85	19	290	700	2,408
Green Ridge Coal Co.																							
Green Ridge,	Lackawanna,	1	1	3	122	110	63	14	3	15	12	344	1	1	8	10	13	4	3	43	83	427
Pennsylvania Coal Co.																							
Old Forge,	Lackawanna	2	1	3	238	190	82	7	1	24	10	558	...	1	5	15	44	54	2	59	180	738
No. 5 shaft,	Lackawanna,	1	....	1	143	111	42	10	1	5	14	328	....	1	4	5	42	12	1	3	68	396
Totals,		3	1	4	381	301	124	17	2	29	24	886	....	2	9	20	86	66	3	62	248	1,134
Wm. Connell & Co.																							
National and Meadow Brook tunnel,	Lackawanna,	2	....	1	104	75	51	12	2	30	.....	280	....	1	8	10	60	4	3	24	110	390
Connell Coal Co.																							
Wm. A.,	Lackawanna,	1	2	1	200	120	95	9	6	32	.....	466	1	1	9	10	75	10	3	60	169	635
Lawrence,	Lackawanna,	1	....	1	40	12	15	.....	.....	10	.....	79	...	1	4	6	12	3	1	40	67	146
Totals,		2	2	2	240	132	110	9	6	42	.....	545	1	2	13	16	87	13	4	100	236	781
Jermyn & Co.																							
Jermyn No. 1,	Lackawanna,	1	1	2	187	166	68	10	6	59	.....	500	1	1	5	13	72	19	2	59	172	672
Jermyn No. 2,	Lackawanna,	1	...	3	172	120	55	11	2	72	.....	436	1	1	5	6	37	29	2	33	114	550
Totals,		2	1	5	359	286	123	21	8	131	.....	936	2	2	10	19	109	48	4	92	286	1,222
Elliott, McClure & Co.																							
Sibley,	Lackawanna,	1	1	1	100	90	54	9	6	24	50	336	1	1	5	8	88	17	2	37	159	495
A. D. & F. M. Spencer.																							
Spencer,	Lackawanna,	1	....	1	21	25	12	5	3	6	30	104	1	2	1	12	20	.....	1	27	64	168
Nay Aug Coal Co.																							
Nay Aug,	Lackawanna,	1	...	....	15	15	12	3	.....	5	9	61	1	1	3	5	13	2	1	27	53	113
Gibbons Coal Co.																							
Gibbons' mine,	Lackawanna,	1	....	....	12	12	3	.....	.....	1	.....	29	....	1	1	2	9	.....	2	5	20	49
North American Coal Co.																							
Meadow Brook washery,	Lackawanna,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1	2	.....	.....	1	18	24	24
National washery,	Lackawanna,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	2	4	.....	.....	1	24	33	33
Totals,		....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	2	2	3	6	.....	.....	2	42	57	57
Bull's Head Coal Co.																							
Bull's Head,	Lackawanna,	1	....	....	23	13	11	.....	.....	4	.....	52	....	1	2	3	16	2	2	12	38	90

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.											Occupations of Persons Employed Outside.									Grand total inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Bookkeepers and clerks.	All other employes.	Total outside.	
People's Coal Co. Oxford,	Lackawanna,	1	....	2	81	92	42	15	.....	22	17	272	2	1	9	8	23	1	6	46	96	368
J. J. Gibbons,		1	....	....	2	2	1	.....	1	.....	.....	7	1	....	1	1	3	.....	1	2	9	16
Mountain Lake,	Lackawanna,	1	....	....	2	2	2	.....	.....	.....	.....	7	1	1	.....	1	3	.....	1	4	11	18
Grand totals,		53	20	95	4,606	4,227	1,912	511	101	969	794	13,288	21	55	233	361	1,654	468	95	2,054	4,941	18,229

TABLE III—Continued.

Names of Operators and Collieries.	County.	Number of Days Worked Each Month in Breaker.												
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Totals.
Delaware, Lackawanna and Western R. R. Co.,	Lackawanna,	20.2	14.6	18.5	20.3	7.5	.....	.....	8.4	14.4	8.0	21.0	20.1	129.3
Delaware, Lack'a and West. R. R. Co. washeries,	Lackawanna,	25.0	21.1	25.5	20.0	14.2	14.5	17.7	17.5	23.3	27.5	24.9	22.4	231.5
Dela., Lack'a and West. R. R. Co. boiler plant,	Lackawanna,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Austin Coal Co.,	Lackawanna,	11.2	10.0	8.4	8.5	2.8	.....	.....	.....	.....	5.9	8.4	10.3	65.5
Delaware and Hudson Co.,	Lackawanna,	19.7	17.0	18.2	20.7	6.6	.....	.....	6.2	6.5	9.5	18.6	21.75	145.
The Hudson Coal Co.,	Lackawanna,	13.7	12.0	11.8	10.5	3.4	.....	.....	.....	.....	2.7	13.2	17.1	78.1
Scranton Coal Co.,	Lackawanna,	13.4	9.2	14.9	16.7	5.9	.....	.....	.....	.....	6.5	15.6	17.1	97.8
Scranton Coal Co. washeries,	Lackawanna,	24.2	12.6	16.8	15.2	8.4	9.8	16.1	15.2	25.6	23.8	12.5	15.5	166.5
Green Ridge Coal Co.,	Lackawanna,	.....	.....	.....	.....	2.6	.....	.....	.....	.....	4.6	16.4	17.4	41.
Pennsylvania Coal Co.,	Lackawanna,	14.2	10.4	17.7	17.9	7.7	.....	.....	.....	.....	5.9	20.4	20.2	114.6
Wm. Connell & Co.,	Lackawanna,	15.5	12.7	11.4	15.6	5.8	.....	.....	.....	.....	4.1	14.1	14 1	96.3
Connell Coal Co.,	Lackawanna,	23.2	21.8	20.1	20.9	8.2	.....	.....	.....	.....	3.7	20.1	14.7	106.3
Jermyn & Co.,	Lackawanna,	18.7	12.8	14.9	18.6	5.1	.....	.....	.....	.....	1.8	16.9	18.1	107.1
Elliott, McClure & Co.,	Lackawanna,	17.8	11.4	1.5	15.7	4.7	.....	.....	.....	.....	4.3	17.4	18.2	91.
A. D. & F. M. Spencer,	Lackawanna,	12.2	8.2	9.5	3.9	.....	.....	.....	.....	.....	.....	.....	.....	33.8
Nay Aug Coal Co.,	Lackawanna,	12 5	9.25	17.25	20.5	8.0	.....	.....	9.5	22.5	20.0	18.5	11.5	150.
Gibbons Coal Co.,	Lackawanna,	20.0	18.0	21.0	18.0	4.2	.....	.....	.....	.....	6.0	22.0	22.0	131.2
North American Coal Co.,	Lackawanna,	22.0	18.0	17.5	21.5	12.5	.....	.....	.....	17.0	25.0	22.0	13 0	119.
Bulls Head Coal Co.,	Lackawanna	15.5	13.0	14.0	16.0	8.0	.....	.....	.....	.....	4.0	15.0	14.5	100.
People's Coal Co.,	Lackawanna,	25.8	23.9	25.4	24.7	9.0	.....	.....	25.5	26.0	24.0	24.0	25 6	234.
J. J. Gibbons,	Lackawanna,	18.0	15.0	20.0	21.0	22.0	.....	.....	.....	.....	3.0	24.0	24.0	143.
Mountain Lake,	Lackawanna,	.....	.....	.....	.....	4.25	14.75	13.25	2.75	1.25	3.75	13.5	15.0	68.5

TABLE IV—List of fatal accidents that occurred in and about the mines of the Second Anthracite District for the year ending December 31, 1902.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 9	Hopkin Picknill, ...	Welsh, ...	Miner, ...	60	M.	1	....	Old Forge No. 2,..	Lackawanna,	Killed by fall of roof at a point 30 feet from the face of chamber. He was securing the roof at the time of the accident.
13	James Woods, ...	American, ..	Driver, ...	17	S.	.....	....	Wm. A., ...	Lackawanna,	Was sitting at the corner of a pillar when a trip of loaded cars jumped the track, striking him with fatal results.
16	Chas. Kintchack, ...	Polish, ...	Miner, ...	38	M.	1	3	Mount Pleasant,...	Lackawanna,	Died January 28, 1902, from injuries inflicted by flying coal from blast. The victim was returning to the face thinking the squib had missed.
20	John Allen, ...	American, .	Driver, ...	15	S.	.....	....	Nay Aug slope, ...	Lackawanna,	Died January 22d, 1902, from injuries resulting from being crushed between a mule and a car.
23	John Dougherty, ...	Irish, ...	Driver, ...	15	S.	.....	....	Brisbin, ...	Lackawanna,	Killed by being crushed between the top rail of a mine car and a pillar on the narrow side of a chamber branch.
25	Julus Snyder, ...	American, .	Driver, ...	21	S.	.....	....	Nay Aug slope, ...	Lackawanna,	Killed by being crushed between a car and pillar on the narrow side of a gangway road.
22	John Dowry, ...	Irish, ...	Miner, ...	34	S.	.....	....	Continental, ...	Lackawanna,	Died January 28th, 1902. He was preparing a charge of powder, when the contents of the keg exploded.
Feb. 4	Contantine Sulcavitch,..	Lithuanian,	Laborer,.....	35	M.	1	1	Manville, ...	Lackawanna,	Fall of roof. The victim disobeyed the orders of his miner by returning to the face before the roof had been examined after a blast. Died the same day.
12	Edward Fallon, ...	American, .	Driver, ...	16	S.	.....	....	Jermyn No. 3, ...	Lackawanna,	Crushed between a car and rib on the narrow side of a gangway road.
March 11	Wm. Ord, ...	American,	Co. man, ...	22	S.	.....	....	Hyde Park, ...	Lackawanna,	Fell from Big Vein landing in main shaft to the Clark Vein below. An inquest was held. The coroner's jury failed to place the responsibility.

	15	Thos. Mullany, ...	Irish, ...	Laborer, ...	30	S.	....	....	Archbald, ...	Lackawanna,	Instantly killed by fall of roof in a counter gangway. The miner had just made an examination of the roof and pronounced it safe.
	27	John Keehn, ...	American, .	Miner,.....	37	S.	....	....	Tripp slope, Diamond.	Lackawanna,	Killed by fall of roof in which he was drilling a hole.
April	25	John Golden, ...	Polish, ...	Miner, ...	34	M.	1	2	Capouse, ...	Lackawanna,	Died April 30th, from injuries inflicted by flying coal from blast. He supposed the squib had missed and was going back to it.
	25	Henry Kuhn, ...	German, ...	Laborer, ...	58	M.	1	1	Bellevue shaft,....	Lackawanna,	Killed by flying coal from blast. He had retired to a point 150 feet from the charge, but had not taken shelter in a cross cut.
May	5	Otto Brath, ...	German, ...	Miner,.....	34	M.	1	5	Dickson, ...	Lackawanna,	Killed at face of chamber by a premature blast.
	5	Paul Condeffer, ...	Polish, ...	Laborer, ...	23	S.	....	....	Archbald, ...	Lackawanna,	Killed by fall of roof at face of chamber in Rock Vein workings.
	6	Richard Crocker, ...	English, ...	Doorboy, ...	16	S.	....	....	Taylor shaft, ...	Lackawanna,	He applied the flame of his lamp to dry some oil on his clothes. The flames spread, burning him severely. He died two days later.
	7	Joseph Romanoyskie,...	Polish, ...	Laborer, ...	32	M.	1	....	Spring Brook slope	Lackawanna,	Killed by explosion of powder. The miner and laborer were charging a hole with explosives.
Oct.	23	Thos. Doran, ...	Irish, ...	Miner, ...	35	M.	1	2	Wm. A..	Lackawanna,	Instantly killed by fall of roof rock while operating an air drill.
Nov.	11	James McGonegal, ...	Irish, ...	Miner, ...	52	M.	1	1	Mount Pleasant,..	Lackawanna,	Fatally injured by fall of roof in a narrow place in the Big Vein. Died in the company's ambulance.
	11	Geo. Huss, ...	German, ...	Miner, ...	40	M.	1	6	Jermyn No. 1, ...	Lackawanna,	Instantly killed by a fall of rock at the face of chamber in the Baltimore Vein.
	25	Hopkin Hopkins, ...	Welsh, ...	Miner, ...	35	M.	1	4	Capouse, ...	Lackawanna,	Fatally injured by a fall of top coal. The victim was preparing a place to stand a prop when the accident occurred.
	26	Chas. Biernich, ...	German, ...	Slate picker,	14	S.	....	....	Mountain Lake, ..	Lackawanna,	While the victim was away from his post he fell headlong into the rolls and was instantly killed.
Dec.	27	Jas. Scott, ...	Irish, ...	Miner, ...	45	M.	1	4	Pine Brook, ...	Lackawanna,	Instantly killed by a premature blast in the Dunmore No. 3 Vein.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Second Anthracite District for the year ending December 31, 1902.

Date of accident.		Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan.	2	Anthony Manley,	Irish,	Miner,	48	M	Dia-Tripp shaft,	Lackawanna,	Slightly injured by blast.
	3	Dd. Thomas,	Welsh,	Miner,	45	S.	Tripp drift,	Lackawanna	Ribs fractured by falling roof.
	4	Ben Casey,	American,	Runner,	20	S.	William A.,	Lackawanna,	Arm fractured and body bruised by mine cars.
	7	Jos. Sitka,	Polish,	Laborer,	25	S.	Pyne,	Lackawanna,	Foot injured by descending cage.
	8	Nicholas Bennett,	Welsh,	Miner,	54	M	Dodge,	Lackawanna,	Shoulder and hips bruised by falling roof.
	9	Emanuel James,	Welsh,	Carpenter,	42	M.	Cayuga,	Lackawanna	Scalp wound inflicted by cement falling in shaft.
	10	Richard Dunnugan,	Irish,	Miner,	37	S.	No. 5 shaft, Penna,	Lackawanna,	Leg fractured by falling roof at face of chamber.
	13	Joseph Dusky,	Polish,	Laborer,	51	M.	Hampton,	Lackawanna,	Cut on head and body bruised by fall of rock in working face.
	14	James McLoughney,	Irish,	Laborer,	30	S.	Taylor shaft,	Lackawanna,	Slightly injured by a fall of roof in chamber.
	18	Thomas Came,	American,	Laborer,	18	S.	Hyde Park,	Lackawanna	Slightly injured by a fall of roof.
	20	Edward Hogan,	Irish,	Footman,	16	S.	Sloan,	Lackawanna.	Leg fractured by mine cars.
	22	Anthony Busick,	Polish,	Laborer,	32	S.	West Ridge,	Lackawanna,	Burned on hands and back by explosion of gas.
	23	Wasko Selensky,	Polish,	Miner,	34	M.	Jermyn No. 2,	Lackawanna,	Slightly injured by a fall of soapstone.
	25	Mike Nedcenkie,	Russian,	Miner,	60	M.	Tripp slope, Dia.,	Lackawanna	Ribs fractured by a fall of roof.
	27	Thos. V. Jones,	Welsh,	Miner,	63	M	Central,	Lackawanna,	Leg fractured by a fall of roof at face of chamber.
	31	Dd. Z. Davies,	Welsh,	Footman,	23	S.	Dodge,	Lackawanna,	Foot slightly injured by cars.
	31	M. Lynch,	Irish,	Laborer,	20	S	Mt. Pleasant,	Lackawanna.	Slightly injured; cut his foot with an axe.
Feb.	2	Thomas Pasco,	Polish,	Co. man,	32	M.	Jermyn No. 2,	Lackawanna.	Slightly injured by explosion of gas.
	3	Wm. Joseph,	Welsh,	Laborer,	50	M.	Dodge,	Lackawanna	Rib fractured; pushed by a crowd into contact with the descending cage.
	3	Andrew Teba,	Polish,	Miner,	46	M.	Pyne,	Lackawanna	Injured by a premature blast.
	4	Dd. J. Davies,	Welsh	Runner,	20	S.	Pyne,	Lackawanna	Leg fractured by cars.
	5	Wm. Ludwig,	German,	Laborer,	30	M.	Dodge,	Lackawanna	Arm fractured by cars.
	5	Mc. Kennedy,	Polish,	Miner,	35	M.	Bellevue slope,	Lackawanna	Severely injured by a fall of roof.
	6	Wm. Hughes,	Welsh,	Miner,	50	M.	Bellevue shaft,	Lackawanna,	Injured by a fall of roof in Dunmore mine vein.
	10	Thos. Williams,	Welsh,	Miner,	29	S.	Dodge,	Lackawanna	Injured by fall of roof.
	15	John Ruane,	Irish,	Door boy,	15	S.	Manville,	Lackawanna,	Leg fractured by falling under cars

	12	Thos. Jenkins,	Welsh,	Runner,	19	S.	Sloan,	Lackawanna,	Leg fractured while he was coupling cars.
March	11	Stanley Dunlavish,	Polish,	Laborer,	38	M.	Taylor shaft,	Lackawanna,	Leg fractured by a fall of roof.
	11	Dom Dayute,	Italian,	Laborer,	46	M.	William A.,	Lackawanna,	Injured by fall of roof.
	13	John Uobosh,	German,	Miner,	38	M.	West Ridge,	Lackawanna,	Severely injured by a premature blast caused by ignited gas.
	17	Joe Buck,	Irish,	Door boy,	15	S.	Diamond,	Lackawanna,	Struck by a car while away from his post of duty.
	18	John Cusick,	Lithuanian,	Laborer,	30	M.	Manville,	Lackawanna,	Collar bone fractured by fall of roof.
	21	Dd. Evans,	Welsh,	Driver,	17	S.	Brisbin,	Lackawanna,	Leg injured by falling under car.
	15	Thos. Hopkins,	American,	Driver,	27	S.	Oxford (People's),	Lackawanna,	Slightly injured; kicked by mule.
	24	Martin Klink,	German,	Engineer, o. s.,	36	M.	William A., breaker,	Lackawanna	Slightly injured; scalded by escaping steam.
	24	Steve Guskie,	Polish,	Miner,	27	M.	Mt. Pleasant,	Lackawanna,	Slightly injured by explosion of gas.
	27	Mike Coffel,	Slavonic,	Laborer,	33	M.	West Ridge,	Lackawanna,	Seriously injured by fall of roof.
	29	Andrew Hailstone,	German,	Miner,	42	M.	Mt. Pleasant,	Lackawanna,	Rib fractured and shoulder dislocated by fall of roof.
April	2	Edward Griffiths,	American,	Driver,	17	S.	Central,	Lackawanna,	Ankle severely injured by cars.
	3	Pat. Cashey,	American,	Laborer,	26	M.	Oxford (People's),	Lackawanna,	Ankle fractured by fall of roof in chamber.
	3	Ralph Sauvage,	Lithuanian,	Driver,	16	S.	Cayuga,	Lackawanna,	Compound fracture of leg by electric motor.
	4	John R. Jones,	Welsh,	Laborer,	63	M.	Pyne,	Lackawanna	Leg fractured by cars jumping the track and striking him.
	7	Wm. Thomas,	Welsh,	Miner,	24	S.	Sloan,	Lackawanna,	Leg fractured by fall of roof.
	9	John J. Davies,	Welsh,	Driver,	16	S.	Jermyn No. 2,	Lackawanna,	Foot injured by cars.
	10	Isaac Rossar,	English,	Miner,	45	M.	Archbald,	Lackawanna,	Leg fractured by fall of roof.
	15	Wm. Tragar,	American,	Driver,	16	S.	Hyde Park,	Lackawanna,	Fell off bumper of car.
	25	Pete Gill,	Irish,	Runner,	22	S.	Capouse,	Lackawanna	Finger cut-off by cars.
	28	Alex. Menicka,	Lithuanian,	Miner,	41	M.	Dickson,	Lackawanna,	Seriously injured by flying coal from a blast.
May	5	H. S. Wilbur,	American,	Carpenter, o.s.,	20	M.	Holden breaker,	Lackawanna	Foot cut by falling sheet iron.
	7	Hy. Davis,	Welsh,	Miner,	39	M	Dodge,	Lackawanna	Arm fractured by flying coal from blast.
	7	Anthony Kosack,	Polish,	Miner,	23	S.	Spring Brook slope,	Lackawanna,	Seriously injured by an explosion of powder. He was helping his miner to charge a hole.
	8	Edward Moran,	Irish,	Miner,	30	M	Archbald,	Lackawanna,	Foot bruised by fall of roof.
Aug.	16	John Guyenskie,	Polish,	Laborer,	50	S.	Dodge,	Lackawanna	Cut on head by fall of roof.
	29	Tony Kaespskie,	Slavonic,	Loader, o. s.,	30	S.	Taylor washery,	Lackawanna.	Leg fractured by cars.
Sept.	29	John Toba,	Italian,	Laborer,	40	M.	Oxford (People's),	Lackawanna,	Cut on head and arm by flying coal from blast.
Oct.	3	Waltr. Lamcreaut,	German,	Brakeman, o.s.,	17	S.	Old Forge breaker,	Lackawanna.	Leg fractured; locomotive and cars jumped the track.
	8	Eugene Evans,	American,	Driver,	16	S.	Cayuga,	Lackawanna.	Leg fractured by cars.
	23	Henry Rapp,	American,	Miner,	28	S.	William A.,	Lackawanna,	Seriously injured by a fall of rock.
	25	Wm. R. Jones,	Welsh,	Co. man,	58	M.	Continental,	Lackawanna,	Head and eye injured by flying coal from blast.
	23	John Battle,	Irish,	Head man,	23	S.	Gibbons Coal Co.,	Lackawanna	Leg fractured by cars jumping the track.
	25	Chas. Fahey,	Irish,	Driver,	18	S.	National,	Lackawanna,	Hip bone fractured by a kick from a mule
	29	Wm. Beynon,	Welsh,	Contractor,	46	M	Holden,	Lackawanna.	
	29	Geo. Thomas,	Welsh,	Rockman,	34	M	Holden,	Lackawanna,	Injured by flying coal and rock from a blast.
	29	Tallie Thomas,	Welsh,	Rockman,	28	M	Holden,	Lackawanna,	
	31	Jos. Moore,	Irish,	Driver,	35	S.	Meadow Brook,	Lackawanna.	Crushed between prop and mule; arm fractured.
	31	Jno. H. Williams,	Welsh,	Co. man,	30	M.	Mt. Pleasant,	Lackawanna,	Seriously injured by falling roof rock.

TABLE V—Continued.

Date of accident.		Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Nov.	1	Adam Warner,	German,	Miner,	47	M	Hyde Park,	Lackawanna,	Arm fractured by cars.
	3	Benj. Milarskie,	Polish,	Miner,	35	M.	Jermyn No 1,	Lackawanna.	Hip bone fractured by fall of roof.
	3	Michl. Lodruskie,	Slavonic,	Miner,	30	M	Green Ridge,	Lackawanna.	Seriously injured by flying coal from a blast.
	5	Pat. Reap,	American,	Miner,	28	S.	Old Forge No. 2,	Lackawanna,	Leg fractured by fall of roof.
	6	Thomas Hall,	Irish,	Driver,	19	S.	Green Ridge,	Lackawanna.	Injured by falling under cars.
	6	Saml. Fahy,	American,	Footman,	2.	S.	National,	Lackawanna,	Three ribs fractured by descending cage at foot of shaft.
	10	Roy Smith,	American,	Driver,	18	S.	Tripp drift,	Lackawanna,	Hip dislocated; struck by cars.
	10	Andy Hosner,	German,	Driver,	18	S.	William A.,	Lackawanna.	Squeezed between car and rib.
	11	John Wishueple,	Polish,	Miner,	29	M	Mt. Pleasant,	Lackawanna.	Struck by flying coal from blast.
	19	Jos. Stivo,	Polish,	Laborer,	33	M	Continental,	Lackawanna,	Leg fractured by falling roof.
	21	Paul Gulka,	Polish,	Laborer,	37	M	Dodge,	Lackawanna.	Bruised on arm and back by falling roof.
	25	Michl. Shunosky,	Polish,	Laborer,	26	S.	Capouse,	Lackawanna	Injured by a fall of coal in a pillar, robbing place.
	25	Chas. Sardosky,	Polish,	Laborer,	25	S.	Capouse,	Lackawanna	
	27	Michl. Sullivan,	Irish,	Miner,	40	M	Manvill's,	Lackawanna,	Leg and back bruised by falling rock.
	29	Joe Lintol,	American,	Driver,	1	S.	West Ridge,	Lackawanna.	Slightly injured on thigh by cars.
	29	Mike Solyn,	Slavonic,	Co. man,	27	S	Capouse washery,	Lackawanna.	Leg fractured and ear tore by machinery.
	29	John Walters,	Welsh,	Runner,	21	S.	Bellevue shaft,	Lackawanna.	Leg crushed between the bumpers of two cars.
Dec.	2	Wm. McNicholas,	Irish,	Miner,	34	S.	Sloan,	Lackawanna.	Burned by an explosion of gas at face of chamber after a blast.
	2	Michl. Cannon,	Irish,	Miner,	44	M	Sloan,	Lackawanna.	
	3	Thos. Ford	Irish,	Miner,	34	M	Spring Brook shaft,	Lackawanna,	Burned by the explosion of a keg of powder.
	3	Peter Carlisky,	Slavonic,	Laborer,	30	S	Spring Brook shaft,	Lackawanna,	
	3	Jno. D. Williams,	Welsh,	Helper,	16	S.	Holden,	Lackawanna,	Leg bruised by cars inside.
	5	Norman Davidson,	English,	Miner,	35	M	Taylor shaft,	Lackawanna	Struck by flying coal from a blast.
	9	Jas. Carroll	Irish,	Slope man,	30	S.	Central,	Lackawanna	Kicked by a mule; ribs fractured.
	9	Thos. Hughes,	Irish,	Helper,	16	S.	Central,	Lackawanna	Kicked by a mule; internal injuries.
	9	Alex. McCormac,	American,	Carpenter, o.s.,	19	S.	William A.,	Lackawanna.	Struck by timber.
	10	Anthony Lindsay,	American,	Driver,	17	S.	Bellevue shaft,	Lackawanna.	Arm fractured by cars
	10	Anthony Leyauskie,	Polish,	Laborer,	34	S.	Archbald,	Lackawanna.	Arm fractured by a fall of roof.
	10	Jos. Ceyeszel,	Polish,	Laborer,	24	S.	Continental,	Lackawanna.	Simple fracture of arm.
	10	Alex. Siskie,	Polish,	Miner,	41	M	Mt Pleasant,	Lackawanna.	Skull fractured by a premature blast.
	12	J. M. Jones,	American	Machinist,	30	M.	Bellevue shaft,	Lackawanna,	Hands and face scalded by escaping steam.

13	Gerald Roche, ...	American, ...	Door boy, ...	14	S.	Jermyn No. 1, ...	Lackawanna.	Two fingers crushed by haulage rope.
18	Wm O. Russell, ...	American, ...	Engineer, ...	34	M.	Jermyn No. 1, ...	Lackawanna	Injured on eye by a flying nut.
22	Donerick Gallagher, ...	Irish, ...	Co. man, ...	68	S.	Dodge, ...	Lackawanna	Kicked by a mule; rib fractured.
22	John Williams, ...	Welsh, ...	Miner, ...	57	M.	Archbald, ...	Lackawanna	Leg fractured by flying coal from blast.
24	Martin Minook, ...	Polish, ...	Driver, ...	16	S.	Austin, ...	Lackawanna	Bruised by falling under mine cars.
24	L. Harris n, ...	English, ...	Runner, ...	19	S.	Lawrence shaft, ...	Lackawanna	Kicked by mule; eye injured.
24	Pat. Grady, ...	Irish, ...	Driver, ...	17	S.	Green Ridge slope, ..	Lackawanna	Slightly injured between a car and rib.
25	Stanley Sumuskle, ...	Polish, ...	Miner, ...	42	M.	West Ridge slope, ..	Lackawanna	Foot injured by a fall of roof.
27	Jas. Green, ...	American, ...	Helper, ...	16	S.	Diamond, ...	Lackawanna	Leg bruised by cars.
27	P. J. Manzan, ...	Irish, ...	Laborer, ...	70	M.	Greenwood No. 2, ..	Lackawanna.	Back injured; struck by culm car.
29	Joseph Biggo, ...	Italian, ...	Laborer, ...	35	S.	Meadow Brook tun..	Lackawanna	Hip dislocated by falling rock.
30	Jas. Layo, ...	Italian, ...	Co. man, ...	29	M.	Greenwood No. 2, ..	Lackawanna.	Squeezed under a rock car.

Third Anthracite District.

LUZERNE AND SULLIVAN COUNTIES.

Pittston, Pa., March 7, 1903.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.

Sir: I have the honor of herewith submitting my annual report as Inspector of Coal Mines for the Third Anthracite District for the year 1902.

It contains the usual tabular statements of mine accidents, the number of each class of employes, quantity of coal produced and other useful information.

There were 5,077,167 tons of coal produced, being a decrease of 1,848,431 tons from that of 1901.

The number of fatal accidents for the year was 48; number of non-fatal ones, 115.

Twenty-four wives were made widows and 74 children under fourteen years of age left fatherless.

Respectfully,

H. McDONALD,
Inspector of Mines.

SUMMARY OF STATISTICS FOR 1902.

Number of mines in district,	78
Number of mines in operation during 1902,	73
Number of tons of coal produced,	5,077,167
Number of tons shipped to market,	4,515,848
Number of tons sold at mines to local trade,	97,876
Number of tons consumed at mines in generating steam and heat,	463,443
Number of persons employed inside the mines,	12,613
Number of persons employed outside,	5,584

Number of fatal accidents inside the mines,	40
Number of tons produced for each fatal accident inside,	126,824
Number of persons employed per fatal accident inside,	315
Number of fatal accidents outside,	8
Number of persons employed per fatal accident outside,	698
Number of wives made widows by fatal accidents,	24
Number of children orphaned by fatal accidents,	74
Number of non-fatal accidents inside of mines,	103
Number of persons employed per non-fatal accident inside,	122
Number of non-fatal accidents outside,	12
Number of persons employed per non-fatal accident outside,	398
Number of steam locomotives used inside,	3
Number of compressed air locomotives used inside,	3
Number of electric motors used inside,	5
Number of fans used for ventilation,	77
Number of furnaces used for ventilation,	5
Number of gaseous mines in operation during 1902,	48
Number of non-gaseous mines in operation during 1902,	25
Number of new mines opened during 1902,	1
Number of old mines abandoned during 1902,	5

A. Production of Coal During the Year 1902.

Names of Companies.	Tons.
Pennsylvania Coal Company,	1,335,801
Lehigh Valley Coal Company,	1,065,336
Hillside Coal and Iron Company,	539,735
Hudson Coal Company,	137,673
Delaware and Hudson Company,	74,678
Temple Iron Company,	384,626
Delaware, Lackawanna and Western Railroad Company,	141,101
Seneca Coal Company,	161,708
Raub Coal Co.,	69,168
John C. Haddock,	69,506
Clear Spring Coal Company,	143,545
W. G. Payne & Co.,	62,752
Traders' Coal Company,	53,136

Avoca Coal Company, Limited,	61,767
Robertson & Law,	52,111
Algonquin Coal Company,	76,282
Laurel Run Coal Company,	31,083
State Line and Sullivan Railroad Company,	192,999
W. B. Gunton,	126,540
Northern Anthracite Coal Company,	45,655
Stevens Coal Co.,	109,528
Wyoming Coal and Land Company,	53,439
Wm. Richmond,	24,385
Warnke Coal Company,	64,613
Total,	5,077,167

B. Showing the number of fatal and non-fatal accidents inside and outside the mines; number of tons of coal produced per fatal and non-fatal accident inside the mines; number of persons employed inside and outside; and the number employed inside and outside for every fatal and non-fatal accident for each company during 1902.

Names of Companies.	Number of lives lost inside.	Number of lives lost outside.	Total number of lives lost.	Number severely injured inside.	Number severely injured outside.	Total number severely injured.	Tons of coal produced per each life lost inside.	Tons of coal produced per serious injury inside.	Number employes inside of mines.	Number employes outside of mines.	Total number employed.	Number of employes inside for each life lost.	Number of employes inside for each severe injury.	Number of employes outside for each life lost.	Number of employes outside for each severe injury.
Pennsylvania Coal Co.,	4	.....	4	12	3	15	333,950	89,053	3,452	1,147	4,599	863	287	.....	382
Lehigh Valley Coal Co.,	8	2	10	21	2	23	133,167	50,730	2,395	1,479	3,874	299	114	739	739
Hillside Coal and Iron Co.,	2	1	3	2	1	3	269,867	269,867	994	479	1,473	497	497	497	497
Hudson Coal Company,	1	.....	1	6	2	8	137,673	137,673	855	422	1,277	855	142	.....	427
Delaware and Hudson Co.,	.....	.....	.....	.....	.....	.....	.....	.....	219	138	357	.....	.....	.....	.....
Temple Iron Company,	7	1	8	11	2	13	54,946	34,966	1,073	441	1,514	153	97	441	220
Delaware, Lackawanna and Western R. R. Co.,	1	.....	1	6	1	7	141,161	23,517	499	196	695	695	83	.....	695
Seneca Coal Co.,	6	1	7	9	.....	9	26,951	17,967	522	203	725	87	58	203	.....
Raub Coal Co.,	.....	.....	.....	3	2	5	.....	17,712	227	132	359	.....	75	.....	66
John C. Haddock,	1	.....	1	.....	.....	.....	69,506	.....	175	107	282	175	.....	.....	.....
Clear Spring Coal Co.,	1	2	3	4	.....	4	143,745	35,886	488	104	592	488	122	52	.....
W. G. Payne & Co.,	2	.....	2	7	.....	7	31,375	8,964	45	22	67	†	.....	.....	.....
Traders' Coal Co.,	.....	.....	.....	1	.....	1	.....	53,136	245	92	337	.....	245	.....	.....
Avoca Coal Co., Limited,	.....	.....	.....	2	.....	2	.....	30,883	266	109	375	.....	54	.....	.....
Robertson & Law,	.....	.....	.....	1	.....	1	.....	52,111	139	57	196	.....	139	.....	.....
Algonquin Coal Co.,*	1	1	2	2	.....	2	76,282	38,141	.....	.....	.....	.....	.....	.....	.....
Laurel Run Coal Co.,*	1	.....	1	.....	.....	.....	31,083	.....	.....	.....	.....	.....	.....	.....	.....
State Line and Sullivan R. R. Co.,	3	.....	3	5	.....	5	64,333	38,599	285	123	408	95	57	.....	.....
W. B. Gunton,	1	.....	1	2	.....	2	126,540	63,270	151	57	208	151	75	.....	.....
Northern Anthracite Coal Co.,	1	.....	1	1	.....	1	45,655	45,655	87	49	136	87	87	.....	.....
Stevens Coal Co.,	.....	.....	.....	4	1	5	.....	27,382	263	104	367	.....	66	.....	104
Wyoming Coal and Land Co.,	.....	.....	.....	.....	.....	.....	.....	.....	144	57	201	.....	.....	.....	.....
Wm. Richmond,	.....	.....	.....	1	.....	1	.....	24,385	89	35	124	.....	89	.....	.....
Clarence Coal Co.,	.....	.....	.....	1	.....	1	‡	.....	.....	.....	.....	.....	.....	.....	.....
Warnke Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	31	31	.....	.....	.....	.....
Totals and averages,	40	8	48	101	114	115	126,824	50,269	12,613	5,584	18,197	315	124	698	398

*Sold to Hudson Coal Co. May 1, 1902. †Mine caved in time of strike. Idle yet. ‡This colliery produced no coal this year; erecting a breaker.

C. Classification of Fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling Into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
January,	.....	.....	1	.....	4	.....	.....	1	2	.....	.....	.....	.....	.....	.....	8	.....	.....	.....	.....	1	1	9
February,	1	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	4	.....	.....	.....	.....	.....	.....	4
March,	2	.....	5	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	9	1	1	.....	.....	.....	2	11
April,	.....	.....	5	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	7	1	.....	.....	.....	.....	1	8
May,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	1	2
June,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
July,	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
September,	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
November,	1	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
December,	.....	.....	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	4	.....	.....	1	.....	2	3	6
Totals,	4	1	17	5	6	.....	.....	2	3	.....	.....	.....	.....	.....	2	40	2	2	1	.....	3	8	48

D. Classification of Non-fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						Grand total.
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling Into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
January,	.....	.....	2	4	3	.....	2	3	.....	.....	.....	.....	1	.....	1	16	1	.....	.....	.....	.....	1	17
February,	1	.....	1	5	4	.....	2	2	.....	.....	.....	.....	1	.....	2	18	2	.....	.....	.....	1	3	21
March,	.....	.....	1	4	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	7	.....	1	.....	.....	1	2	9
April,	1	.....	4	.....	2	.....	.....	3	.....	.....	.....	.....	1	.....	.....	11	1	.....	.....	.....	1	2	13
May,	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	2	2	.....	.....	.....	.....	2	4
June,	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
July,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	1	1	2
September,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	4
October,	.....	.....	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	1	.....	.....	.....	1	17
November,	1	.....	3	4	2	.....	.....	3	.....	.....	.....	.....	2	.....	1	16	1	.....	.....	.....	.....	1	26
December,	2	.....	7	.....	4	.....	3	4	.....	.....	.....	.....	2	.....	3	25	.....	.....	.....	.....	1	1	
Totals,	7	.....	20	18	16	.....	7	17	.....	.....	.....	.....	7	.....	9	101	7	2	.....	.....	5	14	115

E. Occupations of Employes Killed or Fatally Injured Inside and Outside the Mines of the Third Anthracite District During 1902.

Months.	Inside.											Outside.									
	Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Doorboys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Bookkeepers and clerks.	All other employes.	Total outside.	Grand total.
January,	.....	.....	.....	3	1	.....	.....	.....	1	3	8	.....	.....	.....	.....	1	.....	.....	.....	1	9
February,	.....	.....	.....	.....	.....	1	.....	.....	.....	1	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
March,	.....	.....	.....	2	6	.....	.....	.....	1	.....	9	.....	.....	.....	.....	1	.....	.....	1	2	11
April,	1	.....	.....	2	4	.....	.....	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	.....	1	1	8
May,	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	1	2
June,	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
July,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
September,	.....	.....	.....	1	1	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
November,	.....	.....	.....	.....	2	1	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
December,	.....	.....	.....	1	2	1	.....	.....	.....	.....	4	.....	.....	.....	.....	1	.....	.....	2	3	6
Totals,	1	.....	.....	12	16	4	.....	.....	2	5	40	.....	.....	.....	1	3	.....	.....	4	3	47

F. Occupations of employes severely injured inside and outside the Mines of the Third Anthracite District during 1902.

Months.	Inside.											Outside.								
	Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Doorboys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Bookkeepers and clerks.	All other employes.	Total outside.	Grand total.
January,	.....	.....	.....	4	12	3	2	.....	2	3	16	.....	.....	.....	.....	.....	.....	.....	1	1	17
February,	.....	.....	1	3	7	1	3	.....	1	2	18	.....	.....	.....	.....	.....	.....	.....	3	3	21
March,	.....	1	.....	2	.....	.....	.....	1	2	1	7	.....	.....	.....	1	.....	.....	.....	1	1	9
April,	.....	.....	.....	7	3	.....	1	.....	.....	1	12	.....	.....	.....	.....	.....	.....	.....	2	2	14
May,	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	2	2	4
June,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
July,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
September,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	1	2
October,	.....	.....	.....	2	.....	1	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	1	1	4
November,	.....	.....	.....	5	3	5	1	.....	2	.....	16	.....	.....	.....	.....	1	.....	.....	.....	1	17
December,	.....	.....	.....	13	6	3	.....	.....	2	.....	24	.....	.....	.....	.....	.....	.....	.....	1	1	25
Totals,	.....	1	1	41	21	13	7	1	9	7	101	.....	.....	.....	2	1	.....	.....	11	14	115

G. Nationality of Employes Killed or Fatally Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Welsh.	Irish.	Germans.	Poles.	Hungarians.	Italians.	Slavs.	Austrians.	Russians.
January,	3	.....	.....	1	1	1	1	.....	.....	2	.....
February,	1	.....	.....	1	.....	.....	1	.....	.....	.....	1
March,	.....	.....	.....	2	2	4	2	1	.....	.....	.....
April,	1	1	.....	2	.....	1	.....	2	.....	.....	1
May,	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
June,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July,	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....
September,	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....
November,	1	.....	1	.....	.....	1	.....	.....	.....	.....	.....
December,	2	.....	.....	1	.....	2	.....	1	1	.....	.....
Totals,	10	1	2	8	4	10	4	4	1	2	2

H. Nationality of Employes Severely Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Welsh.	Scotch.	Irish.	Germans.	Poles.	Hungarians.	Italians.	Slavs.	Lithuanians.	Austrians.	Russians.
January,	6	1	1	1	1	.....	2	.....	.....	4	1	.....	.....
February,	6	2	1	.....	6	1	4	1	.....	.....	.....	.....	.....
March,	2	.....	3	.....	2	.....	1	1	.....	.....	.....	.....	.....
April,	4	.....	1	.....	3	.....	3	.....	.....	2	.....	1	.....
May,	2	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....
June,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July,	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
September,	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
October,	1	.....	.....	.....	.....	.....	1	1	1	.....	.....	.....	.....
November,	8	1	.....	.....	.....	.....	5	.....	1	1	1	.....	.....
December,	3	.....	.....	.....	2	.....	11	1	3	4	.....	.....	1
Totals,	34	4	6	1	14	2	28	4	6	11	3	1	1

I. Giving names of operators and mines, kind of openings, type and size of fans; size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number employed inside, and quantity of air produced for each employe per minute in the mines of Third Anthracite District for the year 1902.

Names of Operators and Mines	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—In inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Pennsylvania Coal Co.														
Barnum No. 1,	Shaft,	Gaseous,	Fan,	17 x 5	.8	Guibal,	Steam,		3	78,210	72,000	85,000	89	901
Barnum No. 2,	Shaft,	Gaseous,	Fan,	20 x 6½	.1	Guibal,	Steam,		3	59,100	53,930	63,200	123	480
Barnum No. 3,	Shaft,	Gaseous,	Fan,	17 x 5	.1	Guibal,	Steam,		4	75,730	65,260	79,250	198	382
No. 13,	Shaft,	Gaseous,	Fan,	20 x 6	.6	Guibal,	Steam,		3	77,000	66,500	88,300	179	430
Laws,	Shaft,	Gaseous,	Fan,	20 x 6	.1	Guibal,	Steam,		5	95,200	77,900	110,200	169	563
No. 1,	Shaft,	Gaseous,	Fan,	20 x 6½	.8	Guibal,	Steam,		4	74,320	61,080	83,000	149	498
No. 8,	Shaft,	Gaseous,	Fan,	20 x 6½	.9	Guibal,	Steam,		3	81,860	70,490	85,000	135	606
No. 4,	Shaft,	Gaseous,	Fan,	20 x 6	.1	Guibal,	Steam,		5	74,340	59,220	79,780	179	415
No. 5,	Shaft,	Gaseous,	Fan,	20 x 6	.7	Guibal,	Steam,		6	89,400	78,200	97,300	164	545
No. 6,	Shaft,	Gaseous,	Fan,	20 x 6	.1	Guibal,	Steam,		5	68,700	53,400	78,500	155	443
No. 11,	Shaft,	Gaseous,	Fan,	20 x 6	.1	Guibal,	Steam,		6	98,700	73,100	105,500	138	715
No. 9,	Shaft,	Gaseous,	Fan,	20 x 6	.1	Guibal,	Steam,		5	96,910	73,252	90,840	205	472
No. 10,	Shaft,	Gaseous,	Fan,	20 x 6	.1	Guibal,	Steam,		4	66,700	59,500	71,500	170	392
No. 19, Jr.,*	Shaft,	Gaseous,	Fan,											
No. 7,	Shaft,	Gaseous,	Fan,	20 x 6	.1	Guibal,	Steam,		4	76,770	60,590	81,770	142	570
Hoyte,	Shaft,	Gaseous,	Fan,	20 x 6	1.1	Guibal,	Steam,		8	150,250	131,830	157,490	233	644
No. 14,	Shaft,	Gaseous,	Fan,	20 x 6	1.6	Guibal,	Steam,		6	101,300	69,600	112,900	131	773
No. 11,	Tunnel,	Gaseous,	Fan,	17 x 5	.8	Guibal,	Steam,		7	99,300	83,000	109,700	172	519
Lehigh Valley Coal Co.														
Prospect shaft,	Shaft,	Gaseous,	2 fans,	30 x 9	1.8	Guibal,	Steam,		5	120,600	88,400	130,600	293	411
Oakwood,	Shaft,	Gaseous,	Fan,	30 x 9	1.2	Guibal,	Steam,		4	90,210	60,980	98,360	122	751
Midvale,	Slope,	Gaseous,	Fan,	20 x 6½	1.½	Guibal,	Steam,		6	79,870	59,910	91,960	126	6 4
Hillman,	Slope,	Gaseous,	Fan,	15 x 4¾	.9	Guibal,	Steam,		3	77,894	47,623	91,568	117	665
Wyoming,	Shaft,	Gaseous,	Fan,	25 x 7½	.8	Guibal,	Steam,		6	105,489	102,400	106,090	106	995
Henry,	Shaft,	Gaseous,	Fan,	30 x 9	1.2	Guibal,	Steam,		9	126,604	75,710	135,580	209	605
Maltby,	Shaft,	Gaseous,	2 fans,	20 x 6½ 25 x 8	2.	Guibal,	Steam,		8	160,000	136,210	164,500	328	487

*Idle all year.

Maltby,	Tunnel,..	Non-gas.	Fan,.....	6 x 2	½	Guibal, ...	Steam,.....	2	32,100	20,540	34,000	47	683
Exeter No. 1,	Shaft, ...	Gaseous,	2 fans,...	20 x 6½	.8	Guibal, ...	Steam,.....	4	123,400	84,420	146,320	166	780
Exeter No. 2,	Shaft,....	Gaseous,	Fan,.....	20 x 6½	1.3	Guibal, ...	Steam,.....	3	73,200	49,360	90,450	157	466
Heidelberg No. 1,	Slope, ...	Gaseous,	Fan,.....	16 x 4½	.7	Guibal, ...	Steam,.....	2	45,566	28,477	56,596	108	421
Heidelberg No. 2,	Shaft, ...	Gaseous,	Fan,.....	20 x 6.5	.7	Guibal, ...	Steam,.....	3	72,400	60,200	79,900	102	709
Mineral Spring,*	Slope, ...	Gaseous,	Fan,.....	12 x 4	.....	.....	.....	.....	.....	.....	.....	.....	.....
Coal Brook,*	Slope, ...	Non-gas.	Fan,.....	20 x 6	.....	Guibal,.....	.....	.....	.....	.....	.....	.....	.....
Senaca Coal Co.													
Twin No. 1,	Shaft, ...	Gaseous,	2 fans,...	20 x 6½	.7	Guibal, ...	Steam,.....	6	95,875	85,400	103,735	181	530
Twin No. 2,	Shaft, ...	Gaseous,	Fan,.....	20 x 6½	.8	Guibal, ...	Steam,.....	6	125,750	103,350	126,950	282	415
Columbia,	Shaft, ...	Gaseous,	Fan,.....	20 x 6½	.5	Guibal, ...	Steam,.....	4	66,232	58,932	76,879	104	637
Hillside Coal and Iron Co.													
Chapman,	Shaft, ...	Non-gas.	Fan,.....	17 x 5½	.8	Guibal, ...	Steam,.....	3	59,865	47,200	73,210	145	412
Butler,	Tunnel,...	Non-gas.	Furnace,	.....	.....	.....	5x8	1	14,062	10,270	15,974	19	740
Butler,*	Shaft, ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fernwood,	Shaft, ...	Non-gas.	Fan,.....	16 x 5	.7	Guibal, ...	Steam,.....	2	69,990	60,420	78,000	201	348
Fernwood,	Tunnel,...	Non-gas.	Furnace,	.....	.....	.....	4x6	2	18,210	10,640	20,100	18	591
Consolidated,	Slope, ...	Non-gas.	Fan,.....	12 x 4	1.½	Guibal, ...	Steam,.....	.....	70,750	52,300	74,000	122	579
Consolidated,	Shaft, ...	Non-gas.	Fan,.....	12 x 4	.9	Guibal, ...	Steam,.....	3	68,506	58,645	71,421	167	410
Elmwood,*	Shaft, ...	Non-gas.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Elmwood,*	Shaft, ...	Non-gas.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wyoming Coal and Land Co.													
Griffith,	Tunnel,...	Non-gas.	Fan,.....	12 x 4	1.½	Guibal, ...	Steam,.....	4	87,940	35,930	88,210	105	837
John C. Haddock.													
Black Diamond,	Shaft, ...	Gaseous,	Fan,.....	20 x 6½	2.	Guibal.	Steam,.....	5	103,640	49,580	120,000	175	592
Clarence Coal Co.													
Gardner Creek,*	Tunnel,...	Non-gas.	Fan,.....	15 x 4½	.6	Guibal.	Steam,.....	4	50,315	38,210	54,200	.....	.....
Raub Coal Co.													
Louise,	Slope, ...	Gaseous,	Fan,.....	20 x 6½	.7	Guibal, ...	Steam,.....	4	69,210	48,500	73,000	177	391
Louise,	Tunnel,...	Non-gas.	Fan.....	10 x 3½	.5	Guibal, ...	Steam,.....	3	20,100	18,500	21,200	50	402
Crescent Coal Co.													
Crescent,*	Tunnel, .	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Delaware and Hudson Co.													
Delaware shaft,	Shaft, ...	Gaseous,	2 fans,...	22 x 6.8	.9	Guibal.	Steam,.....	7	90,400	68,510	98,200	182	496
Hudson Coal Co.													
Pine Ridge,	Shaft, ...	Gaseous,	2 fans,...	17 x 4.6	1.9	Guibal.	Steam,.....	9	142,200	120,410	151,860	309	459
Laurel Run,	Slope, ...	Gaseous,	2 fans,...	(17 x 4.6 / 20 x 5)	1.5	Guibal, ...	Steam,.....	5	120,600	78,000	143,635	163	740
Laflin, ...	Shaft, ...	Non-gas.	Fan,.....	17 x 4.3	.3	Guibal.	Steam,.....	3	41,850	39,050	43,750	54	774
Laflin,	Tunnel,...	Non-gas.	Furnace,	.....	.....	.....	4x8	1	11,475	10,925	12,950	24	478
Langcliffe,	Shaft, ...	Non-gas.	Fan,.....	14 x 4.6	.7	Guibal.	Steam,.....	5	89 265	63,840	92,570	128	498
Langcliffe,	Tunnel,..	Non-gas.	Natural,	.....	.....	.....	.....	1	27,000	9,840	29,200	64	500

*Idle.

TABLE 1—Continued.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Temple Iron Co.														
Harry E.,	Shaft, ...	Gaseous,	2 fans,...	20 x 6½ 12 x 4½	1.8	Guibal, ...	Steam,.	.....	5	158,800	148,760	161,055	309	513
Forty Fort,	Shaft, ...	Gaseous,	Fan,.....	20 x 6½	1.9	Guibal, ...	Steam,.	.....	6	75,751	50,560	79,931	178	425
Mount Lookout,	Shaft, ...	Gaseous,	2 fans,...	20 x 6½ 17 x 5	2.5	Guibal, ...	Steam,.	.....	6	121,930	115,600	131,060	423	288
Babylon,	Shaft, ...	Gaseous,	Fan,.....	20 x 6½	1.1	Guibal, ...	Steam,.	.....	3	69,800	58,210	70,330	126	554
Babylon,	Slope, ...	Non-gas.	Fan,.....	12 x 4	.8	Guibal, ...	Steam,.	.....	2	59,418	53,280	61,930	132	450
Del., Lack'a and West. R. R. Co.														
Hallstead,*	Shaft, ...	Gaseous,	2 fans,...	17 x 5 17 x 5	1.	Open, ... Guibal,.....	..... Steam,.	.....	.....	.....	.....	.....	.....	.....
Pettebone,	Shaft, ...	Gaseous,	Fan,.....	35 x 10	2.1	Guibal, ...	Steam,.	.....	.....	148,622	130,212	154,860	252	589
Avoca Coal Co.														
Avoca,	Shaft, ...	Non-gas.	Fan,.....	12 x 4	.6	Guibal, ...	Steam,.	.....	6	95,600	35,500	104,000	263	363
W. G. Payne & Co.														
East Boston,	Shaft, ...	Gaseous,	2 fans,...	25 x 8 25 x 8	1.4	Guibal, ...	Steam,.	.....	9	150,425	110,500	151,900	45	2,454
Clear Spring Coal Co.														
Clear Spring,	Shaft, ...	Gaseous,	2 fans,...	25 x 8 25 x 8	1.9	Guibal, ...	Steam,.	.....	8	175,280	162,495	190,100	488	332
Traders' Coal Co.														
Ridgewood,	Slope, ...	Non-gas.	Fan,.....	16 x 5	.6	Guibal, ...	Steam,.	.....	4	62,825	57,440	75,725	142	442
Stevens Coal Co.														
Stevens,	Slope, ...	Gaseous,	Fan,.....	20 x 6½	1.2	Guibal, ...	Steam,.	.....	4	92,200	90,110	105,010	178	512
Stevens,	Shaft, ...	Gaseous,	Fan,.....	20 x 6½	.8				2	62,125	28,612	65,315	85	455

*Idle.

W. B. Gunton.														
Lykens,	Drift, ...	Non-gas.	Furnace,	.....	.....	.....	.....	5x8	4	38,710	34,200	39,115	151	256
State Line and Sullivan R. R. Co.														
Bernice,	Drift, ...	Non-gas.	2 fans,...	6 x 2 12 x 4	.8	Westinghouse, Guibal, ...	Steam,.. Steam,..	....	4	101,500	73,900	106,210	236	429
Northern Anthracite Coal Co.														
Murray,	Shaft, ..	Non-gas.	Fan,.....	16 x 5	.6	Guibal, ...	Steam,.	.....	3	58,210	36,600	60,100	95	385
Wm. Richmond.														
Yatesville,	Tunnel,...	Non-gas.	Furnace,	.....	.....	.....	.....	5x8	2	21,358	18,273	22,634	81	250
Robertson & Law.														
Katy Did,	Slope, ...	Non-gas.	Fan,.....	15 x 4½	.4	Guibal, ...	Steam,.	.....	2	45,300	25,000	44,200	119	380
Hicks River Coal Co.														
Morning Star,*	Tunnel,...	Non-gas.	.....											

*Idle.

The total number of fatal accidents in and about the mines of this district was 48.

Two fatal accidents occurred in the mines, however, which cannot be attributed to the mining of coal. The first victim, Anthony Sinik, was found unconscious in a gangway of the Exeter shaft, on February 11, his head having been split open with an axe, which was found beside him; he died in hospital. Two men were arrested for the crime, each of whom accused the other of doing the deed. They were tried and convicted for it.

The other fatal accident was to Benjamin Suber, a miner employed in Bernice drift, who went into the mine at night while intoxicated and was struck by a car and fatally injured.

Condition of the Collieries.

The collieries of this district are in a fairly good condition at present, as to ventilation, drainage, etc., which were impaired by the late strike at the mines. A number of local falls of roof took place on the main haulage roads, destroying, in a number of instances, the ventilating currents, while the mines were idle. However, all the collieries of this district have been cleaned up and placed in their former condition, with the exception of the East Boston shaft, operated by W. G. Payne & Co., which caved from the surface to red ash vein, in the lower workings, allowing a large inflow of water to the workings, which is giving the operators considerable anxiety. The other colliery was the Hallstead, operated by the Delaware, Lackawanna and Western Railroad Company, which was allowed to fill in the inside workings with water, and as no effort is being made to remove it the colliery remains idle.

Colliery Improvements.

A number of improvements have been made during the year and such as are necessary to increase the production of coal.

The No. 14 breaker of the Pennsylvania Coal Company, the destruction of which by fire was noticed in my last report as being under construction, has been finished, and started to prepare coal for market in October, 1902. Its capacity is twenty-five hundred tons per day. A new washery was built in connection, to clean the refuse from the main breaker.

The Lehigh Valley Coal Company's new breaker, at their Mineral Spring colliery, is about completed and is expected to be in operation by April or May, 1903. Two shafts are being sunk from the surface to Red Ash vein, which will supply the coal for the breaker in conjunction with the Mineral Spring and Coal Brook slopes.

This plant will be one of the largest in the valley when in full operation.

A new colliery is now operated by the Northern Anthracite Coal Company, called the Murray, located one mile north of the town of Lopez, in Sullivan county, consisting of two shafts sunk on the southeastern portion of the Bernice coal basin. A large breaker was built, which started up in the month of April, 1902. A 17-foot ventilating fan was erected over the second opening shaft, of the Guibal pattern, to furnish air for the inside workings. The railroad to breaker is the Lehigh Valley.

Examination for Mine Foreman.

The annual examination of applicants for certificates of qualification for mine foreman and assistant mine foreman was held in this district on the 24th, 25th and 26th of June, 1902, in Pittston, Pa.

The board of examiners was H. McDonald, Mine Inspector; Alexander McMillan and David P. Williams, miners.

Seventeen applicants for mine foreman certificates were examined, and the following named were recommended to the Secretary of Internal Affairs for certificates:

Frank Pardoe, John C. Williams, Horace G. Lewis, Fred. Gill and James M. Griffith, Pittston; Robert Bowen, Duryea; William Walker, Plainsville; David Griffith, Plains; Richard S. Evans, Wilkes-Barre; Morgan Bevan, Miners' Mills, and David Thomas, Dorranceton.

The following named received certificates for assistant mine foreman:

John Cawley, Michael J. Brady, William Pyne, Enoch Dykins, William Morgan, Dominic Gibbons, David Matthews, Thomas W. Jenkins, Henry Sayes, David D. Reese, Frederick A. Daw, John Ralston, Richard Jordan, John R. Roberts, John Golden, James Thomas, John J. Martin, Francis Taylor, Gwilym Williams, Edgar Ringsdorph, Thomas J. Deeble, William Bresnahan, Peter Parry, Dorrance Howell and Elias J. Giles.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Third Anthracite District for the year 1902.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Pennsylvania Coal Co.						
Barnum No. 1 shaft,	Luzerne,	W. A. May,	Scranton,	Wm. W. Inglis,	Scranton,	Erie & Wyoming Valley.
Barnum No. 2 shaft,	Luzerne,	W. A. May,	Scranton,	Wm. W. Inglis,	Scranton,	Erie & Wyoming Valley.
Barnum No. 3 shaft,	Luzerne,	W. A. May,	Scranton,	Wm. W. Inglis,	Scranton,	Erie & Wyoming Valley.
No. 13 shaft,	Lackawanna,	W. A. May,	Scranton,	Wm. W. Inglis,	Scranton,	Erie & Wyoming Valley.
Laws shaft,	Luzerne,	W. A. May,	Scranton,	Wm. W. Inglis,	Scranton,	Erie & Wyoming Valley.
No. 9 shaft,	Luzerne,	W. A. May,	Scranton,	Wm. W. Inglis,	Scranton,	Erie & Wyoming Valley.
No. 10 shaft,	Luzerne,	W. A. May,	Scranton,	Wm. W. Inglis,	Scranton,	Erie & Wyoming Valley.
No. 10, Jr., shaft,	Luzerne,	W. A. May,	Scranton,	Wm. W. Inglis,	Scranton,	Erie & Wyoming Valley.
No. 8 shaft,	Luzerne,	W. A. May,	Scranton,	Wm. W. Inglis,	Scranton,	Erie & Wyoming Valley.
No. 1 shaft,	Luzerne,	W. A. May,	Scranton,	Wm. W. Inglis,	Scranton,	Erie & Wyoming Valley.
No. 5 shaft,	Luzerne,	W. A. May,	Scranton,	Wm. W. Inglis,	Scranton,	Erie & Wyoming Valley.
No. 6 shaft,	Luzerne,	W. A. May,	Scranton,	Wm. W. Inglis,	Scranton,	Erie & Wyoming Valley.
No. 11 shaft,	Luzerne,	W. A. May,	Scranton,	Wm. W. Inglis,	Scranton,	Erie & Wyoming Valley.
No. 4 shaft,	Luzerne,	W. A. May,	Scranton,	Wm. W. Inglis,	Scranton,	Erie & Wyoming Valley.
No. 7 shaft,	Luzerne,	W. A. May,	Scranton,	Wm. W. Inglis,	Scranton,	Erie & Wyoming Valley.
Hoyte shaft,	Luzerne,	W. A. May,	Scranton,	Wm. W. Inglis,	Scranton,	Erie & Wyoming Valley.
No. 14 shaft,	Luzerne,	W. A. May,	Scranton,	Wm. W. Inglis,	Scranton,	Erie & Wyoming Valley.
No. 14 tunnel,	Luzerne,	W. A. May,	Scranton,	Wm. W. Inglis,	Scranton,	Erie & Wyoming Valley.
No. 6 washery,	Luzerne,	W. A. May,	Scranton,	Wm. W. Inglis,	Scranton,	Erie & Wyoming Valley.
No. 8 washery,	Luzerne,	W. A. May,	Scranton,	Wm. W. Inglis,	Scranton,	Erie & Wyoming Valley.
Lehigh Valley Coal Co.						
Prospect shaft,	Luzerne,	S. D. Warriner,	Wilkes-Barre,	F. E. Zerbey,	Wilkes-Barre,	Lehigh Valley.
Oakwood shaft,	Luzerne,	S. D. Warriner,	Wilkes-Barre,	F. E. Zerbey,	Wilkes-Barre,	Lehigh Valley.
Midvale slope,	Luzerne,	S. D. Warriner,	Wilkes-Barre,	F. E. Zerbey,	Wilkes-Barre,	Lehigh Valley.
Hillman slope,	Luzerne,	S. D. Warriner,	Wilkes-Barre,	F. E. Zerbey,	Wilkes-Barre,	Lehigh Valley.
Wyoming shaft,	Luzerne,	S. D. Warriner,	Wilkes-Barre,	F. E. Zerbey,	Wilkes-Barre,	Lehigh Valley.
Henry shaft,	Luzerne,	S. D. Warriner,	Wilkes-Barre,	F. E. Zerbey,	Wilkes-Barre,	Lehigh Valley.
Henry washery,	Luzerne,	S. D. Warriner,	Wilkes-Barre,	F. E. Zerbey,	Wilkes-Barre,	Lehigh Valley.
Exeter No. 1 shaft,	Luzerne,	S. D. Warriner,	Wilkes-Barre,	F. E. Zerbey,	Wilkes-Barre,	Lehigh Valley.
Exeter No. 2 shaft,	Luzerne,	S. D. Warriner,	Wilkes-Barre,	F. E. Zerbey,	Wilkes-Barre,	Lehigh Valley.
Heidelberg No. 1 slope,	Luzerne,	S. D. Warriner,	Wilkes-Barre,	F. E. Zerbey,	Wilkes-Barre,	Lehigh Valley.
Heidelberg No. 2 shaft,	Luzerne,	S. D. Warriner,	Wilkes-Barre,	F. E. Zerbey,	Wilkes-Barre,	Lehigh Valley.
Maltby shaft,	Luzerne,	S. D. Warriner,	Wilkes-Barre,	F. E. Zerbey,	Wilkes-Barre,	Lehigh Valley.
Maltby slope,	Luzerne,	S. D. Warriner,	Wilkes-Barre,	F. E. Zerbey,	Wilkes-Barre,	Lehigh Valley.
Mineral Spring slope,	Luzerne,	S. D. Warriner,	Wilkes-Barre,	F. E. Zerbey,	Wilkes-Barre,	Lehigh Valley.
Coal Brook slope,	Luzerne,	S. D. Warriner,	Wilkes-Barre,	F. E. Zerbey,	Wilkes-Barre,	Lehigh Valley.
Hillside Iron and Coal Co.						
Consolidated slope,	Luzerne,	W. A. May,	Scranton,	V. L. Peterson,	Scranton,	Erie & Wyoming Valley.

Consolidated shaft,	Luzerne,	W. A. May,	Scranton,	V. L. Peterson,	Scranton,	Erie & Wyoming Valley.
Butler tunnel,	Luzerne,	W. A. May,	Scranton,	V. L. Peterson,	Scranton,	Erie & Wyoming Valley.
Chapman shaft,	Luzerne,	W. A. May,	Scranton,	V. L. Peterson,	Scranton,	Erie & Wyoming Valley.
Fernwood shaft,	Luzerne,	W. A. May,	Scranton,	V. L. Peterson,	Scranton,	Erie & Wyoming Valley.
Fernwood tunnel,	Luzerne,	W. A. May,	Scranton,	V. L. Peterson,	Scranton,	Erie & Wyoming Valley.
Pittston washery,	Luzerne,	W. A. May,	Scranton,	V. L. Peterson,	Scranton,	Erie & Wyoming Valley.
Temple Iron Co.						
Mount Lookout shaft,	Luzerne,	S. B. Thorne,	Scranton,	George Steele,	West Pittston,	Lehigh Valley.
Harry E., shaft,	Luzerne,	S. B. Thorne,	Scranton,	George Steele,	West Pittston,	Lehigh Valley.
Forty Fort shaft,	Luzerne,	S. B. Thorne,	Scranton,	George Steele,	West Pittston,	Lehigh Valley.
Babylon shaft,	Luzerne,	S. B. Thorne,	Scranton,	George Steele,	West Pittston,	Lehigh Valley.
Babylon slope,	Luzerne,	S. B. Thorne,	Scranton,	George Steele,	West Pittston,	Lehigh Valley.
Delaware & Hudson Co.						
Delaware shaft,	Luzerne,	C. C. Rose,	Scranton,	E. R. Pettebone,	Scranton,	Delaware & Hudson.
Hudson Coal Co.						
Langcliffe shaft,	Luzerne,	C. C. Rose,	Scranton,	E. R. Pettebone,	Scranton,	Delaware & Hudson.
Langcliffe tunnel,	Luzerne,	C. C. Rose,	Scranton,	E. R. Pettebone,	Scranton,	Delaware & Hudson.
Laflin shaft,	Luzerne,	C. C. Rose,	Scranton,	E. R. Pettebone,	Scranton,	Delaware & Hudson.
Laflin tunnel,	Luzerne,	C. C. Rose,	Scranton,	E. R. Pettebone,	Scranton,	Delaware & Hudson.
Pine Ridge shaft,	Luzerne,	C. C. Rose,	Scranton,	E. R. Pettebone,	Scranton,	Delaware & Hudson.
Laurel Run slope,	Luzerne,	C. C. Rose,	Scranton,	E. R. Pettebone,	Scranton,	Delaware & Hudson.
Del., Lack. & West. R. R. Co.						
Hallstead shaft,	Luzerne,	R. A. Phillips,	Scranton,	E. J. Evans,	Scranton,	Del., Lack. & Western.
Pettebone shaft,	Luzerne,	R. A. Phillips,	Scranton,	Montrose Barnard,	Wilkes-Barre,	Del., Lack. & Western.
Seneca Coal Co.						
Twin No. 1 shaft,	Luzerne,	S. D. Warriner,	Wilkes-Barre,	F. E. Zerbey,	Wilkes-Barre,	Lehigh Valley.
Twin No. 2 shaft,	Luzerne,	S. D. Warriner,	Wilkes-Barre,	F. E. Zerbey,	Wilkes-Barre,	Lehigh Valley.
Columbia shaft,	Luzerne,	S. D. Warriner,	Wilkes-Barre,	F. E. Zerbey,	Wilkes-Barre,	Lehigh Valley.
Raub Coal Co.						
Louise slope,	Luzerne,	S. J. Tonkins,	Luzerne,			Lehigh Valley.
Louise tunnel,	Luzerne,	S. J. Tonkins,	Luzerne,			Lehigh Valley.
State Line & Sullivan R. R. Co.						
Bernice drift,	Sullivan,	O. A. Baldwin,	Towanda,	R. E. Dunston,	Bernice,	Lehigh Valley.
W. B. Gunton.						
Lykens drift,	Sullivan,	W. B. Gunton,	Bernice,			Lehigh Valley.
Northern Anthracite Coal Co.						
Murray shaft,	Sullivan,	M. J. Murray,	Dunmore,	P. H. Mongan,	Lopez,	Lehigh Valley.
Stevens Coal Co.						
Stevens shaft,	Luzerne,	H. W. Kingsbury,	Scranton,	D. W. Evans,	Pittston,	Lehigh Valley.
Stevens slope,	Luzerne,	H. W. Kingsbury,	Scranton,	D. W. Evans,	Pittston,	Lehigh Valley.
Wyoming Coal and Land Co.						
Griffith tunnel,	Luzerne,	F. H. Clemons,	Scranton,	S. B. Williams,	Wyoming,	Lehigh Valley.
Clarence Coal Co.						
Gardner Creek tunnel,	Luzerne,	C. B. Sturges,	Scranton,			New York & Erie.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
John C. Haddock. Black Diamond shaft,	Luzerne,	Jas. B. Davis,	Plymouth,			Del., Lack. & Western.
Clear Spring Coal Co. Clear Spring shaft,	Luzerne,	J. L. Cake,	Pittston,			Del., Lack. & Western.
W. G. Payne & Co. East Boston shaft,	Luzerne,	Wm. E. Payne,	Kingston,	W. O. Williams,	Dorranceton,	Del., Lack. & Western.
Traders Coal Co. Ridgewood slope,	Luzerne,			Soloman Deebie,	Avoca,	N. Y. & W., and C. R. R of N. J.
Avoca Coal Co., Limited. Avoca shaft,	Luzerne,	W. H. Hollister,	Avoca,	Wm. J. Buglehall,	Avoca,	L. V. & E., and W. V.
Robertson & Law. Katy Did slope,	Luzerne,	J. M. Robertson,	Moosic,			Erie & Wyoming.
Wm. Richmond. Yatesville tunnel,	Luzerne,	Wm. Richmond,	Scranton,			New York & Erie.
Warnke Coal Co. Warnke washery,	Luzerne,	Fred. Warnke,	Scranton,			Del., Lack. & Western.

TABLE II—Gives the total number of tons of coal mined in each colliery, number of days worked, number of employes, number of employes killed and injured, number of kegs of powder, etc., used in the Third Anthracite District for the year ending December 31, 1902.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Pennsylvania Coal Co.												
Barnum Nos. 1, 2 and 3 shafts,	Luzerne,	188,176	6,794	.....	194,970	110.90	710	1	1	7,395	310	66
Laws and No. 13 shaft,	Luzerne,	144,519	9,468	.....	153,987	111.90	585	.....	2	3,521	1,626	62
Nos. 9, 10 and 10, Jr., shafts,	Luzerne,	152,781	19,662	.....	172,663	117.90	66	2	3	5,331	850	70
Nos. 1 and 8 shafts,	Luzerne,	106,982	2,795	.....	109,777	110	415	.....	1	3,007	869	51
Nos. 4, 7 and Hoyte shafts,	Luzerne,	173,075	17,987	.....	191,062	99.70	742	1	7	6,787	1,738	74
Nos. 5, 6 and 11 shafts,	Luzerne,	162,281	8,539	.....	170,820	98.20	757	.....	1	6,833	6,453	78
No. 14, shaft and tunnel,	Luzerne,	66,977	3,015	.....	69,992	42.90	616	.....	.....	2,147	393	58
No. 6 washery,	Luzerne,	102,700	21,198	.....	123,898	279.40	61	.....	.....	.....	.....	.....
No. 8 washery,	Luzerne,	136,255	13,277	.....	149,532	235.10	47	.....	.....	.....	.....	.....
Totals,	.....	1,233,046	102,755	.....	1,335,801	127.30*	4,599	4	15	35,021	12,279	459
Lehigh Valley Coal Co.												
Prospect shaft,	Luzerne,											
Oakwood shaft,	Luzerne,											
Wyoming shaft,	Luzerne,	239,626	23,580	1,527	264,733	139.55	928	1	.....	5,973	21,113	111
Hillman slope,	Luzerne,											
Midvale slope,	Luzerne,											
Henry shaft,	Luzerne,	301,121	15,729	5,475	325,333	220.10	576	3	3	3,645	17,692	101
Exeter Nos. 1 and 2 shaft,	Luzerne,	247,855	17,629	6,626	272,110	143.75	671	3	2	5,553	72,125	106
Heidelberg shaft,	Luzerne,	55,597	11,702	1,678	68,977	78.90	282	.....	3	1,840	2,079	42
Heidelberg slope,	Luzerne,	69,661	3,856	80	73,597	96	310	1	.....	2,079	3,042	55
Malthy shaft and slope,	Luzerne,	49,410	10,120	1,031	60,561	64	752	.....	.....	2,056	1,285	87
Mineral Spring slope,	Luzerne,	.....	.....	.....	.....	146	355	1	1	277	1,680	20
Coal Brook slope,	Luzerne,											
Totals,	.....	966,272	82,686	16,377	1,065,336	125.30*	3,874	10	23	21,403	118,966	522

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Hillside Coal and Iron Co.						*						
Consolidated slope and shaft,	Luzerne,	126,871	6,820	814	134,505	126.35	642	1	.....	4,638	3,067	67
Butler tunnel and Chapman shaft,	Luzerne,	86,811	11 381	968	93,160	100.85	410	1	1	3,404	5,462	52
Fernwood tunnel and shaft,	Luzerne,	48,131	9,000	437	57,568	62.90	355	.....	1	2,852	5,035	54
Pittston washery,	Luzerne,	242,318	3,256	.....	245,574	181.45	66	.....	1	.....	.....	.....
Elmwood washery,	Luzerne,	7,928	1,000	.....	8,928	34.40	.....	1	.....	.....	.....	.....
Totals,	.....	506,059	31,457	2,219	539,735	117.80	1,473	3	3	10,894	13,564	173
Delaware and Hudson Co.												
Delaware shaft,	Luzerne,	61,479	11,892	1,307	74,678	86.30	357	.....	.....	2,975	1,520	44
Hudson Coal Co.												
Pine Ridge shaft,	Luzerne,	24,381	11,000	749	49,130	48.20	583	.....	5	1,800	1,050	68
Laurel Run slope,	Luzerne,	12,830	1,222	881	14,933	23.20	250	.....	1	722	100	55
Laflin tunnel and shaft,	Luzerne,	13,420	14,755	1,348	29,523	37 10	125	1	.....	1,175	4,352	30
Langcliffe tunnel and shaft,	Luzerne,	39,629	3,774	684	44,087	79.20	318	.....	3	2,008	1,243	60
Totals,	.....	100,260	33,751	3,662	137,673	47	1,277	1	9	5,705	6,745	213
Temple Iron Co.												
Mount Lookout shaft,	Luzerne,	96,061	25,171	4,850	126,088	116.80	519	3	* 6	6,304	6,125	86
Harry E., shaft,	Luzerne,	182,648	27,639	2,808	213,095	135.20	549	4	3	4,977	2,325	63
Forty Fort shaft,	Luzerne,	.....	.....	.....	.....	.....	220	.....	1	2,215	1,000	32
Babylon slope and shaft,	Luzerne,	39,220	6,223	.....	45,443	73.95	226	1	3	1,230	600	51
Totals,	.....	317,932	59,036	7,658	384,626	108.30	1,514	8	13	14,726	10,050	232
Del., Lack. and West. R. R. Co.												
Hallstead shaft,	Luzerne,	9,081	1,274	575	10,930	25.70	.....	.....	1	461	465	39

*Totals in this column are averages.

Pettebone shaft,	Luzerne,	116,175	9,240	4,756	130,171	80.45	695	1	6	3,127	2,827	75
Totals,		125,256	10 514	5,331	141,101	53	695	1	7	3,583	3,292	114
Seneca Coal Co. Twin Nos. 1 and 2 and Columbia shaft,	Luzerne,	142,649	11,039	8 020	161,708	120.60	725	7	9	8,017	573	95
Raub Coal Co., Limited. Louise slope and tunnel,	Luzerne,	49,449	10,680	9,039	69,168	80.60	359	.....	5	2,242	7,000	40
John C. Haddock. Black Diamond shaft,	Luzerne,	45,212	22,000	2,294	69,506	89.90	282	1	.....	1,330	5,500	30
Clear Spring Coal Co. Clear Spring shaft,	Luzerne,	123,495	9,030	11,050	143,545	143.90	592	3	4	5,261	4,600	83
W. G. Payne & Co. East Boston shaft,	Luzerne,	52,566	5,266	4,920	62,752	59.10	67	2	7	1,883	700	44
Traders Coal Co. Ridgewood slope,	Luzerne,	48,718	2,000	2,418	53,136	114.45	337	.....	1	3,396	1,000	42
Avoca Coal Co., Limited. Avoca shaft,	Luzerne,	48,610	9,000	4,157	61,767	119	375	.....	2	2 300	1,700	50
Robertson & Law. Katy Did slope,	Luzerne,	49,649	1,750	712	52,111	121.25	196	.....	1	1,527	4,797	24
Algonquin Coal Co. Pine Ridge shaft,	Luzerne,	60,843	10,000	5,439	76,282	77	.....	2	1	2,650	2,847	.....
Laurel Run Coal Co. Laurel Run slope,	Luzerne,	24,065	3,000	4,018	31,083	46	.....	1	.....	1,281	295	.....
State Line and Sullivan R. R. Co. Bernice drift,	Sullivan,	185,229	6,788	982	192,999	288	408	3	5	6,000	4,000	47
W. B. Gunton. Lykens drift,	Sullivan,	123,095	900	2,545	126,540	207.70	208	1	2	2,245	.....	21
Northern Anthracite Coal Co. Murray shaft,	Sullivan,	35,728	8,985	942	45,655	179	136	1	1	1,600	600	12
Stevens Coal Co. Stevens shaft and slope,	Luzerne,	86,727	20,000	2,801	109,528	131.90	367	.....	5	4,488	10,075	57
Wyoming Coal and Land Co. Griffith tunnel,	Luzerne,	45,910	5,600	1,929	53,439	109 15	201	.....	.....	2,594	2,475	25
Clarence Coal Co. Gardner Creek tunnel,	Luzerne,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Wm. Richmond.						*						
Yatesville tunnel,	Luzerne,	22,425	1,944	16	24,385	128.40	124	.....	1	2,081	550	14
Warnke Coal Co.												
Warnke washery,	Luzerne,	61,173	3,400	40	64,613	164	31	.....	.....	.....	.....	1
Totals,	.....	1,205,543	131,352	61,322	1,398,217	146.25	4,408	21	45	48,955	46,712	585

*Totals in this column are averages.

Recapitulation.

						*						
Pennsylvania Coal Co.,	Luzerne,	1,233 646	102 755	.....	1,335,801	127.30	4,590	4	15	35,021	12,239	459
Lehigh Valley Coal Co.,	Luzerne,	96 [illegible]273	82,686	16,377	1,095 336	125 [illegible]	3,874	10	23	21,403	118,966	522
Hillside Coal and Iron Co.,	Luzerne,	5 6,659	31 457	2,219	63 775	1 1.20	1,473	3	3	10 894	13 564	173
Delaware and Hudson Co.,	Luzerne,	61,479	11 892	1,207	74 678	86.30	357	.....	.....	2,075	1,520	41
Hudson Coal Co.,	Luzerne,	160,260	33 751	3 612	197,673	47	1,277	1	9	5,705	6,745	213
Temple Iron Co.,	Luzerne,	317,032	59,035	7,658	384,026	108.30	1,514	8	13	11,726	10 650	232
Del., Lack. & Western R. R. Co.,	Luzerne,	125 256	10 [illegible]14	5 331	141,101	80	695	1	7	3,588	3,292	111
Miscellaneous Coal Companies,	Luzerne,	1,205,543	131,352	61,322	1,398,217	137.10	4,408	21	45	48,955	46,712	585
Totals,	.....	4,515,848	463,443	97,876	5,077,167	103.75	18,197	48	115	143,267	213,088	2,342

*Totals in this column are averages.

TABLE 11—Continued.

Names of Operators and Collieries.	County.	Number of Boilers.				Total horse power.	Locomotives			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.	Horse power.		Steam.	Air.	Electric.							
Pennsylvania Coal Co.,	Luzerne,	35	1,400	57	8,480	9,880	11	5	3	182	9,979	24	20,108	10,420	.....	4
Lehigh Valley Coal Co.,	Luzerne,	30	877	35	6,150	7,007	13	.....	1	113	15,827	22	15,393	10,431	4	4
Hillside Coal and Iron Co.,	Luzerne,	19	515	25	2,170	2,685	6	.....	.....	44	2,974	14	6,200	2,730	.....	.....
Delaware and Hudson Co.,	Luzerne,	15	450	5	750	1,200	.....	.....	.....	20	960	1	3,000	1,600	.....	2
Hudson Coal Co.,	Luzerne,	9	270	14	2,450	2,720	2	.....	.....	39	2,390	6	4,250	3,285	.....	1
Temple Iron Co.	Luzerne,	21	540	20	5,330	5,870	4	.....	3	70	4,914	14	13,900	6,120	3	6
Del., Lackawanna and Western R. R. Co.,	Luzerne,	41	1,100	8	1,040	2,040	.....	.....	.....	29	2,374	8	7,000	3,200	[2]	.....
Miscellaneous Coal Cos.,	Luzerne,	68	1,883	81	10,207	12,090	9	2	2	156	10,921	29	20,695	14,030	[3]	3
Totals,		238	6,915	245	36,577	43,492	45	7	9	653	50,339	118	90,546	51,816	12	20

TABLE III—Showing the number of each class of employes at each colliery in the Third Anthracite District, during the year 1902.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.											Occupations of Persons Employed Outside.									Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Book-keepers and clerks.	All other employes.	Total outside.	
Pennsylvania Coal Co.																						
Barnum Nos. 1, 2 and 3 shafts,	Luzerne,	3	....	2	214	210	88	21	.....	26	2	566	.....	1	6	13	36	28	2	64	150	716
Laws and No. 13 shaft,	Luzerne,	2	....	2	174	162	48	11	4	22	5	430	.....	1	6	13	44	28	2	61	155	585
Nos. 9, 10 and 10 Jr. shafts,	Luzerne,	2	....	4	207	168	61	13	4	19	15	493	.....	1	4	24	38	35	2	63	167	660
Nos. 1 and 8 shafts,	Luzerne,	1	1	1	120	120	43	7	.....	17	3	313	.....	1	3	8	30	22	4	34	102	415
Nos. 4, 7 and Hoyte shafts,	Luzerne,	3	....	7	256	172	68	21	2	32	15	576	.....	1	7	21	22	48	4	63	166	742
Nos. 5, 6 and 11 shafts,	Luzerne,	3	....	3	216	178	96	26	1	48	17	588	.....	1	7	21	33	43	5	59	169	757
Nos. 14 shaft and tunnel,	Luzerne,	3	....	4	207	153	59	11	2	47	.....	486	.....	1	5	19	16	13	3	73	130	616
No. 6 washery,	Luzerne,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	7	.....	.....	1	50	61	61
No. 8 washery,	Luzerne,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	5	3	.....	1	37	47	47
Totals,	.....	17	1	23	1,304	1,163	463	110	13	211	57	3,452	.....	9	40	131	222	217	24	504	1,147	4,599
Lehigh Valley Coal Co.																						
Prospect shaft, Oakwood shaft, Wyoming shaft, Hillman slope, Midvale slope,	Luzerne,	2	3	7	183	163	90	35	5	21	130	639	.....	1	10	18	23	.....	4	233	289	928
Henry washery and shaft,	Luzerne,	1	2	4	129	101	55	19	3	64	.....	378	.....	1	25	23	5	.....	3	141	198	576
Exeter Nos. 1 and 2 shaft,	Luzerne,	2	....	4	192	122	66	11	5	71	.....	473	1	1	20	16	30	5	3	122	198	671
Heidelberg shaft,	Luzerne,	1	1	1	60	50	25	1	2	.....	18	159	.....	1	2	9	55	5	3	48	123	282
Heidelberg slope,	Luzerne,	1	....	1	61	46	30	.....	1	.....	24	164	.....	1	5	6	62	4	3	65	146	310
Maltby shaft, slope and tunnel,	Luzerne,	1	1	6	210	90	80	13	3	50	58	512	.....	1	35	12	36	6	3	147	240	752
Mineral Springs, 2 slopes,	Luzerne,	1	....	1	16	31	6	.....	.....	.....	15	70	....	1	95	12	.....	.....	2	175	285	355
Totals,	.....	9	7	24	851	603	352	79	19	206	245	2,395	1	7	192	96	211	20	21	931	1,479	3,874

Hillside Coal and Iron Co.																						
Consolidated shaft and slope,..	Luzerne,.	2	....	....	200	180	60	12	1	16	50	521	.....	1	9	9	5	31	2	64	121	642
Butler tunnel & Chapman shaft,	Luzerne,.	2	....	1	96	96	18	1	4	6	9	233	1	1	12	14	69	15	2	63	177	410
Fernwood shaft and tunnel,.....	Luzerne,.	1	1	....	86	95	25	3	3	16	10	240	.....	1	2	6	35	4	1	66	115	356
Pittston washery, ...	Luzerne,.	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	2	.....	.....	1	60	66	66
Totals, ...	.....	5	1	1	382	371	103	16	8	38	69	994	1	4	25	31	109	50	6	253	479	1,473
Delaware and Hudson Co.																						
Delaware shaft, ...	Luzerne,.	1	1	3	66	68	31	10	2	22	15	219	.....	1	4	15	73	6	1	38	138	357
Hudson Coal Co.																						
Pine Ridge shaft, ...	Luzerne,.	1	1	4	135	110	63	9	5	32	59	419	.....	1	6	17	82	11	1	46	164	583
Laurel Run slope, ...	Luzerne,.	1	....	3	39	31	30	7	.....	44	10	165	.....	1	4	6	26	6	1	42	86	251
Laflin shaft and tunnel, ...	Luzerne,.	1	....	1	22	11	7	1	2	6	14	65	.....	1	7	6	6	6	1	33	60	125
Langcliffe shaft and tunnel,....	Luzerne,.	1	1	1	85	45	40	5	2	17	9	206	.....	1	6	7	34	12	1	51	112	318
Totals, ...	.....	5	3	12	347	265	171	32	11	121	107	1,074	.....	5	27	51	221	41	5	210	560	1,634
Temple Iron Company.																						
Mount Lookout shaft, ...	Luzerne,.	1	1	3	150	65	53	17	8	27	15	340	1	1	8	26	62	6	3	72	179	519
Harry E shaft, ...	Luzerne,.	1	1	3	120	95	70	18	4	22	20	354	1	1	11	13	85	10	2	72	195	549
Forty Fort shaft, ...	Luzerne,.	1	....	1	70	50	23	8	6	16	10	185	1	1	7	9	.....	.....	1	16	35	220
Babylon shaft and slope, ...	Luzerne,.	1	1	1	73	52	39	11	2	10	4	194	1	1	5	6	.....	.....	1	18	32	226
Totals, ...	.....	4	3	8	413	262	185	54	20	75	49	1,073	4	4	31	54	147	16	7	178	441	1,514
Del., Lack'a & West. R. R. Co.																						
Hallstead shaft, ... Pettebone shaft, ...	Luzerne,.	1	1	3	162	127	80	32	1	58	34	499	.....	1	5	14	101	.....	2	73	196	695
Seneca Coal Co.																						
Twin Nos. 1 and 2 shaft,..... Columbia shaft, ...	Luzerne,.	4	....	5	191	142	75	19	6	80	.....	522	.....	1	10	22	60	.....	6	104	203	725
Raub Coal Co.																						
Louise slope and tunnel,.....	Luzerne,.	1	3	1	125	40	30	3	3	10	11	227	1	1	8	17	50	7	3	45	132	359
John C. Haddock.																						
Black Diamond, shaft, ...	Luzerne,.	1	1	3	44	40	27	7	3	27	22	175	1	1	5	16	30	12	2	40	107	282
Clear Spring Coal Co.																						
Clear Spring shaft, ...	Luzerne,.	1	2	4	160	136	58	48	9	70	.....	488	1	1	6	13	29	.....	3	51	104	592
W. G. Payne & Co.																						
East Boston shaft, ...	Luzerne,.	1	3	1	.....	.....	6	.....	6	16	12	45	1	2	3	12	.....	.....	4	.....	22	67
Traders' Coal Co.																						
Ridgewood slope, ...	Luzerne,.	2	....	1	102	53	48	11	3	21	4	245	1	1	4	8	33	4	3	38	92	337
Avoca Coal Co.																						
Avoca shaft, ...	Luzerne,.	1	2	1	102	71	48	9	.....	27	5	266	1	1	3	3	48	10	3	40	109	375

TABLE III.—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.											Occupations of Persons Employed Outside.									Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Book-keepers and clerks.	All other employes.	Total outside.	
Robertson & Law. Katy Did slope,	Luzerne,	1	....	....	52	50	18	4	1	3	10	139	1	1	3	8	24	.....	2	18	57	196
Algonquin Coal Co.* Pine Ridge shaft,	Luzerne,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Laurel Run Coal Co.* Laurel Run slope,	Luzerne,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
State Line & Sullivan R. R. Co. Bernice drift,	Sullivan,	1	1	....	203	15	25	8	4	7	21	285	1	1	13	13	15	5	3	72	123	408
W. B. Gunton. Lykens drift,	Sullivan,	1	....	....	60	60	10	.....	.....	10	10	151	1	.....	2	2	20	10	2	20	57	208
Northern Anthracite Coal Co. Murray shaft,	Sullivan,	1	1	....	30	30	10	4	1	10	.....	87	1	2	2	5	10	8	1	20	49	136
Stevens Coal Co. Stevens shaft and slope,	Luzerne,	2	1	2	94	80	41	8	4	10	21	263	1	1	6	13	18	8	2	55	104	367
Wyoming Coal and Land Co. Griffith tunnel,	Luzerne,	1	1	1	68	32	20	5	2	11	3	144	1	1	5	7	14	4	2	23	57	201
Wm. Richmond Yatesville tunnel,	Luzerne,	1	..	....	36	36	10	2	.....	4	.....	89	.....	1	2	3	18	2	1	8	35	124

*Purchased by Hudson Coal Co. May 1.

Warnke Coal Co. Warnke washery,	Luzerne,	...	...	....	.....	.....	.....	....	....	.....	.....	.....	1	1	2	5	..	2	1	19	31	31
Totals,		19	15	19	1,267	785	426	128	42	306	119	3,126	13	16	74	147	369	72	38	555	1,282	4,408

Recapitulation.

Pennsylvania Coal Co.,	Luzerne,	17	1	23	1,394	1,163	463	110	13	211	57	3,452	.....	9	40	131	222	217	21	564	1,147	4,599
Lehigh Valley Coal Co.,	Luzerne,	9	7	24	851	603	352	79	19	206	245	2,395	1	7	192	96	211	20	21	331	1,479	3,874
Hillside Coal and Iron Co.,	Luzerne,	5	1	1	382	371	103	16	8	38	69	994	1	4	25	31	109	50	6	253	479	1,473
Delaware and Hudson Co.,	Luzerne,	1	1	3	66	68	31	10	2	22	15	219	.....	1	4	15	73	6	1	38	138	357
Hudson Coal Co.,	Luzerne,	4	2	9	281	197	140	22	9	109	92	855	.....	4	23	36	148	35	4	172	422	1,277
Temple Iron Co.,	Luzerne,	4	3	8	413	262	185	54	20	75	49	1,073	4	4	31	54	147	16	7	178	441	1,514
Del., Lack'a & West. R. R. Co.	Luzerne,	1	1	3	162	127	80	32	1	58	34	499	.....	1	5	14	101	.....	2	73	196	695
Miscellaneous Coal Companies.	Luzerne,	19	15	19	1,267	785	426	128	42	306	119	3,126	13	16	74	147	369	72	38	555	1,282	4,408
Totals,		60	31	90	4,816	3,576	1,780	451	114	1,015	689	12,613	19	46	394	524	1,380	416	103	2,762	5,584	18,197

TABLE III—Continued.

Names of Operators and Collieries.	County.	Number of Days Worked Each Month in Breaker.												
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Pennsylvania Coal Co.,	Luzerne,.	16.25	12.15	14.20	19.45	7.30	10.50	25.85	25.85	18.75	9.70	20.30	16.75	127.35
Lehigh Valley Coal Co.,	Luzerne,.	19.10	18.30	15	17.85	6.75	.....	18.60	13	14	9	19.10	20	125.30
Hillside Coal and Iron Co.,	Luzerne,.	14.40	13.30	12.80	16	7.20	.....	18.55	23.80	23.70	14.50	19.20	17.45	117.80
Delaware and Hudson Co.,	Luzerne,.	14.50	13.50	11.75	14.75	4.50	.....	.....	.....	.....	3	11.50	13 25	86.75
Hudson Coal Co.,	Luzerne,.	9.50	5.25	8.60	12.40	4.40	.....	.....	.....	.....	3.35	11.50	13	47
Temple Iron Co.,	Luzerne,.	22.60	17.10	14.50	19.45	7.25	.....	.....	.....	.....	3.95	20.50	21.75	108.70
Delaware, Lackawanna and Western R. R. Co.,	Luzerne,.	20.90	12.60	.....	.....	.....	.....	.....	.....	.....	6	19.60	21.35	80.45
Miscellaneous Coal Companies,	Luzerne,.	18.90	16.60	15	15.70	8.90	25	24.30	19.70	24.20	7.10	18 20	19.30	137.10
Totals,	.....	17	13.60	13.10	16.50	6.60	17.70	21.80	20.50	20	7	17.50	17.85	*103.75

*Average.

TABLE IV—List of fatal accidents that occurred in and about the mines of the Third Anthracite District for the year ending December 31, 1902.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 2	Michael Binch, ...	Austrian, ...	Laborer, ...	20	S.	....	....	Pine Ridge shaft,...	Luzerne,.	Killed by falling down shaft; got off the cage while descending in some manner not known.
9	Thos. Lucashie, ...	Austrian, ...	Slate picker,	15	S.	....	....	Heidelberg breaker,	Luzerne,.	Fatally injured by falling off roof of breaker where he was playing. Died next day.
18	Andrew Mayho, ...	Hungarian, ...	Miner, ...	35	M.	1	4	Barnum No. 3, ...	Luzerne,.	Fatally injured by a blast he was firing in cross-cut. He cut the match too short and failed to get to a place of safety. Died next day.
22	Anthony Sapiego, ...	Polish, ...	Miner, ...	32	M.	1	2	Exetor No. 1, ...	Luzerne,.	Fatally injured by fall of rock in a breast. Died next day.
23	Edgar Langan, ...	American, ...	Helper, Eng. Corps.	20	S.	....	....	Twin No. 2 shaft,..	Luzerne,.	These three men were fatally burned by an explosion of gas in the Marcy Vein. The men went to make a survey of a part of the workings which had been abandoned, and were accompanied by the fire boss. While the fire boss went up into a breast to examine it, one of the men went up into the outside one to place his marks on roof, and ignited a small body of gas. They were instructed by the fire boss not to go into any breast until he had first examined it. Langan died January 31st; Burk January 27th, and Davies the same day of the accident.
23	Joseph Burk, ...	American, ...	Helper, Eng. Corps.	33	S.	....	....	Twin No. 2 shaft,..	Luzerne,.	
23	Benjamin Davies, ...	American, ...	Helper, Eng. Corps.	24	S.	....	....	Twin No. 2 shaft,..	Luzerne,.	
26	Ulrick Kolbeck, ...	German, ...	Miner, ...	48	M.	1	3	No. 4 shaft, ...	Luzerne,.	Fatally burned by an explosion of gas; went into an old abandoned breast and ignited the gas. Died January 27th.

TABLE IV—Continued.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
31	Martin Ward, ...	Irish, ...	Stone mason	47	M.	1	4	Twin No. 1 shaft,..	Luzerne,.	Killed by falling down the shaft from Pittston to Red Ash Vein. Ward went on the cage and signalled the engineer to hoist the carriage, which was done, and in a few seconds after his body was taken out of the cage pit.
Feb. 6	Lawrence Madden, ...	Irish, ...	Miner, ...	40	M.	1	5	Harry E. shaft, ...	Luzerne,.	Fatally injured by fall of rock. He and his laborer tried to take the rock down but failed. So thinking it safe went under it to work, when it fell on him. Died next day.
11	Anthony Yokawanis, ...	Russian, ...	Miner, ...	40	M.	1	2	East Boston shaft,.	Luzerne,.	Fatally injured by fall of coal and rock. Died same day.
12	Frank Lantz, ...	American, ...	Driver, ...	18	S.	....	....	Bernice drift, ...	Sullivan,.	Killed by falling in front of cars on gangway road.
17	John Pedro, ...	Hungarian, ...	Shaft sinker	26	M.	1	1	Henry New shaft,..	Luzerne,	Fatally injured in sinking shaft; hoisting rope broke, allowing the bucket to descend, the flying rock striking him. Died same day.
March 4	Anthony Mezleskie, ...	Polish, ...	Laborer, ...	35	M.	1	2	Black Diamond shaft	Luzerne,.	Killed by fall of coal while preparing to stand a prop.
10	Lewis Smith, ...	German, ...	Miner, ...	35	M.	1	4	Mt. Lookout shaft,.	Luzerne,.	Fatally injured by fall of rock at face of breast. Died next day.
17	Wm. Fredrick, ...	German, ...	Slate picker,	15	S.	....	....	Clear Spg. breaker,.	Luzerne,.	Fatally injured by being caught by line shaft; left his work and climbed to top of breaker where a line of elevators were being constructed, and his clothing caught on line shafting, which was not completed. Died next day.
17	Mike Balago, ...	Polish, ...	Laborer, ...	18	S.	....	....	Pine Ridge, outside.	Luzerne,.	Killed; head caught between culm car and door frame of boiler room while car was being pushed out of boiler room, he got on front of car to ride out; his head was caught against top frame and his neck broken.

	18	Patrick Joyce, ...	Irish, ...	Miner, ...	43	M	1	7	Exeter No. 1 shaft,..	Luzerne,.	Fatally injured by fall of coal and rock while taking out pillars. Died March 23d.
	21	Adam Salinofskie, ...	Polish, ...	Laborer, ...	31	S.	....	...	Columbia shaft,....	Luzerne,.	Killed by falling down shaft from Marcy to Red Ash Vein; attempted to get on the cage after the signal was given the engineer.
	24	Vincent Barons, ...	Italian, ...	Laborer, ...	40	M.	1	1	Exeter No. 2, ...	Luzerne,.	Killed by fall of rock after firing a blast.
	24	Walter Kashuba, ...	Polish, ...	Laborer, ...	30	M	1	4	Columbia shaft, ...	Luzerne,.	Killed by fall of rock at face of breast.
	25	James Munley, ...	Irish, ...	Co. laborer,.	55	S.	...	....	Henry shaft, ...	Luzerne,.	Killed by loaded car which ran down a breast. Munley opened the door to allow the car through and was caught.
	25	Andrew Martin, ...	Hungarian, ...	Laborer, ...	35	M.	1	3	Laurel Run slope,..	Luzerne,.	Killed by fall of roof while drawing pillars. His miner ordered him out, but he wanted to finish loading a car, and was caught by fall.
	27	Mack Yackman, ...	Hungarian, ...	Laborer, ...	32	M.	1	....	Laflin shaft, ...	Luzerne,.	Killed by fall of roof on gangway road at face.
April	8	Mick Raynock, ...	Russian, ...	Laborer, ...	40	S.	....	....	Wyoming shaft, ...	Luzerne,.	Fatally burned by gas; went into an abandoned breast and ignited a small quantity of gas. Died April 11th.
	8	Wm. Palmer, ...	English, ...	Miner, ...	62	M.	1	3	Harry E. shaft, ...	Luzerne,.	Fatally injured by a blast. Died April 10th.
	14	John Marriell, ...	Polish, ...	Laborer, ...	28	S.	....	....	Butler shaft, ...	Luzerne,.	Killed by fall of rock while cleaning from around pillar.
	14	Tony Frenshand, ...	Italian, ...	Car loader at breaker.	35	M.	1	2	Clear Spg. breaker,	Luzerne,.	Killed by railroad car under breaker chutes by a runaway empty car from the track above.
	28	Daniel Sullivan, ...	American, ...	Mine foreman.	40	M.	1	8	Mt. Lookout shaft,	Luzerne..	Killed by fall of rock at foot of air shaft while waiting for cage to be hoisted.
	29	Daniel Collins, ...	Irish, ...	Miner, ...	39	M	1	1	No. 10 shaft, ...	Luzerne,.	Killed by a fall of rock while robbing pillars in Marcy Vein.
	29	Charles Ruane, ...	Irish, ...	Laborer, ...	1	S.	....	....	No. 10 shaft, ...	Luzerne,.	
	30	Marion Lookenton, ...	Italian, ...	Laborer, ...	26	M	1	2	Babylon tunnel, ...	Luzerne,.	Killed by fall of rock in face of breast.
May	5	James Shovelin, ...	Irish, ...	Driver, ...	16	S.	...	....	Hillman slope, ...	Luzerne,	Killed by falling in front of loaded car that he was bringing out of the gangway.
	20	James Dickson, ...	American, ...	Engineer, ..	26	S.	...	....	Elmwood washery,..	Luzerne,	Killed by falling against the fly wheel of engine on culm bank.
June	7	Peter Maheo, ...	American, ...	Motorman, .	27	M	1	....	Bernice drift, ...	Sullivan,	Fatally injured while backing a trip of loaded mine cars on gangway road.
July	23	Anthony Shields, ...	Polish, ...	Miner, ...	38	S.	...	....	Bernice drift, ...	Sullivan,.	Killed by fall of coal and slate at face of breast.
Sept.	2	Dolph Brown, ...	German, ...	Laborer, ..	20	S.	...	....	Mt. Lookout shaft,	Luzerne,	Fatally burned by gas; went down to Marcy Vein and ignited gas. Died next day.
	13	Morgan Beynon, ...	Welsh, ...	Miner, ...	[illegible]	W	...	5	Lykens drift, ...	Sullivan,.	Fatally injured by a fall of rock and coal while standing timber to secure the same. Died same evening.
Nov.	3	Peter Russell, ...	American, ...	Laborer, ..		M	1	2	East Boston shaft,.	Luzerne,.	Fatally injured by coal falling from the side. Died same day.
	25	John Machalonis, ...	Polish, ...	Laborer, ..	19	S.	...	....	Clear Spring shaft,	Luzerne,.	Instantly killed by fall of rock at face of breast, caused by slips in the roof.

TABLE IV—Continued.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
29	Richard Owens, ...	Welsh, ...	Driver, ...	17	S.	....	....	Pettebone shaft, ...	Luzerne,.	Killed by fall of rock; while helping the runner to run a loaded car out of breast it knocked a prop out, allowing the rock to fall.
Dec. 6	George Markalis, ...	Polish, ...	Miner, ...	35	S.	....	....	Henry shaft, ...	Luzerne,.	Killed by fall of rock while standing props.
9	Fred Hawk, ...	Irish, ...	Slate picker,	13	S.	....	....	Harry E. breaker,.	Luzerne,.	Smothered in coal chute in breaker.
19	George Golagofski, ...	Polish, ...	Laborer, ...	43	M.	1	4	Harry E. shaft, ...	Luzerne,.	Fatally injured; stood under descending cage in shaft. Died Jan. 13th, 1903.
22	Michael Zadrin, ...	Italian, ...	Car oiler, ..	45	M.	1	1	Seneca, outside, ...	Luzerne,.	Fatally injured; knocked off trestle by timber falling from truck. Died next day.
23	John Hodic, ...	Slavonic, ...	Laborer, ...	28	M.	1	4	Murray shaft, ...	Sullivan,.	Fatally injured by fall of rock at face of breast.
24	Wm. Costello, ...	American, ...	Teamster, ..	17	S.	....	....	Mineral Spring, outside.	Luzerne,.	Fatally injured; thrown out of wagon by team running away. Died next day.
30	Elwood Richmond, ...	American, ...	Driver, ...	15	S.	....	....	Consolidated slope,.	Luzerne,.	Killed while coming up the slope by a runaway trip of cars.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Third Anthracite District for the year ending December 31, 1902.

Date of accident.		Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan.	6	James Bannan,	Irish,	Runner,	18	S.	Twin No. 1 shaft,	Luzerne,	Leg bruised by car while unhitching mule.
	7	Joe Kosloski,	Polish,	Miner,	40	M	Twin No. 2 shaft,	Luzerne,	Face and hands slightly burned by gas.
	10	Joe Whalen,	American,	Doorboy,	14	S.	No. 7 shaft,	Luzerne,	Face burned by powder he took from a miner and ignited it.
	12	Elmer Banta,	American,	Laborer,	24	S.	Louise slope,	Luzerne,	Head injured by fall of rock.
	13	Bert Lane,	American,	Driver,	15	S.	No. 13 shaft,	Lack'a,	Leg broken by his mule stepping on him, causing him to fall.
	13	James White,	Scotch,	Dumper,	16	S.	Ewen breaker,	Luzerne,	Leg cut off; caught between car bumpers.
	15	Joe Gidetus,	Lithuanian,	Miner,	28	S.	Columbia shaft,	Luzerne,	Skull fractured by flying coal from a blast.
	15	John Yacutavich,	Slavonic,	Miner,	31	M.	Exeter No. 2 shaft,	Luzerne,	Injured by premature blast.
	17	Joe Kelley,	Polish,	Laborer,	23	S.	Twin No. 1 shaft,	Luzerne,	Face burned by powder while making cartridge with lamp on his cap.
	18	Joe Linsner,	Slavonic,	Shaft footman,	22	S.	Prospect shaft,	Luzerne,	Fingers crushed by car wheel while blocking it.
	21	Michael Vokin,	Slavonic,	Footman,	34	M.	East Boston shaft,	Luzerne,	Shoulder painfully bruised by ice falling down shaft.
	23	John Lewis,	American,	Engineer corps,	20	S.	Twin No. 2 shaft,	Luzerne,	Face and hands burned by an explosion of gas while making survey in abandoned workings.
	23	Thos. Jones,	American,	Engineer corps,	30	S.	Twin No. 2 shaft,	Luzerne,	
	24	Harry Draul,	English,	Driver,	17	S.	Mt. Lookout shaft,	Luzerne,	Leg broken by car bumpers while attempting to uncouple them.
	27	Wm. Siley,	American,	Fire inspector,	36	S.	Midvale slope,	Luzerne,	Body bruised by coal flying from a blast.
	27	Wm. Phillips,	Welsh,	Doorboy,	15	S.	Pettebone shaft,	Luzerne,	Hand crushed while riding on loaded car between coal and roof.
	31	George Materina,	Slavonic,	Miner,	45	M	East Boston shaft,	Luzerne,	Leg bruised by fall of rock.
Feb.	1	John Sievegatrie,	Hungarian,	Plateman,	45	M.	Louise breaker,	Luzerne,	Arm broken and body bruised between cars while uncoupling.
	5	Andrew Bozenkie,	Austrian,	Driver,	14	S.	Central breaker,	Luzerne,	Injured while uncoupling culm cars on bank
	6	Geo. Timmis,	American,	Doorboy,	15	S.	East Boston shaft,	Luzerne,	Kicked by mule.
	6	Charles Miller	Polish,	Car loader,	52	M.	Langcliffe breaker,	Luzerne,	Ankle bruised; struck by plank while unloading car.

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
	7 Geo. Farrir,	Italian,	Laborer,	28	S.	Stevens shaft,	Luzerne,.	These two men were severely burned while putting cotton in their lamps at box; threw a lighted cotton into keg of powder.
	7 Baldo Travitus,	Italian,	Laborer,	27	M.	Stevens shaft,	Luzerne,.	
	10 John Vilanis,	Polish,	Laborer,	22	S.	Pettebone shaft,	Luzerne,.	Foot crushed by coal falling on it.
	11 Soloman Pugh,	Welsh,	Runner,	18	S.	Stevens slope,	Luzerne,.	Side bruised between car and door frame.
	17 J. A. Hurst,	American,	Shaft sinker,.	26	M.	Henry New shaft,	Luzerne,.	Slightly bruised by rock flying from bucket after striking the bottom, caused by the hoisting rope breaking.
	18 Michael Secula,	American,	Doorboy,	14	S.	Hoyte shaft,	Luzerne,.	Body severely bruised; struck by plane rope.
	18 Walter Wilsiskie,	Polish,	Laborer,	21	S.	Pine Ridge shaft,	Luzerne,.	Leg bruised; struck by runaway car.
	19 John Galligher,	American,	Fire boss,	39	M.	East Boston shaft,	Luzerne,.	Slightly burned on face by an explosion of gas in old workings.
	19 Chas. M. Steel,	American,	Surveyor,	34	M.	East Boston shaft,	Luzerne,.	
	24 Frank Baumgaidner,	American,	Miner,	37	M.	No. 4 shaft,	Luzerne,.	This miner and his two laborers were severely burned by igniting a feeder of gas while working in a cross-cut.
	24 Jas. Forienza,	Italian,	Laborer,	35	M.	No. 4 shaft,	Luzerne,.	
	24 Tony Forienza,	Italian,	Laborer,	33	S.	No. 4 shaft,	Luzerne,.	
	25 Lawrence May,	Irish,	Inside headman	21	S.	Harry E. shaft,	Luzerne,.	Back bruised; fell in front of trip of cars while unhitching.
	26 Benj. Jones,	Welsh,	Doorboy,	15	S.	Clear Spring shaft,	Luzerne,.	Arm cut by car jumping track against him.
	26 John Pomach,	Polish,	Laborer,	20	S.	Avoca shaft,	Luzerne,.	Slightly bruised by fall of rock.
	27 Enoch Rukas,	Polish,	Miner,	23	S.	Clear Spring shaft,	Luzerne,.	Injured by premature blast.
	28 Joseph Molesky,	Polish,	Miner,	22	S.	Midvale slope,	Luzerne,.	Severely injured by premature blast.
March	7 Thos. Martin,	Irish,	Gate tender,	16	S.	Ewen breaker,	Luzerne,.	Hand crushed while attempting to take coal out of rolls.
	10 Thos. Watkins,	Welsh,	Pumpman,	77	M.	Clear Spring shaft,	Luzerne.	Severely injured between cars.
	12 Isaac Jones,	Welsh,	Pumpman,	43	M.	Louise, outside,	Luzerne,.	Painfully scalded by steam in boiler room by steam pipe bursting.
	17 John Karnish,	Polish,	Miner,	30	M.	Langcliffe shaft,	Luzerne,.	Foot crushed; while lifting piece of rock it fell on him.
	18 James Mooney,	American,	Headman,	22	S.	Fernwood shaft,	Luzerne,.	Leg broken while unhitching rope from cars.
	18 James Wallace,	American,	Assistant boss,	44	M.	East Boston shaft,	Luzerne,.	Leg broken while walking inside slope by cars.

	21	Thos. W. Thomas,	Welsh,	Shaft footman,	38	M.	Prospect shaft,	Luzerne,	Big toe cut off while standing on cage when it struck the bottom.
	21	Michael Repp,	Hungarian,	Miner,	42	M.	Prospect shaft,	Luzerne,	Skull fractured by premature blast.
	21	Patrick Mahon,	Irish,	Loco. engineer,	27	M.	Prospect shaft,	Luzerne,	Fingers crushed while putting car on track.
April	1	John McHale,	American,	Laborer,	24	M.	Pine Ridge shaft,	Luzerne,	Face and hands burned by gas.
	5	Anthony Reil,	American,	Miner,	42	M.	Forty-Fort shaft,	Luzerne,	Injured by fall of rock.
	10	Patrick Brady,	Irish,	Rockman,	50	M.	Louise tunnel,	Luzerne,	Injured in Rock Tunnel by fall of rock.
	10	Stanley Shemaites,	Polish,	Laborer,	21	S.	No. 11 shaft,	Luzerne,	Legs bruised by trip of cars.
	11	Steve Parsik,	Polish,	Laborer,	38	M.	Hallstead shaft,	Luzerne,	Back bruised by fall of rock.
	11	Mike Tamper,	Austrian,	Miner,	28	M.	Chapman shaft,	Luzerne,	Severely injured by rock blast he was firing; he thought it had missed.
	12	Chas. Yutouskey,	Slavonic,	Miner,	32	S.	Mt. Lookout shaft,	Luzerne,	Leg and hand broken by a premature blast he was firing.
	19	Jacob Zall,	Slavonic,	Miner,	51	M.	Midvale slope,	Luzerne,	Face and hands burned by gas; after firing struck a feeder.
	23	Wm. James,	Irish,	Miner,	55	M.	Clear Spring shaft,	Luzerne,	Leg bruised by fall of coal.
	24	John Mould,	American,	Laborer,	15	S.	Pettebone, outside,	Luzerne,	Thigh painfully cut; fell on conveyor chain.
	25	Meshack Reese,	Welsh,	Doorboy,	15	S.	Prospect shaft,	Luzerne,	Leg broken; caught by mule stretcher.
	25	Wm. Christian,	Polish,	Miner,	45	M.	Stevens slope,	Luzerne,	Skull fractured by flying coal from a blast.
	29	Bowman Oplinger,	American,	Teamster,	43	M.	Mineral Spring, outside,	Luzerne,	Head cut and bruised; fell over rock dump while placing car on track.
	29	Wm. Bolin,	Irish,	Miner,	26	S.	No. 10 shaft,	Luzerne,	Injured by fall of roof while drawing out pillars.
May	3	Daniel Phenney,	American,	Driver,	20	M.	Babylon slope, outside,	Luzerne,	Leg crushed between car bumpers.
	3	Mike Zelonski,	Lithuanian,	Miner,	38	M.	East Boston shaft,	Luzerne,	Injured by premature blast he was firing.
	3	Thos. Jeffiers,	American,	Loco. engineer,	38	M.	Stevens, outside,	Luzerne,	Injured by ash car jumping track on him.
	24	Nicholas Tato,	Italian,	Miner,	33	M.	Lykens drift,	Sullivan,	Injured by fall of coal.
June	24	Wm. McGee,	American,	Miner,	28	S.	Murray shaft,	Sullivan,	Leg broken by fall of rock.
July	28	Geo. Staukey,	Polish,	Miner,	29	S.	Bernice drift,	Sullivan,	Injured by electric pump.
Sept.	4	Thos. Tigue,	American,	Loco. engineer,	49	M.	Mt. Lookout, outside,	Luzerne,	Arm cut off by falling off his engine and being run over.
	8	Robert Kaminski,	German,	Miner,	33	S.	Lykens drift,	Sullivan,	Leg broken by fall of coal.
Oct.	6	Joseph Cadenca,	Italian,	Oiler,	23	S.	Pittston washery,	Luzerne,	Injured; caught in machinery while oiling.
	17	Lewis Cowell,	American,	Driver,	24	M.	Bernice drift,	Sullivan,	Leg broken by car jumping track against him.
	25	Joseph Shroba,	Hungarian,	Miner,	34	M.	Louise slope,	Luzerne,	Slightly burned by gas in abandoned workings.
	30	Andrew Murk,	Polish,	Miner,	38	M.	Exeter No. 1 shaft,	Luzerne,	Back bruised by fall of rock at face of breast.
Nov.	4	John O. Boyle,	American,	Footman,	19	S.	Barnum No. 2 shaft,	Luzerne,	Leg broken by cars.
	4	Frank Washlykive,	Polish,	Laborer,	55	M.	Langcliffe shaft,	Luzerne,	Leg and ribs broken by fall of rock.
	4	Louis Buletos,	Lithuanian,	Driver,	16	S.	No. 10 shaft,	Luzerne,	Thigh and finger cut; fell off car.
	5	Joe Pertuskey,	Polish,	Driver,	17	S.	Pine Ridge shaft,	Luzerne,	Leg broken by car striking head block; rear end struck him.
	10	Ercolani Piovdanalda,	Italian,	Miner,	27	M.	Yatesville tunnel,	Luzerne,	Accidently struck on forehead by hammer by a man with whom he worked.
	10	Geo. Matross,	Polish,	Laborer,	31	M.	Heidelberg shaft,	Luzerne,	These three men were injured while descending the shaft on the cage. The engineer lost control of his engines in some manner, and the cage struck the bottom with such force as to cause the above injury; six others escaped with a shaking up.
	10	Wm. Cawley,	American,	Plane runner,	21	S.	Heidelberg shaft,	Luzerne,	
	10	Andrew Shaves,	Polish,	Miner,	41	M.	Heidelberg shaft,	Luzerne,	

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
13	Wm. Shearer,	American,	Driver,	16	S.	No. 10 shaft,	Luzerne,	Skull slightly fractured by a car running out of a breast.
13	Richard Mason,	American,	Miner,	30	M	Avoca shaft,	Luzerne,	Skull fractured by fall of rock.
15	Mike Clune,	American,	Slate picker,	14	S.	Pine Ridge breaker,	Luzerne,	Leg broken by falling from railroad cars; left his place of work and climbed up on the car under breaker.
21	Geo. Kolpko,	Slavonic,	Miner,	30	M	Mt. Lookout shaft,	Luzerne,	Slightly burned by gas by going into old gangway to look for a chain and block and ignited a small quantity.
21	Mike Gasqua,	Polish,	Miner,	40	M	Mt. Lookout shaft,	Luzerne,	
21	John French,	American,	Driver,	16	S.	Katy Did slope,	Luzerne,	Kicked by his mule.
21	Geo. Derhammer,	American,	Laborer,	27	S.	Harry E shaft,	Luzerne,	Leg broken: struck by piece of coal while loading a car.
22	John Jordan,	American,	Doorboy,	14	S.	Laurel Run slope,	Luzerne,	Kicked by a mule.
25	Wm. Job,	English,	Timberman,	52	M	Pettebone shaft,	Luzerne,	Leg broken by rock sliding against him.
Dec. 3	Frank Bainstreem,	Polish,	Miner,	30	S.	Mt. Lookout shaft,	Luzerne,	Hip and leg cut by coal flying from a blast.
6	Anthony Chiniski,	Polish,	Laborer,	30	M	Pettebone shaft,	Luzerne,	Injured by a fall of rock in the gangway.
6	Mike Peculas,	Polish,	Laborer,	27	S.	Pettebone shaft,	Luzerne,	
8	John Swartz,	American,	Track layer,	35	S	No. 8 shaft,	Luzerne,	Injured by descending cage in shaft while repairing the foot of shaft.
10	Anthony Urban,	Russian,	Miner,	27	M.	Prospect shaft,	Luzerne,	Face and hands burned by powder while making a cartridge.
10	Mike Petros,	Hungarian,	Miner,	46	M.	Gardner Creek tunnel,	Luzerne,	Head cut by coal flying from car which ran away down slope.
11	Joe Bedness,	Polish,	Miner,	44	M.	Bernice drift,	Sullivan,	Back broken by fall of rock.
11	Leon Barchok,	Polish,	Miner,	26	S.	Bernice drift,	Sullivan,	Ribs broken by same fall of rock.
11	Joe Ciiskey,	Polish,	Miner,	45	M	Prospect shaft,	Luzerne,	Leg broken by coal from a blast.
12	George Braznock,	Slavonic,	Miner,	28	M	Pine Ridge shaft,	Luzerne,	Fingers crushed by coal falling on them.
13	Mike O'Rourk,	Irish,	Driver,	20	S.	Twin No. 1 shaft,	Luzerne,	Cut and bruised by mule kicking him.
13	Pomgrats Vincnco,	Italian,	Laborer,	45	S.	Ridgewood slope,	Luzerne,	Arm broken by coal from a blast.
15	Carlo Verango,	Italian,	Miner,	35	M.	Babylon shaft,	Luzerne,	Severely burned by dynamite; while thawing it over flame of their lamp it exploded.
15	Biladqui Virgelo,	Italian,	Miner,	30	M.	Babylon shaft,	Luzerne,	
15	Morgan Watkins,	American,	Footman,	22	S.	Laurel Run slope,	Luzerne,	Foot crushed; while hoisting trip on slope tried to kick the rope on pulley.

16	Mike Adams,	Slavonic,	Miner,	33	M. Midvale slope,	Luzerne,	Adams and Yanko were burned by an explosion of gas in gangway face; they were working with safety lamps, but opened their lamp and ignited the gas; Grinder's leg was broken by the concussion.
16	John Yanko,	Slavonic,	Laborer,	24	M. Midvale slope,	Luzerne,	
16	Martin Grinder,	Slavonic,	Runner,	25	M. Midvale slope,	Luzerne,	
16	Stanley Keshofsky,	Polish,	Laborer,	40	S. Harry E. shaft,	Luzerne,	Slightly burned by gas.
18	Anthony Jacofski,	Polish,	Laborer,	43	M. Twin No. 1 shaft,	Luzerne,	Leg broken and hip dislocated by fall of rock.
23	Stanley Yescovage,	Polish,	Miner,	28	M. Midvale slope,	Luzerne,	Bruised by fall of rock.
23	Wm. Smolinski,	Polish,	Miner,	44	M. Twin No. 2 shaft,	Luzerne,	Face and hands cut by premature blast.
24	Joe Auchak,	Polish,	Miner,	38	S. Bernice drift,	Sullivan,	Leg and ribs broken by fall of rock at face of breast.
24	John Duffey,	Irish,	Driver,	16	S. Henry shaft,	Luzerne,	Leg broken by mule falling on him.
27	Florence Carruth,	American,	Engineer,	19	S. Henry, outside,	Luzerne,	Painfully burned by steam pipes, by falling into the economizer.

Fourth Anthracite District.

LUZERNE COUNTY.

Kingston, Pa., March 4, 1903.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg Pa.

Sir: I have the honor to submit my annual report as Inspector of Mines for the Fourth Anthracite District for the year ending December 31, 1902.

Owing to a variety of causes, chief among which were strikes and floods, there was a reduction of 3,791,912 tons from the output of 1901, although the daily average increased 4,171 tons.

This report contains the table as required by the Bureau of Mines, a brief description of all the fatal accidents and also a list of the improvements made at the various collieries during the year.

Very respectfully,

EDWARD E. REYNOLDS,
Inspector of Mines.

SUMMARY OF STATISTICS FOR 1902.

Number of mines in district,	74
Number of mines in operation during 1902,	72
Number of tons of coal produced,	6,099,420
Number of tons shipped to market,	5,241,041
Number of tons sold at mines to local trade,	234,355
Number of tons consumed at mines in generating steam and heat,	624,024
Number of persons employed inside the mines,	17,408
Number of persons employed outside,	7,356
Number of fatal accidents inside the mines,	41
Number of tons produced for each fatal accident inside,	148,766
Number of persons employed per fatal accident inside,	422

Number of fatal accidents outside,	11
Number of persons employed per fatal accident outside,	669
Number of wives made widows by fatal accidents,	21
Number of children orphaned by fatal accidents,	67
Number of non-fatal accidents inside of mines,	104
Number of persons employed per non-fatal accident inside,	166
Number of non-fatal accidents outside,	30
Number of persons employed per non-fatal accident outside,	245
Number of steam locomotives used inside,	3
Number of compressed air locomotives used inside,	4
Number of electric motors used inside,	9
Number of fans used for ventilation,	92
Number of gaseous mines in operation during 1902,	65
Number of non-gaseous mines in operation during 1902,	7
Number of new mines opened in 1902,	2

A. Production of Coal During the Year 1902.

Names of Companies.	Tons.
Lehigh and Wilkes-Barre Coal Company,	1,745,208
Delaware and Hudson Coal Company,	980,769
Susquehanna Coal Company,	740,482
Delaware, Lackawanna and Western Railroad Company,	517,686
Kingston Coal Company,	634,336
Lehigh Valley Coal Company,	320,519
Parrish Coal Company,	369,538
Red Ash Coal Company,	125,115
Alden Coal Company,	148,947
West End Coal Company,	147,225
Warrior Run Coal Company,	118,890
Pittston Coal Company,	18,880
Plymouth Coal Company,	106,081
George F. Lee Coal Co.,	35,744
Sterling Washery,	35,426
North American Washery,	54,574
Total,	6,099,420

B. Showing the number of fatal and non-fatal accidents inside and outside the mines; number of tons of coal produced per fatal and non-fatal accident inside the mines; number of persons employed inside and outside; and the number employed inside and outside for every fatal and non-fatal accident for each company during 1902.

Names of Companies.	Number of lives lost inside.	Number of lives lost outside.	Total number of lives lost.	Number severely injured inside.	Number severely injured outside.	Total number severely injured.	Tons of coal produced per each life lost inside.	Tons of coal produced per serious injury inside.	Number employes inside of mines.	Number employes outside of mines.	Total number employed.	Number of employes inside for each life lost.	Number of employes inside for each severe injury.	Number of employes outside for each life lost.	Number of employes outside for each severe injury.
Lehigh and Wilkes-Barre Coal Co.,	12	2	14	39	6	45	145,436	44,749	4,616	1,680	6,296	385	118	840	280
Deleware and Hudson Canal Co.,	6	1	7	8	4	12	163,461	122,596	2,611	1,141	3,752	433	326	1,141	285
Susquehanna Coal Co.,	5	3	8	22	6	28	148,096	33,658	2,749	1,191	3,940	550	125	397	198
Delaware, Lackawanna and Western Railroad Co.,	2	1	3	5	8	13	238,859	95,544	2,0 6	728	2.764	1 009	403	728	91
Kingston Coal Co.,	9	.....	9	8	1	9	70,482	79,2·2	1,471	813	2,284	167	176	.....	813
Lehigh Valley Coal Co.,	2	.....	2	4	.....	4	160 259	80,130	825	326	1,151	413	206	.....	....
Parrish Coal Co.,	1	1	2	8	1	9	366,537	45,817	1,123	369	1,492	1,124	141	369	369
Red Ash Coal Co.,	.....	.....	.....	3	1	4	.....	40,884	326	208	534	.....	169	.....	208
Alden Coal Co.,	2	.....	2	3	.....	3	74,473	49,649	407	152	559	204	136	.....	.....
West End Coal Co.,	.....	1	1	1	2	3	.....	.....	461	251	712	.....	461	251	126
Warrior Run Coal Mining Co.,	.....	.....	.....	1	.....	1	.....	.....	294	141	435	.....	.....	.....	141
Pittston Coal Co.,	1	.....	1	1	.....	1	18,880	18,880	111	89	200	111	111	.....	.....
Plymouth Coal Co.,	1	.....	1	.....	1	1	106,081	.....	270	125	395	270	.....	.....	125
George F. Lee Coal Co.,	.....	1	1	1	.....	1	.....	.....	108	69	177	.....	108	69	.....
Sterling washery,	.....	.....	.....	.....	.....	.....	.....	.....	.....	22	22	.....	.....	.....	.....
North American Coal Co.,	.....	1	1	.....	.....	.....	.....	.....	.....	51	51	.....	.....	51	.....
Totals and averages,	41	11	52	104	30	134	148,766	58,648	17,408	7,356	24,764	424	166	669	245

C. Classification of Fatal Accidents for the Year 1902.

	Inside of Mines.															Outside of Mines.						Grand total.
	By Fall of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
January,	1	.....	3	1	.....	.....	.....	1	.....	.....	....	.....	.....	.....	.....	5	2	.....	.....	.....	.....	2	7
February,	3	.....	1	2	1	.....	.....	1	.....	.....	....	.....	.....	.....	.....	8	1	.....	.....	.....	.....	1	9
March,	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	1	2	1	.....	.....	.....	3	4
April,	2	.....	1	2	.....	.....	.....	.....	.....	1	....	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	6
May,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	1	2
August,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1
October,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	1	2	.....	.....	.....	.....	.....	.....	2
November,	1	.....	1	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	1	3	1	.....	.....	.....	.....	1	4
December,	1	.....	1	4	.....	.....	5	2	1	.....	....	.....	.....	.....	.....	14	.....	1	.....	.....	1	2	16
Totals,	8	1	7	11	1	.....	5	4	1	1	....	.....	.....	.....	2	41	7	2	.....	.....	2	11	52

D. Classification of Non-fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						Grand total.
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling Into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total Inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	
	Coal.	Slate.	Roof.						Slopes.	Shafts.	Manways, breasts, etc.												
January,	2	.....	8	1	2	.....	.....	1	.....	.....	.....	.....	2	.....	2	18	2	1	.....	.....	1	4	22
February,	.....	.....	12	3	1	.....	.....	1	.....	.....	.....	.....	.....	.....	4	11	1	1	.....	.....	2	4	15
March,	3	1	4	2	1	.....	.....	1	.....	.....	.....	.....	1	.....	2	15	3	.....	.....	.....	1	4	19
April,	5	2	12	4	.....	.....	.....	1	.....	.....	.....	.....	3	.....	.....	17	.....	.....	.....	.....	2	2	19
May,	.....	.....	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
August,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	1
September,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	1	2
October,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	1	1	2
November,	4	2	4	3	.....	.....	.....	1	.....	.....	.....	.....	2	.....	1	17	3	1	.....	.....	4	8	25
December,	1	.....	2	13	.....	.....	3	.....	1	1	.....	.....	.....	.....	.....	21	2	.....	.....	.....	3	5	26
Totals,	15	5	24	28	4	.....	3	5	1	1	.....	.....	8	.....	10	104	13	3	.....	.....	14	30	134

E. Occupations of Employes Killed or Fatally Injured Inside and Outside the Mines of the Fourth Anthracite District During 1902.

Months.	Inside.											Outside.									
	Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door-boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen	Slate pickers (boys).	Slate pickers (men).	Book-keepers and clerks.	All other employes.	Total outside.	Grand total.
January,	.....	.....	.....	4	1	.....	.....	.....	1	.....	6	.....	.....	.....	.....	.....	.....	.....	2	2	8
February,	.....	.....	1	2	3	1	1	.....	.....	.....	8	.....	.....	.....	.....	.....	.....	.....	1	1	9
March,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	2	1	.....	.....	3	4
April,	.....	.....	.....	4	.....	1	.....	.....	1	.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	6
May,	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	.....	1	2
August,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1
October,	.....	.....	.....	.....	.....	1	.....	.....	1	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
November,	.....	.....	.....	2	1	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	1	1	4
December,	.....	.....	.....	4	6	.....	.....	.....	1	3	14	.....	.....	.....	.....	1	.....	.....	1	2	16
Totals,	.....	.....	1	17	11	4	1	.....	4	3	41	.....	.....	.....	.....	3	2	.....	6	11	52

F. Occupations of Employes Severely Injured Inside and Outside the Mines of the Fourth Anthracite District During 1902.

Months.	Inside.											Outside.									
	Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door-boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen	Slate pickers (boys).	Slate pickers (men).	Book-keepers and clerks.	All other employes.	Total outside.	Grand total.
January,	1	.....	.....	9	4	3	.....	.....	1	.....	18	.....	.....	1	.....	1	.....	.....	2	4	22
February,	.....	.....	.....	4	3	2	2	.....	.....	.....	11	.....	.....	.....	1	1	.....	.....	2	4	15
March,	.....	.....	1	6	4	5	1	.....	1	.....	15	.....	.....	.....	.....	.....	.....	.....	4	4	19
April,	.....	.....	.....	9	.....	5	1	.....	2	.....	17	.....	.....	.....	.....	.....	.....	.....	2	2	19
May,	.....	.....	.....	1	2	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
August,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1
September,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	1	2
October,	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	1	2
November,	.....	.....	1	8	2	4	2	.....	.....	.....	17	.....	.....	.....	1	3	.....	.....	4	8	25
December,	.....	.....	.....	2	5	7	1	2	3	1	21	.....	.....	.....	.....	2	.....	.....	3	5	26
Totals,	2	.....	2	39	21	23	7	2	7	1	104	.....	.....	1	2	7	.....	.....	20	40	134

G. Nationality of Employes Killed or Fatally Injured Inside and Outside the Mines During 1902.

	American.	English.	Welsh.	Scotch.	Irish.	German.	Polish.	Hungarian.	Italian.	Slavonic.	Lithuanian.	Greek.
January,	1	.....	1	.....	.....	.....	2	.....	1	1	1	1
February,	1	1	.....	.....	1	.....	4	.....	.....	1	1	.....
March,	1	1	1	.....	.....	1	.....	.....	.....	.....	.....	.....
April,	1	.....	.....	.....	.....	.....	4	.....	.....	.....	1	.....
May,	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
August,	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
October,	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....
November,	.....	.....	.....	.....	1	.....	1	1	.....	1	.....	.....
December,	1	1	4	1	3	.....	3	.....	1	.....	2	.....
Totals,	6	3	8	1	5	2	15	1	2	3	5	1

H. Nationality of Employes Severely Injured Inside and Outside the Mines During 1902.

	American.	English.	Welsh.	Irish.	German.	Polish.	Hungarian.	Italian.	Slavonic.	Lithuanian.	Austrian.	Russian.
January,	6	3	2	.....	.....	7	.....	1	1	2	.....	.....
February,	5	2	2	2	.....	2	.....	.....	.....	1	1	.....
March,	4	1	2	2	.....	5	2	.....	.....	.....	.....	3
April,	3	2	3	2	.....	3	.....	.....	1	4	1	.....
May,	1	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....
August,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
September,	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
October,	.....	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....
November,	10	.....	2	3	.....	4	1	.....	3	2	.....	.....
December,	12	.....	3	2	1	7	.....	.....	.....	.....	.....	1
Totals,	43	8	15	11	1	29	4	1	6	9	2	4

I. Giving names of operators and mines, kind of openings, type and size of fans; size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each employe per minute in the mines of Fourth Anthracite District for the year 1902.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Lehigh and Wilkes-Barre.													
Hollenback,	Shaft,	Gaseous,	Fan,	35 x 11-6	1.25	Guibal,	Steam,						
Hollenback,	Shaft,	Gaseous,	Fan,	35 x 11-9	1.25	Guibal,	Steam,						
Hollenback,	Shaft,	Gaseous,	Fan,	35 x 11-9	.80	Guibal,	Steam,	10	285,800	249,400	302,500	388	740
Hollenback,	Shaft,	Gaseous,	Fan,	24 x 8	.80	Guibal,	Steam,						
South Wilkes-Barre,	Shaft,	Gaseous,	Fan,	35 x 11-9	2.	Guibal,	Steam,						
South Wilkes-Barre,	Shaft,	Gaseous,	Fan,	35 x 11-9	2.	Guibal,	Steam,	16	419,600	222,000	440,000	757	550
South Wilkes-Barre,	Shaft,	Gaseous,	Fan,	35 x 11-9	2.	Guibal,	Steam,						
Stanton,	Shaft,	Gaseous,	Fan,	16 x	1.3	Guibal,	Steam,						
Stanton,	Shaft,	Gaseous,	Fan,	34½ x 11-9	1.5	Guibal,	Steam,	9	237,200	210,100	250,000	635	370
Stanton,	Shaft,	Gaseous,	Fan,	35 x 11-7	1.9	Guibal,	Steam,						
Sugar Notch,	Shaft,	Gaseous,	Fan,	20 x 6-8	1.2	Guibal,	Steam,						
Sugar Notch,	Shaft,	Gaseous,	Fan,	24 x 8	1.2	Guibal,	Steam,	9	250,000	236,500	270,000	428	580
Lance,	Shaft,	Gaseous,	Fan,	34¼ x 10-11	2.	Guibal,	Steam,						
Lance,	Shaft,	Gaseous,	Fan,	35 x 11-9	2.	Guibal,	Steam,	10	439,400	335,800	480,900	486	900
Lance,	Shaft,	Gaseous,	Fan,	35 x 11-9	2.	Guibal,	Steam,						
Nottingham,	Shaft,	Gaseous,	Fan,	24 x 7-10	1.75	Guibal,	Steam,						
Nottingham,	Shaft,	Gaseous,	Fan,	24 x 8	1.75	Guibal,	Steam,						
Nottingham,	Shaft,	Gaseous,	Fan,	24 x 8	1.75	Guibal,	Steam,	10	434,000	313,000	449,000	700	629
Nottingham,	Shaft,	Gaseous,	Fan,	24 x 8	1.75	Guibal,	Steam,						
Nottingham,	Shaft,	Gaseous,	Fan,	24 x 8	1.12	Guibal,	Steam,						
Reynolds,	Slope,	Gaseous,	Fan,	23¾ x 5-7	2.	Guibal,	Steam,	5	98,300	58,500	97,500	272	360
Wanamie,	Slope,	Gaseous,	Fan,	28 x 8	.9	Guibal,	Steam,						
Wanamie,	Slope,	Gaseous,	Fan,	15 x 5	.4	Guibal,	Steam,	7	100,000	85,500	109,000	309	320
Wanamie,	Slope,	Gaseous,	Fan,	15 x 4-6	.4	Guibal,	Steam,	5	53,600	45,600	60,000	106	500
Maxwell,	Shaft,	Gaseous,	Fan,	21 x 8	1.5	Guibal,	Steam,						
Maxwell,	Shaft,	Gaseous,	Fan,	25 x 8-2	1.5	Guibal,	Steam,						
Maxwell,	Shaft,	Gaseous,	Fan,	35 x 11-9	1.5	Guibal,	Steam,	10	328,000	286,000	343,000	535	610
Maxwell,	Shaft,	Gaseous,	Fan,	35 x 11-9	1.5	Guibal,	Steam,						

TABLE I—Continued.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—In inches.	Name of fan.	Power used.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at Inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Delaware and Hudson Canal Co.													
Boston,	Shaft, ...	Gaseous,	Fan,.....	22 x 5	2.6	Guibal,.....	Steam,...	6	126,600	122,900	139,400	315	400
Plymouth No. 2,	Shaft, ...	Gaseous,	Fan,.....	28 x 10	2.7	Guibal,.....	Steam,..						
Plymouth No. 2,	Shaft, ...	Gaseous,	Fan,.....	22 x 5	2.9	Guibal,.....	Steam,..	8	207,700	202,300	218,700	417	500
Plymouth No. 3,	Shaft, ...	Gaseous,	Fan,.....	17 x 4	1.4	Guibal,.....	Steam,..						
Plymouth No. 3,	Shaft, ...	Gaseous,	Fan,.....	28 x 10	2.3	Guibal,.....	Steam,..	8	251,000	213,100	270,100	435	570
Plymouth No. 3,	Shaft, ...	Gaseous,	Fan,.....	16 x 4	1.0	Guibal,.....	Steam,..						
Plymouth No. 4,	Shaft, ...	Gaseous,	Fan,.....	17 x 4	1.6	Guibal,.....	Steam,...	4	104,400	97,000	134,900	316	331
Plymouth No. 5,	Shaft, ...	Gaseous,	Fan,.....	22½ x 5	2.9	Guibal,.....	Steam,...	8	179,000	161,000	188,000	293	610
Conyngham,	Shaft, ...	Gaseous,	Fan,.....	20 x 5	1.8	Guibal,.....	Steam,...	4	131,100	124,400	139,500	159	820
Conyngham,	Shaft, ...	Gaseous,	Fan,.....	17 x 8	1.6	Guibal,.....	Steam,...	3	90,600	84,500	93,200	136	660
Baltimore No. 2,	Shaft, ...	Gaseous,	Fan,.....	17½ x 4	4.5	Guibal,.....	Steam,...	3	105,700	95,600	113,300	141	750
Baltimore slope,	Shaft, ...	Gaseous,	Fan,.....	18 x 4	2.25	Guibal,.....	Steam,...	5	168,700	75,500	182,000	219	770
Baltimore tunnel,	Tunnel,..	Non-gas.	Fan,.....	19 x 8	1.50	Guibal,.....	Steam,...	5	97,200	63,000	107,500	180	540
Susquehanna Coal Co.													
No. 1 North shaft,	Shaft, ...	Gaseous,	Fan,.....	25 x 8	1.5	Guibal,.....	Steam,..						
No. 1 North shaft,	Shaft, ...	Gaseous,	Fan,.....	20 x 6	1.5	Guibal,.....	Steam,..	10	154,900	122,100	180,900	463	330
No. 1 South shaft,	Shaft, ...	Gaseous,	Fan,.....	25 x 8	1.5	Guibal,.....	Steam,..						
No. 1 South shaft,	Shaft, ...	Gaseous,	Fan,.....	25 x 8	1.6	Guibal,.....	Steam,..	9	190,100	152,600	201,000	522	360
No. 2 shaft,	Shaft, ...	Gaseous,	Fan,.....	25 x 8	1.5	Guibal,.....	Steam,..						
No. 2 shaft,	Shaft, ...	Gaseous,	Fan,.....	20 x 6	3.0	Guibal,.....	Steam,..	5	116,000	85,500	122,500	303	380
No. 4 shaft,	Shaft, ...	Gaseous,	Fan,.....	20 x 6	1.3	Guibal,.....	Steam,...	2	49,000	39,000	51,000	153	310
No. 5 shaft,	Shaft, ...	Gaseous,	Fan,.....	8 x 2	.4	Sturdevant,..	Steam,...	4	78,000	62,000	86,000	58	1,340
No. 6 shaft,	Shaft, ...	Gaseous,	Fan,.....	20 x 6	1.2	Guibal,.....	Steam,..						
No. 6 shaft,	Shaft, ...	Gaseous,	Fan,.....	25 x 8	1.5	Guibal,.....	Steam,..	4	14,000	.....	16,000	*	.....
No. 4 slope,	Slope, ...	Gaseous,	Fan,.....	16 x 4	.90	Guibal,.....	Steam,..						
No. 4 slope,	Slope, ...	Gaseous,	Fan,.....	20 x 6	2.00	Guibal,.....	Steam,..	4	100,700	48,600	116,400	321	310
No. 6 slope,	Slope, ...	Gaseous,	Fan,.....	20 x 6	1.20	Guibal,.....	Steam,..						
No. 6 slope,	Slope, ...	Gaseous,	Fan,.....	25 x 8	1.50	Guibal,.....	Steam,..	4	112,000	99,000	114,000	349	320
No. 6 tunnel,	Tunnel,..	Gaseous,	Fan,.....	20 x 6	.90	Guibal,.....	Steam,...	6	52,700	40,300	53,000	151	340

Parrish Coal Co.													
Parrish,	Slope, ..	Gaseous,	Fan,	21 x 8	1.8	Guibal,	Steam,						
Parrish,	Slope, ..	Gaseous,	Fan,	20 x 6	1.8	Guibal,	Steam,	10	127,200	102,200	131,500	472	270
Buttonwood,	Shaft, ...	Gaseous,	Fan,	24 x 8	2.	Guibal,	Steam,						
Buttonwood,	Shaft, ...	Gaseous,	Fan,	20 x 6	2.	Guibal,	Steam,	10	228,100	197,600	249,600	652	350
Del., Lack'a and West. R. R. Co.													
Woodward,	Shaft, ...	Gaseous,	Fan,	20 x 6	3.	Guibal,	Steam,	9	222,300	207,300	280,700	640	347
Woodward,	Shaft, ...	Gaseous,	Fan,	16 x 5	2.2	Guibal,	Steam,	7	126,500	116,000	175,000	252	500
Avondale,	Shaft, ...	Gaseous,	Fan,	16 x 5	.95	Guibal,	Steam,						
Avondale,	Shaft, ...	Gaseous,	Fan,	16 x 5	1.50	Guibal,	Steam,	8	162,000	153,500	216,500	435	372
Auchincloss,	Shaft, ...	Gaseous,	Fan,	35 x 9	.50	Guibal,	Steam,	6	109,100	102,300	117,500	157	700
Bliss,	Shaft, ...	Gaseous,	Fan,	35 x 10	1.80	Guibal,	Steam,						
Bliss,	Shaft, ...	Gaseous,	Fan,	35 x 10	1.80	Guibal,	Steam,	12	179,200	121,200	185,000	473	360
Bliss,	Shaft, ...	Gaseous,	Fan,	12 x 5	2.00	Guibal,	Steam,	3	37,100	28,600	37,800	70	530
Lehigh Valley Coal Co.													
Dorrance,	Shaft, ...	Gaseous,	Fan,	30 x 10	1.90	Guibal,	Steam,						
Dorrance,	Shaft, ...	Gaseous,	Fan,	37 x 12	1.90	Guibal,	Steam,	17	312,300	202,300	368,600	440	700
Franklin,	Slope, ...	Gaseous,	Fan,	18 x 6	.25	Guibal,	Steam,						
Franklin,	Slope, ...	Gaseous,	Fan,	14 x 6	.40	Guibal,	Steam,	6	104,800	57,000	107,500	.....	.....
Franklin,	Slope, ...	Gaseous,	Fan,	15 x 5	.40	Guibal,	Steam,	3	43,100	32,300	56,900	385	490
Franklin Reserve,	Slope, ...	Gaseous,	Fan,	15 x 6	.....	Guibal,	Steam,	4	35,100	22,700	42,700	.....	.....
Franklin Reserve,	Slope, ...	Gaseous,	Fan,	15 x 6	.....	Guibal,	Steam,						
Plymouth Coal Co.													
Dodson,	Shaft, ...	Gaseous,	Fan,	20 x 6	2.	Guibal,	Steam,	5	116,200	90,500	117,300	270	430
Warrior Run Coal Co.													
Warrior Run,	Slope, ...	Gaseous,	Fan,	20 x 6	1.25	Guibal,	Steam,	3	100,800	48,700	105,900	294	340
Kingston Coal Co.													
Shaft No. 2,	Shaft, ...	Gaseous,	Fan,	28 x 8	1.3	Guibal,	Steam,	5	107,100	88,000	110,900	396	270
Shaft No. 3,	Shaft, ...	Gaseous,	Fan,	28 x 8	1.3	Guibal,	Steam,	4	58,400	38,100	59,100	287	200
Shaft No. 1,	Shaft, ...	Gaseous,	Fan,	26 x 8	2.5	Guibal,	Steam,	7	113,500	95,300	128,900	281	400
Shaft No. 4,	Shaft, ...	Gaseous,	Fan,	25 x 8	2.5	Guibal,	Steam,	6	95,800	59,800	96,700	291	330
Gaylord,	Slope, ...	Gaseous,	Fan,	24 x 8	1.1	Guibal,	Steam,	3	46,600	26,700	49,700	149	312
Red Ash Coal Co.													
Red Ash No. 1,	Slope, ...	Non-gas.	Fan,	15 x 5	1.0	Guibal,	Steam,	2	60,700	18,000	65,600	156	389
Red Ash No. 2,	Slope, ...	Non-gas.	Fan,	15 x 5	1.2	Guibal,	Steam,	5	72,800	60,700	68,800	120	606
Alden Coal Co.													
Alden No. 1,	Shaft, ...	Gaseous,	Fan,	25 x 8	1.0	Guibal,	Steam,	6	57,700	51,000	73,000	24	2,404
Alden No. 2,	Shaft, ...	Gaseous,	Fan,	25 x 8	1.4	Guibal,	Steam,	9	161,000	128,000	200,000	294	550
West End Coal Co.													
Lee shaft,	Shaft, ...	Gaseous,	Fan,	15 x 5	1.2	Guibal,	Steam,						
Lee shaft,	Shaft, ...	Gaseous,	Fan,	12 x 5	1.2	Guibal,	Steam,	6	74,300	44,900	87,400	100	740
Sand drift,	Drift, ...	Gaseous,	Fan,	15 x 5	1.4	Guibal,	Steam,	2	53,400	26,200	57,600	248	215
Long drift,	Drift, ...	Gaseous,	Fan,	15 x 5	1.5	Guibal,	Steam,	3	38,800	26,000	51,000	113	340
Geo. F. Lee Coal Co.													
Chauncey,	Slope, ...	Non-gas.	Natural,	.....	.....	.....	.....	2	44,700	17,100	45,300	106	420

*Idle.

Comments on Causes of Accidents, Etc.

There were 52 fatal and 134 non-fatal accidents reported in this district during the year 1902.

By referring to Table C it can be seen that 41, or 78.8 per cent. of the fatal accidents occurred inside the mines, and 11, or 21.2 per cent. on the outside. A total of 18, or 34.6 per cent. were caused by mine cars alone. Investigation of these accidents showed clearly that 13 of them could have been avoided by very little care on the part of the victims, and a more strict discipline on the part of the officials.

There is a great deal too much sentiment permitted to enter into the enforcement of rules. Foremen who are lax in carrying out the orders of their superiors do so with a mistaken idea that they are favoring the men; they do not imagine that this policy always has a tendency to make the workmen less careful for their own safety, and that of others. I do not charge any foreman in the district with a violation of the Mine Law as it stands on the statute books, but I desire most emphatically to state that if they would observe the law, and inject into their daily duties a more decided method of carrying out their orders, and accept no excuses for delay or disobedience, there would without doubt be a great reduction in the number of fatal accidents from this cause.

To falls of roof and coal are charged 16 fatal and 44 non-fatal accidents, or 41.4 per cent. of all the accidents that occurred inside the mines during the year.

The article from the Bureau of Mines upon the subject of systematic timbering, published in the Annual Report of 1901, cannot be too highly commended, and should receive the hearty support of every person who is interested in removing the occupation of a coal miner from the extra hazardous class. To accomplish this object, and insure a proper and careful method of securing the roof, the work should be done by persons employed for this particular work.

Propping, as it is done at present, necessitates a great loss of valuable timber, as a large number of the miners neither know where or how to stand props. It would not require a large increase in the working force of a colliery to have practical and experienced men to do the propping and timbering in the chambers and gangways, and the material they would save would more than pay their wages. This would not conflict with rules 12 and 14, article 12, of the Mine Law, as it is in all cases the duty of the mine foreman to direct the proper persons to secure the roof and sides, and he would not be dependent upon obedience to his orders on men who do not understand what he directs them to do, and the miners would then have more time to devote to winning and pre-

paring coal. Had these suggestions been carried out during the year 1902, six of the fatalities, or 37½ per cent. of the number due to this cause would not have occurred.

Four were killed by premature blasts, due to shortening squibs or to some mistake in handling them. The only method to do away with this class of accidents is to remove the cause, for, if men are permitted to use squibs, the temptation is constantly presented to shorten or tamper with them. If the miners were compelled to fire all blasts by the use of a battery, there would be no missed or hung shots. The difficulty in the past has been to ignite black powder by a battery without the use of an exploding cap, but this trouble has been removed, as the Electric Fuse Company has introduced an electric fuse which is the first known that will ignite black powder without a cap, as the fuse itself is separate from the cap, and only in case of blasting with dynamite the loose cap has to be pushed into the paper tube of the powder fuse. The use of such electric fuses without the cap attached is much safer in all gaseous mines, where squibs are now used, because no open flame like the burning of the paper of the squib can touch the gas. Further, the electric powder fuse has the great advantage that all men can reach a safe place before the battery is touched by the miner who has control of the key for operating it. The fuses are cheaper than any of those to which caps are attached, and have given satisfaction wherever they have been used.

A Brief Description of the Fatal Accidents.

Edward McGrath, a fuelman at the Maxwell breaker, whose duty it was to load fuel into cars for No. 1 slope, called the locomotive engineer to get cars from the washery and as the engineer was going up to the Red Ash shaft, McGrath jumped on the engine. Above the breaker stood a derrick, and just as the locomotive was passing it, he put his head out of the cab window and was caught by one of the posts, injuring him so that he died shortly afterwards.

George Yakabois, an outside laborer at Breaker No. 7, of the Susquehanna Coal Company, was cleaning the track on the head of the dirt plane, and was caught by a car coming over the knuckle, as he was facing the opposite direction, and so badly injured that he died in two days.

Mike Screen was instantly killed by a fall of coal at the face of his chamber. This accident was unavoidable.

William J. George was mining in the Conyngham colliery and had no laborer; about 1 P. M. he fired a blast; the men on the gangway not hearing any signal given, went up in the chamber to see where

he was and found his body. An investigation failed to reveal the cause of this accident, as the premature blast might have happened from either of several causes.

Adam Newallis was employed to push cars at the foot of No. 4 Shaft. The runner, instead of throwing the switch before running his trip, came down with three cars from the head of the slope, ran in on the empty track, bumped the motor that was coupled to the empty cars and knocked the hind one off the road, catching Newallis and pinning him against the rib. Newallis had plenty of time to get out of the way, but did not avail himself of it.

At the Avondale, Thomas Farasacy was instantly killed on January 24 by a fall of roof. The chamber was double timbered throughout, but a "bell" fell out and caught him. These "bells" are very treacherous, as it is impossible to see them before they fall.

Uiko Tokar, at Alden, was instantly killed by a fall of roof. He was notified by the fire boss in the morning to stand props before he did any other work, as he had detected a slip in the roof when he went through in the morning. Tokar promised to stand the props, but when the mine foreman went through his place at about 9 A. M., he found him mining out some loose coal. He was again ordered to stand props, and commenced to do so, but when the foreman left his chamber, he began to load a car and was caught by the fall of roof.

Joseph Marshall was robbing pillars in Alden No. 1, and was instantly killed by a fall of clod in the face of the pillar. The slip that broke off was hidden in the rib so that it could not be detected.

John Rasamovitch was killed by a blast through a cross heading. The miner in the next chamber, when he had prepared a blast, notified Rasamovitch that he was going to fire, but he would not do so, as he did not think the hole would break through; consequently, when the blast exploded, it threw the coal over into Rasamovitch's chamber and killed him instantly.

John Wascavicz was killed by a car on the dirt bank of Breaker No. 5, Susquehanna Coal Company. He and three other men were employed in dumping dirt on the bank. They had unloaded a car and pushed it back on the empty branch, putting a block behind the wheel, instead of dropping the brake to hold the car. It was Wascavicz's duty to put on the brake, but he neglected it. When they took the next loaded car down the dump, the victim was standing at the hind end of it; the empty car on the branch was started by the wind blowing against it, and ran down the track, catching Wascavicz and pinning him to the other car.

Joseph Merlings was loading a car at the face, when a piece of rock fell and caught him. He died February 8 as a result of the

injury. Upon investigation I found that the slip in the rock ran to a feather edge at the pillar, and could not be detected.

Thomas Timlin was fatally injured on February 15 and died on March 12 in the Mercy Hospital. He had fired a hole in the top coal, but as the coal did not come down he commenced to drill another hole, and before he finished, the coal came down on him.

Edward Broom was making his usual Sunday morning examination of the old workings of Plymouth No. 2, along the slush pipe line, and it is supposed that he encountered a body of gas as he was going through a cross cut between two chambers. His body was not found until 9.30 P. M. on Monday, although the mine was thrown idle and a large number of men were formed into searching parties. Upon investigation, I found that he left the barn boss at 7 A. M., at No. 2 Shaft, and told him he was going up No. 1 Shaft. The fans were not stopped during the day, and there had never been any gas found there before. His safety lamp was smashed into pieces.

Jacob Babetski, a laborer in No. 6 Slope, Susquehanna Coal Company. His miner was turning of a chamber in the Top Ross seam. had drilled a hole and gone back to the box to prepare a cartridge of powder. The roof being bad, he told Babetski to keep back from the face, but instead of doing so he started turning the machine in the hole and the roof fell on him, carrying with it two sets of cross timbers and burying him under the fall.

Peter Szieffer was shoveling coal from the face, when the roof fell and killed him. The roof was bad about fifty feet from the face of the gangway, and the fire boss had stopped the place until he had it cross-timbered. Szieffer was ordered to go home in the morning, but instead of doing so, he went into the face and was killed.

Paul Dickey, a driver at Kingston No. 1 Shaft, was going home at noon to attend a funeral. When he came to the foot of the slope he jumped on the head end of a trip to ride up. As the trip was pulling out of the lift he was knocked off and fell under the wheels.

Thomas Gibbon, a door boy at the Stanton, was riding out on a trip of loaded cars. Two cars uncoupled on No. 8 plane and ran away, out the gangway, caught the other trip and injured Gibbon so that he died two days afterwards.

George B. Rice was at the foot of the West End dirt plane, and two empty cars were coming down the plane; when they reached the foot of the plane they caught Rice, knocked him from the trestle, across the tracks to the wagon road, killing him instantly.

David Hawkins was playing at the foot of the tower plane, jumping on cars that the timbermen were using. He was warned sev-

eral times to stop and go away, but he continued playing until he was run over by a car loaded with timber and killed.

Joseph Blockus, a slate picker, had exchanged places with the boy attending the conveyor line, unknown to the foreman. Instead of knocking pieces off of the line with a stick, as the other boy did, Blockus jumped up on the chute and attempted to do it with his foot, but was caught by the conveyor and dragged around the sprocket wheel.

Richard Hughes had fired a shot in the mining bench in the face of his chamber in Shaft No. 3, Kingston, and was preparing another hole, when the middle rock fell on him. There was a slip in the rock that could not be seen previous to the accident.

Simon Thomas, a miner in No. 2 plane, Hollenbeck colliery, was called by the fire boss to assist in extinguishing a fire in the next chamber to the one in which he was working. The heat from the fire caused a piece of coal to fall from the pillar on Thomas, which injured him so that he died in about a half hour.

Charles Suchotski, a miner at the Maxwell, was working a chute chamber in the Ross seam. Immediately after firing a blast he returned to the face, and a large piece of top coal fell on him. He returned too soon to the face.

Joseph Vizgar, a miner at Slope No. 6, Susquehanna Coal Company, was going home with his laborer. The laborer wanted him to go out through No. 6 Shaft or by way of the manway, as was the custom with all the men after work, but Vizgar determined to walk up the slope. The slope pitches about forty degrees. When he was 200 feet up he slipped and fell to the bottom, and was killed.

Adam Morkofski, miner in the George seam of Slope No. 4, Susquehanna Coal Company, after firing a blast, was working out the loose coal, when a piece of top rock fell on him. The blast had knocked out some props and he did not replace them.

John Rygualski, laborer at No. 2 Shaft, Susquehanna Coal Company, was instantly killed at the foot of No. 5 Slope. He was employed as a road cleaner and as the slope runner was about to drop a trip of empty cars into the lift, he told Rygualski to get out of the way; he repeated the order in Polish and was answered "all right." The footman then coupled the cars, and Rygualski stepped in between the first and second cars. As the empty trip was coming down the track, it jumped the road and knocked the first loaded car off, catching Rygualski.

Harry Hoxie, a driver at the Buttonwood colliery of the Parrish Coal Company, had pulled a car out of the airway and was riding on the front end of it on the gangway. It is supposed that his foot was sliding on the rail, and he was caught by a joint, which

dragged him under the car. It is a habit that many drivers have, of sitting on the car bumper, with one foot on the stretcher, letting the other slip on the rail. The least inequality in the track will cause him to be thrown off.

Edward Roberts was employed to attend the head of No. 3 Red Ash slope, but came out to the foot of the shaft at noon to look for a trip of cars. As the cars were being switched around the head of No. 2 Slope, he attempted to uncouple some of them, when one car jumped the track and injured him so that he died the next day. He was at least half a mile from the place of his work.

John Mooney, a slate picker at the Chauncey breaker, came out to play with some other boys at the mouth of the tunnel. While they were there, a trip of loaded cars came out of the tunnel, and he attempted to step on the front end, but he missed and fell and was instantly killed.

John Schmitt had the contract for concreting the airshaft at the Parrish colliery from top to bottom. On August 30, as he was about to descend the shaft he signalled the engineer to lower the bucket, but through some misunderstanding he was hoisted to the top and crushed between the bucket and roof of the air shaft, receiving injuries that proved fatal.

John Pollic, laborer at Shaft No. 2, Nanticoke, attempted to step on a loaded trip as it was coming up No. 5 Slope, but he missed and fell under; he died in the hospital.

Arthur Evans was so severely scalded at the Dorrance colliery on October 30 that he died from his injuries. He was going to work at 5.30 P. M., and when he went down the shaft he got off the cage at the wrong end. Instead of walking around the foot of the shaft, he stepped into the carriage seat and over into a small sump containing thirteen inches of water. The water was hot, as steam was run through it to keep the foot of the shaft from freezing.

Andrew Mathews, at Sugar Notch No. 9, had fired a blast in the top coal, but as he could not get the coal down by barring, after the blast he loaded a car, when the coal fell and killed him.

James Boyle was loading a car in the Baltimore seam, Conyngham colliery, on the night shift. His miner had blasted down the rock, but a small piece fell from the rib and struck Boyle, killing him instantly.

Carl Girchis and his helper rode on the mine locomotive from Baltimore Shaft No. 2 to Breaker No. 5 for the purpose of repairing a piece of broken road. As the engine was stopping, Girchis stepped off the front end and in some manner stumbled and fell; his head was caught under the bumper. His injuries appear to be

very slight, as he walked to the engine house, but he died in twenty minutes.

On November 24, John Swartz, while ascending Shaft No. 3, South Wilkes-Barre, fell in the cage; was caught between the bunton and the cage and was instantly killed. His laborer cut his hand slightly, and Swartz was taking him home, and when they came to the foot of the shaft, the miner, laborer and a bratticeman stepped on the cage. They had the laborer in the middle, Swartz holding on to one hand rail, and the bratticeman the other. The cage was raised very slowly, but when it was within one hundred feet of the surface, Swartz let go of the laborer and the hand rail and fell forward.

Frank Mulligan was laboring in the slope of Baltimore Shaft No. 2. In hoisting a trip, a car got off the track. The car was down so that the axles were on the rails, and they could not get it up with a lever. The runner then signaled the engineer to pull the trip up the slope, to give them a better chance at it. At the first pull, the car that was off the road swung around in such a manner that its side struck a prop and knocked it out, permitting some loose top coal to fall, which caught Mulligan and killed him.

David S. Davis and three other men were working at repairs in the Stanton shaft. The cage had been taken off and replaced by a bucket, used in hoisting water. On top of the bucket was a strong, substantial platform. The men worked upon this platform. After completing their work, they ascended to the top, but the engineer pulled the bucket up about two and one-half or three feet above the landing. Davis jumped from the platform and fell backwards into the shaft.

John Kani was opening a chamber on the Cooper plane in Wanamie No. 18. When putting off a blast, he ran out the gangway in the direction the coal would go. It caught him, and injured him so that he died six days after.

On December 9 an explosion of dynamite occurred at the South Wilkes-Barre colliery, Lehigh and Wilkes-Barre Coal Company, that caused the death of five men and the serious personal injury of three others. The company has a rule prohibiting men from taking any high explosive down the shaft with them, as an empty cage is provided for that purpose. On the above date, Mathew Phillips, a miner employed in driving a gangway in the Baltimore seam, procured a box of dynamite at the supply house, brought it to the head of the shaft, descended and reported to the fire boss. He and his laborer returned to the foot of the shaft and waited for the dynamite. There were four cases sent down on the cage, three for a contractor, who is driving a tunnel, and one for Phillips. Phillips and his laborer, James McGlynn, took their box from the

cage, Phillips carrying it; went around the shaft to the empty track side, walked up on the east side empty car road, when the dynamite exploded, instantly killing Mathew Philips, James McGlynn and Arthur Jones, and injuring Robert Humbleby so that he died in the ambulance as he was being taken to the hospital, and Charles Stafford, who died the following morning. George Knauer, Evan L. Jones and Neil Sweeney were severely injured and several others were more or less severely bruised. In my investigation, and also at the inquest held by the coroner, it was impossible to obtain any information regarding the cause of the accident, as every person in the immediate vicinity of the explosion was instantly killed. Phillips was a careful, experienced miner, accustomed to handling dynamite and had worked in the same gangway for two years, and was constantly using explosives. The force of the explosion was so great that it displaced the main air bridge that crosses the empty car roadway, and dislodged a number of props that were standing along the road side.

Peter Perhavage was a laborer in the Franklin. On December 9 his miner wanted him to help stand a prop at the face of the chamber, but a car being pulled up to the face, he refused to stand the prop before loading the car. His miner, instead of insisting upon his standing the prop, permitted him to have his way. When the car was about half loaded the roof came down in the middle of the road and instantly killed Perhavage.

Benjamin Davis, miner; Anthony Perok and Thomas Posak, laborers, were instantly killed at Shaft No. 3, Kingston Coal Company, on December 11. They worked on the engine plane in the Orchard seam, Davis in the top lift on the left of the plane, Perok and Posak on the lift below. There is a manway on each side of the plane, and the extension of the plane goes out to the surface. Davis, having finished his day's work, came out to the plane and crossed it, then stood with his back to the pillar. The laborers walked up the manway on their side of the plane and stood with him. The plane runner, who was switching cars from the top lift on one side of the plane to the top lift on the other side, told them to get out of the way, but they refused to do so. The trip was pulled above the latches, and as they began to slack down, the coupling broke between the rock car and the upper car of coal, allowing the nine cars to run away. An empty car jumped the track at the frog, caught the men and pinned them against the pillar.

James Sullivan was killed by falling into the elevator shaft of the Auchincloss breaker on December 12. The breaker had stopped running at 10.30 A. M., but the elevator was going until 3.45 P. M. After the breaker stopped, Sullivan had been put to work cleaning

out one of the screens, and the assistant foreman saw him at his work at 3.30 P. M., but he fell into the elevator shaft, seventy-five feet away from his work.

James Dudson, a laborer in the Conyngham, had been notified on the morning of December 22 not to run any loaded cars out of the counter in which he was working, as there were runners employed for that purpose. After loading their last car, he and his partner ran it out to the gangway; the front end of the car struck the head block, throwing the hind end off the road, catching Dudson's head against a prop, killing him instantly.

Joseph Depedaro fell into the conveyors at the North American Washery, although he had been ordered not to go near them, as the culm he was wheeling was blocking up the conveyor line, and should have been dumped at the foot wheel. In spite of his orders he went twenty feet beyond the foot wheel, and when he fell he was dragged around the wheel and killed.

John Pelkis, a miner at No. 1 Shaft, Kingston Coal Company, was struck by a small piece of coal flying from a blast on December 30. The injury he received seemed very slight, as there was only one cut visible on his head, but he died December 31.

Improvements Made by the Lehigh and Wilkes-Barre Coal Company During the Year 1902.

Hollenbeck No. 2.—Erection of new boiler house at shaft and the installation of two batteries of water tubular boilers of 500 horse-power each, with a forced fan draft system, and under ash ducts.

A second opening from the top split to the bottom split in Red Ash seam, No. 2 Tunnel, east, to provide ventilation for these workings.

Extension of No. 2 Slope on a grade of seven degrees through rock, from the bottom split to the bottom split in the Red Ash seam, cutting top split of Red Ash seam. This extension was made for the purpose of opening up a larger area for No. 2 Slope.

South Wilkes-Barre No. 5.—Erection of a 35-foot Guibal fan at No. 1 air shaft for ventilating western portion of South Wilkes-Barre mine.

Stanton No. 7.—Erection of forced fan draft system at shaft boiler house.

Sugar Notch No. 9.—Erection of new boiler house and installation of two batteries of tubular boilers of 500 horse power each, with a forced fan draft system and under ash ducts.

Lance No. 11.—Erection of new boiler house at shaft and installation of one battery of 500 horse power water tubular boilers.

A second opening from the Five Foot to the Stanton seam, for the purpose of ventilation.

Wanamie No. 18.—Erection of ten double blocks of houses for the use of employes.

A return airway from the Red Ash to the Ross seam at No. 19 Slope, for the purpose of ventilation.

Maxwell No. 20.—Erection of a forced fan draft system in shaft boiler house.

Erection of new engine house, and installation of one pair of 24″x48″ double drum friction engines for operating No. 6 Baltimore Slope and No. 7 Red Ash Slope.

Improvement by the Lehigh Valley Coal Company During 1902.

Dorrance Colliery.—An 18 degree rock plane, 375 feet in length, for haulage, has been driven from the Baltimore to the Five Foot seam. Also, a 30 degree rock plane, 225 feet long, for a second opening.

A slope has been extended in the Hillman 300 feet from the crown of the Cemetery anticlinal into the North basin.

A battery of six return tubular boilers of 150 horse power each. The boiler house has been equipped with duplicate feed pumps and forced draught fans.

The tower over the main hoisting shaft was rebuilt.

Franklin Colliery.—No. 8 Slope in top split of Red Ash seam was extended 310 feet, and a rope bore hole, 340 feet in length, completed from the surface to the head of the slope.

The bottom lift, Red Ash gangway, has been reopened for the extension of the unfinished tunnel to the Ross seam.

The head frame and fan at Red Ash second opening have been rebuilt.

A washery is under construction for the preparation of coal from the culm banks.

Conyngham.—No. 4 tunnel, 348 feet long, driven from Abbott to Snake Island seam.

No. 5 tunnel, 108 feet long, driven from Abbott to Snake Island seam.

Three-inch drainage bore hole, 314 feet deep, from Hillman sump to Baltimore seam, to drain water to shaft sump.

Baltimore No. 5.—An entirely new colliery plant, known as Baltimore No. 5, including a 2,000-ton breaker, was built during 1901, and began operations January 1, 1902. This plant prepares the coal from Baltimore tunnel and Baltimore No. 2 workings, which latter breaker was burned on January 26, 1901. The coal is transported overland to the breaker, on a surface railroad, also built

during 1901. An 8″ bore hole, 749 feet in depth, was sunk from the surface to the Red Ash seam, for operating a new slope in this seam.

Baltimore No. 2.—The hoisting engine house, fans and fan houses and a new steel tower over-shaft were rebuilt. A new plane was constructed from the top of shaft to railroad level for handling the output of this shaft.

Baltimore Tunnel.—No. 6 Slope, Red Ash seam, extended 300 feet; No. 7 Slope extended 400 feet and No. 10 Plane extended 400 feet.

Improvements at the Collieries of the Susquehanna Coal Company During the Year 1902.

No. 5 Colliery.—Outside: Remodelling breaker and rebuilding jig house.

New boiler plant, 2,000 horse power B. & W. boilers, replacing old cylinder boiler plant.

New compressor house, with two-stage Ingersoll-Sergeant compressor, 20″ steam, 20¼″ and 32¼″ air, 24″ stroke.

Inside: No. 2 Shaft, No. 13½ inside slope, opened 400 feet to replace No. 13 Slope closed during strike.

Second opening on head of No. 12 rock plane from Lee to Ross.

No. 4 Shaft: New airway in Ross seam from North tunnel to No. 4 air shaft.

Second opening from South tunnel.

Steel roof supports at lower landing, Shaft No. 4.

No. 4 Slope: Rock plane from Mills to George seams, 434 feet long, 7′x14′ on a 20-degree pitch.

No. 6 Colliery.—Outside: New B. & W. boiler plant, 2,000 horse power, with steam lines to No. 6 Shaft, replacing cylinder boilers.

New water hoist tanks in No. 6 North Shaft, which is being made into a water hoist shaft.

No. 7 Colliery.—Outside: New hoisting engines, 32″x48″, with 13′ cast drum, double air brake, and over-winding device, replacing old 28″x72″ engines at No. 1 deep shaft.

Pneumatic haulage plant, No. 1 to No. 3 Shafts, completed with three-stage Norwalk compressor, 22″ steam, 16″, 5⅝″ and 11¼″ air, 24″ stroke, and Porter pneumatic locomotive, 8″x14″, with air line carrying 900 pounds pressure, replacing rope haulage.

Old rope haulage engines repaired and put in place for Slope No. 10.

New lamp house constructed, from old rope haulage engine house.

B. & W. boiler plant, 2,500 horse power, replacing 48 cylinder boilers.

Inside: New openings in Cooper seam, Shaft No. 1, in two places in No. 13 tunnel.

Enlarged main gangway from foot of No. 1 North Shaft to head of No. 9 Slope, and to No. 13 tunnel.

New bore hole, 960 feet deep, from surface to Lee seam, for No. 10 Slope hoisting rope.

Improvements at the Delaware and Hudson Collieries During 1902.

Plymouth No. 2.—Tunnel in G vein through fault 200 feet long, 7′x12′. Tunnel from Red Ash to top split, 275′ long, 7′x16′.

Outside: A Norwalk compressor, 24″x14½″x22″x24″, was installed for furnishing air for pumping.

Shaft No. 1.—A Dickson compound triple expansion pump, with a capacity of 3,000 gallons per minute, size of pump 15″x26″x16″x48″.

Shaft No. 3.—Tunnel from Red Ash seam to top split, 275′ long, 7′x16′. A 10″x48″x24″ Jeanesville pump was installed at the foot of shaft.

Outside: A new breaker engine, 16″x30″, was attached to the old one, changing it into a double engine.

Boston: Reopened tunnel and sank slope in the Dennett seam, and put in a pair of 24″x48″ haulage engines to take coal from the slope to the breaker.

Outside: Installed nine new cylinder boilers, 34″x36′ in length.

Placed one pair of engines, 26″x48″, at the bore hole to hoist out of plane from top split of Red Ash.

Improvements at the Alden.

A slope in the Cooper seam 550′ long to reach the basin.

Tunnel 100′ long from the Cooper to Hillman seams, 14′x7′ through the rock.

There has also been provided for cases of emergency two "Vajen's" improved head protectors.

Improvements at the Delaware, Lackawanna and Western Collieries During 1902.

Woodward.—A new steel trestle connecting the breaker with the shaft, and four batteries of Sterling boilers have been installed. One electric hoist and one electric motor have also been installed at this colliery.

Avondale.—One electric motor has been placed inside.

Auchincloss.—An electric breaker of 500 tons daily capacity has been placed in operation and is giving perfect satisfaction.

Bliss.—One electric motor and air hoist were installed, and outside a 24′ ventilating fan.

Several rock tunnels were driven, connecting the shaft seams in the different collieries for the purpose of development and ventilation.

Annual Examination for Mine Foremen.

The examination of applicants for mine foremen and assistant mine foremen was held in this district on June 24, 25 and 26, 1902, at the city hall, Wilkes-Barre.

The board of examiners were, E. E. Reynolds, Mine Inspector; John C. Williams, superintendent; Evan R. Morgan and Robert Watkins, miners.

There were recommended for mine foremen certificates the following:

Michael Poad, John Alexander, John J. Phillips, Thomas Watkins, Charles Renowden, William H. Williams and John R. Price, Wilkes-Barre; James J. Lewis, Thomas F. Hart, William M. Evans, John H. Ingram, E. M. Davis, James Knecht, Richard J. Evans, Evan Thomas and Benjamin J. Davis, Plymouth; Richard Richens and Joseph Richens, Avoca; David Watkins and Lee S. Stoneham, Parsons; Charles Hughes, Luzerne; Robert Hislop, Wyoming; Edward M. Flynn, Chauncey; John J. Morgan, Baldwin Edwards and Eli Rosser, Edwardsdale; Richard M. Rosser and William Walters, Kingston; Thomas Lewis, Nanticoke, and Charles Bauer, Mocanaqua.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Fourth Anthracite District for the year 1902.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Lehigh & Wilkes-Barre Coal Co						
Hollenback,	Luzerne,	W. J. Richards,	Wilkes-Barre,	M. R. Morgans, inside supt.; J. F. Jones, asst. supt.; W. H. Herring, outside supt.; J. H. Doughty, Jr., asst. outside supt.; C. F. Huber, mining engineer.	Wilkes-Barre,	C. R. R. of N. J.
S. Wilkes-Barre,	Luzerne,	W. J. Richards,	Wilkes-Barre,		Wilkes-Barre,	C. R. R. of N. J.
Stanton,	Luzerne,	W. J. Richards,	Wilkes-Barre,		Wilkes-Barre,	C. R. R. of N. J.
Sugar Notch,	Luzerne,	W. J. Richards,	Wilkes-Barre,		Wilkes-Barre,	C. R. R. of N. J.
Lance,	Luzerne,	W. J. Richards,	Wilkes-Barre,		Wilkes-Barre,	C. R. R. of N. J.
Nottingham,	Luzerne,	W. J. Richards,	Wilkes-Barre,		Wilkes-Barre,	C. R. R. of N. J.
Reynolds,	Luzerne,	W. J. Richards,	Wilkes-Barre,		Wilkes-Barre,	C. R. R. of N. J.
Maxwell,	Luzerne,	W. J. Richards,	Wilkes-Barre,		Wilkes-Barre,	C. R. R. of N. J.
Wanamie,	Luzerne,	W. J. Richards,	Wilkes-Barre,		Wilkes-Barre,	C. R. R. of N. J.
Jersey Annex,	Luzerne,	W. J. Richards,	Wilkes-Barre,	do. do.	Wilkes-Barre,	C. R. R. of N. J.
The Deleware & Hudson Co.						
Conyngham,	Luzerne,	C. C. Rose,	Scranton,	E. R. Pettebone,	Scranton,	Delaware & Hudson R. R
Baltimore slope,	Luzerne,	C. C. Rose,	Scranton,	E. R. Pettebone,	Scranton,	Delaware & Hudson R. R
Baltimore No. 2,	Luzerne,	C. C. Rose,	Scranton,	E. R. Pettebone,	Scranton,	Delaware & Hudson R. R
Baltimore tunnel,	Luzerne,	C. C. Rose,	Scranton,	E. R. Pettebone,	Scranton,	Delaware & Hudson R. R
Plymouth No. 2,	Luzerne,	C. C. Rose,	Scranton,	E. R. Pettebone,	Scranton,	Delaware & Hudson R. R
Plymouth No. 3,	Luzerne,	C. C. Rose,	Scranton,	E. R. Pettebone,	Scranton,	Delaware & Hudson R. R
Plymouth No. 4,	Luzerne,	C. C. Rose,	Scranton,	E. R. Pettebone,	Scranton,	Delaware & Hudson R. R
Plymouth No. 5,	Luzerne,	C. C. Rose,	Scranton,	E. R. Pettebone,	Scranton,	Delaware & Hudson R. R
Boston,	Luzerne,	C. C. Rose,	Scranton,	E. R. Pettebone,	Scranton,	Delaware & Hudson R. R
Susquehanna Coal Co.						
Colliery No. 5,	Luzerne,	Morris Williams,	Wilkes-Barre,	F. H. Kohlbraker,	Nanticoke,	Pennsylvania Railroad.
Colliery No. 6,	Luzerne,	Morris Williams,	Wilkes-Barre,	F. H. Kohlbraker,	Nanticoke,	Pennsylvania Railroad.
Colliery No. 7,	Luzerne,	Morris Williams,	Wilkes-Barre,	F. H. Kohlbraker,	Nanticoke,	Pennsylvania Railroad.
Del., Lack. & W. R. R. Co.						
Woodward,	Luzerne,	R. A. Phillips,	Scranton,	Montrose Barnard,	Wilkes-Barre,	Del., Lack. & W. R. R.
Avondale,	Luzerne,	R. A. Phillips,	Scranton,	Montrose Barnard,	Wilkes-Barre,	Del., Lack. & W. R. R.
Auchincloss,	Luzerne,	R. A. Phillips,	Scranton,	Montrose Barnard,	Wilkes-Barre,	Del., Lack. & W. R. R.
Bliss,	Luzerne,	R. A. Phillips,	Scranton,	Montrose Barnard,	Wilkes-Barre,	Del., Lack. & W. R. R.
Kingston Coal Co.						
Kingston No. 2,	Luzerne,	G. M. Williams,	Kingston,	Gwillym Edwards,	Edwardsdale,	Del., Lack. & W. R. R.
Kingston No. 4,	Luzerne,	G. M. Williams,	Kingston,	Morgan Rosser,	Kingston,	
Gaylord,	Luzerne,	G. M. Williams,	Kingston,	Gwillym Edwards,	Edwardsdale,	
Lehigh Valley Coal Co.						
Dorrance,	Luzerne,	S. D. Warriner,	Wilkes-Barre,	F. E. Zerbe,	Wilkes-Barre,	Lehigh Valley Railroad.
Franklin,	Luzerne,	S. D. Warriner,	Wilkes-Barre,	F. E. Zerbe,	Wilkes-Barre,	Lehigh Valley Railroad.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Parrish Coal Co.						
Parrish,	Luzerne,	H. H. Ashley,	Plymouth,	Thomas R. Evans,	Plymouth,	C. R. R. of N. J.
Buttonwood,	Luzerne,	H. H. Ashley,	Plymouth,	Thomas R. Evans,	Plymouth,	
Red Ash Coal Co.						
Red Ash,	Luzerne,	M. B. Williams,	Wilkes-Barre,	Edward Smith,	Wilkes-Barre,	C. R. R. of N. J.
Alden Coal Co.						
Alden,	Luzerne,	K. M. Smith,	Alden Station,			C. R. R. of N. J.
West End Coal Co.						
West End,	Luzerne,	Dr. J. N. Rice,	Scranton,	H. A. Fillmore,	Shickshinny,	Pennsylvania Railroad.
Warrior Run Coal Co.						
Warrior Run,	Luzerne,	Thomas R. Jones,	Wilkes-Barre,	Thomas R. Jones,	Peeley,	Lehigh Valley Railroad.
Pittston Coal Co.						
Hadleigh,	Luzerne,	O. Boyle & Foy,	Pittston,	Charles Walker,	Sugar Notch,	C. R. R. of N. J.
Plymouth Coal Co.						
Dodson,	Luzerne,	James B. Davies,	Plymouth,			Del., Lack. & W. R. R.
George F. Lee.						
Chauncey,	Luzerne,	George F. Lee,	Wilkes-Barre,	M. H Corgan,	Nanticoke,	Del., Lack. & W. R. R.
Sterling washery,	Luzerne,	James Butler,	Plymouth,			C. R. R. of N. J.
North American Coal Co.,	Luzerne,	H. W. Samms,	Wilkes-Barre,	J. J. Richards,	Plymouth,	C. R. R. of N. J.

TABLE II—Gives the total number of tons of coal mined in each colliery, number of days worked, number of employes, number of employes killed and injured, number of kegs of powder, etc., used in the Fourth Anthracite District for the year ending December 31, 1902.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at collieries.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number of kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Lehigh and Wilkes-Barre Coal Co.												
Hollenback No. 2,	Luzerne,	140 681	11,254	23,418	175,373	118.45	547	1	2	4,282	5 400	72
South Wilkes-Barre,	Luzerne,	199 854	15,978	38,591	254 423	117.10	924	6	10	4,444	40,300	100
Stanton,	Luzerne,	44,384	10 30	3,2 8	57,982	31.40	858	2	1	1,2 8	2,646	47
Sugar Notch,	Luzerne,	111,583	9,167	1,239	124,995	97 40	589	1	4	3,654	3,170	72
Lance,	Luzerne,	185,438	14,856	1.64	201 9 8	128 20	626	.....	7	4 885	22,9 9	85
Nottingham,	Luzerne,	307 08	24,584	4.149	336.041	120.35	927	.....	11	6,120	1,815	134
Reynolds,	Luzerne,	89,705	7,160	139	96 804	115.85	371	.....	2	2 418	4 3	71
Wanamie,	Luzerne,	196,910	15,752	1,370	214,032	112.70	63	2	3	5,228	6,2 3	81
Maxwell,	Luzerne,	217,633	16,562	6,251	229,8 5	112.25	747	2	4	5,651	26 014	77
Jersey Annex No. 8,	Luzerne,	49 67	3 971	.....	53,621	153.00	38	.....	1	.....	.....	.....
Dirt banks,	Luzerne,	42	.....	100	142	.....	.....					
Totals,	.....	1,535,414	129,564	80,230	1,745,205	119,62	6,2 6	14	45	37,950	109,000	739
Delaware and Hudson Canal Co.												
Conyngham,	Luzerne,	105 157	19,874	6,490	131,521	127.0	42	4	2	3 631	1,883	41
Baltimore slope,	Luzerne,	60,801	12,693	2,407	75 901	92 5	342	.....	.....	2,189	500	59
Baltimore No 2	Luzerne,	.....	.....	.....	.....	.....	171	1	.....	6 4	113	25
Baltimore tunnel,	Luzerne,	.....	.....	.....	.....	.....	207	.....	1	2,397	2,2 0	41
Baltimore No. 5,	Luzerne,	82,963	21,612	.....	104,605	126.0	148	1	.....	.....	.....	.....
Plymouth No. 1,	Luzerne,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Plymouth No. 2,	Luzerne,	119,556	25,372	.....	144,928	124.3	600	1	1	5,153	3 081	77
Plymouth washery,	Luzerne,	26 418	.....	.....	26,418	97.3	.....	.....	.....	.....	.....	.....
Plymouth No. 3,	Luzerne,	134,155	11,634	2,248	148,037	123.0	59	.....	2	4,770	3 3	81
Plymouth No. 4,	Luzerne,	.....	.....	.....	.....	.....	342	.....	3	3,482	391	54

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at collieries.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number of kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Plymouth No. 5,	Luzerne,	188,540	36 639	3,391	228,571	122.0	460	.....	1	2 614	244	50
Boston,	Luzerne,	112.370	8,439	.....	120,789	108.0	468	.....	2	3,919	419	67
Totals,	.....	829,970	136,173	11,626	980,769	118.10	3,752	7	12	28 242	9 237	495
Susquehanna Coal Co.												
Shaft No. 2, colliery No. 5,												
Shaft No. 4, colliery No. 5,												
Shaft No. 5, colliery No. 5,	Luzerne,	167,928	51,247	15,673	234,848	122.45	1,368	5	9	6,384	17,200	151
Slope No. 4, colliery No. 5,												
Slope No. 6, colliery No. 6												
Tunnel No. 6, colliery No. 6,	Luzerne,	192,924	25,189	2,567	220,680	119.6	1,196	2	9	6,727	16,200	102
Shaft No. 6 colliery No. 6,												
South shaft No. 1, colliery No. 7,	Luzerne,	231,336	50 618	.....	284,954	129.35	1,376	1	10	5,464	20,500	188
North shaft No. 1, colliery No. 7,												
Totals,	.....	595,188	127,054	18,240	740,482	123.8	3,940	8	28	18,575	53,900	441
Delaware, Lacka. and West. R. R. Co.												
Woodward,	Luzerne,	170,013	18,767	3,488	192,298	83 2	1,172	1	3	4,542	2,035	105
Avondale,	Luzerne,	49 073	26,000	764	85,836	73 5	53	1	3	1,292	1,431	64
Anchincloss,	Luzerne,	6,883	7,500	.....	14,383	92.5	269	1	3	150	10 050	14
Bliss,	Luzerne,	201 012	20,426	3,731	225,169	113.86	786	.....	4	5,818	10,285	56
Totals,	.....	427,011	82,693	7,982	517,686	75 76	2,761	3	13	11,802	24,004	239
Kingston Coal Co.												
Bore Hole No. 1 colliery No. 4,												
Bore Hole No. 2 colliery No. 4,												
Shaft No. 4, colliery No. 4,	Luzerne,	233 264	15,000	.....	248 264	124.85	927	4	3	7,893	900	109
Shaft No. 1, colliery No. 4,												

*Totals in this column are averages.

Gaylord,	Luzerne,	48,030	4,100	2,190	54,320	87.2	282	1	1	1,867	296	36
Shaft No. 2, colliery No. 2,	Luzerne,	288,141	6,400	37,211	331,752	144.15	1,075	4	5	8,973	350	126
Shaft No. 3, colliery No. 2,												
Totals,		568,435	25,500	39,401	644,336	118.73	2,284	9	9	18,733	1,546	271
Lehigh Valley Coal Co.												
Dorrance,	Luzerne,	137,827	6,885	39,112	181,824	112.8	621	1	3	4,660	24,570	91
Franklin,	Luzerne,	118,134	16,121	4,440	138,695	120.75	530	1	1	3,918	2,717	85
Totals,		253,961	23,006	43,552	320,519	116.77	1,151	2	4	8,578	27,287	176
Parrish Coal Co.												
Parrish,	Luzerne,	135,275	12,447	7,815	155,537	110.9	641	1	4	4 881	21 000	98
Buttonwood,	Luzerne,	188,765	17,704	7,532	214,001	117.25	852	1	5	6,099	5,.00	104
Totals,		324,040	30,151	15,347	369,538	114.1	1,493	2	9	10,980	26,200	202
Red Ash Coal Co.												
Red Ash No. 1,	Luzerne,											
Red Ash No. 2,	Luzerne,	119,914	2,464	2,737	125,115	113 9	534	.....	4	2,912	1,150	57
Alden Coal Co.												
Alden No. 1,	Luzerne,											
Alden No. 2,	Luzerne,	131,924	14,000	3,023	148,947	103.1	559	2	3	3,976	6,000	79
West End Coal Co.												
West End,	Luzerne,	123 122	19,704	4,399	147,225	108.3	712	1	3	1,992	31,350	75
Warrior Run Coal Co.												
Warrior Run,	Luzerne,	103,828	13,400	1,662	118,890	117.7	435	.....	1	4,115	200	28
Pittston Coal Co.												
Hadleigh,	Luzerne,	16,445	2,200	235	18,880	44.1	200	1	1	895	100	21
Plymouth Coal Co.												
Dodson,	Luzerne,	93,129	10,685	2 267	106,081	114.8	305	1	1	2,076	500	38
George F. Lee Coal Co.												
Chauncey,	Luzerne,	31,110	3,980	654	35,744	105 9	177	1	1	530	1,050	12
Sterling washery,	Luzerne,	33,426	2,000	.....	35,426	141.4	22	.....	.....	.....	.....	.....
North American Coal Co.												
Nottingham washery,	Luzerne,	53,124	1,450	.....	54,574	71.0	51	.....	1	.....	.....	2

*Totals in this column are averages.

Recapitulation.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at collieries.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number of kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Lehigh and Wilkes-Barre,	Luzerne,	1,595,411	129,564	80,230	1,745,2[illegible]8	110.62	6,296	14	45	37,950	100,000	739
Delaware and Hudson,	Luzerne,	829,970	136,173	14,[illegible]26	980,769	118.40	3,772	7	12	28,242	9,237	396
Susquehanna Coal Co.,	Luzerne,	595,188	127,054	18,240	740,4[illegible]2	123.80	3,940	8	28	18,[illegible]57	53,900	411
Delaware, Lack and West. R. R. Co.,	Luzerne,	427,011	82,6[illegible]	7,982	517,486	86.47	2,764	3	13	11,802	24,000	33
Kingston Coal Co.,	Luzerne,	569,435	25,500	39,401	634,[illegible]36	118.73	2,284	3	9	18,733	1,546	271
Lehigh Valley Coal Co.,	Luzerne,	2[illegible]3, 61	23,006	43,552	320,519	116.77	1,151	2	4	8,578	27,267	17
Parrish Coal Co.,	Luzerne,	[illegible]21,040	30,151	15,[illegible]47	369,538	114.10	1,492	2	9	10,980	26,200	202
Miscellaneous Cos.,	Luzerne,	619,472	66,433	14,977	700,882	100.83	3,012	6	14	16,496	40,350	316
Washeries,	Luzerne,	86,550	3,450	.....	90,000	106.2	73	1	.....	.....	.....	2
Totals,		5,241,041	624,024	234,3[illegible]5	6,099,420	108.76	24,764	52	134	151,356	291,504	2,875

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Number of Boilers.				Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical	Horse power.	Tubular.	Horse power.		Steam.	Air.	Electric.							
Lehigh and Wilkes-Barre	Luzerne,	106	4,896	61	11 693	16 589	9	1	.....	288	29,019	18	18,596	11,015	.....	[illegible]
Delaware and Hudson,	Luzerne,	119	3 570	21	4 750	8,320	.....	.....	.....	181	12,630	14	14 850	6,110	.....	[illegible]
Susquehanna Coal Company,	Luzerne,	73	2,555	64	10 864	13 419	15	3	.....	94	10 609	14	11,850	4,575	.....	14
Delaware, Lacka. and Western R. R. Co.,	Luzerne,	6	120	44	7,550	7,670	4	.....	7	70	8 720	8	10,321	6,421	7	[illegible]
Kingston Coal Company,	Luzerne,	128	2 950	9	1,240	4 [illegible]	4	.....	2	35	3,655	7	1,950	1,330	1	[illegible]
Lehigh Valley Coal Company,	Luzerne,	.....	.....	17	3 000	3 000	2	.....	.....	2	3,240	3	3,240	1,856	.....	[illegible]
Parrish Coal Company	Luzerne,	.....	.....	20	3 000	3,000	.....	.....	.....	52	4,400	2	2,167	1 500	.....	[illegible]
Miscellaneous companies,	Luzerne,	52	1,910	31	5,045	6, [illegible]	3	.....	.....	85	6,576	15	8,920	4,094	1	[illegible]
Washeries,	Luzerne,	.....	.....	7	22	320	.....	.....	.....	11	300	.....	.....	.....	.....	.....
Totals,	.....	484	16,031	285	47,452	63,483	37	4	9	82	89,100	81	71,854	36,915	9	31

TABLE III—Showing the number of each class of employes at each colliery in the Fourth Anthracite District, during the year 1902.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.									Grand total inside and outside.
		Mine foreman.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.		Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Book-keepers and clerks.	All other employes.	Total outside.	
Lehigh and Wilkes-Barre Coal Co.																							
Hollenback No. 2,	Luzerne,	1	1	6	156	94	48	28	1	53	.....	388	....	1	4	17	58	11	2	66	159	547	
South Wilkes-Barre No. 5,	Luzerne,	1	2	10	212	201	53	66	2	205	5	757	....	1	7	21	70	9	3	66	177	934	
Stanton No. 7	Luzerne,	2	1	8	217	174	62	57	2	27	85	635	....	1	5	29	90	11	3	84	223	858	
Sugar Notch No. 9,	Luzerne,	1	1	4	170	100	39	33	4	76	.....	428	....	1	5	12	69	17	2	55	161	589	
Lance No. 11,	Luzerne,	1	....	5	175	120	60	35	4	30	56	486	....	1	5	22	45	25	2	50	150	636	
Nottingham,	Luzerne,	1	2	9	280	170	78	17	9	34	100	700	....	1	7	29	100	27	3	70	237	937	
Reynolds No. 16,	Luzerne,	1	1	2	72	68	45	14	.....	60	9	272	....	1	4	13	35	9	2	35	99	371	
Wanamie No. 18,	Luzerne,	1	2	4	155	118	39	23	6	67	.....	415	....	1	7	25	72	10	3	106	224	639	
Maxwell No. 20,	Luzerne,	1	1	6	210	140	27	53	4	93	.....	535	....	1	6	25	75	16	3	86	212	747	
Jersey Annex,	Luzerne,	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	1	1	4	4	.....	.....	28	38	38	
Totals,	.....	10	11	54	1,647	1,185	451	326	32	645	255	4,616	....	10	51	197	618	135	23	646	1,680	6,296	
Delaware and Hudson.																							
Conyngham,	Luzerne,	1	....	5	96	79	32	23	3	46	10	295	....	1	6	13	60	13	1	34	128	423	
Baltimore slope,	Luzerne,	1	2	3	73	40	33	13	4	33	17	214	....	1	5	11	50	13	1	39	123	342	
Baltimore No. 2,	Luzerne,	1	....	3	51	35	17	3	1	17	13	141	.....	....	4	11	.....	.....	1	14	30	171	
Baltimore tunnel,	Luzerne,	1	....	3	45	43	31	10	4	22	21	180	....	....	3	15	.....	.....	.....	9	27	207	
Baltimore No. 5,	Luzerne,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	1	3	5	72	20	1	46	148	148	
Plymouth No. 2,	Luzerne,	1	1	3	123	127	41	21	3	53	44	417	....	1	5	17	48	29	1	82	183	600	
Plymouth No. 3,	Luzerne,	1	....	3	141	144	59	22	.....	30	32	435	....	1	6	18	48	32	1	50	156	591	
Plymouth No. 4,	Luzerne,	1	....	1	108	108	38	13	1	25	21	316	....	1	2	8	.....	.....	.....	15	26	342	

Plymouth No. 5,	Luzerne, ..	1	....	2	87	110	39	13	1	23	17	293	....	1	8	12	42	39	1	64	167	460
Boston,	Luzerne, ..	1	1	1	97	102	41	14	2	37	19	315	....	1	6	10	62	17	1	56	153	468
Totals,	.....	3	4	24	824	788	331	132	14	286	194	2,611	....	8	48	123	382	163	8	409	1,141	3,752
Susquehanna Coal Co.																						
Colliery No. 5,	Luzerne, ..	2	2	10	275	320	88	36	13	94	95	935	....	1	28	48	137	14	4	201	433	1,368
Colliery No. 6,	Luzerne, ..	3	1	6	289	257	106	4	4	80	79	829	....	1	25	28	132	1	4	176	3 7	1,1 6
Colliery No. 7,	Luzerne, ..	2	2	10	296	321	98	63	7	69	117	985	....	1	32	35	113	13	4	193	391	1,376
Totals,	.....	7	5	26	860	898	292	103	24	243	291	2,749	....	3	85	111	382	28	12	570	1,191	3,940
Del., Lack'a and Western.																						
Woodward,	Luzerne, ..	2	....	7	274	270	92	45	5	197	.....	892	....	1	6	22	100	7	3	141	280	1,172
Avondale,	Luzerne, ..	1	....	3	85	125	33	16	5	20	152	444	....	1	5	23	43	.....	2	19	91	537
Auchincloss,	Luzerne, ..	1	....	2	22	36	12	6	.....	78	.....	157	....	1	4	11	14	.....	1	81	112	269
Bliss,	Luzerne, ..	1	1	5	213	165	61	20	2	64	11	543	....	1	6	13	115	18	2	88	243	786
Totals,	.....	5	1	17	598	596	198	87	12	359	163	2,036	....	4	21	69	272	25	8	329	728	2,764
Kingston Coal Co.																						
No. 4 colliery,	Luzerne, ..	2	....	5	237	161	66	18	8	.....	85	582	....	2	11	21	114	.....	2	195	315	927
Gaylord,	Luzerne, ..	1	....	.....	57	30	28	6	.....	.....	27	149	....	1	5	8	70	.....	1	48	123	282
No. 2 colliery,	Luzerne, ..	3	....	2	301	192	104	54	6	51	27	740	....	2	19	15	166	.....	3	130	335	1,075
Totals,	.....	6	....	7	595	383	198	78	14	51	139	1,471	....	5	35	44	350	.....	6	373	813	2 284
Lehigh Valley Coal Co.																						
Dorrance,	Luzerne, ..	2	....	6	192	88	78	28	2	86	18	440	....	1	11	16	41	15	4	93	181	621
Franklin,	Luzerne, ..	1	1	2	118	90	56	23	6	16	72	385	....	1	14	10	25	3	3	89	145	53
Totals,	.....	3	1	8	258	178	134	51	8	102	90	825	....	2	2 5	26	66	18	7	182	326	1,151
Parrish Coal Co.																						
Parrish,	Luzerne, ..	1	1	5	151	133	52	32	4	93	.....	472	2	1	8	15	58	32	4	49	169	641
Buttonwood,	Luzerne, ..	1	2	6	199	174	67	51	1	150	.....	651	....	1	7	12	70	35	3	72	200	851
Totals,	.....	2	3	11	350	307	119	83	5	243	.....	1,123	2	2	15	27	128	67	7	121	369	1,492
Red Ash Coal Co.																						
Red Ash No. 2,	Luzerne, ..	2	1	.....	109	116	40	8	3	42	5	326	1	1	9	10	46	35	2	104	208	534
Alden Coal Co.																						
Alden,	Luzerne, ..	1	1	6	150	124	54	28	2	20	21	407	1	1	12	19	25	20	6	68	152	559
West End Coal Co.																						
West End,	Luzerne, ..	1	2	1	154	143	59	14	2	27	58	461	1	1	15	21	30	25	3	155	251	712
Warrior Run Coal Mining Co.																						
Warrior Run,	Luzerne, ..	1	1	2	100	100	18	26	4	25	17	294	1	1	5	12	38	18	3	63	111	435
Pittston Coal Co.																						
Hadleigh,	Luzerne, ..	1	1	1	58	8	17	4	2	10	9	111	1	1	3	8	43	7	1	25	89	200

TABLE III—Continued.

Names of Operators and Collieries.	County	Occupations of Persons Employed Inside.											Occupations of Persons Employed Outside.									Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen	Blacksmiths and carpenters	Engineers and firemen.	Slate pick rs (boys)	Slate pickers (men).	Bookkeepers and clerks.	All other employes.	Total outside	
Plymouth Coal Co. Dodson,	Luzerne, ..	1	1	2	89	80	38	18	4	37	9	270	1	1	6	16	30	10	2	39	105	375
George F. Lee. Chauncey,	Luzerne, ..	1	....	2	34	51	9	2	.....	9	.....	108	....	1	5	3	28	5	1	26	69	177
Sterling washery,	Luzerne, ..	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	1	.....	3	.....	.....	1	17	22	22
North American washery, ...	Luzerne, ..	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	1	1	7	6	.....	2	34	51	51

Recapitulation.

Lehigh and Wilkes-Barre Coal Co.,	Luzerne, ..	10	11	54	1,647	1,185	451	326	92	615	257	4,616	....	10	51	197	618	135	23	646	1,680	6,296
Delaware and Hudson,	Luzerne, ..	9	4	24	824	788	53'	132	19	286	194	2,611	....	8	48	1 3	382	163	8	409	1,141	3,752
Susquehanna Coal Co.,	Luzerne, ..	7	5	26	860	898	2 2	103	24	243	29'	2 749	....	3	85	111	3 2	28	12	570	1,191	3 40
Del., Lack'a & West. R. R. Co.	Luzerne, ..	5	1	17	598	536	1 8	87	12	339	103	2 035	....	4	21	69	2 2	25	8	729	728	2,761
Kingston Coal Co.,	Luzerne, ..	6	....	7	295	383	19	78	1.	51	139	1,471	....	5	35	44	350	.....	6	37	813	2 284
Lehigh Valley Coal Co.,	Luzerne, ..	3	1	8	250	178	1 4	51	8	102	90	825	....	2	25	26	66	18	7	182	326	1,151
Parrish Coal Co.,	Luzerne, ..	2	3	11	350	307	119	83	8	243	.....	1,123	2	2	15	27	128	67	7	121	369	1,492
Miscellaneous Companies,	Luzerne, ..	8	7	14	645	612	235	100	17	170	119	1,977	6	7	55	89	240	129	18	4 0	1,035	3,012
Washeries,	Luzerne, ..	....	....	.....	.....	.....	.....	.....	....	.....	.....	.....	....	2	1	10	6	.....	3	51	73	7
Totals,	.....	50	32	161	5,869	4,957	1 958	960	117	2,018	1,251	17,408	8	43	336	696	2,464	556	92	3,161	7,356	24,764

TABLE III—Continued.

Names of Operators and Collieries.	County.	Number of Days Worked Each Month in Breaker.												
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Lehigh and Wilkes-Barre Coal Co.,	Luzerne,..	17.0	15.9	10	17.7	6.1	.....	.....	.....	6	6 1	17.9	19.3	110.6
Delaware and Hudson,	Luzerne,	18.86	15 7	17	19.2	7 2	.....	.....	.....	1 18	3.57	17.3	18.4	1 8.4
Susquehanna Coal Co.	Luzerne,	21.38	18.65	16.73	19	6 56	.....	.....	.....	.....	3	19 27	19.22	1 3 8
Del., Lack'a and Western R. R. Co.,	Luzerne,	19.9	13.6	1 97	6.22	2.3	.....	.....	.....	.7	5 49	19 59	17.05	86.47
Kingston C al Co.,	Luzerne,	17 77	18 23	15.86	19 03	6 98	.....	.....	.....	.....	:.7	17.5	19.05	118.79
Lehigh Valley Coal Co.,	Luzerne,	19.07	17.15	12.5	18.7	5..7	.....	.....	.....	.....	3.53	19 62	20 95	1 6 77
Parrish Coal Co.,	Luzerne,	19	17 7	7.85	2 .0	7.5	.....	.....	.....	.....	2.75	1 4	19	1 4 0
Miscellaneous companies,	Luzerne,	17 12	15.35	12.62	17 0	5 38	.....	.....	.....	.....	2.6)	13 98	18.78	100. 3
Washeries,	Luzerne,	7 5	2.75	7	11.25	5.65	.....	.....	.....	7.8	18.35	27.55	18 35	106 2
Totals and averages,	.....	17.8	16.04	12.14	17.22	6.05	.....	.....	.....	.49	4.18	16.4	18.44	108.76

TABLE IV—List of fatal accidents that occurred in and about the mines of the Fourth Anthracite District for the year ending December 31, 1902.

Date of accident.		Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan.	3	Edward McGrath, ...	American, ...	Fuelman, ..	17	S.	....	....	Maxwell, ...	Luzerne.	Struck by a derrick post when riding on a locomotive at breaker.
	8	George Yacobois, ...	Slavonic, ...	Laborer, ...	37	M.	1	2	No. 7 breaker, Nanticoke.	Luzerne.	Run over by a car at head of dirt plane.
	10	Mike Screen, ...	Italian, ...	Miner, ...	38	M.	1	6	Wanamie No. 18,...	Luzerne.	Instantly killed by a fall of coal.
	15	William J. George, ...	Welsh, ...	Miner, ...	24	S.	....	....	Conyngham, ...	Luzerne.	Instantly killed by a premature blast.
	22	Adam Newallis, ...	Lithuanian, ...	Co. man,....	22	S.	....	....	Shaft No. 4, Kingston.	Luzerne.	Caught between car and rib.
	24	Thomas Farasacy, ...	Polish, ...	Laborer, ...	25	S.	....	....	Avondale, ...	Luzerne.	Killed by a fall of rock.
	27	Uiko Tokar, ...	Greek, ...	Miner, ...	31	M.	1	1	Alden No. 2, ...	Luzerne.	Killed by a fall of rock.
	31	Joseph Marshall, ...	Polish, ...	Miner, ...	38	S.	....	...	Alden No. 1, ...	Luzerne.	Killed by a fall of bone and clod.
Feb.	3	John Rasamovitch, ...	Lithuanian, ...	Miner, ...	24	S.	....	....	Dodson, ...	Luzerne.	Killed by a blast through a cross-heading
	8	John Wascavitch, ...	Polish, ...	Laborer, ...	65	S.	....	....	No. 5 breaker, Nanticoke.	Luzerne..	Killed between cars at the head of the culm dump.
	8	Joseph Merlings, ...	Polish, ...	Laborer, ...	20	S.	....	....	Hadleigh, ...	Luzerne.	Fatally injured by a fall of rock at the face.
	15	Thomas Timlin, ...	Irish, ...	Miner, ...	35	S.	....	....	Conyngham, ...	Luzerne.	Back and leg broken by a fall of coal.
	16	Edward Broom, ...	English, ...	Fire boss, ..	37	M	1	4	No. 2 Plymouth, D. & H. C. Co.	Luzerne.	Killed by an explosion of fire damp while making his rounds.
	18	Jacob Babetski, ...	Polish, ...	Laborer, ...	26	S.	....	....	No. 6 slope, Glen Lyon.	Luzerne.	Killed by a fall of coal.
	19	Peter Zieffer, ...	Polish, ...	Laborer, ...	38	M.	1	....	Woodward, ...	Luzerne.	Instantly killed by a fall of coal.
	22	Paul Dickey, ...	Slavonic, ...	Driver, ...	21	S.	....	....	Kingston No. 1, ...	Luzerne.	Run over by cars.
	26	Thomas Gibbon, ...	American, ...	Doorboy, ...	14	S.	....	....	Stanton No. 7, ...	Luzerne.	Crushed between cars. Died at home, Feb. 28th.
March	10	George B. Rice, ...	American, ...	Picker tender	20	S.	....	....	West End, ...	Luzerne.	Caught by a runaway car at the foot of the culm plane.
	17	David Hawkins, ...	English, ...	Slate picker,	13	S.	....	....	Gaylord, ...	Luzerne.	Run over by a mine car at foot of breaker plane.
	18	Joseph Blockus, ...	German, ...	Slate picker,	13	S.	....	....	Breaker No. 5, Nanticoke.	Luzerne.	Dragged by the conveyors through the sprocket wheel.
	27	Richard Hughes, ...	Welsh, ...	Miner, ...	47	M.	1	....	No. 3 shaft, Kingston.	Luzerne.	Instantly killed by a fall of middle rock.
April	3	Simon Thomas, ...	Polish, ...	Miner, ...	30	M.	1	4	Hollenback, ...	Luzerne..	Killed by a fall of coal.

	12	Charles Suchoski, ...	Polish, ...	Miner, ...	27	S.	....	....	Maxwell, ...	Luzerne,.	Instantly killed by a fall of coal.
	18	Joseph Vizgar, ...	Lithuanian, ...	Miner, ...	37	M.	1	4	Slope No. 6, Susq. Coal Co.	Luzerne,.	Fell down the slope.
	22	Adam Markopski, ...	Polish, ...	Miner, ...	27	S.	....	....	Slope No. 4, Susq. Coal Co.	Luzerne,.	Killed by a fall of rock.
	26	John Rygualski, ...	Polish, ...	Co. man, ...	50	M.	1	7	Shaft No. 2, Susq. Coal Co.	Luzerne,.	Caught between cars and instantly killed.
	28	Harry Hoxie, ...	American, ...	Driver, ...	15	S.	....	....	Buttonwood, ...	Luzerne,.	Run over by a loaded car on the gangway
May	5	Edward Roberts, ...	Welsh, ...	Runner, ...	16	S.	....	....	Shaft No. 4, Kingston.	Luzerne,.	Caught between bumpers of cars on the gangway.
	6	John Mooney, ...	American, ...	Slate picker	17	S.	....	....	Chauncey, ...	Luzerne,	Run over by cars at mouth of tunnel.
Aug.	30	John Schmitt, ...	Prussian, ...	Contractor,.	54	M.	1	6	Parrish, ...	Luzerne,.	Caught between bucket and top of fan shaft.
Oct.	28	John Pollic, ...	Polish, ...	Co. laborer,.	40	S.	....	....	Shaft No. 2, Susq.	Luzerne,.	Run over by cars on No. 5 slope.
	30	Arthur Evans, ...	Welsh, ...	Runner, ...	18	S.	....	...	Dorrance, ...	Luzerne,	Fell in the sump and was so badly scalded that he died.
Nov.	4	Andrew Mathews, ...	Slavonic, ...	Miner, ...	55	M.	1	....	Sugar Notch, ...	Luzerne,	Instantly killed by a fall of coal.
	3	James Boyle, ...	Irish, ...	Laborer, ...	22	S.	....	....	Conyngham, ...	Luzerne,	Instantly killed by a fall of rock.
	12	Carl Girchls, ...	Hungarian, ...	Co. laborer,.	39	S.	....	....	Baltimore No. 5, outside.	Luzerne,.	Run over by a mine locomotive.
	24	John Swartz, ...	Polish, ...	Miner, ...	48	M.	1	7	So. Wilkes-Barre ..	Luzerne,	Caught between cage and bunton.
Dec.	4	Frank Mulligan, ...	Irish, ...	Laborer, ...	26	S.	....	....	Baltimore No. 2,...	Luzerne,	Instantly killed by a fall of coal.
	6	John Kani, ...	Polish, ...	Miner, ...	44	M.	1	2	Wanamie, ...	Luzerne,	Fatally injured by a premature blast. Died Dec. 10, 1902.
	6	David C. Davis, ...	Welsh, ...	Laborer, ...	29	S.	....	....	Stanton, ...	Luzerne,.	Fell down the shaft in stepping off the bucket.
	9	Mathew Phillips, ...	Welsh, ...	Miner, ...	38	M.	1	3	So. Wilkes-Barre,...	Luzerne,	The accident caused by the explosion of a 50 lb. case of dynamite.
	9	James McGlynn, ...	Irish, ...	Laborer, ...	28	M.	1	2	So. Wilkes-Barre,...	Luzerne,	
	9	Arthur Jones, ...	Welsh, ...	Trackman,..	26	S.	....	....	So. Wilkes-Barre,...	Luzerne,.	
	9	Robert Humbleby, ...	Scotch, ...	Carpenter,..	60	M.	1	...	So. Wilkes-Barre,...	Luzerne,.	
	9	Charles Stafford, ...	American, ...	Timberman,	35	M.	1	3	So. Wilkes-Barre,...	Luzerne,.	
	9	Peter Perhavage, ...	Lithuanian, ...	Laborer, ...	30	M.	1	4	Franklin, ...	Luzerne,	Fatally injured by a fall of roof.
	11	Benjamin Davis, ...	Welsh, ...	Miner, ...	45	M.	1	7	Shaft No. 3, Kingston.	Luzerne,	Instantly killed by cars.
	11	Anthony Perck, ...	Polish, ...	Laborer, ...	46	M.	1	4			
	11	Thomas Posak, ...	Polish, ...	Laborer, ...	40	S.	....	...			
	12	James Sullivan, ...	Irish, ...	Slate picker,	18	S.	....	...	Auchincloss, ...	Luzerne,	Fell down the elevator shaft and was instantly killed.
	22	James Dudson, ...	English, ...	Laborer, ...	21	S.	....	....	Conyngham, ...	Luzerne,.	Loaded car jumped the track at the head block; killing him instantly.
	30	Joseph Depedaro, ...	Italian, ...	Laborer, ...	48	M.	1	2	North American washery.	Luzerne,.	Fell into conveyor line and instantly killed.
	30	John Pelski, ...	Lithuanian, ...	Miner, ...	40	M.	1	3	No. 1 shaft, Kingston Coal Co.	Luzerne,	Fatally injured by a premature blast died Dec. 31st, 1902.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Fourth Anthracite District for the year ending December 31, 1902.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan 4	John Keys,	American,	Slate picker,	14	S.	Bliss,	Luzerne,	Leg broken; caught by a scraper in the breaker.
7	David T. Thomas,	Welsh,	Driver,	1[illegible]	S	Nottingham,	Luzerne,	Kicked by a mule.
7	David R. Jones,	Welsh,	Mine foreman,	39	M	No. 1 shaft, Sus. Coal Co.,	Luzerne,	Burned on hands and face.
8	William Carpenter,	English,	Miner,	[illegible]	M	Parrish,	Luzerne,	Hand fractured by a fall of roof.
8	Elmer Brehm,	American,	Laborer,	20	S.	Auchincloss,	Luzerne,	Fell in front of a culm car, and his shoulder was broken.
10	Mike Hanulac,	Slavonic,	Miner,	32	M	No. 3 shaft, Kingston,	Luzerne,	Arm broken by a fall of rock.
10	Charles Askew,	American,	Bratticeman,	26	M	Parrish,	Luzerne,	Back broken by a fall of rock.
10	Ignatz Blom,	Polish,	Miner,	3[illegible]	M	Shaft No. 6, Sus. Coal Co.,	Luzerne,	Ribs broken by a fall of coal.
11	Rowland Hughes,	Welsh,	Laborer,	13	S.	Woodward,	Luzerne,	Arm broken; struck by a rope on the slope.
13	Peter Sonbrowski,	Polish,	Laborer,	34	M.	Baltimore tunnel,	Luzerne,	Leg broken by a fall of coal.
14	Samuel Gratz,	Italian,	Driver,	22	S	Lee,	Luzerne,	Leg broken; thrown from a trip of cars.
14	Joseph Levandierski,	Polish,	Miner,	32	M.	No. 1 shaft, Sus. Coal Co.,	Luzerne,	Collar bone broken by a fall of rock.
14	Thomas Julias,	Polish,	Laborer,	38	M	Parrish,	Luzerne	Leg broken by a fall of rock.
18	George Simcoes,	Lithuanian,	Miner,	32	M	Lance,	Luzerne,	Leg broken by a fall of rock
20	Joseph Crucofski,	Polish	Miner,	2[illegible]	S	Buttonwood,	Luzerne	Shot in the head by a premature blast.
21	Thomas Uren,	English,	Driver,	23	S.	No. 1 shaft, Sus. Coal Co.,	Luzerne	Kicked by a mule.
22	George Gerolski,	Polish,	Miner,	35	S.	Stanton,	Luzerne,	Burned on hands and face by an explosion of gas.
24	Joseph Jacohoskie,	Polish,	Miner,	43	M	Buttonwood,	Luzerne,	Leg mashed by a fall of rock; amputated in the City Hospital.
27	Mike Scanlon,	American,	Laborer,	40	M	South Wilkes-Barre,	Luzerne,	Hand cut and thumb fractured; struck by a prop.
28	Charles Melxell,	American,	Carpenter,	29	M	No. 6 breaker, Sus. Coal Co.,	Luzerne,	Fell 40 feet from a trestle and his head was injured.
28	Anthony Lavada,	Lithuanian,	Driver,	22	S.	Nottingham,	Luzerne,	Left arm broken by a car.
29	John E Williams,	English,	Miner,	30	M	Alden No. 2 shaft,	Luzerne,	Leg broken by a fall of rock.
Feb. 1	Harry Partington,	American,	Culm driver,	16	S	Plymouth No. 2 D. and H.	Luzerne,	Leg broken; thrown from a culm car.
3	Thomas E. Davis,	Welsh,	Tracklayer,	40	M	Red Ash No. 1,	Luzerne,	Bones in left foot broken; struck by a T rail.
4	Stanley Gizarra,	Galician,	Laborer,	43	M	Tunnel No. 6, Sus. Coal Co.,	Luzerne,	Thigh and two ribs broken by a fall of rock.

	4	Mike Bultricus,	Polish,	Miner,	38	M	Lance,	Luzerne,	Both hands mashed by a car.
	4	Thomas Moon,	Irish,	Miner,	49	M	Warrior Run,	Luzerne,	Leg broken by a premature blast.
	6	John Ravert,	American,	Runner,	22	M	Reynolds,	Luzerne,	Leg broken by a car.
	8	James McDermott,	Irish,	Laborer,	24	S	Chauncey,	Luzerne,	Leg broken by a fall of rock.
	28	Felix Rogalski,	Polish,	Miner,	29	M	Sugar Notch,	Luzerne,	Slipped and his ankle was broken while going through a cross heading.
	13	John Lickis,	Lithuanian,	Laborer,	33	S.	Nottingham,	Luzerne,	Burned on face and hands by an explosion of gas.
	14	Ray Lewis,	American,	Runner,	22	S	Reynolds,	Luzerne,	Finger cut off by a lump of coal on a car.
	15	William Tinner,	English,	Door boy,	17	S	Sugar Notch,	Luzerne,	Collar bone broken between car and rib.
	15	Joseph Webb,	English,	Fan engineer,	66	M	No. 3 Plymouth, D and H.,	Luzerne,	Finger cut off; caught by fan engine.
	17	Llewellyn Williams,	Welsh,	Miner,	57	M	No. 1 shaft, Sus. Coal Co.,	Luzerne,	Rib fractured; fell from a plank
	22	James Cusac,	American,	Slate picker,	13	S	Maxwell,	Luzerne,	Arm broken while sliding down the chute.
	24	Frank Staley,	American,	Helper,	1	S	South Wilkes-Barre,	Luzerne,	Leg broken; run over by loaded cars.
Mar.	1	William Sencabage,	Polish,	Car loader,	6	M	Buttonwood,	Luzerne,	Leg broken by a prop falling on it.
	1	John Sherick	Russian,	Laborer,	21	S	No. 4 shaft, Kingston,	Luzerne,	Leg broken by a fall of clod.
	3	Charles Price,	American,	Driver boss,	27	M	No. 6 shaft, Sus. Coal Co.,	Luzerne	Leg and arm broken by a fall of rock.
	10	Charles Briggs,	American,	Loader	20	S	West End,	Luzerne,	Both wrists broken by a runaway car.
	12	John L. Davis,	Welsh,	Footman,	30	M	Lance,	Luzerne,	Hand mashed while blocking a car.
	12	Edward O'Donnell,	Irish,	Fire boss,	41	M	Hadleigh,	Luzerne,	Thigh broken by a fall of rock.
	12	Paul Shermanski,	Russian,	Laborer,	50	M	Red Ash No. 2,	Luzerne,	Cuts on head and body by a fall of coal
	13	Stanley Fisher,	Hungarian,	Miner,	38	M	Lance,	Luzerne,	Cut on right knee by a fall of coal.
	14	Steve Cusma	Hungarian,	Miner,	46	M	Lance,	Luzerne,	Leg broken by falling.
	15	John Skoominski,	Polish,	Laborer,	34	M	Slope No. 6, Sus. Coal Co.,	Luzerne,	Leg broken by rails falling from a car.
	18	David T Evans,	Welsh,	Miner,	38	M	Nottingham	Luzerne,	Arm fractured by a fall of slate.
	18	John Lasko,	Polish,	Miner,	40	M	Red Ash No. 2,	Luzerne,	Compound fracture of the leg, necessitating amputation.
	18	Thomas O'Keefe,	Irish,	Miner,	55	M	No. 4 Plymouth, D. and H.,	Luzerne,	Arm broken by a premature blast
	19	Thomas Rogers,	English,	Driver,	17	S	No. 4 slope, Sus. Coal Co.,	Luzerne,	Arm and leg broken; fell from a mule.
	19	Thomas McKeskey	Polish	Laborer,	46	M	West End	Luzerne,	Arm broken by a fall of clod.
	19	Simon Bowalick,	Russian,	Runner,	30	M	Kingston No. 2 breaker,	Luzerne,	Fingers mashed while blocking a car.
	21	Robert Beddo,	American,	Driver,	16	S	Auchincloss,	Luzerne,	Ankle crushed between cars.
	26	Wadoc Barkofski,	Polish	Miner,	27	S	No. 6 shaft Sus. Coal Co.,	Luzerne,	Burned by explosion of gas.
	29	Edward Watkins,	American,	Door boy,	16	S	Dorrance,	Luzerne,	Thrown from a car and run over
April	3	Frank Litchkofski,	Polish,	Miner,	41	M	No. 4 slope, Sus. Coal Co.,	Luzerne,	Leg broken; between car and platform.
	5	John Y. Williams,	Welsh,	Tracklayer,	6	M	Buttonwood,	Luzerne,	Leg broken by a fall of roof.
	7	Owen H Williams,	Welsh,	Miner,	20	M	Maxwell	Luzerne	Back injured by a fall of coal.
	8	Anthony Orilla	Lithuanian,	Miner,	3	M	Nottingham,	Luzerne,	Leg broken by a fall of rock.
	10	Thomas Heneshek,	Slavonic,	Timber cutter	1	M	Maxwell,	Luzerne,	Leg broken; caught between timbers in the yard.
	10	William J. Morgan,	English,	Driver,	1	M	No. 1 shaft, Sus. Coal Co.	Luzerne,	Kicked by a mule.
	11	John E. Thomas,	Welsh	Miner,	1	M	South Wilkes-Barre,	Luzerne,	Thumb broken by a fall of coal.
	12	John Coonganus,	Lithuanian,	Miner,	20	S	Lance,	Luzerne,	Leg broken by a fall of coal.
	15	John Sherlock,	Irish	Driver,		S	Shaft No. 1, Sus. Coal Co.,	Luzerne,	Injured; run over by a car.
	16	Thomas Kilcummins	Irish	Miner,		M	Shaft No. 4 Kingston	Luzerne,	Cut on head by a premature blast.
	18	Lewis T. Ford,	American,	Driver,		S	Shaft No. 2, Sus. Coal Co.,	Luzerne,	Kicked by a mule.
	18	George Henson,	English,	Door boy,	1	S	Shaft No 1, Sus. Coal Co.,	Luzerne,	Leg cut; ran over by a car.
	23	Leo Blazyarski,	Polish	Driver,	1	S.	Alden No. 2,	Luzerne,	Kicked by a mule.
	26	Dominick Smith,	Lithuanian,	Miner,		S	Nottingham No. 15,	Luzerne,	Ankle broken by a fall of bone.
	28	John Costello,	Polish,	Footman,		M	Nottingham,	Luzerne,	Skull fractured by coal falling down the shaft.
	28	John Buckley,	Lithuanian,	Miner,		M	Nottingham,	Luzerne,	Leg fractured by a fall of top slate.
	28	William Hahn,	American,	Driver,		S.	No. 5 Plymouth, D. & H.,	Luzerne,	Hand caught between cars, necessitating amputation.
	28	Peter Wallace,	American,	Outside laborer,	37	M	Auchincloss,	Luzerne,	Collar bone broken; ditch caved in.

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
29	Jacob Watsko, ...	Austrian, .	Miner, ...	45	M	No. 4 Plymouth, D & H., ..	Luzerne,	Leg broken by a fall of coal.
May 2	George Banko, ...	Polish, ...	Miner, ...	23	S.	Shaft No. 6, Sus. Coal Co., .	Luzerne,	Leg fractured by a fall of rock.
7	Andrew Meras, ...	Hungarian,	Laborer, ...	42	M	Red Ash No. 1, ...	Luzerne,	Leg broken; struck by a car.
9	Adam Shoer, ...	American, .	Miner, ...	51	M	Shaft No. 3, Kingston, ...	Luzerne,	Back injured by a fall of rock.
Aug. 29	Fred. Lehman, ...	American, .	Brakeman, ...	18	S	Breaker No. 7, Sus. Coal Co..	Luzerne,	Leg broken; run over by a car at the car shop.
Sept. 5	Hiram Smith	Welsh, ...	Mine foreman,.	44	S.	Dorrance, ...	Luzerne,	Leg broken; caught between cars.
24	Robert C. Lamareaux, .	American, .	Car loader, ...	44	M	Jersey Annex No. 8, ...	Luzerne,	Ribs fractured; struck by a car and knocked against breaker sill.
Oct. 28	Jonah Reese, ...	Welsh, ...	Timberman, ...	55	M	Dodson, ...	Luzerne,	Skull fractured; struck by a prop.
30	John Coola, ...	Polish, ...	Laborer, ...	35	S	Wanamie No. 18, ...	Luzerne,	Leg broken by a timber falling on it.
Nov. 3	William Vega, ...	Polish, ...	Laborer, ...	30	M	South Wilkes-Barre, ...	Luzerne,	Leg broken by a fall of coal.
3	Dominick Romanoski,	Hungarian,	Miner, ...	34	M	Lance, ...	Luzerne,	Leg broken by a fall of slate.
4	Paul Borboritz	Slavonic, ..	Miner, ...	31	M	Kingston No. 3, ...	Luzerne,	Two toes cut off by a fall of coal.
4	George Benning, ...	American, .	Helper, ...	17	S.	South Wilkes-Barre, ...	Luzerne	Leg broken; run over by mine cars.
6	Peter Hurley, ...	American, .	Slate picker, ..	14	S.	No. 5, Sus. Coal Co., ...	Luzerne,	Both legs broken; slipped from chute into jigs.
7	Zory Kromis, ...	American, .	Driver, ...	20	S.	South Wilkes-Barre, ...	Luzerne,	Ribs fractured; squeezed between pillar and mule.
8	Charles Kulp, ...	American, .	Docking boss, .	45	M	Bliss, ...	Luzerne,	Arm broken; struck by a block.
9	Frank S. Kemmerer, ..	American, .	Engineer, ...	57	M	Maxwell	Luzerne,	Finger cut off while wiping engine.
10	Joseph M Jenkins, ...	Welsh, ...	Fire boss, ...	54	M	No. 2 shaft, Sus. Coal Co., .	Luzerne,	Fell against a rock and a rib was broken.
11	William Carden, ...	American, .	Slate picker, ..	14	S.	Conyngham, ...	Luzerne,	Fell down the breaker steps and his arm was broken.
12	John Kane, ...	Irish, ...	Miner, ...	48	M	Conyngham, ...	Luzerne,	Leg broken by a fall of rock.
14	John Precovitch, ...	Lithuanian,	Laborer, ...	19	S.	Nottingham, ...	Luzerne,	Leg and jaw broken by a fall of coal.
14	Daniel Williams, ...	American, .	Laborer, ...	18	S	Woodward, ...	Luzerne,	Leg broken; between cars.
14	Enoc Kregar, ...	Slavonic, ..	Laborer, ...	45	S.	Hollenback, ...	Luzerne,	Leg broken by a premature blast.
15	Stanley Bartnick, ...	Polish, ...	Miner, ...	55	M	Sugar Notch, ...	Luzerne,	Leg broken by a fall of coal.
15	Peter Reilley, ...	Irish, ...	Outside laborer,	56	S.	Sugar Notch, ...	Luzerne,	Foot broken by a piece of coal falling from a chute in the breaker.
17	Murry Frace, ...	American, .	Laborer, ...	20	S.	No. 5, Sus. Coal Co., ...	Luzerne,	Foot cut off; between the bumpers of two locomotives.
19	Henry H. Williams, ..	Welsh, ...	Helper, ...	18	S.	South Wilkes-Barre, ...	Luzerne,	Arm broken; caught between car and roof.

	19	Edward Fitzpatrick, ..	American, .	Slate picker, ..	16	S.	Plymouth No. 3, D. & H., ..	Luzerne,	Bumped between cars and his leg was broken.
	20	William Kelley, ...	American, .	Driver, ...	20	S.	Plymouth No. 4, D. & H., ..	Luzerne,	Collar bone broken; thrown from a mule.
	25	Adam Wampawa, ...	Polish, ...	Miner, ...	4	M	Slope No. 4, Sus. Coal Co.,	Luzerne,	Hip dislocated by a fall of rock.
	25	John Skay, ...	Lithuanian,	Miner, ...	40	M	Franklin, ...	Luzerne,	Both legs broken by a fall of rock.
	25	Hugh Ward, ...	Irish, ...	Driver, ...	22	S.	Gayl rd.	Luzerne,	Leg broken by a fall of rock.
	28	Joseph Bagdon, ...	Slavonic, ..	Miner, ...	2	M	Nottingham, ...	Luzerne,	Foot crushed by a fall of coal, necessitating amputation.
	28	Peter Mazula, ...	Slavonic, ..	Driver, ...	19	S.	No. 4 shaft, Kingston, ...	Luzerne,	Leg broken; between cars.
Dec.	2	John Dwyer, ...	Irish, ...	Pumpman, ...	55	W	Avondale, ...	Luzerne,	They were riding in a car down the slope; the car ran away and they were badly bruised.
	2	Frank Trimble, ...	American, .	Machinist, ...	3	M	Avondale, ...	Luzerne.	
	2	Martin Curley, ...	American, .	Laborer, ...	28	S	Boston, ...	Luzerne	Head fractured; between loaded cars.
	3	William Makoski, ...	Polish, ...	Driver, ...	17	S	Slope No. 6, Sus. Coal Co.,	Luzerne,	Should r bone broken; struck by a car.
	4	George German, ...	American, .	Slate picker, ..	16	S.	Wanamie breaker, ...	Luzerne.	Leg broken by a casting falling on him.
	6	George Griffiths, ...	American, .	Door boy, ...	10	S.	Avondale, ...	Luzerne.	Leg broken; fell under a car riding out the gangway.
	8	Edward Conyard, ...	American, .	Runner, ...	20	S.	Dorrance, ...	Luzerne.	Hand mashed while blocking a car at the foot of the shaft.
	8	Levi Andrews, ...	American, .	Outside laborer.	59	M	Bliss, ...	Luzerne.	Back sprained and head cut by a car on the rock bank.
	9	George Knauer, ...	American, .	Co. laborer, ...	30	M			
	9	Evan L. Jones, ...	Welsh, ...	Co. laborer, ...	26	S	South Wilkes-Barre, ...	Luzerne.	Burned by an explosion of dynamite.
	9	Neil Sweeney, ...	Irish, ...	Co. laborer, ...	60	M			
	10	Frank Kline, Sr., ...	German, ...	Laborer, ...	62	M	Boston, ...	Luzerne.	Head and shoulders badly cut by coal bursting from the face.
	10	Reginald Hall, ...	American, .	Driver, ...	20	S.	Parrish, ...	Luzerne.	Head injured; run over by car.
	10	John Coolick, ...	Russian, ...	Runner, ...	19	S	Buttonwood	Luzerne.	Finger cut off while spragging a car.
	11	John Nazemek, ...	Polish, ...	Miner, ...	35	M	No. 1 shaft, Sus. Coal Co.,	Luzerne.	Hip dislocated by a fall of bone.
	11	John Forcaskie, ...	Polish, ...	Laborer, ...	19	S.	No. 3 shaft, Kingston Coal Co.	Luzerne.	Badly bruised about the body by a car on the engine plane.
	13	George Butcher, ...	Welsh, ...	Driver, ...	22	S.	Nottingham, ...	Luzerne.	Finger broken between block and wheel while spragging a car.
	17	Simon Prakallos, ...	Polish, ...	Laborer, ...	30	S.	Bliss, ...	Luzerne.	Squeezed between car and prop at foot of Espy tunnel slope.
	18	William Madasavick, ..	Polish, ...	Slate picker, ..	13	S.	Woodward, ...	Luzerne.	Arm broken and wrist dislocated while playing about the breaker
	19	Phillip Guncher, ...	Polish, ...	Miner, ...	34	M	Alden shaft No. 1, ...	Luzerne.	Leg broken by a fall of rock.
	24	Harvey Walck, ...	American, .	Runner, ...	23	S.	Slope No. 6, Sus. Coal Co.,	Luzerne.	Arm broken; fell into sump at foot of slope.
	24	Frank Hurber, ...	American, .	Driver, ...	19	S.	Breaker No. 5, Sus. Coal Co.	Luzerne.	Arm broken; fell from a car bumper, near the breaker.
	29	William Edwards, ...	Welsh, ...	Footman, ...	36	M.	Shaft No. 1, Sus. Coal Co.,	Luzerne.	Skull and arm broken; fell into sump at foot of shaft.
	29	William Boyle, ...	American, .	Brakeman, ...	17	S.	Breaker No. 5, Sus. Coal Co.,	Luzerne.	Shoulder bone broken; fell in jumping from locomotive.
	29	James Featherstone, ..	American, .	Driver, ...	25	S.	Hollenback, ...	Luzerne.	Shoulder and two ribs broken; caught between top of car and door frame.
	30	John Anton, ...	Polish, ...	Laborer, ...	15	S.	Wanamie, ...	Luzerne.	Run over by a car on the slope.

Fifth Anthracite District.

LUZERNE AND CARBON COUNTIES.

Hazleton, Pa., March 11, 1903.

Hon. James W. Latta, Secretary of Internal Affairs:

Sir: I have the honor to submit herewith my first annual report as Inspector of Mines for the Fifth Anthracite District for the year ending December 31, 1902.

It will be seen by the report that there is a great discrepancy in production between this year's report and that of the previous year, which is accounted for by the effect upon the collieries in the early part of the year of heavy rains, which flooded several of them; also, by the anthracite strike, which commenced May 12 and continued until October 22. But a comparison of time worked shows that the production will equal the production of last year for the same period.

The total production in 1902 was 3,190,765 tons, while for 1901 it was 6,374,939 tons, showing that the production for the year 1902 was about one-half that of previous year.

The total number of accidents was 61, of which 26 were fatal and 35 non-fatal, leaving 13 wives widows and 31 children under 16 years of age orphans.

There were 122,722 tons of coal produced per life lost, and 91,165 tons produced per each non-fatal accident.

The number of persons employed was 14,364 for an average of 120.6 days.

There were 47,447 kegs of powder and 459,379 pounds of dynamite used in the mines and about the strippings of the district.

There were few improvements made about the collieries during the year, the operators holding back on account of the strike.

The report also contains the usual tables.

I assumed the duties of the office on September 10, 1902, the former Inspector, Mr. W. H. Davies, having resigned.

Respectfully,

DAVID J. RODERICK,
Inspector.

SUMMARY OF STATISTICS FOR 1902.

Number of mines in district,	97
Number of mines in operation during 1902,	97
Number of tons of coal produced,	3,190,765
Number of tons shipped to market,	2,532,797
Number of tons sold at mines to local trade,	96,334
Number of tons consumed at mines in generating steam and heat,	561,634
Number of persons employed inside the mines,	8,235
Number of persons employed outside,	6,127
Number of fatal accidents inside the mines,	21
Number of tons produced for each fatal accident inside,	151,941
Number of persons employed per fatal accident inside,	684
Number of fatal accidents outside,	5
Number of persons employed per fatal accident outside,	2,873
Number of wives made widows by fatal accidents,	13
Number of children orphaned by fatal accidents,	31
Number of non-fatal accidents inside of mines,	22
Number of persons employed per non-fatal accident inside,	653
Number of non-fatal accidents outside,	13
Number of persons employed per non-fatal accident outside,	1,105
Number of steam locomotives used inside,	7
Number of compressed air locomotives used inside,	11
Number of electric motors used inside,	
Number of fans used for ventilation,	41
Number of furnaces used for ventilation,	1
Number of gaseous mines in operation during 1902,	35
Number of non-gaseous mines in operation during 1902,	62
Number of old mines abandoned during 1902,	1

A. Production of Coal During the Year 1902.

Names of Companies.	Tons.
A. Pardee & Co.,	174,547
Coxe Bros. & Co., Incorporated,	469,614
Lehigh Coal and Navigation Company,	544,016
G. B. Markle & Co.,	476,205
Lehigh Valley Coal Company,	496,585

Estate of A. S. Van Wickle,	239,043
Calvin Pardee & Co.,	181,678
Pardee Bros. & Co.,	197,642
Upper Lehigh Coal Company,	159,436
C. M. Dodson & Co.,	118,145
J. S. Wentz & Co.,	31,373
M. S. Kemmerer & Co.,	36,037
W. R. McTurk & Co.,	46,907
Black Creek Coal Company,	12,277
Thomas R. Reese & Son,	7,248
Total,	3,190,753

B. Showing the number of fatal and non-fatal accidents inside and outside the mines; number of tons of coal produced per fatal and non-fatal accident inside the mines; number of persons employed inside and outside; and the number employed inside and outside for every fatal and non-fatal accident for each company during 1902.

Names of Companies.	Number of lives lost inside.	Number of lives lost outside.	Total number of lives lost.	Number severely injured inside.	Number severely injured outside.	Total number severely injured.	Tons of coal produced per each life lost inside.	Tons of coal produced per serious injury inside.	Number employes inside of mines.	Number employes outside of mines.	Total number employed.	Number of employes inside for each life lost.	Number of employes inside for each severe injury.	Number of employes outside for each life lost.	Number of employes outside for each severe injury.
A. Pardee & Co.,	2	.....	2	4	1	5	87,273	35,909	726	336	1,062	343	181	336	3 6
Coxe Bros. & Co., Inc.,	.....	1	1	2	2	4	94,398	117,997	900	966	1,866	225	450	966	966
Lehigh Coal and Navigation Co.,	3	1	4	1	.....	1	181,311	544,024	1,144	1,037	2,181	572	1,144	1,037	1,037
G. B. Markle & Co.,	.....	.....	.....	6	.....	6	158,735	129,367	1,705	658	2,363	568	284	658	658
Lehigh Valley Coal Co.,	1	1	2	.....	.....	.....	248,292	248,292	1,484	738	2,222	1,484	1,484	738	369
Estate of A. S. Van Wickle,	1	1	2	.....	.....	.....	119,521	119,521	620	592	1,212	620	620	592	296
Calvin Pardee & Co.,	2	.....	2	3	2	5	90,839	36,336	422	332	754	211	142	332	166
Pardee Bros. & Co.,	2	.....	2	.....	4	4	98,521	49,410	331	425	774	165	3 1	435	1 9
Upper Lehigh Coal Co.,	1	.....	1	.....	1	1	159,436	159,436	271	345	661	271	345	345	345
C. M. Dodson & Co.,	.....	.....	.....	3	.....	3	118,145	31,381	226	184	410	226	75	184	184
John S. Wentz & Co.,	2	1	3	.....	.....	.....	10,478	31,373	225	158	383	112	225	158	158
M. S. Kemmerer & Co.,	1	.....	1	.....	.....	.....	36,037	36,037	110	115	225	110	110	115	115
W. R. McTurk & Co.,	.....	.....	.....	.....	.....	.....	46,907	46,907	.....	176	176	.....	.....	176	176
Black Creek Coal Co.,	.....	.....	.....	.....	1	1	12,277	12,277	56	53	109	.....	.....	53	53
Thos. R. Reese & Co.,	.....	.....	.....	.....	.....	.....	7,218	7,218	7	4	9	.....	.....	7	4
Totals,	21	5	26	19	15	34	1,469,728	1,615,515	8,227	6,129	14,107	4,907	5,390	6,132	4,972

C. Classification of Fatal Accidents for the Year 1902.

	Inside of Mines.																	Outside of Mines.							Grand total.
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling Into		Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	
	Coal.	State.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.											
January,	1			1				2							4							4
February,	1			2											3	1					1	4
March,			1	1						1	1				4							4
April,	2			1								1			4							4
May,	1			1											2		1				1	3
October,				1										1	2							2
November,				1											1	1	1				2	3
December,				2											2							2
Total's,	5		1	9				2		1	1	1		1	21	2	3				5	26

D. Classification of Non-fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						Grand total.
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling Into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
January,	.....	2	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	1	.....	.....	.....	4	5	8
February,	.....	1	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	3	3	8
March,	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	2	.....	1	.....	.....	1	2	4
April,	1	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
May,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	1
November,	.....	1	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	1	1	4
December,	1	.....	.....	1	1	.....	.....	1	.....	.....	1	.....	.....	.....	1	6	.....	.....	.....	.....	1	1	7
Totals	2	4	2	8	1	.....	.....	3	.....	.....	1	.....	.....	.....	1	22	2	1	.....	.....	10	13	35

E. Occupations of Employes Killed or Fatally Injured Inside and Outside the Mines of the Fifth Anthracite District During 1902.

Months	Inside.											Outside.									
	Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Book-keepers and clerks.	All other employes.	Total outside.	Grand total.
Janrary,	....	....	....	2	1	.....	1	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
February,	.....	....	.....	1	1	1	.....	.....	.....	.....	3	.....	.....	.....	.....	1	.....	.....	1	2	5
March,	.....	....	.....	1	1	1	.....	.....	2	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
April,	.....	....	.....	2	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
May,	.....	....	.....	1	.....	.....	.....	.....	1	.....	2	.....	.....	.....	.....	1	.....	.....	.....	1	3
October,	.....	....	.....	.....	.....	.....	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
November,	.....	....	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	2	3	4
December,	.....	....	.....	.....	.....	.....	.....	.....	.....	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
Totals,	.....	.....	.....	8	3	2	1	1	3	2	20	.....	.....	.....	1	2	.....	.....	3	6	26

F. Occupations of Employes Severely Injured Inside and Outside the Mines of the Fifth Anthracite District During 1902.

Months.	Inside.											Outside.									
	Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Book-keepers and clerks.	All other employes.	Total outside.	Grand total.
January,	.....	.....	.....	2	.....	.....	1	.....	.....	.....	3	.....	.....	.....	.....	1	.....	.....	4	5	8
February,	.....	.....	.....	.....	2	.....	1	.....	1	.....	4	.....	.....	.....	.....	.....	.....	.....	4	4	8
March,	.....	.....	.....	1	.....	1	.....	.....	.....	.....	2	.....	.....	.....	1	1	.....	.....	.....	2	4
April,	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
May,	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
November,	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
December,	.....	.....	.....	3	1	1	1	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	.....	1	1	7
Totals,	.....	.....	.....	13	3	3	3	.....	1	.....	23	.....	.....	.....	1	2	.....	.....	9	12	35

G. Nationality of Employes Killed or Fatally Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Scotch.	Irish.	Poles.	Hungarians.	Italians.	Slavs.	Austrians.	Greeks.	Tyrolcans.
January,	1	.....	.....	.....	1	1	.....	.....	.....	1	.....
February,	3	.....	.....	.....	.....	.....	.....	1	1	.....	.....
March,	2	1	.....	1	.....	.....	.....	1	.....	.....	.....
April,	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
May,	1	.....	.....	.....	.....	1	.....	.....	.....	.....	1
October,	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
November,	1	.....	.....	1	.....	1	1	.....	.....	.....	.....
December,	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals,	11	1	1	2	2	3	1	2	1	1	1

H. Nationality of Employes Severely Injured Inside and Outside the Mines During 1902.

	Americans.	Irish.	Poles.	Hungarians.	Italians.	Slavs.
January,	2	1	1	2	1	1
February,	2	.....	.....	1	4	1
March,	1	1	1	.....	.....	1
April,	.....	1	.....	2	.....	.....
May,	.....	.....	.....	.....	1	.....
November,	.....	.....	1	3	.....	.....
December,	3	1	1	.....	2	.....
Totals,	8	4	4	8	8	3

Descriptions of Fatal Accidents that Occurred After September 10.

Allen Watson, a pumpman at Lattimer, Pardee Bros. & Co., was instantly killed by a runaway car. The locomotive pushed a trip of empty cars into head of plane. There were three empty cars standing at top when locomotive pushed in, the three empty cars standing on top, which caused the first car to jump over head block and rope, dash down the plane and struck the empty cars at bottom, one of which struck Watson.

James Powell, a loader at Lattimer, was instantly killed by his head having been caught between two stripping dumpers. He thought to assist the driver with his trip, and there was a car standing on the turnout when the driver came out with a trip. Powell stood at this car to make a flying coupling; he made the coupling and raised his head, when it was caught between the small bumpers on the stripping cars. He had been warned not to have anything to do with the cars.

Andro Banko, a hitcher, was fatally injured at Coleraine No. 2 bank. They were slacking two empty cars down a plane to pick up some empty cars standing on a switch on plane, and Banko stood at these cars, with coupling in hand, to make a flying coupling. He was standing below the bumpers of the cars, which were being lowered, consequently the bumpers of the cars running down into the ditch went right over the other bumpers, catching his head, crushing his skull. This man had also been warned by the foreman to let the cars come to a stop before attempting to couple them.

Thomas Conlin, miner, found dead in a breast in No. 1 Colliery, Lehigh Valley Coal Company. His boy, who was his partner, did not report for work on this day. Conlin's daughter tried to persuade her father not to go to work, as he would be working alone. He told her that he would only go and take in the powder which was at bottom of slope. Not returning at the usual time, the girl told some miners, who went to look for him. They found his body at top of chute in his breast; evidently he had died from natural causes, as the keg of powder which he had taken in was not opened, and he had no powder to fire a blast; neither had anything fallen on him. As there was nothing on him when found, the supposition is that he died from natural causes.

Fred. Burgraff, locomotive patcher, was instantly killed at Hazleton Shaft Colliery, on the outside, by being run over by a locomotive. He had ran ahead to turn the switches; when he had them all turned, he attempted to jump on front end, but slipped and fell under; was pushed for some distance and the wheels passed over him. It is customary for the patcher to do his work on the

side where the engineer is, but this time he attempted to get on the other side. The engineer did not see him fall or he might have stopped his engine.

Elmer Karschner and August Strack, carpenters, were fatally injured at Cranberry No. 4 Slope, A. Pardee & Co., by a runaway truck. They, together with several other men, were engaged putting in a pump and had divided themselves into two gangs, one to send the material down and the other stationed at bottom to take it off. When they had sufficient material down for the night, they sent the flat truck up to be taken off, but the men neglected to put the rope to the one side, but pushed the truck far enough to let the man car pass. When this was done, they pushed the man car into top of slope, put the chains on, took the head block off and pushed car over. When they had proceeded down the slope about fifty feet, Karschner and Strack, who were riding on the bumpers, noticed that the rope was not on the pulleys; they stopped the car, had it hoisted up to the apex and put the rope on the shieve. Then proceeded down again without putting block on. When they had reached about fifty or sixty feet down the slope, the truck which was left on top came dashing down upon them. Karschner and Strack, who were riding on the bumpers, were pinned between truck and car until they reached the bottom, and the eight men in the car were powerless to help them. When they reached the bottom they were released from their positions and removed to the Hazleton Hospital. Karschner died just as he reached the institution, and Strack died a few hours later. This accident was due to the oversight of the men in not putting the rope aside when changing the truck for the car, and in not placing the head block on, after they had pushed the car over.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Fifth Anthracite District for the year 1902.

Names of Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine
A. Pardee & Co.						
Cranberry,	Luzerne,	Frank Pardee,	Hazleton,			Lehigh Valley Railroad.
East Crystal Ridge,	Luzerne,	Frank Pardee,	Hazleton,			Lehigh Valley Railroad.
Coxe Bros. & Co. (Inc.).						
Drifton Nos. 1 and 2,	Luzerne,			L. C. Smith,	Drifton,	D. S. & S. R. R.
Eckley, including Buck Mt.,	Carbon,			L. C. Smith,	Drifton,	D. S. & S. R. R.
Stockton,	Luzerne,			L. C. Smith,	Drifton,	D. S. & S. R. R.
Beaver Meadow,	Carbon,			L. C. Smith,	Drifton,	D. S. & S. R. R.
Tomhicken,	Luzerne,			L. C. Smith,	Drifton,	D. S. & S. R. R.
Derringer & Gowan,	Luzerne,			L. C. Smith,	Drifton,	D. S. & S. R. R.
Lehigh Coal & Navigation Co.						
Colliery No. 1,	Carbon,	W. D. Zehner,	Lansford,			C. R. R. of N. J.
Colliery No. 4,	Carbon,	W. D. Zehner,	Lansford,			C. R. R. of N. J.
Colliery No. 5,	Carbon,	W. D. Zehner,	Lansford,			C. R. R. of N. J.
Colliery No. 6,	Carbon,	W. D. Zehner,	Lansford,			C. R. R. of N. J.
Colliery No. 9,	Carbon,	W. D. Zehner,	Lansford,			C. R. R. of N. J.
Screen building,	Carbon,	W. D. Zehner,	Lansford,			C. R. R. of N. J.
G. B. Markle & Co.						
Jeddo No. 4 and Ebervale,	Luzerne,	John Markle, Managing partner.	Jeddo,	Sidney Williams,	Jeddo,	Lehigh Valley Railroad.
Highland No. 2,	Luzerne,	do.	Jeddo,	Sidney Williams,	Jeddo,	Lehigh Valley Railroad.
Highland No. 5,	Luzerne,		Jeddo,	Sidney Williams,	Jeddo,	Lehigh Valley Railroad.
Lehigh Valley Coal Co.						
Hazleton No. 1,	Luzerne,	S. D. Warriner,	Wilkes-Barre,	W. H. Davies,	Hazleton,	Lehigh Valley Railroad.
Hazleton shaft,	Luzerne,	S. D. Warriner,	Wilkes-Barre,	W. H. Davies,	Hazleton,	Lehigh Valley Railroad.
Spring Brook,	Carbon,	S. D. Warriner,	Wilkes-Barre,	W. H. Davies,	Hazleton,	Lehigh Valley Railroad.
Est. of A. S. VanWickle.						
Milnesville,	Luzerne,	Frank Pardee, Mgr	Hazleton,	John Harvey,	Hazleton,	Pennsylvania Railroad.
Coleraine and Evans,	Carbon,	John Harvey,	Hazleton,			P. & R. & L. V. R. R.
Calvin Pardee & Co.						
Harwood,	Luzerne,	A. W. Drake,	Lattimer Mines,	Calvin Pardee, Jr.	Lattimer Mines,	D. S. & S. R. R.
Pardee Bros. & Co.						
Lattimer,	Luzerne,	A. W. Drake,	Lattimer Mines,	Calvin Pardee, Jr.,	Lattimer Mines,	D. S. & S. R. R.

Upper Lehigh Coal Co. Upper Lehigh,	Luzerne,	A. C. Leisenring,	Upper Lehigh,	George Wilmot,	Upper Lehigh,	C. R. R. of N. J.
C. M. Dodson & Co. Beaver Brook,	Luzerne,	E. L. Bullock,	Audenried,			L. V. R. R. & C. R. R. of N. J.
John S. Wentz & Co. Hazle Brook,	Luzerne,	John L. Wentz,	1100 Girard Trust Bldg., Phila.	John Weber,	Hazle Brook,	Lehigh Valley Railroad.
M. S. Kemerer & Co. Sandy Run,	Luzerne,	M. S. Kemerer,	Mauch Chunk,	Geo. D. Kugler,	Sandy Run,	C. R. R. of N. J.
W. R. McTurk & Co. Star washery,	Carbon,	W. J. Heiser,	Hazleton,			L. V. R. R. & C. R. R. of N. J.
Black Creek Coal Co. Rowe colliery Harleigh colliery,	Luzerne, Luzerne,	James Rowe, James Rowe,	Hazleton, Hazleton,			Lehigh Valley Railroad Lehigh Valley Railroad
Thos. R. Reese & Son. Dusky Diamond,	Luzerne,	Thos. R. Reese,	Audenried,			Lehigh Valley Railroad

TABLE II—Gives the total number of tons of coal mined in each colliery, number of days worked, number of employes, number of employes killed and injured, number of kegs of powder, etc., used in the Fifth Anthracite District for the year ending December 31, 1902.

Names of Operators and Collieries	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
A. Pardee & Co.												
Cranberry,	Luzerne,	111,212	34,535	2,537	†148,284	123	913	2	4	2,785	20,100	123
East Crystal Ridge,	Luzerne,	18,753	7,154	357	26 264	123	149	.....	1	3 5	6,525	29
Totals,	.....	129.965	41,689	2 894	174,548	123	1,062	2	5	3 1 0	26,625	152
Coxe Bros. & Co.												
Drifton Nos. 1 and 2,	Luzerne,	102,700	32 577	6.917	†142 293	161	782	1	1	1,9 0	4 72	85
Stockton,	Luzerne,	.....	.....	24	24	.....	7	.....	.....	513	530	12
Eckley,	Luzerne,	66,213	14,560	2,410	*83 213	95	285	.....	1	6 6	8,438	45
Beaver Meadow,	Carbon,	99,372	25.117	2,876	127,365	108	341	1	1	955	10,7 4	37
Tomhicken,	Luzerne,	.....	.....	.....	.....	.....	8	.....	.....	192	70	6
Derringer,	Luzerne,	91,1 3	22,121	3,407	†116 811	94	443	3	1	1,946	5,8 2	97
Totals,	.....	359 517	94 375	15,724	469 616	111.5	1,866	5	4	6,222	30,365	282
Lehigh Coal and Navigation Co.												
Colliery No. 1,	Carbon,	140,080	19,488	1.543	161 111	145	538	.....	1	780	30 000	100
Colliery No. 4,	Carbon,	92,989	30,765	3,453	127,207	125	288	1	.....	240	12 700	69
Colliery No. 5,	Carbon,	75,103	4,202	2 97	81 902	94	128	2	.....	300	4 750	32
Colliery No. 6,	Carbon,	31,193	10,049	300	41,551	48	467	.....	.....	420	22,000	45
Colliery No. 9,	Carbon,	118,048	8,861	5,319	132,248	142	477	.....	.....	60	33,700	74
Screen building,	Carbon,	.....	.....	.....	.....	.....	223	.....	.....	.....	.....	.....
Totals,	.....	477,433	73,365	13 221	†544,01	111	2,781	3	1	1,800	102,850	320

*Totals in this column are averages
†Jeddo tunnel drainage.

G. B. Markle & Co.												
Jeddo No. 4,	Luzerne,	168,611	21,945	790	†191,346	99	1,121	2	4	4 572	45.272	143
Highland No. 5,	Luzerne,	146,88	26,342	100	†173,329	100	70.	....	1	4,05	2.83	73
Highland No. 2,	Luzerne,	89,54	18,452	3,538	111,532	119	535	1	1	2,9 2	6,7	84
Totals,	.....	405,040	66 739	4,428	476,207	106	2,.6	3	6	11,585	54,87	306
Lehigh Valley Coal Co.												
Hazleton No 1,	Luzerne,	96,974	9,821	34,617	141,412	137	613	1	1	3,693	21.21	75
Haz eton shaft,	Luzerne,	2.1 28	30,5 4	2,150	243,994	141	1,21	1	1	5, 09	46,65	92
Spring Brook,	Carbon,	76,.22	23.210	1,447	101,181	1.0	354	.....	.....	1,512	14,75	32
Totals,	.....	394.776	63,5.5	38,21	†436,587	139.3	2 222	2	2	10,814	7 ,667	199
A. S. VanWickle Estate.												
Coleraine,	Carbon,	121 22	44,286	1,147	†166,655	146	753	1	2	1,835	41,975	85
Milnesville,	Luzerne,	16,16	55,647	573	72,389	62	459	1	.....	93	11.050	41
Totals,	.....	137,391	99.933	1 720	239,044	1 4	1,212	2	2	1,92	53 025	126
Black Creek Coal Co.												
Rowe,	Luzerne,	7,202	920	255	8,377	156	37	.....	1	2 9	50	10
Harleigh,	Luzerne,	3,388	29	219	3,900	155	72	.....	.....	102	25	7
Totals,	.....	10,590	1,212	474	12.277	155.5	109	.....	1	361	75	17
C. Pardee & Co.												
Harwood,	Luzerne,	144,441	36,500	737	†181,678	138	754	2	5	2,000	22,600	80
Pardee Bros. & Co.												
Lattimer,	Luzerne,	173,003	22,067	4,572	†197,642	137.4	774	2	4	3,252	62,935	84
Upper Lehigh Coal Co.												
Upper Lehigh,	Luzerne,	130 919	25,568	2,950	159,437	143.6	616	1	1	3,020	7,963	73
C. M. Dodson & Co.												
Beaver Brook,	Luzerne,	91,636	26,011	498	†118,145	123.3	410	.....	3	2,403	7,637	57
J. S. Wentz & Co.												
Hazle Brook,	Luzerne,	28 591	2 300	482	†31,373	63 6	383	3	.....	259	3 994	21
M. S. Kemmerer & Co.												
Sandy Run,	Luzerne,	23,823	8,979	3,835	36,037	73.6	235	1	.....	368	6,040	26
W. R. McTurk & Co.												
Star washery,	Carbon,	45 407	1,500	.....	46,907	136	176	.....	1	.....	500	12
Thos. R. Reese & Son.												
Dusky Diamond,	Luzerne,	265	400	6,583	7 248	274	11	.....	.....	175	125	9
Totals,	.....	2,532,797	561,634	96 334	3,190,735	120.6	11,361	26	35	47,447	459,379	1 764

*Totals in this column are averages. †Jeddo tunnel drainage.

Recapitulation.

Names of Operators and Collieries	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
A. Pardee & Co.,		129,065	41,689	2,894	174 548	123	1,0?2	2	5	3,170	26 625	152
Coxe Bros. & Co.,		359,517	94,375	15,724	469 616	111.5	1.86	5	4	6,922	30 365	2 2
Lehigh Coal and Navigation Co.,		457.43?	73,365	13 221	5 4 611	111	2. 81	3	1	1,800	1 2 9?0	320
G. B. Markle & Co.,		405 010	(6,73?	4 42?	476 207	106	2,3 4	3	6	11 585	54.878	306
Lehigh Valley Coal Co.,		394,776	6?,595	38,216	4 6.587	139.3	2,.22	2	2	10,814	79 667	190
Estate of A. S. Van Wickle,		187,?01	99 9 3	1,720	289 044	101	1,212	2	2	1 928	53 25	126
Black Creek Coal Co.,		10,5?0	1,2 3	474	12.277	155.5	109	.....	1	.61	75	1
Miscellaneous companies,		638.085	120,725	19,657	778,467	119.1	3,34?	9	11	11,567	111,794	352
Totals,		2,532,797	561,634	96,?34	3,190,765	120.6	14,361	26	35	47,447	479,379	1,764

*Totals in this column are averages

TABLE II—Continued.

Names of Operators and Collieries.	County.	Number of Boilers.				Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.	Horse power.		Steam.	Air.	Electric.							
A. Pardee & Co.,		51	1,530	21	2,695	4,225	10	.....	.....	39	3,850	15	23,100	7,600	.....	1
Coxe Bros. & Co.,		108	4,871	56	6,639	11,510	19	6	.....	81	5,195	21	20,500	14,650	3	6
Lehigh Coal and Navigation Co.,		42	742	69	11,688	12,490	23	.....	.....	113	2,873	9	20,443	9,787	.....	3
G. B. Markle & Co.		54	1,875	28	4,150	6,025	12	5	.....	83	4,528	6	5,526	3,321	2	1
Lehigh Valley Coal Co.		46	1,000	34	6,200	6,200	11	.....	.....	44	5,125	10	13,660	6,160	1	1
Estate of A. S. VanWickle,		75	1,148	42	3,500	4,648	6	.....	.....	70	2,855	10	7,505	4,547	1	1
Black Creek Coal Co.,		.....	.....	5	130	130	.....	.....	.....	3	115	.....	.....	.....	.....	.....
Miscellaneous companies,		202	5,845	43	4,105	9,950	23	.....	.....	110	7,600	39	38,495	20 880	3	4
Totals,		578	17,011	298	39,107	55,088	104	11	.....	573	32,141	110	129,229	67,855	10	23

TABLE III—Showing the number of each class of employes at each colliery in the Fifth Anthracite District during the year 1902.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.									Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	Pumpmen.	Company men.	All other employes.	Total Inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Book-keepers and clerks.	All other employes.	Total outside.	
A. Pardee & Co.																							
Cranberry,	Luzerne,	3	5	2	279	135	57	36	12	15	54	598	....	1	24	32	46	20	3	189	315	913
East Crystal Ridge,	Luzerne,	1	1	.....	49	44	15	4	1	4	4	128	....	....	4	6	.....	.....	.....	11	21	149
Totals,		4	6	2	328	184	72	40	13	19	58	726	....	1	28	38	46	20	3	201	436	1,062
Coxe Bros. & Co., Inc.																							
Drifton Nos. 1 and 2,	Luzerne,	2	1	1	179	8	31	16	43	2	48	331	1	1	39	32	25	7	12	304	451	782
Eckley and Buck Mountain,	Carbon,	1	....	1	77	9	13	7	2	.....	39	149	....	1	9	22	14	13	1	70	136	285
Stockton,	Luzerne,	....	....	.....	.....	.....	.....	.....	.....	.....	3	3	....	....	.....	.....	.....	.....	1	3	4	7
Beaver Meadow,	Carbon,	1	1	.....	63	9	18	2	2	.....	41	140	....	1	5	28	37	11	1	118	201	341
Tomhicken,	Luzerne,	....	....	.....	.....	.....	.....	.....	.....	.....	3	3	....	....	.....	.....	.....	.....	1	4	5	8
Derringer and Gowan,	Luzerne,	1	2	2	120	20	30	10	9	.....	9	274	....	1	15	25	27	12	1	88	169	443
Totals,		5	4	4	439	46	92	35	56	2	217	900	1	4	68	107	103	49	17	617	966	1,866
Lehigh Coal and Navigation Co.																							
Colliery No. 1,	Carbon,	3	1	6	102	36	33	17	4	39	64	305	1	2	10	41	49	16	1	115	253	558
Colliery No. 4,	Carbon,	1	1	4	35	2	23	14	4	57	79	219	....	1	2	15	52	10	.....	89	169	388
Colliery No. 5,	Carbon,	1	1	3	.....	.....	17	5	.....	36	54	107	....	....	.....	7	.....	.....	.....	14	21	128
Colliery No. 6,	Carbon,	2	1	2	65	44	17	6	.....	52	173	362	....	3	8	20	67	15	.....	92	205	467
Colliery No. 9,	Carbon,	1	1	3	60	37	33	1	.....	34	81	251	....	1	5	21	48	9	.....	102	186	437
Screen building,	Carbon,	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	1	5	16	75	12	.....	114	223	223
Totals,		8	5	18	262	119	112	43	8	218	351	1,144	1	8	30	120	291	62	1	526	1,037	2,181

G. B. Markle & Co.																						
Jeddo No. 4 and Ebervale, ...	Luzerne, ..	2	6	1	392	99	85	20	1	291	33	840	1	1	18	20	49	51	9	132	281	1,121
Highland No. 5, ...	Luzerne, ..	1	2	3	177	179	52	20	5	35	19	433	1	1	3	21	47	30	9	96	214	707
Highland No. 2, ...	Luzerne, ..	1	2	.....	144	82	54	10	9	63	7	372	1	1	9	16	32	20	8	76	163	535
Totals, ...	.....	4	10	4	623	360	191	50	15	389	59	1,705	3	3	30	57	128	101	26	304	658	2,363
Lehigh Valley Coal Co.																						
Hazleton No. 1, ...	Luzerne, ..	1	2	4	216	53	24	11	5	.....	114	4 0	1	1	15	8	40	7	3	115	189	619
Hazleton shaft, ...	Luzerne, ..	3	1	4	405	211	43	9	7	.....	199	885	....	1	36	24	36	13	3	251	364	1,24
Spring Brook, ...	Carbon,....	1	1	1	71	61	8	.....	7	.....	19	1.9	....	1	1.	24	30	7	2	106	185	3.4
Totals, ...	.....	5	4	9	692	328	75	20	19	.....	332	1,484	1	3	66	56	106	27	8	472	738	2,222
Estate of A. S. Van Wickle.																						
Coleraine and Evans, ...	Carbon,....	1	4	1	153	155	30	2	7	38	2	3 3	1	1	22	42	37	15	8	234	3 0	753
Milnesville, ...	Carbon,....	1	3	.....	69	63	12	2	5	72	.....	227	....	1	11	25	44	3	5	142	282	459
Totals, ...	.....	2	7	1	222	218	42	4	12	110	2	620	1	2	33	67	81	18	13	376	592	1,212
Calvin Pardee & Co.																						
Harwood, ...	Luzerne, ..	1	6	2	170	129	35	9	11	59	.....	422	1	3	13	22	28	30	4	231	3 2	754
Pardee Bros. & Co.																						
Lattimer, ...	Luzerne, ..	1	9	1	82	.....	34	7	3	25	177	331	1	12	38	40	30	21	6	287	435	774
Upper Lehigh Coal Co.																						
Upper Leh gh colliery, ...	Luzerne, ..	2	3	.....	98	98	34	12	6	18	.....	271	1	3	14	37	62	35	7	187	345	616
C. M. Dodson & Co.																						
Beaver Brook, ...	Luzerne, ..	1	2	2	75	80	24	10	4	10	18	226	1	1	14	18	27	41	4	78	184	410
John S. Wentz & Co.																						
Hazle Brook, ...	Luzerne, ..	2	1	2	86	32	27	7	9	31	28	225	1	3	6	17	14	45	3	69	158	383
M. S. Kemmerer & Co.																						
Sandy Run, ...	Luzerne, ..	2	....	.....	44	40	10	3	2	9	.....	110	1	1	5	20	23	36	2	28	115	225
W. R. McTurk & Co.																						
Star washery, ...	Carbon,....	...	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	4	4	70	7	1	88	176	176
Black Creek Coal Co.																						
Rowe colliery, ...	Luzerne, ..	1	....	.....	6	8	4	1	.....	.....	.....	20	1	1	1	1	4	3	.....	5	15	35
Harleigh colliery, ...	Luzerne, ..	1	....	.....	15	18	2	.....	.....	.....	.....	36	....	1	4	2	1	1	.....	27	36	72
Totals, ...	.....	2	....	.....	21	26	6	1	.....	.....	.....	56	1	2	5	3	5	4	.....	32	51	107
Thos. R. Reese & Son.																						
Dusky Diamond, ...	Luzerne, .	1	....	.....	2	3	1	.....	.....	.....	.....	7	1	....	1	1	.....	1	1	.....	4	11

Recapitulation.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.											Occupations of Persons Employed Outside.									Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Book-keepers and clerks.	All other employes.	Total outside.	
A. Pardee & Co.,	Luzerne,	4	6	2	328	184	72	40	13	19	58	726	....	1	28	38	46	20	3	200	336	1,062
Coxe Bros. & Co., Inc.,	Luzerne,	5	4	4	479	46	92	37	56	2	217	900	1	4	68	107	103	49	17	617	966	1,866
Lehigh Coal and Navigation Co.	Carbon,	8	5	18	269	119	112	43	8	218	351	1,114	1	8	30	120	291	62	1	526	1,037	2,151
G. B. Markle & Co.,	Luzerne,	4	10	4	683	300	111	50	15	339	79	1,705	3	3	36	57	128	101	26	301	658	2,363
Lehigh Valley Coal Co.,	Luzerne,	5	4	9	622	328	75	20	19	.....	332	1,484	....	3	66	56	106	27	8	472	738	2,222
Estate of A. S. Van Wickle,	Luzerne,	2	7	1	222	218	42	4	12	110	2	620	1	2	33	67	81	18	13	376	592	1,212
Calvin Pardee & Co.,	Luzerne,	1	6	2	170	129	35	9	11	54	.....	422	1	3	13	22	28	30	4	231	332	754
Pardee Bros. & Co.,	Luzerne,	1	9	1	82	.....	34	7	3	25	177	339	....	12	38	40	30	21	6	287	435	774
Upper Lehigh Coal Co.,	Luzerne,	2	3	.....	98	98	34	12	6	18	.....	271	....	3	14	37	62	35	7	187	345	616
C. M. Dodson & Co.,	Luzerne,	1	2	2	75	80	24	10	4	10	18	226	1	1	14	18	27	41	4	78	184	410
John S. Wentz & Co.,	Luzerne,	2	1	2	86	32	27	7	9	31	28	225	1	3	6	17	14	45	3	69	158	383
M. S. Kemmerer & Co.,	Luzerne,	2	....	.....	44	40	10	3	2	9	.....	110	....	1	5	20	23	36	2	28	115	225
W. R. McTurk & Co.,	Carbon,	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	4	4	70	7	1	88	176	176
Black Creek Coal Co.,	Luzerne,	2	....	.....	21	26	6	1	.....	.....	.....	56	....	2	5	3	5	4	.....	32	51	107
Thos. R. Reese & Son,	Luzerne,	1	....	.....	2	3	1	.....	.....	.....	.....	7	....	....	1	1	1	.....	1	.....	4	11
Totals,	.....	40	57	45	3,144	1,063	755	241	158	890	1,212	8,235	10	47	361	607	1,015	496	96	3,45 5	6,127	14,362

TABLE III Continued.

Names of Operators and Collieries.	County.	Number of Days Worked Each Month in Breaker.												
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
A. Pardee & Co.,	Luzerne,	24	22.8	15.7	24.8	6	.....	.....	.....	.....	.....	6	24.8	123 2
Coxe Bros. & Co., Inc.	Luzerne,	21.2	19	15.3	29 5	7.5	.....	.....	.....	.....	7.2	4.8	1	114.5
Lehigh Coal and Navigation Co.,	Carbon	21.6	21.8	19.3	23	8 5	.....	.....	.....	.....	5..	22 3	21 6	12..7
G. B. Markle & Co.,	Luzerne,	19 6	17.7	14.6	19	6.7	.....	.....	.....	.....	.....	8.6	19.7	106
Lehigh Valley Coal Co.,	Luzerne,	14.3	19	17 1	22	8.3	.....	.....	8.3	5	8.4	22 4	23 2	139.5
Estate of A. S Van Wickle,	Luzerne,	12.7	20.5	12.9	22.2	7.2	.....	.....	.....	.....	5.9	24.6	2 .6	103.8
Calvin Pardee & Co.,	Luzerne,	18.7	22.2	16.1	24.8	8	.....	.....	.....	.....	2	25	21.3	13 .1
Pardee Bros & Co.,	Luzerne,	25 4	22 8	20.1	25	8.8	.....	.....	.....	.....	4 9	2..3	26.1	157.4
Upper Lehigh Coal Co.,	Luzerne,	21.1	20.5	20.4	18	7.1	.....	.....	.....	.....	6 6	23.1	23 5	141.6
C M. Dodson & Co.,	Luzerne,	20.4	18.9	16.1	18.9	6.6	.....	.....	.....	.....	2.9	19.1	20.4	123 3
John S. Wentz & Co.	Luzerne,	19 5	17.9	5 1	3.4	.....	.....	.....	.....	.....	.....	2 1	15 6	63.6
M. S. Kemmerer & Co.,	Luzerne,	19.4	18.7	13 5	15 8	6.3	.....	.....	.....	.....	.....	.....	.....	73.6
W. R. McTurk & Co.,	Carbon,	22.9	16.6	15.7	22.1	8	.....	.....	.....	.....	6.2	23 8	23	1 6.3
Black Creek Coal Co.,	Luzerne,	24	21.5	23.5	25	7	.....	.....	.....	.....	6	24	25	156
Thomas R. Reese & Son,	Luzerne,	25	24	24	26	21	4	25	24	20	27	25	26	274

TABLE IV—List of fatal accidents that occurred in and about the mines of the Fifth Anthracite District for the year ending December 31, 1902.

Date of accident		Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan.	9	Geo. Gooreyeck, ...	Greek, ...	Laborer, ...	36	M.	1	2	Lansford No. 4,.....	Carbon,..	Killed by returning to what he supposed to be a missed shot.
	18	Dennis Minkist, ...	Hungarian, ...	Miner, ...	40	M.	1	4	Highland No. 2,....	Luzerne,..	Killed by returning to what he supposed to be a missed shot.
	18	Jno. Nerninski, ...	Polish, ...	Miner, ...	38	M.	1	1	Harwood, ...	Luzerne,..	Killed by fall of coal while examining after a shot.
	21	John Brennan, ...	American, ...	Patcher, ...	17	S.	....	....	Jeddo No. 4, ...	Luzerne,	Killed; head crushed while making a flying coupling.
Feb.	7	Steve Balash, ...	Slavonic, ...	Laborer, ...	24	M.	1	....	Hazle Brook, ...	Luzerne,	Fatally injured; caught between railroad cars on siding to breaker.
	8	William Krommas, ...	American, ...	Miner, ...	49	M.	1	2	Upper Lehigh, ...	Luzerne,..	Killed in a breast by fall of coal.
	10	Lucas Maestrelli, ...	Austrian, ...	Laborer, ...	40	M.	1	3	Derringer, ...	Luzerne,	Killed; struck by an empty car sent down slope
	11	Dan'l Fretzinger, ...	American, ...	Driver, ...	21	S.	....	....	Milnesville, ...	Luzerne,	Fatally injured; squeezed between mine cars and sprag on gangway. Died at Hazleton Hospital nine days later.
	20	John Wall, ...	American, ...	.....	17	S.	....	....	Lansford shaft No.4.	Carbon,..	Killed by machinery in breaker.
March	12	Winfield Hancock, ...	American, ...	Driver, ...	16	S.	....	....	Nesquehoning shaft,	Carbon,..	Fatally injured: kicked by mule; died while on his way home.
	19	John Gambosh, ...	Slavonic, ...	Hitcher, ...	27	M.	1	1	Hazle Brook, ...	Luzerne,	Drowned by falling from platform and rolling down slope into water.
	24	Thos. Comerford, ...	Irish, ...	Miner, ...	55	M.	1	3	Hazle Brook, ...	Luzerne,	Fatally injured; squeezed between mine car and timber.
	31	Chas. Broderick, ...	American, ...	Laborer, ...	21	S.	....	....	Sandy Run, ...	Luzerne,	Instantly killed by fall of rock.
	31	Jno. Thomas James, ...	English, ...	Repairman,.	69	M.	1	....	Stockton, ...	Luzerne,.	Fatally injured by falling into manway while walking around in the dark; died four days later.
April	8	Henry Bertram, ...	American, ...	Miner, ...	39	M.	1	6	Beaver Meadow, ...	Carbon,..	Fatally injured by a fall of coal while barring it down.
	22	John Koyout, ...	Polish, ...	Miner, ...	42	M.	1	5	Ebervale, ...	Luzerne,	Killed by a rush of coal and mud in a chute
May	3	Andro Nowatni, ...	Hungarian, ...	Miner, ...	47	M.	1	5	Harwood, ...	Luzerne,.	Fatally injured by fall of coal while robbing pillars.

	8	Peter Fererle, ...	Tyrolean, ...	Slate picker,	16	S.	....	....	Derringer, ...	Luzerne,.	Killed by machinery on the breaker.
	20	Wm. Davis, ...	American, ...	Sta. eng., ..	35	S.	....	....	Drifton, ...	Luzerne..	Fatally injured: motor slipped off the jack pinning him against a wall.
Oct.	29	Allen Watson, ...	Scotch, ...	Pumpman, .	57	M.	....	....	Lattimer, ...	Luzerne,.	Killed instantly by a runaway car on a slope.
Nov.	3	James Powell, ...	Italian, ...	Loader, ...	32	M.	1	2	Lattimer, ...	Luzerne,.	Killed: head caught between two stripping cars while attempting to make flying coupling.
	7	Andro Banko, ...	Hungarian, ...	Hitcher, ...	19	S	....	....	Coleraine, ...	Carbon,..	Killed: head caught between mine cars in attempt to make a flying coupling.
	12	Thos. Conlin, ...	Irish, ...	Miner, ...	65	W.	....	....	Hazleton No. 1, .. .	Luzerne,	Found dead in breast from what was supposed to be natural causes.
	29	Fred. Burgraff, ...	American, ...	Patcher, ...	16	S.	....	....	Hazleton shaft,....	Luzerne,	Instantly killed by being run over by locomotive.
Dec.	3	Elmer Karchner, ...	American, ...	Carpenter, .	32	M	1	....	Cranberry No. 4....	Luzerne..	Fatally injured by a runaway truck left near the top. These two men were riding outside of car.
	3	August Strack, ...	American, ...	Carpenter, .	19	S.	....	....	Cranberry No. 4....	Luzerne,	

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Fifth Anthracite District for the year ending December 31, 1902.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County	Nature and Cause of Accident in Brief.
Jan. 9	Mike Roland,	Polish,	Miner,	30	M	Ebervale No. 1,	Luzerne,	Leg fractured by fall of clod on gangway.
15	John Gantz,	American,	Slate picker,	15	S.	Hazleton No. 1,	Luzerne,	Skull fractured by falling from a boardwalk, outside.
20	Mike Bada,	Hungarian,	Loader,	22	S.	Beaver Meadow,	Carbon,	Arm fractured by falling from a bridge, outside.
21	Mike Borast,	Hungarian,	Miner,	46	M	Beaver Brook,	Luzerne,	Leg fractured by fall of clod in face of breast.
23	Steve Norchok,	Slavonic,	Laborer,	28	M	Hazleton No. 3 stripping,	Luzerne,	Skull fractured; struck by a rock on stripping.
27	Lee Bellis,	American,	Patcher,	20	S	Highland No. 5,	Luzerne,	Foot crushed by mine cars on gangway
28	James Sweeney,	Irish,	Hitcher,	59	M	Upper Lehigh,	Luzerne	Foot injured by mine car, outside
28	Frank Banom,	Italian,	Laborer,	37	M	Dritton No. 2,	Luzerne,	Arm fractured by being struck by timber.
Feb. 1	William McShea,	American,	Top man,	20	S	Trescow No. 16,	Carbon,	Leg injured; squeezed between mine cars, outside.
3	Charles Boyer,	American,	Patcher,	17	S.	Lattimer,	Luzerne.	Foot bruised; squeezed between cars, outside.
6	John Greshin,	Slavonic,	Laborer,	34	M.	Jeddo No. 4,	Luzerne,	Ribs fractured; squeezed between loose rock and car inside.
7	Angelo Mark,	Italian,	Laborer,	24	S.	Coleraine,	Carbon,	Head cut; struck by a piece of frozen clay from shot.
7	Mike Dominick,	Italian,	Laborer,	2	S.	Coleraine,	Carbon,	Knee fractured; struck by a piece of clay which fell from edge of bank
15	Peter Bochicko,	Italian,	Bottom man,	23	M	Nesquehoning,	Carbon,	Collar bone fractured; squeezed between car and gangway timber.
20	Jarnard Lamanda,	Italian,	Laborer,	19	M	Harwood,	Luzerne,	Seriously injured; struck by a piece of frozen material on culm bank.
27	Steve Terrick,	Hungarian,	Laborer,	19	S.	Beaver Brook,	Luzerne,	Leg fractured by fall of clod at face of breast.
Mar. 4	Reuben Kresge,	American,	Engineer,	28	M.	Harleigh,	Luzerne,	Scalded by steam from blow-off pipe on boiler.
6	Joseph Wettig,	Slavonic,	Slate picker,	16	S.	Cranberry,	Luzerne,	Arm fractured by machinery in breaker.

	29	Thomas Foley, ...	Polish, ...	Driver, ...	18	S.	East Crystal Ridge, ...	Luzerne,.	Foot crushed; two toes cut off; run over by truck, outside.
	30	James O'Donnell, ...	Irish, ...	Miner, ...	50	M	Jeddo No. 4, ...	Luzerne,.	Injured by premature blast, due to cutting squ b
April	19	John Gallagher, ...	Irish, ...	Miner, ...	...	....	Eckley No. 10, ...	Luzerne,.	Leg fractured; struck by lump of coal.
	22	Jacob Masiuski, ...	Hungarian,	Miner, ...	46	M	Ebervale, ...	Luzerne,.	Collar b ne broken by fall of top rock.
	22	Steve Orneskie, ...	Hungarian,	Miner, ...	55	M.	Beaver Brook, ...	Luzerne,.	Leg fractured while crossing between cars at bottom of slope.
May	1	Fatsio Rosario, ...	Italian, ...	Driver, ...	29	S.	Lattimer, ...	Luzerne .	Foot injured while attempting to jump on moving mine car, outside.
Nov.	18	Mike Orandish, ...	Hungarian,	Stripping miner,	33	M	Harwood, ...	Luzerne,.	While spragging a hole on stripping with fuse and dynamite sparks flew from fuse into keg of powder, which was standing close by; the powder exploded, burning him severly.
	20	Paul Glot, ...	Hungarian,	Miner, ...	35	M.	Harwood, ...	Luzerne,	Ribs fractured by fall of clod near face of breast.
	20	John Morinko, ...	Hungarian,	Miner, ...	44	....	Cranberry, ...	Luzerne,.	Arm fractured; went back to what he supposed to be a m ssed shot.
	28	Joe Vousavish, ...	Polish, ...	Miner, ...	....	....	Harwood, ...	Luzerne	Injured by fall of boney coal.
Dec.	2	Vete Rozella, ...	Italian, ...	Driller, ...	58	M	Lattimer, ...	Luzerne.	Ankle br ken by d ill falling on it.
	9	William Homshick, ..	Polish, ...	Miner, ...	36	S.	Cranberry, ...	Luzerne.	Leg fractured by piece of coal falling while he was barring it down
	11	Louis Agnesta, ...	Italian, ...	Laborer, ...	38	S.	Lattimer stripping, ...	Luzerne,.	Leg fractured by a piece of track which he was shifting with bars flying back and striking him
	13	Thomas Parry, ...	American, .	Door boy, ...	17	S.	Harwood, ...	Luzerne.	Leg fractured by falling down an abandoned breast
	13	Louis Sherman, ...	American, .	Driver, ...	23	S	Gowan	Luzerne.	Left arm broken; fell while spragging.
	19	Wilton Jones, ...	American, .	Miner, ...	49	M	Cranberry, ...	Luzerne.	Skull fractured; struck by a piece of coal from a shot fired 90 feet away.
	20	James Quinn, ...	Irish, ...	Miner, ...	28	S.	Highland No. 2, ...	Luzerne,	Burned by a small body of fire damp which had gathered in his breast.

Sixth Anthracite District.

SCHUYLKILL COUNTY.

Shenandoah, Pa., March 30, 1903.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.

Sir: I have the honor of herewith presenting my annual report as Inspector of Mines for the Sixth Anthracite Coal District for the year ending December, 1902.

The forms and tables furnished me by Mr. James E. Roderick, Chief of the Bureau of Mines, gives all the statistical information in connection with the district.

Yours respectfully,

WILLIAM STEIN,
Mine Inspector.

SUMMARY OF STATISTICS FOR 1902.

Number of mines in district,	37
Number of mines in operation during 1902,	35
Number of tons of coal produced,	4,366,827
Number of tons shipped to market,	3,611,218
Number of tons sold at mines to local trade,	68,252
Number of tons consumed at mines in generating steam and heat,	687,357
Number of persons employed inside the mines,	12 253
Number of persons employed outside,	8,605
Number of fatal accidents inside the mines,	40
Number of tons produced for each fatal accident inside,	109,170
Number of persons employed per fatal accident inside,	306
Number of fatal accidents outside,	12
Number of persons employed per fatal accident outside,	717

Number of wives made widows by fatal accidents, ..	28
Number of children orphaned by fatal accidents, ...	52
Number of non-fatal accidents inside of mines, ...	55
Number of persons employed per non-fatal accident inside, ...	224
Number of non-fatal accidents outside, ...	11
Number of persons employed per non-fatal accident outside, ...	782
Number of steam locomotives used inside, ...	1
Number of compressed air locomotives used inside, .	11
Number of fans used for ventilation, ...	58
Number of gaseous mines in operation during 1902, .	29
Number of non-gaseous mines in operation during 1902, ...	6
Number of new mines opened in 1902, ...	1
Number of old mines abandoned during 1902, ...	2

A. Production of Coal During the Year 1902.

Names of Companies.	Tons.
Philadelphia and Reading Coal and Iron Company, ..	2,538,596
Lehigh Valley Coal Company, ...	432,955
Lehigh and Wilkes-Barre Coal Company, ...	292,219
Mill Creek Coal Company, ...	276,938
Lentz & Co., ...	184,989
Lawrence Coal Co., ...	21,341
Susquehanna Coal Company, ...	83,522
Cambridge Coal Company, ...	39,386
Coxe Bros. & Co., Incorporated, ...	138,550
Silver Creek Coal Company, ...	63,317
Thomas Coal Co., ...	3,268
M. A. Gerber & S. A. Seaman, ...	9,817
W. R. McTurk, ...	28,028
North American Coal Company, ...	108,621
Stoddart Coal Co., ...	23,548
Carson Coal Co., ...	28,400
Brookwood Coal Company, ...	39,588
Raven Run Coal Company, ...	53,744
Total, ...	4,366,827

B. Showing the number of fatal and non-fatal accidents inside and outside the mines; number of tons of coal produced per fatal and non-fatal accident inside the mines; number of persons employed inside and outside; and the number employed inside and outside for every fatal and non-fatal accident for each company during 1902.

Names of Companies.	Number of lives lost inside.	Number of lives lost outside.	Total number of lives lost.	Number severely injured inside.	Number severely injured outside.	Total number severely injured.	Tons of coal produced per each life lost inside.	Tons of coal produced per serious injury inside.	Number employes inside of mines.	Number of employes outside of mines.	Total number employed.	Number of employes inside for each life lost.	Number of employes inside for each severe injury.	Number of employes outside for each life lost.	Number of employes outside for each severe injury.
Philadelphia and Reading Coal and Iron Co.,	25	4	29	33	7	40	101,543	76,927	7,893	5,185	13,078	315	239	1,296	740
Lehigh Valley Coal Co.,	3	4	7	8	.....	8	141,318	54,119	996	873	1,870	332	124	2.8	.....
Lehigh and Wilkes-Barre Coal Co.,	1	.....	1	8	3	11	292,219	36,527	1,113	497	1,869	1,113	139	.....	165
Mill Creek Coal Co.,	1	.....	1	1	.....	1	276,938	276,938	473	285	758	473	473	.....	.....
Lentz & Co.,	4	.....	4	1	.....	1	46,247	184,989	555	254	809	138	555	.....	.....
Lawrence Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	220	15	425	.....	.....	.....	.....
Susquehanna Coal Co.,	1	.....	1	2	.....	2	83,522	41,761	342	212	554	342	171	.....	.....
Cambridge Coal Co.,	2	.....	2	.....	.....	.....	19,693	.....	94	47	141	47	.....	.....	.....
Coxe Bros. & Co., Inc.,	1	2	3	1	.....	1	138,550	138,550	291	214	505	291	291	107	.....
Silver Brook Coal Co,	2	1	3	1	.....	1	31,658	63,317	134	281	415	67	134	281	.....
Thomas Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	8	80	88	.....	.....	.....	.....
M. A. Gerber & S. A. Seaman,	.....	.....	.....	.....	.....	.....	.....	.....	36	41	77	.....	.....	.....	.....
W. R. McTurk,	.....	.....	.....	.....	.....	.....	.....	.....	63	110	173	.....	.....	.....	.....
North American Coal Co.,	.....	.....	.....	.....	1	1	.....	.....	.....	98	98	.....	.....	.....	98
Stoddart Coal Co.,	.....	1	1	.....	.....	.....	.....	.....	.....	57	57	.....	.....	57	.....
Carson Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	137	137	.....	.....	.....	.....
Brookwood Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	25	59	84	.....	.....	.....	.....
Raven Run Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	30	30	.....	.....	.....	.....
Totals and averages,	40	12	52	55	11	66	109,170	79,297	12,253	8,405	20,858	306	223	717	776

C. Classification of Fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						Grand total.
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling Into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
January,	2	1	.....	.....	2	.....	1	.....	.....	.....	.....	.....	.....	.....	2	8	.....	2	....	....	1	3	11
February,	2	4	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	8	.....	2	....	....	....	2	10
March,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	1	2
April,	2	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	2	5	1	.....	.....	.....	.....	1	6
May,	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	1	....	3	.....	4	6
October,	1	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	1	1	4
November,	2	2	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	10	.....	.....	.....	.....	.....	.....	10
December,	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
Totals,	18	9	.....	1	2	....	3	2	1	.....	.....	.....	.....	.....	4	40	1	5	.....	3	3	12	52

D. Classification of Non-fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						
	By Falls of								By Falling Into														
	Coal.	Slate.	Roof.	By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	Shafts.	Slopes.	Manways, breasts, etc.	Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
January,	2	2	.....	.....	2	.....	1	.....	.....	.....	.....	.....	.....	.....	2	9	.....	.....	.....	.....	.....	.....	11
February,	2	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	3	7	.....	1	.....	.....	.....	.....	10
March,	3	.....	.....	.....	1	.....	.....	.....	.....	1	1	.....	.....	.....	1	7	.....	.....	.....	.....	.....	.....	10
April,	2	.....	.....	1	6	.....	2	.....	.....	.....	.....	.....	1	.....	4	16	.....	.....	.....	1	.....	.....	16
October,	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
November,	4	2	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	3	10	.....	.....	.....	.....	1	1	11
December,	2	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	5	.....	.....	.....	.....	.....	.....	5
Totals,	15	4	.....	1	11	.....	7	.....	.....	1	1	.....	1	.....	14	55	.....	1	.....	1	9	11	66

E. Occupations of Employes Killed or Fatally Injured Inside and Outside the Mines of the Sixth Anthracite District During 1902.

Months.	Inside.											Outside.									
	Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door-boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Bock-keepers and clerks.	All other employes.	Total outside.	Grand total.
January,	.....	.....	.....	4	1	.....	.....	.....	.....	3	8	.....	.....	1	.....	.....	.....	.....	2	3	11
February,	.....	.....	.....	4	3	.....	.....	.....	.....	.....	8	.....	.....	.....	.....	.....	.....	.....	2	2	10
March,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	1	2
April,	.....	.....	1	1	2	1	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	1	1	6
May,	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	3	.....	.....	.....	3	.....	.....	.....	1	4	7
October,	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	1	1	4
November,	.....	.....	.....	2	3	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
December,	.....	.....	.....	2	1	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
Totals.	.....	.....	1	22	12	1	.....	.....	.....	4	40	.....	.....	1	3	.....	.....	.....	8	12	52

F. Occupations of Employes Severely Injured Inside and Outside the Mines of the Sixth Anthracite District During 1902.

Months.	Inside.											Outside.									
	Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners	Door-boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Book-keepers and clerks.	All other employes.	Total outside.	Grand total.
January,	.....	.....	.....	6	3	.....	.....	.....	.....	.....	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	11
February,	.....	.....	.....	5	1	.....	.....	.....	.....	1	7	.....	.....	.....	1	.....	.....	.....	1	2	10
March,	.....	.....	.....	4	.....	.....	.....	.....	.....	3	7	.....	.....	.....	1	1	.....	.....	1	3	10
April,	.....	.....	.....	9	4	3	.....	.....	.....	.....	16	.....	.....	.....	.....	.....	.....	.....	.....	.....	16
October,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	1	2
November,	.....	.....	.....	6	2	1	.....	.....	.....	1	10	.....	.....	.....	.....	1	.....	.....	1	2	12
December,	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
Totals,	.....	.....	.....	36	10	4	.....	.....	.....	5	55	.....	.....	.....	2	2	.....	.....	7	11	66

G. Nationality of Employes Killed or Fatally Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Welsh.	Irish.	Germans.	Poles.	Hungarians.	Slavs.	Lithuanians.	Austrians.	Totals.
January,	4	.....	1	.....	.....	2	2	1	1	.....	11
February,	3	1	.....	.....	.....	4	.....	.....	1	1	10
March,	.....	.....	.....	1	.....	.....	1	.....	.....	.....	2
April,	1	1	.....	2	.....	2	.....	.....	.....	.....	6
May,	2	.....	.....	.....	.....	1	.....	1	2	.....	6
October,	1	1	.....	.....	.....	.....	.....	.....	2	.....	4
November,	.....	.....	.....	1	1	5	.....	.....	2	1	10
December,	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	3
Total,	11	3	1	4	1	17	3	2	8	2	52

H. Nationality of Employes Severely Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Welsh.	Scotch.	Irish.	Germans.	Poles.	Hungarians.	Italians.	Lithuanians.	Russians.	Totals.
January,	3	.....	.....	.....	....	.....	5	1	1	1	.....	11
February,	1	.....	.....	1	1	1	6	.....	.....	.....	.....	10
March,	2	1	.....	.....	1	.....	3	2	.....	.....	1	10
April,	3	1	2	.....	1	.....	4	1	.....	.....	4	16
October,	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	2
November,	1	1	.....	.....	1	.....	7	.....	.....	.....	1	12
December,	.....	.....	.....	.....	1	.....	1	.....	.....	2	1	5
Total,	11	4	2	1	5	1	27	4	1	3	7	66

I. Giving names of operators and mines, kind of openings, type and size of fans; size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each employe per minute in the mines of Second Anthracite District for the year 1902.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Phila. and Reading Coal and Iron Co.													
Bear Ridge,	Slope, ..	Gaseous,	Fan,.....	16 x 4	1.4	Guibal, ...	Steam, ..	4	67,000	67,000	63,330	170	372
Boston Run,	Slope, ...	Gaseous,	Fan,.....	18 x 6	2	Guibal, ...	Steam, ..	9	61,700	61,700	66,350	240	257
Draper No. 1,	Slope, ...	Gaseous,	Fan,.....	18 x 6	1.8	Guibal, ...	Steam,	5					
Draper No. 4,	Slope, ...	Gaseous,	Fan,.....	18 x 6	1.4	Guibal, ...	Steam,		78,900	78,900	80,000	290	276
Draper,	Slope, ...	Gaseous,	Fan,.....	12 x 4	.8	Guibal, ...	Steam,	2					
Ellangowan,	Shaft, ..	Gaseous,	Fan,.....	20 x 5	1⅜	Guibal, ...	Steam,	8	101,318	103,904	105,412	489	213
Ellangowan,	Slope, ...	Gaseous,	Fan,.....	15 x 3.8	¾	Guibal, ...	Steam,	.....	86,585	85,957	88,903	.....	..
Girard Mammoth,†	Slope, ...	Gaseous,	Fan,.....	12 x 4	.5	Guibal, ...	Steam, ..	.....	.....	.....	.....	.....	.....
Gilberton,	Slope, ...	Gaseous,	Fan,.....	18 x 6	1.8	Guibal, ...	Steam ..	9	102 000	102 000	104,500	325	313
Hammond,	Slope, ...	Gaseous,	Fan,.....	16 x 4	.5	Guibal, ...	Steam,						
Hammond,†	Slope, ...	Gaseous,	Fan,.....	12 x 4	.5	Guibal, ...	Steam,	.....	.....	.....	.....	.....	.....
Hammond	Slope, ...	Gaseous,	Fan,.....	12 x 4	.5	Guibal, ...	Steam,						
Indian Ridge,	Shaft, ..	Gaseous,	Fan,.....	18 x 6	1.5	Guibal, ...	Steam, ..	5	114,100	114,100	118,119	398	286
Knickerbocker,	Slope, ...	Gaseous,	Fan,.....	18 x 6	1	Guibal, ...	Steam, ..	7	75,798	78,798	70,384	384	205
Lehigh,†	Shaft, ..	Gaseous,	Fan,.....	12 x 4	1	Guibal, ...	Steam,						
Mahanoy City,	Slope, ...	Gaseous,	Fan,.....	18 x 6	1⅝	Guibal, ...	Steam,	.....	.....	.....	.....	.....	.....
Maple Hill,	Shaft, ..	Gaseous,	Fan,.....	18 x 6	1½	Guibal, ...	Steam, ..	10	74,155	74,700	75,275	482	155
North Mahanoy,	Slope, ...	Gaseous,	Fan,.....	21 x 7	1⅜	Guibal, ...	Steam, ..	15	181 742	182,525	182 725	944	1 3
St. Nicholas,	Slope, ...	Gaseous,	Fan, ...	21 x 7	1½	Guibal, ...	Steam, ..	16	167 [illegible]	15[illegible], 00	1 3 [illegible]	638	237
St. Nicholas,	Drift, ...	Gaseous,	Natural	14 x 5	1 2	Guibal, ...	Steam,	8	89,878	89,878	91,614	.....	.....
Suffolk,	Slope, ...	Gaseous,	Fan,.....	18 x 6	1.8	Guibal, ...	Steam, ..	8	40,498	40,498	.....	.....	..
Suffolk,	Slope, ...	Gaseous,	Fan,.....	18 x 6	1.7	Guibal, ...	Steam, ..	13	51,527	51,527	56,056	648	209
Shenandoah City,	Shaft, ..	Gaseous,	Fan,.....	8 x 6	1.3	C. & I. Co.,	Com. air,	9	135,100	135,100	140 470	569	237
Turkey Run,	Slope, ...	Gaseous,	Fan,.....	12 x 4	.5	Guibal, ...	Steam,	10	60,620	96,268	1 0,970	479	200
Turkey Run,	Drift, ...	Non-gas.,	Natural,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

†Idle.

TABLE 1—Continued.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventuation.	Diameter and width of fan in feet.	Water gauge developed—In inches.	Name of fan.	Power used.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Tunnel Ridge,	Slope,	Gaseous,	Fan,	21 x 7	2	Guibal,	Steam,						
Tunnel Ridge,	Slope,	Gaseous	Fan,	16 x 4	1.3	Guibal,	Steam,	6	162,915	162,915	174,335	500	2 0
Tunnel Ridge,	Slope,	Gaseous,	Fan,	15 x 4	1.3	Guibal,	Steam,						
West Shenandoah,	Slope,	Gaseous,	Fan,	18 x 6	1	Guibal,	Steam,	6	53,920	53,920	61,112	337	160
Lehigh Valley Coal Co.													
Packer No. 2,†	Slope,	Gaseous,	Fan,	12 x 4	.5	Guibal,	Steam,						
Packer No. 3,	Slope,	Gaseous,	Fan,	14 x 5	1½	Guibal,	Steam,	6	90 0 0	90 000	105,000	243	395
Packer No. 4,	Slope,	Gaseous,	Fan,	20 x 6	.7	Guibal,	Steam,		42 0 0	42 000	185	227	
Packer No. 5,	Shaft,	Gaseous	Fan,	20 x 6	1.3	Guibal,	Steam,						
Packer No. 5,	Drift,	Gaseous,	Fan,	16 x 5	1 2	Guibal,	Steam,	4	46,110	70,110	87,714	87	316
Primrose,	Slope,	Gaseous,	Fan,	16 x 4	1.1	Guibal,	Steam,	7	81,200	70,0 0	82 10	311	263
Primrose,	Slope,	Gaseous,	Fan,	14 x 3½	.5	Guibal,	Steam,						
Lehigh and Wilkes-Barre Coal Co													
Audenried No. 4,	Slope,	Gaseous,	Fan,	16 x 4	1.8	Guibal,	Steam,	5	120 0 0	120 000	130 000	533	226
Honey Brook No. 5,	Slope,	Non- as.	Fan,	12 x 4	1	Guibal,	Steam,	2	84 540	84 540	86 319	4 S	180
Green Mountain,	Slope,	Non-gas.	Fan,	12 x 4	1	Guibal,	Steam,	2	29,9 0	29,9 0	33,460	115	321
Mill Creek Coal Co.													
Vulcan,	Slope,	Gaseous,	Natural, fan	16 x 4	.8	Guibal,	Steam,	6	73,049	73,049	77,537	241	303
Buck Mountain,	Slope,	Gaseous,	Fan,	16 x 4	1.3	Guibal,	Steam,	6	69,820	69,820	91,3 8	232	303
Lentz & Co.													
Park No. 2,	Slope,	Gaseous	Fan,	16 x 4½	1	Stroah,	Steam,	5	75,100	55,800	76,219	243	230
Park No. 3,	Slope,	Gaseous.	Fan,	12 x 1	.8	Stroah,	Steam,	6	61,776	61,776	75,329	312	198
Lawrence Coal Co.													
Lawrence,	Slope,	Gaseous,	Fan,	16 x 4	1½	Guibal,	Steam,	8	50,500	50,500	56,718	230	218

†Idle.

Susquehanna Coal Co.													
William Penn,	Shaft, ..	Gaseous,	Fan,	18 x 7	2.3	Gulbal,	Steam,	5	75,319	82,800	82,800	312	634
	18 x 7	2.3											
	Drift, ..	Gaseous,	.....	12 x 3½	1	Guibal,	Steam, ..	2	14,736	15,600	15,600		
Cambridge Coal Co.													
Cambridge,	Drift, ..	Non-gas.	Fan,	12 x 4	.4	Guibal,	Steam, ..	2	27,500	27,500	27,500	92	299
Cambridge,	Drift, ...	Non-gas.,	Fan,										
Cambridge,	Drift, ...	Non-gas.,	Fan,	6 x 3	.3	Guibal,	Steam, ..	1					
Coxe Bros. & Co., Inc.													
Oneida,	Slope, ..	Gaseous	Fan,	2.11 x 13	1½	Pelzer,	Steam, ..	12	45,275	28,037	52,000	72	3 9
Oneida,	Slope, ...	Non-gas.,	Natural	.....	.....	.....	.....	2	13,000	21,600	20,400	87	24
Oneida,	Slope, ..	.....	Fan,	20 x 6	1	Guibal,	Steam, ...	10	66,350	46,150	73 15	132	351
Silver Brook Coal Co.													
Silver Brook,	Slope, ...	Non-gas.,	Fan,	18 x 5	.9	Vulcan,	Steam, ..	2	32,120	32,120	32,120	134	239
				14 x 4	.7								
Thomas Coal Co.													
Kehley's Run,†	Slope, ...	Non-gas.,	Fan,	16 x 5	1⅛	Guibal,	Steam, ..	.....	.....	.....	.....	.....	.....
M. A. Gerber & S. A. Seaman.													
Furnace,	Slope, ...	Non-gas.,	Fan,	10 x 4	.4	Guibal,	Steam, ..	2	16,000	16,000	16,000	36	444
R. W. McTurk.													
Girard,	Slope, ...	Gaseous,	Fan,	12 x 4	.8	Guibal,	Steam, ..	2	13,200	13,200	13,200	63	209
Brookwood Coal Co.													
Stanton,	Slope, ...	Non-gas.,	Fan,	15 x 3.7	.5	Guibal,	Steam, ..	2	5,780	5,780	5,780	25	231

†Idle.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Sixth Anthracite District for the year 1902.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Phila. & Read. Coal & Iron Co.						
Bear Ridge,	Schuylkill,..	R. C. Luther,.....	Pottsville, ...	John Veith, ...	Pottsville, ...	Phila. and Reading R. R.
Boston Run,	Schuylkill,..	R. C. Luther,.....	Pottsville, ...	John Veith, ...	Pottsville, ...	Phila. and Reading R. R.
Draper,	Schuylkill,..	R. C. Luther,.....	Pottsville, ...	John Veith, ...	Pottsville, ...	Phila. and Reading R. R.
Ellangowan,	Schuylkill,..	R. C. Luther,.....	Pottsville, ...	John Veith, ...	Pottsville, ...	Phila. and Reading R. R.
Girard Mammoth,	Schuylkill,..	R. C. Luther,.....	Pottsville, ...	John Veith, ...	Pottsville, ...	Phila. and Reading R. R.
Girard washery,	Schuylkill,..	R. C. Luther,.....	Pottsville, ...	John Veith, ...	Pottsville, ...	Phila. and Reading R. R.
Gilberton,	Schuylkill,..	R. C. Luther,.....	Pottsville, ...	John Veith, ...	Pottsville, ...	Phila. and Reading R. R.
Hammond,	Schuylkill,..	R. C. Luther,.....	Pottsville, ...	John Veith, ...	Pottsville, ...	Phila. and Reading R. R.
Indian Ridge,	Schuylkill,..	R. C. Luther,.....	Pottsville, ...	John Veith, ...	Pottsville, ...	Phila. and Reading R. R.
Knickerbocker,	Schuylkill,..	R. C. Luther,.....	Pottsville, ...	John Veith, ...	Pottsville, ...	Phila. and Reading R. R.
Kohinoor,	Schuylkill,..	R. C. Luther,.....	Pottsville, ...	John Veith, ...	Pottsville, ...	Phila. and Reading R. R.
Mahanoy City,	Schuylkill,..	R. C. Luther,.....	Pottsville, ...	John Veith, ...	Pottsville, ...	Phila. and Reading R. R.
Maple Hill,	Schuylkill,..	R. C. Luther,.....	Pottsville, ...	John Veith, ...	Pottsville, ...	Phila. and Reading R. R.
North Mahanoy,	Schuylkill,..	R. C. Luther,.....	Pottsville, ...	John Veith, ...	Pottsville, ...	Phila. and Reading R. R.
St. Nicholas,	Schuylkill,..	R. C. Luther,.....	Pottsville, ...	John Veith, ...	Pottsville, ...	Phila. and Reading R. R.
Suffolk,	Schuylkill,..	R. C. Luther,.....	Pottsville, ...	John Veith, ...	Pottsville, ...	Phila. and Reading R. R.
Shenandoah City,	Schuylkill,..	R. C. Luther,.....	Pottsville, ...	John Veith, ...	Pottsville, ...	Phila. and Reading R. R.
Turkey Run,	Schuylkill,..	R. C. Luther,.....	Pottsville, ...	John Veith, ...	Pottsville, ...	Phila. and Reading R. R.
Tunnel Ridge,	Schuylkill,..	R. C. Luther,.....	Pottsville, ...	John Veith, ...	Pottsville, ...	Phila. and Reading R. R.
West Shenandoah,	Schuylkill,..	R. C. Luther,.....	Pottsville, ...	John Veith, ...	Pottsville, ...	Phila. and Reading R. R.
Lehigh Valley Coal Co.						
Packer No. 2,	Schuylkill,..	S. D. Warriner,....	Wilkes-Barre, ...	R. S. Mercur, ...	Centralia, ...	Lehigh Valley Railroad.
Packer No. 3,	Schuylkill,..	S. D. Warriner,....	Wilkes-Barre, ...	R. S. Mercur, ...	Centralia, ...	Lehigh Valley Railroad.
Packer No. 4,	Schuylkill,..	S. D. Warriner,....	Wilkes-Barre, ...	R. S. Mercur, ...	Centralia, ...	Lehigh Valley Railroad.
Packer No. 5,	Schuylkill,..	S. D. Warriner,....	Wilkes-Barre, ...	R. S. Mercur, ...	Centralia, ...	Lehigh Valley Railroad.
Primrose,	Schuylkill,..	S. D. Warriner,....	Wilkes-Barre, ...	W. H. Davis, ...	Hazleton, ...	Lehigh Valley Railroad.
Lehigh & Wilkes-Barre Coal Co.						
Audenreid No. 4,	Schuylkill,..	W. J. Richards,....	Wilkes-Barre, ...	Geo. H. Hadesty, ...	Audenreid, ...	Central R. R. of N. J.
Honey Brook No. 5,	Schuylkill,..	W. J. Richards,....	Wilkes-Barre, ...	Geo. H. Hadesty, ...	Audenreid, ...	Central R. R. of N. J.
Mill Creek Coal Co.						
Vulcan,	Schuylkill,..	T. D. Jones, ...	New Boston, ...	J. Elmer Jones, ...	New Boston, ...	Lehigh Valley Railroad.
Buck Mountain,	Schuylkill,..	T. D. Jones, ...	New Boston, ...	J. Elmer Jones, ...	New Boston, ...	Lehigh Valley Railroad.
Lentz & Co.						
Park No. 2,	Schuylkill,..	William O. Lentz,..	Mauch Chunk, ...	Edward Reese, ...	Park Place, ...	Lehigh Valley Railroad.

Lawrence Coal Co.						
Lawrence,	Schuylkill,..	W. J. Miller,.....	Frackville, ...	W. J. Miller.	Frackville, ...	Phila. and Reading R. R.
Susquehanna Coal Co.						
William Penn, ...	Schuylkill,..	Morris Williams,..	Wilkes-Barre, ...	E. A. Rhoads, ...	Shaft, P. O.	Pennsylvania Railroad.
Cambridge Coal Co.						
Cambridge, ...	Schuylkill,..	J. C. McGinnis, ...	Frackville, ...	J. C. McGinnis, ...	Frackville, ...	Phila. and Reading R. R.
Coxe Bros. & Co., Inc.						
Oneida Nos. 1, 2 and 3, ...	Schuylkill,..	.....	.....	Luther C. Smith, ...	Drifton, ...	Del., Sus. and Schuylkill.
Silver Brook Coal Co.						
Silver Brook, ...	Schuylkill,..	.....	.....	James Long, ...	Silver Brook, ...	Lehigh Valley Railroad.
Thomas Coal Co.						
Kehley's Run, ...	Schuylkill,..	Thomas Baird, ...	Shenandoah, ...	Thomas Baird, ...	Shenandoah, ...	Phila. and Reading R. R.
M. A. Gerber & S. A. Seaman.						
Furnace, ...	Schuylkill,..	Mahlon A. Gerber,.	Tamaqua, ...	Mahlon A. Gerber,..	Tamaqua, ...	Phila. and Reading R. R.
W. R. McTurk.						
Girard colliery, ...	Schuylkill,..	W. R. McTurk,..]	Philadelphia, 320]	W. J. Heiser, ...	Hazleton, ...	Phila. and Reading R. R.
Girardville washery, ...	Schuylkill,..	W. R. McTurk,..]	Walnut street.]	W. J. Heiser, ...	Hazleton, ...	Phila. and Reading R. R.
North American Coal Co.						
Schuylkill No. 1 washery, ...	Schuylkill...	H. W. Saums, ...	Wilkes-Barre, ...	James F. Sharkey, ..	Shaft P. O., ...	Phila. and Reading R. R.
Stoddard Coal Co.						
Stoddart washery, ...	Schuylkill,..	.....	.....	D. H. McGee, ...	Minersville, ...	Phila. and Reading R. R.
Carson Coal Co.						
Carson washery, ...	Schuylkill,..	H. E. Rissinger,...	Plymouth, ...	.....	.....	Central R. R. of N. J.
Brookwood Coal Co.						
Stanton colliery, ...	Schuylkill,..	Henry Meyers,.....	Minersville, ...	William Spedel, ...	Frackville, ...	Phila. and Reading R. R.
Brookwood washery, ...	Schuylkill,..	Henry Meyers,.....	Minersville, ...	William Spedel, ...	Frackville, ...	Phila. and Reading R. R.
Raven Run Coal Co.						
Raven Run washery.	Schuylkill,..	Henry Meyers,.....	Minersville, ...	Godfrey Lauderman,	Minersville, ...	Phila. and Reading R. R.

TABLE II—Gives the total number of tons of coal mined in each colliery, number of days worked, number of employes, number of employes killed and injured, number of kegs of powder, etc., used in the Sixth Anthracite District for the year ending December 31, 1902.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Phila. & Reading Coal & Iron Co.												
Bear Ridge,	Schuylkill,	36,689	11,819	1,928	50,436	102.95	289	.....	3	472	3,479	38
Boston Run,	Schuylkill,	45 379	20,505	20	65,904	88.55	448	2	3	362	17,345	34
Draper,	Schuylkill,	82,3 1	8,863	263	91,490	136.15	417	1	1	1,673	16,2 3	51
Ellangowan,	Schuylkill,	240,444	21,194	340	261,978	137 65	1,286	.....	5	7,485	8,797	106
Girard Mammoth,	Schuylkill,	5	16,373	249	16,627	.....	74	.....	.....	3	34	39
Girard washery,	Schuylkill,	28,387	.....	.....	28,387	142.25	39	.....	.....	.....	.....	.....
Gilberton,	Schuylkill,	88,248	41,007	1,696	130,951	98 9	6 8	1	.....	604	20,077	20
Hammond,	Schuylkill,	619	13,620	16	14 255	.....	350	1	.....	2	425	17
Indian Ridge,	Schuylkill,	107,987	14,943	7.574	130,504	140.05	695	.....	3	2,829	3,226	60
Knickerbocker,	Schuylkill,	110,722	17,676	1,021	129,419	121.3	762	2	4	2,671	16,010	52
Kohinoor,	Schuylkill,	.....	13,335	.....	13,3 5	.....	109	.....	.....	.....	99	12
Mahanoy City,	Schuylkill,	116 497	35,885	19,558	171 940	143.6	715	3	3	3,043	5,743	68
Maple Hill	Schuylkill,	252,563	26,328	.....	278,891	126.45	1,439	8	2	6,801	8,6 6	94
North Mahanoy,	Schuylkill,	217,935	30,153	4,206	252,294	163 75	980	1	3	4,731	9,712	98
St Nicholas,	Schuylkill,	119 258	31,471	216	150,945	141.05	798	2	1	1,627	16,052	83
Suffolk	Schuylkill,	198, 87	15 949	887	21 .,83	162.45	589	.....	1	5,831	5,444	90
Shenandoah City,	Schuylkill,	119,598	26,208	13,169	168 975	147 2	885	2	3	4,498	6,681	70
Turkey Run,	Schuylkill,	.....	8,181	.....	8 184	.....	599	2	1	1,474	3,994	52
Tunnel Ridge,	Schuylkill,	97,583	49,415	3	147,001	96.45	839	2	3	1,985	10,861	7
West Shenandoah,	Schuylkill,	193,560	17,690	27	211,277	145.15	706	.....	1	2,892	4,562	46
Totals,		2,056,825	430,618	51,153	2,538,596	*130	13,078	27	37	48,943	157,050	1,034
Lehigh Valley Coal Co.												
Packer No. 2,	Schuylkill,	15,189	16,625	15	31,829	.....	219	.....	.....	429	1 182	12
Packer No. 3,	Schuylkill,	84,965	7,072	200	92,237	22.75	315	.....	3	1,296	4,889	53
Packer No. 4,	Schuylkill,	50,028	34,150	523	84,701	107.5	581	3	1	685	1,916	25

*Totals in this column are averages.

Packer No. [illegible]	Schuylkill, ...	90,938	13,232	1,638	105,868	49.5	253	3	5	1,720	11,974	91
Primrose,	Schuylkill, ...	109,033	6,580	2,707	118,320	137.2	501	2	2	2,956	10,371	75
Totals,		350,153	77,659	5,143	432,955	79	1,869	8	11	7,086	30,332	256
Lehigh and Wilkes-Barre.												
Audenried No. 4,	Schuylkill, ...	109,877	19,492	2,265	131,634	117.2	760	.....	7	2,622	18,827	57
Honey Brook No. 5,	Schuylkill, ...	139,827	20,758	.....	160,585	122.9	785	1	3	1,720	41,530	47
Totals,		249,704	40,250	2,265	292,219	120	1,545	1	10	4,342	60,357	104
Mill Creek Coal Co.												
Vulcan,	Schuylkill, ...	133,164	12,482	.....	145,646	132	382	.....	.....	3,886	2,750	35
Buck Mountain,	Schuylkill, ...	114,948	16,344	.....	131,292	119	375	2	2	2,747	2,475	36
Totals,		248,112	28,826	.....	276,938	125	757	2	2	6,633	5,225	71
Lentz & Co.												
Park No. 2,	Schuylkill, ...	165,682	18,394	913	184,989	116	814	4	1	3,959	7,900	99
, Lawrence Coal Co.												
Lawrence,	Schuylkill, ...	12,298	8,496	547	21,341	35.9	425	.....	.....	30	30,000	41
Susquehanna Coal Co.												
Wm. Penn,	Schuylkill, ...	63,298	19,028	1,196	82,522	97.75	554	1	2	2,590	8,221	63
Cambridge Coal Co.												
Cambridge,	Schuylkill, ...	35,236	2,112	2,038	39,386	125	141	2	.....	975	3,700	10
Coxe Bros. & Co., Inc.												
Oneida Nos. 1, 2 and 3,	Schuylkill, ...	95,368	41,127	2,055	138,550	112	505	2	1	2,274	7,577	67
Silver Brook Coal Co.												
Silver Brook,	Schuylkill, ...	57,382	5,000	935	63,317	106.5	415	3	1	545	8,460	32
Thomas Coal Co.												
Kehley Run,	Schuylkill, ...	635	2,115	518	3,268	.....	38	.....	.....	.....	.....	18
M. A. Gerber & S. A. Seaman.												
Furnace,	Schuylkill, ...	7,717	2,100	.....	9,817	76.5	77	.....	.....	130	1,900	6
W. R. McTurk.												
Girard colliery,	Schuylkill, ...	25,771	815	1,442	28,028	118.9	173	1	.....	92	717	10
North American Coal Co.												
Schuylkill No. 1 washery,	Schuylkill, ...	103,448	5,126	47	108,621	159	98	.....	1	.....	.....	2
Stoddart Coal Co.												
Stoddart washery,	Schuylkill, ...	21 968	1,580	.....	23,548	79	57	1	.....	.....	.....	2
Carson Coal Co.												
Carson washery,	Schuylkill, ...	27,400	1,000	.....	28,400	114.4	137	.....	.....	.....	.....	8

*Totals in this column are averages

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Brookwood Coal Co.												
Stanton colliery,	Schuylkill,	.....	680	.....	680	.....	48	.....	.....	200	600	4
Brookwood washery,	Schuylkill,	37,787	1,121	.....	38,908	166	36	.....	.....	.....	.....	2
Totals,		37,787	1,801	.....	39,588	166	84	.....	.....	200	600	6
Raven Run Coal Co.												
Raven Run washery,	Schuylkill,	52,434	1,310	.....	53,744	172	30	.....	.....	.....	.....	.....
Grand totals,		3,611,218	687,357	68,252	4,366,827	*118	20,858	52	66	71,799	322,039	1,829

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Number of Boilers.				Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.	Horse power.		Steam.	Air.	Electric.							
Philadelphia and Reading Coal and Iron Co.,	Schuylkill, ...	128	4,050	226	25,260	32,130	13	8	.....	263	43,739	65	65,951	47,450	.....	14
Lehigh Valley Coal Co.,	Schuylkill, ...	39	780	28	5,200	5,980	7	.....	.....	86	21,837	15	11,791	5,920	2	.....
Lehigh and Wilkes-Barre,	Schuylkill, ...	63	3,150	21	3,200	3,800	7	.....	.....	21	1,400	9	15,217	7,608	1	.....
Mill Creek Coal Co.,	Schuylkill, ...	52	2,960	4	850	3,810	3	2	.....	37	2,910	7	7,500	2,000	.....	1
Lentz & Co.,	Schuylkill, ...	.....	160	13	3,250	3,410	2	.....	.....	3	85	3	4,800	.....	.....	.....
Lawrence Coal Co.,	Schuylkill, ...	.....	.....	20	150	3,000	.....	.....	.....	12	830	4	3,000	2,640	.....	.....
Susquehanna Coal Co.,	Schuylkill, ...	.....	.....	10	1,250	1,250	1	.....	.....	19	1,585	5	3,000	2,000	.....	1
Cambridge Coal Co.,	Schuylkill, ...	2	50	2	250	300	1	.....	.....	4	120	.....	.....	.....	.....	.....
Coxe Bros. & Co., Inc.,	Schuylkill, ...	24	1,174	18	2,131	3,345	4	1	.....	34	1,960	7	6,800	4,050	1	1
Silver Brook Coal Co.,	Schuylkill, ...	.....	.....	8	1,250	1,250	2	.....	.....	19	1,240	6	5,250	5,250	.....	.....
Thomas Coal Co.,	Schuylkill, ...	24	730	.....	.....	730	1	.....	.....	10	730	2	1,050	1,050	.....	.....
M. A. Gerber & S. A. Seaman,	Schuylkill, ...	4	60	4	240	300	.....	.....	.....	8	120	.....	.....	.....	.....	.....
W. R. McTurk,	Schuylkill, ...	.....	.....	3	240	240	.....	.....	.....	8	304	.....	.....	.....	.....	.....
North American Coal Co.,	Schuylkill, ...	.....	.....	4	175	700	.....	.....	.....	8	340	.....	.....	.....	.....	.....
Stoddart Coal Co.,	Schuylkill, ...	.....	.....	3	330	330	.....	.....	.....	12	172	.....	.....	.....	.....	.....
Carson Coal Co.,	Schuylkill, ...	.....	.....	4	360	.....	.....	.....	.....	10	290	.....	.....	.....	.....	.....
Brookwood Coal Co.,	Schuylkill, ...	.....	.....	4	300	300	.....	.....	.....	19	579	.....	.....	.....	.....	.....
Raven Run Coal Co.,	Schuylkill, ...	.....	.....	2	150	360	.....	.....	.....	9	257	.....	.....	.....	.....	.....
Grand totals,		336	13,111	374	44,586	61,475	41	11	.....	582	78,408	123	100,459	62,978	4	17

TABLE III—Showing the number of each class of employes at each colliery in the Sixth Anthracite District during the year 1902.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.											Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Book-keepers and clerks.	All other employes	Total outside.	
Phila. & Reading Coal & Iron Co.																					
Bear Ridge,	Schuylkill,	1	....	2	44	52	12	4	.....	18	37	170	....	1	3	9	32	15	2	57	119	289
Boston Run,	Schuylkill,	1	....	4	51	66	16	6	4	30	62	240	....	1	5	26	51	31	2	92	208	448
Draper,	Schuylkill,	1	....	4	67	101	23	5	.....	24	65	290	....	1	5	11	42	25	2	71	157	447
Ellangowan,	Schuylkill,	1	1	9	182	286	49	14	.....	65	282	889	....	1	7	23	144	46	3	173	397	1,286
Girard Mammoth,	Schuylkill,	1	....	1	.....	.....	.....	.....	.....	3	35	40	....	1	3	12	.....	.....	1	17	34	74
Girard washery,	Schuylkill,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	1	1	.....	12	.....	25	39	39
Gilberton,	Schuylkill,	1	....	6	68	100	20	2	.....	39	89	325	....	1	6	33	59	44	2	228	373	698
Hammond,	Schuylkill,	1	....	5	.....	.....	.....	.....	.....	5	11	22	....	1	5	24	.....	.....	1	297	328	350
Indian Ridge,	Schuylkill,	1	2	4	143	136	41	8	.....	28	35	398	....	1	8	23	121	30	4	110	297	695
Knickerbocker,	Schuylkill,	1	1	8	109	109	17	8	2	30	99	384	....	1	9	24	184	38	3	119	378	762
Kohinoor,	Schuylkill,	1	....	2	.....	.....	.....	.....	.....	2	26	31	....	....	4	19	.....	1	1	53	78	109
Mahanoy City,	Schuylkill,	1	1	4	176	80	40	16	.....	40	124	482	..	1	4	20	92	23	4	89	233	715
Maple Hill,	Schuylkill,	1	2	14	374	174	75	28	.....	41	235	944	...	1	8	24	214	78	3	167	495	1,439
North Mahanoy,	Schuylkill,	1	2	4	228	182	47	16	.....	29	129	63	....	1	9	22	133	42	3	122	342	980
St. Nicholas,	Schuylkill,	2	....	5	80	182	21	11	3	31	111	446	....	....	8	16	75	31	3	159	292	738
Suffolk,	Schuylkill,	1	1	7	295	116	26	14	.....	40	149	649	...	1	7	14	96	35	3	175	331	980
Shenandoah City,	Schuylkill,	1	1	8	208	210	42	13	.....	26	69	569	....	1	7	18	127	38	4	121	316	885
Turkey Run,	Schuylkill,	1	2	6	116	238	22	9	.....	21	64	479	....	....	8	15	.....	.....	2	95	120	599
Tunnel Ridge,	Schuylkill,	1	1	6	199	86	43	19	1	35	169	561	....	1	9	30	103	31	3	102	279	839
West Shenandoah,	Schuylkill,	1	1	4	91	83	18	7	.....	38	91	337	....	1	6	21	89	74	3	175	369	706
Totals,	.....	20	15	103	2,431	2,201	512	180	10	545	1,876	7,893	....	16	122	385	1,562	594	49	2,457	5,185	13,078
Lehigh Valley Coal Co.																					
Packer No. 2,	Schuylkill,	1	....	2	46	5	5	1	5	9	63	137	..	1	15	12	.....	.....	1	53	83	219
Packer No. 3,	Schuylkill,	1	....	4	80	69	19	8	6	42	14	243	....	1	8	14	.....	.....	1	43	72	315

Packer No. 4,	Schuylkill,	1	....	3	57	37	14	2	14	.....	57	185	....	1	22	30	62	10	7	264	396	581
Packer No. 5,	Schuylkill,	1	1	1	44	18	5	2	.....	13	2	87	....	1	18	10	.....	.....	3	134	166	253
Primrose,	Schuylkill,	1	1	3	147	46	36	8	4	.....	98	344	...	1	11	12	32	11	2	88	157	501
Totals,	.....	5	2	13	374	175	79	21	29	64	234	996	....	5	74	78	94	21	14	587	873	1,869
Lehigh and Wilkes-Barre.																						
Audenreid No. 4,	Schuylkill,	1	2	2	166	168	24	13	8	109	37	530	...	1	.....	26	77	12	2	114	232	762
Honey Brook No. 5,	Schuylkill,	1	2	1	124	96	17	7	4	80	251	584	3	5	29	26	69	10	2	21	265	848
Totals,	.....	2	4	3	290	264	41	20	12	189	288	1,113	3	6	29	52	146	22	4	135	497	1,610
Mill Creek Coal Co.																						
Vulcan,	Schuylkill,	1	1	2	148	44	13	9	2	13	8	241	1	1	8	20	35	44	2	31	142	383
Buck Mountain,	Schuylkill,	1	1	1	112	60	22	1	2	25	7	232	....	1	8	25	48	32	3	26	143	375
Totals,	.....	2	2	3	260	104	35	10	4	38	15	473	1	2	16	45	83	76	5	57	285	758
Lentz & Co.																						
Park No. 2,	Schuylkill,	2	2	2	238	146	45	3	12	24	81	555	1	1	31	21	20	72	3	105	254	809
Lawrence Coal Co.																						
Lawrence,	Schuylkill,	1	....	2	79	65	12	13	8	10	40	230	1	1	7	29	100	10	1	46	195	425
Susquehanna Coal Co.																						
Wm. Penn,	Schuylkill,	1	....	4	121	54	16	2	5	30	109	342	1	1	22	24	50	13	5	96	212	554
Cambridge Coal Co.																						
Cambridge,	Schuylkill	1	2	....	53	18	4	.....	.....	16	.....	94	1	1	2	7	18	2	1	15	47	141
Coxe Bros. & Co., Inc.																						
Oneida Nos. 1, 2 and 3,	Schuylkill,	3	2	....	158	18	25	12	10	9	54	291	....	1	11	38	31	8	1	124	214	505
Silver Brook Coal Co.																						
Silver Brook,	Schuylkill,	1	1	....	44	34	20	8	6	8	12	134	1	3	10	24	40	90	3	110	281	415
Thomas Coal Co.																						
Kehley Run,	Schuylkill,	....	....	....	.....	.....	.....	.....	8	.....	.....	8	1	1	1	6	.....	.....	1	20	30	38
M. A. Gerber & S. A. Seaman.																						
Furnace,	Schuylkill,	1	....	1	17	10	2	.....	.....	5	.....	36	1	1	3	6	16	.....	.....	14	41	77
W. R. McTurk.																						
Girard colliery,	Schuylkill,	1	....	1	32	18	3	1	.....	7	10	73	1	1	9	6	19	.....	1	73	110	183
Girardville washery,	Schuylkill,	....	....	....	.....	.....	.....	.....	.....	.....	.....	Idle.	....	....	.....	.....	.....	.....	.....	.....	.....	Idle.
Totals,	.....	1	....	1	32	18	3	1	.....	7	10	73	1	1	9	6	19	.....	1	73	110	183
North American Coal Co.																						
Schuylkill No. 1 washery,	Schuylkill,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1	10	6	6	1	72	98	98
Stoddart Coal Co.																						
Stoddart washery,	Schuylkill,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	2	7	10	.....	1	35	57	57

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.									Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.		Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Boss-keepers and clerks.	All other employes.	Total outside.	
Carson Coal Co.																							
Carson washery,	Schuylkill,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....		1	1	4	7	61	17	1	45	137	137
Brookwood Coal Co.																							
Stanton colliery,	Schuylkill,	1	....	....	6	10	.....	.....	.....	6	2	25		1	1	2	6	.....	.....	1	12	23	48
Brookwood washery,	Schuylkill,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....		1	1	2	6	5	.....	1	20	36	36
Totals,	.....	1	....	....	6	10	.....	.....	.....	6	2	25		2	2	4	12	5	.....	2	32	59	84
Raven Run Coal Co.																							
Raven Run washery,	Schuylkill,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....		1	1	2	3	3	.....	1	19	30	30
Grand totals,	.....	41	50	132	4,144	3,157	791	270	103	971	2,611	12,253		18	46	368	820	2,330	984	93	3,946	8,605	20,858

TABLE III—Continued.

Names of Operators and Collieries.	County.	Number of Days Worked Each Month in Breaker.												
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Philadelphia and Reading Coal and Iron Co.,	Schuylkill,	15⅓	15	14¾	16	5.1	.....	.....	.....	.....	4	16	15	.....
Lehigh Valley Coal Co.,	Schuylkill,	12	5.1	10½	5¼	3	.....	.....	.....	.....	1⅔	8	8	.....
Lehigh and WilkesBarre,	Schuylkill,	18.4	18.7	12.8	25½	7.1	.....	.....	.....	.....	2.5	17.4	20½	.....
Mill Creek Coal Co.,	Schuylkill,	22.2	19.5	17.1	20.5	.....	.....	.....	.....	.....	3	19.5	20½	.....
Lentz & Co.,	Schuylkill,	18.5	16.9	15.6	18.6	5.8	.....	.....	.....	.....	2.9	18.3	19.5	116.1
Lawrence Coal Co.,	Schuylkill,	15.2	20.7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	35.9
Susquehanna Coal Co.,	Schuylkill,	16.45	15.25	11.45	15.30	5.20	.....	.....	.....	.....	3.10	15.70	15.30	97.75
Cambridge Coal Co.,	Schuylkill,	16.2	6.4	22.3	22.7	7.3	.....	.....	.....	.....	5.7	21.7	22.8	.....
Coxe Bros. & Co., Inc.,	Schuylkill,	21	18	16	21	8	.....	.....	.....	.....	2	.....	26	.....
Silver Brook Coal Co.,	Schuylkill,	17.6	15.7	15.35	18.3	65.5	.....	.....	.....	.....	8.5	12.05	20.15	.....
M. A. Gerber & S. A. Seaman,	Schuylkill,	16.3	7.6	16.5	15.8	5.2	.....	.....	.....	.....	4.3	10.8	.....	.....
W. R. McTurk,	Schuylkill,	18.9	17.3	10.1	21.4	8	.....	.....	.....	.....	4.9	18.2	20.1	.....
North American Coal Co.,	Schuylkill,	23	20	22	17	9	.....	.....	.....	.....	9	33	25	.....
Stoddart Coal Co.,	Schuylkill,	15.9	13.1	13.2	21.1	5	.....	.....	.....	.....	.....	.....	11.6	.....
Carson Coal Co.,	Schuylkill,	19.4	12.7	16.9	15.9	4.9	.....	.....	.....	.....	5	19.8	19.8	.....
Brookwood Coal Co.,	Schuylkill,	25	23	25	25	9	.....	.....	.....	.....	8	25	26	.....
Raven Run Coal Co.,	Schuylkill,	26	24	25	26	10	.....	.....	.....	.....	10	25	26	.....
Average,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	118

TABLE IV—List of fatal accidents that occurred in and about the mines of the Sixth Anthracite District for the year ending December 31, 1902.

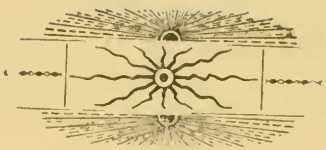
Date of accident		Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan	1	John Bernat, ...	Hungarian,	Bottom man, ..	28	M.	1	2	Oneida No. 1, ...	Schuylkill,	A descending gun-boat dragged him down the slope.
	3	Lewis Lindenmuth, ..	American, .	Carpenter, ...	45	M.	1	3	Maple Hill, ...	Schuylkill.	Was caught by a descending cage.
	10	John Varable, ...	Hungarian,	Miner, ...	47	M.	1	1	Oneida, ...	Schuylkill.	Killed by fall of coal.
	11	John Salinish, ...	Slavonic, ...	Laborer, ...	36	M.	1	2	Silver Brook, ...	Schuylkill.	Killed by fall of coal.
	12	John Williams, ...	Welsh, ...	Loader boss, ...	45	M.	1	5	Hammond, ...	Schuylkill	Fatally injured by a water boiler striking him; died same night.
	15	John Luchinsky, ...	Lithuanian,	Repairman, ...	44	M.	1	4	Maple Hill, ...	Schuylkill	Killed by an explosion of gas.
	15	John McGuire, ...	American, .	Rep. and miner,	40	M.	1	1	Maple Hill, ...	Schuylkill.	
	17	John Mailes, ...	Polish, ...	Miner, ...	27	S.	....	....	Mahanoy City, ...	Schuylkill.	Killed by fall of top slate.
	17	William Kmiks, ...	Polish, ...	Miner, ...	31	M.	....	....	Primrose, ...	Schuylkill.	Killed; while tamping a hole with dynamite it exploded.
	20	Frank Zimmers, ...	American, .	Blacksmith, ...	30	M.	2	....	Mahanoy City, ...	Schuylkill.	Fatally injured by having a rope roll on him; died same day.
	28	James Kain, ...	American, .	Attd. to scraper line.	18	S.	....	....	St. Nicholas, ...	Schuylkill	Killed by being caught in machinery.
Feb.	6	Michael Gray, ...	American, .	Loader, ...	19	S.	....	....	Packer No. 4, ...	Schuylkill	Fatally injured by being caught between a stone wall and cars; died March 3d.
	7	Frank Buren, ...	Austrian, ..	Laborer, ...	21	M.	1	....	Stoddart, ...	Schuylkill	Killed; was caught in a scraper line.
	13	William Thomas, ...	American, .	Laborer, ...	21	S.	....	....	Boston Run, ...	Schuylkill.	Was caught between buggy and dumper; died March 14.
	14	Mart Rincavage, ...	Polish, ...	Miner, ...	30	M.	1	2	Maple Hill, ...	Schuylkill.	Killed by fall of rock.
	15	Andy Dunn, ...	American, .	Laborer, ...	26	S.	....	....	Boston Run, ...	Schuylkill.	Fatally injured by being squeezed by cars; died March 20.
	15	Mart Pincavage, ...	Polish, ...	Miner, ...	30	M.	1	2	Maple Hill, ...	Schuylkill.	Killed by fall of top rock.
	17	Anthony Noraka, ...	Polish, ...	Laborer, ...	42	M.	1	2	Gilberton, ...	Schuylkill	Killed by being caught under timber.
	17	Job Hawkes, ...	English, ...	Miner, ...	26	M.	1	2	Park No. 2, ...	Schuylkill	Killed by fall of coal.
	20	William Stokey, ...	Polish, ...	Miner, ...	25	S.	....	....	St. Nicholas, ...	Schuylkill	Killed by fall of coal
	28	Anthony Sockel, ...	Lithuanian,	Miner, ...	26	S.	....	....	Buck Mountain, ...	Schuylkill.	Fatally injured; died the same day; piece of clod fell on him.
Mar	21	John Cull, ...	Irish, ...	Miner, ...	60	M.	1	7	Silver Brook, ...	Schuylkill.	Killed by fall of rock.
	24	John Fetchet, ...	Hungarian,	Miner, ...	38	M.	1	2	Park No. 2, ...	Schuylkill.	Killed by fall of coal.
April	5	James Brennan, ...	Irish, ...	Footman, ...	26	S.	....	....	Packer No. 4, ...	Schuylkill,	Killed by cars while crossing tracks

	7	Lewis Kuslofski,	Polish,	Laborer,	21	S.	....	....	Maple Hill,	Schuylkill,	Fatally injured by premature blast; died same day.
	12	Patrick Sharpe,	Irish,	Miner,	55	M.	....	....	Silver Brook,	Schuylkill.	Killed by fall of coal.
	14	Anthony Gillnski,	Polish,	Laborer,	22	S.	....	....	Wm. Penn,	Schuylkill.	Fatally injured by a fall of coal; died April 18.
	14	William. Tempest,	English,	Fire boss,	28	M.	1	2	Tunnel Ridge,	Schuylkill	Killed by falling down manway.
	28	Anthony Orme,	American,	Driver,	23	S.	....	....	Turkey Run,	Schuylkill	Killed by falling under a wagon.
May	1	Mike Succo,	Slavonic,	Laborer,	38	M.	1	2	Honey Brook,	Schuylkill.	Killed by fall of coal.
	3	Alex. Krinses,	Polish,	Laborer,	27	S.	....	....	Buck Mountain,	Schuylkill.	Killed by fall of top slate.
	7	Thomas Kock,	American,	Jig runner,	16	S.	....	....	Packer No. 4,	Schuylkill.	Killed by being caught in fly wheel.
	14	John McMichael,	Lithuanian,	Fireman,	25	S.	....	....	Packer No. 5,	Schuylkill.	These men were killed by boiler explosion.
	14	Joe Barvitch,	Lithuanian,	Fireman,	36	S.	....	....	Packer No. 5,	Schuylkill.	
	14	Pat Kelly,	American,	Fireman,	34	S.	....	....	Packer No. 5,	Schuylkill	
Oct.	24	John Davis,	English,	Fan engineer,	57	W.	....	....	Maple Hill,	Schuylkill.	Killed; he was found dead in the fan pit, fast in one of the blades.
	24	Ralph Nattress,	American,	Miner,	44	W.	....	4	Girardville,	Schuylkill.	Fatally injured; fell down slope; died same day.
	24	Ant. Mulshes,	Lithuanian,	Miner,	32	M.	....	....	Shenandoah City,	Schuylkill.	Fatally burned by powder; died Nov. 2.
	28	Paul Veroskie,	Lithuanian,	Miner,	20	M.	....	....	Shenandoah City,	Schuylkill.	Killed by fall of coal.
Nov.	7	John Grant,	Irish,	Miner,	50	S.	....	....	Mahanoy City,	Schuylkill.	Killed by fall of slate.
	7	Mart. Carbonie,	Polish,	Laborer,	25	S.	....	....	Cambridge,	Schuylkill.	These two men were killed by fall of coal.
	7	Enoch Perlevege,	Polish,	Laborer,	24	S.	....	....	Cambridge,	Schuylkill.	
	10	Joe Yokolonis,	Polish,	Miner,	22	S.	....	....	Maple Hill,	Schuylkill.	Killed by fall of coal.
	22	Peter Verbinsky,	Polish,	Laborer,	25	S.	....	....	Turkey Run,	Schuylkill	Fatally injured by fall of rock; died Nov. 22.
	24	Wm. Ashman,	German,	Miner,	45	M.	1	7	North Mahanoy,	Schuylkill.	Fatally injured by fall of coal; died Nov. 26.
	24	Ant. Bubunski,	Lithuanian,	Miner,	38	M.	1	4	Tunnel Ridge,	Schuylkill	Killed by fall of coal.
	27	Wm. Dauber,	Polish,	Miner,	40	M.	1	2	Primrose,	Schuylkill.	Killed by blast.
	28	Wm. Sticktis,	Lithuanian,	Miner,	37	S.	....	....	Park No. 3,	Schuylkill.	Killed by fall of coal.
	17	August Yop,	Austrian,	Miner,	45	M.	1	4	Draper,	Schuylkill	Killed by fall of coal.
Dec.	2	John Zenbec,	Polish,	Laborer,	28	S.	....	....	Knickerbocker,	Schuylkill	Killed by fall of rock.
	27	Charles Kankes,	Polish,	Miner,	33	M.	1	3	Knickerbocker,	Schuylkill.	Killed by fall of coal.
	31	Frank Rickwan,	Polish,	Miner,	35	M.	1	1	Park No. 3,	Schuylkill.	Killed by fall of coal.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Sixth Anthracite District for the year ending December 31, 1902.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 4	John Paulbinski,	Polish,	Laborer,	28	S.	Packer No. 5,	Schuylkill,	Broken leg; a piece of coal fell on it.
7	Wm. Goudge,	American,	Miner,	31	M.	Boston Run,	Schuylkill,	Hands and face burned by gas in going up chute without safety lamp.
7	James White,	American,	Miner,	21	M.	Boston Run,	Schuylkill,	
7	Joe Dilefsky,	Polish,	Platform man,	23	S.	Maple Hill,	Schuylkill,	Leg broken while pushing cars on the tip.
13	Raphael Giranda,	Italian,	Miner,	33	S.	Audenreid,	Schuylkill,	Fall of slate dislocating his spine.
17	Velick Dumpkis,	Polish,	Laborer,	27	S.	Primrose,	Schuylkill,	Injured by an explosion of dynamite.
23	Peter Patric,	Hungarian,	Driver,	22	S.	Draper,	Schuylkill,	Injured by falling under a loaded trip.
24	Andrew Meeko,	Polish,	Laborer,	27	S.	Buck Mountain,	Schuylkill,	Injured; a piece of clod fell on him.
24	Wm. Matines,	Lithuanian,	Miner,	32	M.	Knickerbocker,	Schuylkill,	Injured; a piece of coal fell on him.
27	John Novick,	Polish,	Miner,	43	M.	Oneida No. 2,	Schuylkill,	Body bruised by flying coal, due to a premature blast.
25	Patrick Stack,	American,	Miner,	28	S.	Mahanoy City,	Schuylkill,	Leg broken by piece of coal falling on him.
Feb. 1	John Uman,	Polish,	Miner,	39	M.	Audenreid,	Schuylkill,	Injured; timber broke in an old breast.
3	Frank Ruman,	Polish,	Miner,	23	S.	Knickerbocker,	Schuylkill,	Injured by an explosion of dynamite.
4	Oscar Lorah,	German,	Laborer,	31	M.	Honey Brook,	Schuylkill,	Burned by putting oil into a stove instead of coal.
4	Wm. Brogan,	Scotch,	Laborer,	37	S.	Honey Brook,	Schuylkill,	Burned in the same way as Lorah.
6	James Heeney,	Irish,	Miner,	38	M.	Buck Mountain,	Schuylkill,	Injured by defective squib.
7	Peter Sussinickle,	Polish,	Laborer,	35	M.	Wm. Penn,	Schuylkill,	Leg broken and cut about the head; while car of rock was being hoisted the rope broke.
11	Mart Chesiacufsky,	Polish,	Loader,	26	S.	Knickerbocker,	Schuylkill,	Back injured; a piece of coal fell on him.
15	Joe Benesci,	Polish,	Miner,	37	M.	Shenandoah City,	Schuylkill,	Hand blown off, body and head cut; while tamping a hole the charge exploded.
16	Nicholas Whalen,	American,	Oiler,	24	S.	Schuylkill washery,	Schuylkill,	Arm broken; caught in a wheel.
22	Joe Berofskie,	Polish,	Miner,	32	M.	Ellangowan,	Schuylkill,	Leg broken; a piece of coal fell on him.
March 6	Thomas Fey,	Irish,	Slate picker,	14	S.	North Mahanoy,	Schuylkill,	Severely injured; was caught and drawn into the rope sheave.
7	Ant. Brennan,	Polish,	Driver,	18	S.	Mahanoy City,	Schuylkill,	Leg broken; he slipped and fell.
10	John Isaac,	Polish,	Miner,	48	M.	Silver Brook,	Schuylkill,	Injured by fall of coal.
12	Harry Boardman,	English,	Timberman,	40	M.	Suffolk,	Schuylkill,	Injured by falling down slope.
13	Mich. Shecavage,	Polish,	Miner,	49	M.	Indian Ridge,	Schuylkill,	Ankle broken; a piece of coal fell on him.

	17	Michael Harzey,	Hungarian,	Ashman,	25	S.	Audenreid,	Schuylkill,	Ribs fractured riding on a truck, when it jumped the track and threw him on the rail.
	19	Ant. Crokus,	Polish,	Loader,	48	S.	Primrose,	Schuylkill,	Leg fractured; a lump of coal struck him.
	20	John Ripko,	Russian,	Fireman,	27	M.	Audenreid,	Schuylkill,	Burned by steam from a boiler that exploded.
	24	Wm. McGee,	American,	Miner,	40	M.	Audenreid,	Schuylkill,	Hands and face burned by gas.
	26	Thos. Skeath,	American,	Miner,	28	M.	North Mahanoy,	Schuylkill,	Knee cap broken by falling down manway.
April	4	John Ryan,	Irish,	Miner,	24	M.	Packer No. 5,	Schuylkill,	Leg broken; a piece of coal fell on it.
	5	Henry Sheeler,	American,	Laborer,	45	M.	Knickerbocker,	Schuylkill,	Shoulder and leg injured by a car.
	5	Mart. Wychofskie,	Polish,	Laborer,	26	S.	Turkey Run,	Schuylkill,	Leg broken by falling.
	9	Anth. Cook,	Polish,	Driver,	20	S.	Packer No. 5,	Schuylkill,	Leg broken; attempted to step on trip while it was moving; his foot slipped and he fell under the cars.
	14	Wm. Milliard,	English,	Miner,	37	M.	Indian Ridge,	Schuylkill,	Leg broken by timber falling on him.
	15	Joseph Bockus,	Polish,	Laborer,	25	M.	St. Nicholas,	Schuylkill,	Leg broken; a lump of coal fell on him.
	19	Luke Powell,	American,	Driver,	20	S.	Ellangowan,	Schuylkill,	Ribs fractured by mule kicking him.
	22	John Cassidy,	American,	Driver,	19	S.	Audenreid,	Schuylkill,	Squeezed between planks.
	24	Geo. Bogden,	Russian,	Miner,	27	S.	Packer No. 3,	Schuylkill,	Burned by gas.
	24	Chas. Jesitis,	Russian,	Laborer,	24	S.	Packer No. 3,	Schuylkill,	Burned by gas.
	24	John Clem,	Polish,	Miner,	39	S.	Boston Run,	Schuylkill,	Burned by gas.
	28	Wm. Davis,	Welsh,	Miner,	34	M.	Bear Ridge,	Schuylkill,	Burned by gas.
	28	Ed Davis,	Welsh,	Miner,	28	S.	Bear Ridge,	Schuylkill,	Burned by gas.
	28	Steve Doroskie,	Hungarian,	Miner,	36	M.	Bear Ridge,	Schuylkill,	Burned by gas.
	29	Mike Yates,	Russian,	Miner,	32	S.	Packer No. 5,	Schuylkill,	These two men were burned by powder.
	29	Robert Scumbum,	Russian,	Miner,	29	S.	Packer No. 5,	Schuylkill,	
Oct.	24	John Chubey,	Polish,	Miner,	30	M.	Shenandoah City,	Schuylkill,	Burned by powder.
	30	Chas. Bridgem,	American,	Laborer,	17	S.	Mahanoy City,	Schuylkill,	Injured; caught between cars and platform.
Nov.	5	Andrew Hyton,	Polish,	Laborer,	40	M.	Audenreid,	Schuylkill,	Head injured by prop falling on him.
	6	Simon Undersavage,	Polish,	Slate picker,	16	S.	Ellangowan,	Schuylkill,	Both wrists broken and skull fractured by falling from banister to ground.
	8	Stanley Black,	Polish,	Footman,	24	S.	Audenreid,	Schuylkill,	Fingers mashed; caught between car and drill.
	13	Matt Kolls,	Polish,	Miner,	43	M.	Ellangowan,	Schuylkill,	Injured by a piece of slate falling on him.
	14	Mich. McDonald,	Irish,	Miner,	42	M.	Indian Ridge,	Schuylkill,	Collar bone broken; a piece of coal fell on him.
	14	Chas. Dixon,	Polish,	Miner,	46	M.	Maple Hill,	Schuylkill,	Injured by a blast.
	15	John Senior,	English,	Mason foremen,	73	M.	Shenandoah City,	Schuylkill,	Skull fractured, shoulder broken and internally injured; struck by a car.
	17	Joe Pedrunchins,	Polish,	Miner,	45	M.	Tunnel Ridge,	Schuylkill,	Leg broken by a piece of coal falling on it.
	18	Mike Homlock,	Russian,	Laborer,	34	M.	Honey Brook,	Schuylkill,	Leg and back injured by fall of rock.
	21	Amandus Maddock,	English,	Miner,	56	M.	North Mahanoy,	Schuylkill,	Leg broken by fall of coal.
	28	Anth. Witkowski,	Polish,	Miner,	55	M.	Wm. Penn,	Schuylkill,	Ribs fractured by fall of coal.
	29	Patrick Mulhall,	American,	Driver,	24	S	West Shenandoah,	Schuylkill,	Squeezed between car and chute.
Dec.	18	John Garney,	Polish,	Miner,	46	M.	Ellangowan,	Schuylkill,	Leg broken by drill striking it.
	24	John Cull,	Irish,	Miner,	55	M.	Park No. 3,	Schuylkill,	Back injured by fall of coal.
	31	Paul Gildes,	Lithuanian,	Miner,	48	M.	Tunnel Ridge,	Schuylkill,	Face and hands burned by gas.
	31	Joe Petchlitites,	Lithuanian,	Miner,	40	M.	Tunnel Ridge,	Schuylkill,	
	31	Anthony Hardy,	Russian,	Miner,	40	M.	Packer No. 4,	Schuylkill,	Leg broken by piece of top coal.



Seventh Anthracite District.

NORTHUMBERLAND, COLUMBIA, SCHUYLKILL AND DAUPHIN COUNTIES.

Shamokin, Pa., March 25, 1903.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.

Sir: I have the honor herewith of submitting my report as Inspector of Mines for the Seventh Anthracite District for the year ending December 31, 1902.

The total production of coal was 3,968,339 tons, a decrease of 3,084,489 tons from that of the preceding year; the average number of days worked was 116.3 against 216 in 1901. All these decreases were attributable to the strike which continued five months during the year.

There were 19,856 employes, which is an increase of 12 over the number in 1901.

To produce this quantity of coal, 77,105 kegs of powder and 295,272 pounds of dynamite were used. The number of fatal accidents was 46, 16 less than occurred the previous year, and the number of non-fatal ones was 58, 37 less than the preceding year. The number of tons produced per life lost was 86,268 and 68,419 tons were produced per each non-fatal accident.

Respectfully,
EDWARD BRENNAN,
Inspector.

SUMMARY OF STATISTICS FOR 1902.

Number of mines in district,	37
Number of mines in operation during 1902,	32
Number of tons of coal produced,	3,968,339
Number of tons shipped to market,	3,118,676
Number of tons sold at mines to local trade,	96,648

Number of tons consumed at mines in generating steam and heat,	753,015
Number of persons employed inside the mines,	12,610
Number of persons employed outside,	7,246
Number of fatal accidents inside the mines,	41
Number of tons produced for each fatal accident inside,	96,789
Number of persons employed per fatal accident inside,	308
Number of fatal accidents outside,	5
Number of persons employed per fatal accident outside,	1,449
Number of wives made widows by fatal accidents,	28
Number of children orphaned by fatal accidents,	72
Number of non-fatal accidents inside of mines,	41
Number of persons employed per non-fatal accident inside,	308
Number of non-fatal accidents outside,	17
Number of persons employed per non-fatal accident outside,	426
Number of steam locomotives used inside,	40
Number of compressed air locomotives used inside,	2
Number of electric motors used inside,	6
Number of fans used for ventilation,	70
Number of gaseous mines in operation during 1902,	26
Number of non-gaseous mines in operation during 1902,	6
Number of new mines opened in 1902,	None
Number of old mines abandoned during 1902,	1

A. Production of Coal During the Year 1902.

Names of Companies.	Tons.
Philadelphia and Reading Coal and Iron Company,	1,507,623
T. M. Righter & Co.,	43,756
Seneca Coal Company,	46,983
The Union Coal Company,	583,801
Mineral Railroad and Mining Company,	427,864
The Summit Branch and Lykens Valley Coal Company,	377,983
Excelsior Coal Company,	108,823
Midvalley Coal Company,	242,503
The Enterprise Coal Company,	147,536
Shipman Koal Company,	53,907
Greenough Red Ash Coal Company,	64,788
White & White,	39,554

Llewellyn Mining Company,	9,552
Shamokin Coal Company,	103,312
Lehigh Valley Coal Company,	210,354
Total,	3,968,339

Total production was made up as follows:

Shipments by railroad to market,	3,118,676
Sold at mines for local use,	96,648
Consumed to generate steam,	753,015
Total,	3,968,339

B. Showing the number of fatal and non-fatal accidents inside and outside the mines; number of tons of coal produced per fatal and non-fatal accident inside the mines; number of persons employed inside and outside; and the number employed inside and outside for every fatal and non-fatal accident for each company during 1902.

Names of Companies.	Number of lives lost inside.	Number of lives lost outside.	Total number of lives lost.	Number severely injured inside.	Number severely injured outside.	Total number severely injured.	Tons of coal produced per each life lost inside.	Tons of coal produced per serious injury inside.	Number employes inside of mines.	Number employes outside of mines.	Total number employed.	Number of employes inside for each life lost.	Number of employes inside for each severe injury.	Number of employes outside for each life lost.	Number of employes outside for each severe injury.
Philadelphia and Reading Coal and Iron Co.,	13	1	14	15	6	21	115,971	100,508	4,516	2,538	7,054	347	301	2,538	423
T. M. Righter & Co.,	.....	.....	.....	1	.....	1	43,756	43,756	71	196	267	71	71	196	196
Seneca Coal Co.,	1	.....	1	3	1	4	46,983	15,661	134	112	246	134	45	112	112
The Union Coal Co.,	3	.....	3	7	4	11	194,600	83,400	2,143	1,237	3,380	715	306	1,237	309
Mineral Railroad and Mining Co.,	14	1	15	4	1	5	30,561	106,965	1,592	665	2,257	113	398	665	665
Summit Branch and Lykens Valley Coal Co.,	1	2	3	1	3	4	377,983	377,983	1,120	825	1,945	1,120	1,120	412	275
Excelsior Coal Co.,	1	.....	1	2	.....	2	108,823	54,411	313	164	477	213	156	164	164
Midvalley Coal Co.,	1	.....	1	1	.....	1	242,503	242,503	494	235	729	494	494	235	235
Enterprise Coal Co.,	1	.....	1	.....	.....	.....	147,536	147,536	404	187	591	404	404	187	187
Shipman Koal Co.,	.....	.....	.....	2	.....	2	53,907	26,953	166	146	312	166	83	146	146
Greenough Red Ash Coal Co.,	1	.....	1	.....	.....	.....	64,788	64,788	277	96	373	277	277	96	96
White & White,	1	.....	1	.....	.....	.....	39,554	39,554	163	75	238	163	163	75	75
Llewellyn Mining Co.,	.....	.....	.....	.....	1	1	9,552	9,552	232	84	316	232	232	84	84
Shamokin Coal Co.,	2	.....	2	2	.....	2	51,656	51,656	541	388	929	270	270	388	388
Lehigh Valley Coal Co.,	2	1	3	3	1	4	105,177	70,118	444	298	742	222	148	298	298
Totals,	41	5	46	41	17	58	.....	.....	12,610	7,246	19,856	5,041	4,468	6,833	3,653
Averages,	.....	.....	.....	.....	.....	.....	96,739	68,419	841	483	1,324	336	298	456	243

C. Classification of Fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						Grand total.
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
January,		2	1	1	3								1			8					1	1	9
February,			2	1							2			2	3	10							10
March,		1						1			1					3			2			2	5
April,		2					1	3							3	7	1					1	8
May,								1						1		2							2
August,										1						1							1
November,					7											7							7
December,		2													1	3	1					1	4
Totals,		7	3	2	10		1	4		1	3		1	3	6	41	2		2		1	5	46

D. Classification of Non-fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						
	By Falls of								By Falling into														
	Coal.	Slate.	Roof.	By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	Shafts.	Slopes.	Manways, breasts, etc.	Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous	Total inside	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
January,	3	2	......	1	6	......	......	2	......	......	......	......	1	......	1	16	1	2	......	......	1	4	20
February,	1	......	......	1	1	......	......	......	......	......	......	1	......	......	......	4	1	2	......	......	2	5	9
March,	......	......	2	1	2	......	1	......	......	......	......	......	......	......	......	6	1	1	......	......	1	3	9
April,	......	......	......	2	3	......	......	2	......	......	1	......	......	......	2	10	1	......	......	......	1	2	12
May,	......	......	1	......	......	......	1	......	......	......	......	......	......	......	......	2	......	......	......	......	......	......	2
November,	1	1	......	......	......	......	......	......	......	......	......	......	......	......	......	2	......	......	......	......	1	1	3
December,	1	......	......	......	......	......	......	......	......	......	......	......	......	......	......	1	1	......	......	......	1	2	3
Totals,	6	3	3	5	12	......	2	4	......	......	1	1	1	......	3	41	5	5	......	......	7	17	58

E. Occupations of Employes Killed or Fatally Injured Inside and Outside the Mines of the Seventh Anthracite District During 1902.

Months.	Inside.											Outside.									Grand total.
	Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Book-keepers and clerks.	All other employes.	Total outside.	
January,	.....	.....	.....	5	1	1	1	.....	.....	.....	8	.....	.....	.....	.....	.....	.....	.....	1	1	9
February,	.....	.....	.....	6	3	1	.....	.....	1	.....	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	10
March,	.....	.....	.....	2	1	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	2	2	5
April,	.....	.....	.....	4	1	1	.....	.....	.....	1	7	.....	.....	.....	.....	.....	.....	.....	1	1	8
May,	.....	.....	.....	1	.....	.....	.....	.....	.....	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
August,	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
November,	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	7
December,	.....	.....	1	1	.....	.....	.....	.....	.....	1	3	.....	.....	.....	.....	.....	.....	.....	1	1	4
Totals,	.....	1	1	25	6	3	1	.....	1	3	41	.....	.....	.....	.....	.....	.....	.....	5	5	46

F. Occupations of Employes Severely Injured Inside and Outside the Mines of the Seventh Anthracite District During 1902.

Months.	Inside.											Outside.									Grand total.
	Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Book-keepers and clerks.	All other employes.	Total outside.	
January,	.....	.....	1	7	4	1	.....	.....	1	2	16	.....	.....	.....	1	1	.....	.....	2	4	20
February,	.....	.....	.....	3	1	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	5	5	9
March,	.....	.....	.....	4	2	.....	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	.....	3	3	9
April,	.....	.....	.....	6	3	1	.....	.....	.....	.....	10	.....	.....	.....	.....	.....	.....	.....	2	2	12
May,	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
November,	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	1	1	3
December,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	2	2	3
Totals,	.....	.....	1	25	10	2	.....	.....	1	2	41	.....	.....	.....	1	1	.....	.....	15	17	58

G. Nationality of Employes Killed or Fatally Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Welsh.	Irish.	Germans.	Poles.	Hungarians.	Italians.	Slavs.	Austrians.	Russians.	Total.
January,	2	.....	.....	.....	.....	2	.....	1	1	1	2	9
February,	3	.....	.....	.....	1	1	1	.....	1	.....	3	10
March,	2	.....	1	1	.....	1	.....	.....	.....	.....	.....	5
April,	5	.....	.....	1	.....	.....	.....	2	.....	.....	.....	8
May,	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	2
August,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
November,	1	.....	.....	.....	.....	1	.....	.....	.....	1	4	7
December,	1	.....	1	.....	.....	2	.....	.....	.....	.....	.....	4
Totals,	15	1	2	2	2	7	1	3	2	2	9	46

H. Nationality of Employes Severely Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Welsh.	Irish.	Germans.	Poles.	Italians.	Lithuanians.	Austrians.	Russians.	Total.
January,	7	4	.....	3	.....	3	.....	.....	2	1	20
February,	5	.....	.....	1	.....	2	.....	.....	1	.....	9
March,	3	.....	1	.....	1	3	.....	1	.....	.....	9
April,	6	.....	.....	.....	1	3	2	.....	.....	.....	12
May,	1	.....	.....	.....	.....	1	.....	.....	.....	.....	2
November,	3	.....	.....	.....	.....	1	.....	.....	.....	.....	3
December,	2	.....	.....	.....	1	.....	.....	.....	.....	.....	3
Totals,	26	4	1	4	3	13	2	1	3	1	58

Examination of Applicants for Mine Foreman Certificates.

The annual examination of applicants for mine foreman certificates in the Seventh Anthracite District was held at Pottsville, April 24 and 25, 1902, before the following board, viz: Edward Brennan, Mine Inspector, Shamokin; Andrew Robertson, coal operator, Pottsville; Jacob Fleming, miner, Excelsior, and Joseph Corbe, miner, Ashland.

The following were recommended to receive certificates:

Mine Foremen.

Thomas Fitzpatrick, Williamstown.
Peter Shovlin, Mount Carmel.
Thomas McNamara, Williamstown.
William Schucker, Shamokin.
Charles Lickinger, Lykens.
Lewis Howells, Sagon.
George Nolter, Mount Carmel.
Joseph Marsh, Centralia.
Albert Clews, Centralia.
Jacob Fleming, Excelsior.
Morton Lamb, Centralia.
John L. Schickley, Shamokin.
Kearn Donohue, Centralia.
Edward McHugh, Mount Carmel.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Seventh Anthracite District for the year 1902.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Philadelphia and Reading Coal and Iron Co.						
Burnside,	Northumberland,	R. C. Luther, ...	Pottsville, ...	John Veith, ...	Pottsville, ...	Philadelphia and Reading.
Bear Valley,	Northumberland,	R. C. Luther, ...	Pottsville, ...	John Veith, ...	Pottsville, ...	Philadelphia and Reading.
Henry Clay,	Northumberland,	R. C. Luther, ...	Pottsville, ...	John Veith, ...	Pottsville, ...	Philadelphia and Reading.
Big Mountain,	Northumberland,	R. C. Luther, ...	Pottsville, ...	John Veith, ...	Pottsville, ...	Philadelphia and Reading.
Stirling,	Northumberland,	R. C. Luther, ...	Pottsville, ...	John Veith, ...	Pottsville, ...	Philadelphia and Reading.
North Franklin,	Northumberland,	R. C. Luther, ...	Pottsville, ...	John Veith, ...	Pottsville, ...	Philadelphia and Reading.
Alaska,	Northumberland,	R. C. Luther, ...	Pottsville, ...	John Veith, ...	Pottsville, ...	Philadelphia and Reading.
Reliance,	Northumberland,	R. C. Luther, ...	Pottsville, ...	John Veith, ...	Pottsville, ...	Philadelphia and Reading.
Locust Gap,	Northumberland,	R. C. Luther, ...	Pottsville, ...	John Veith, ...	Pottsville, ...	Philadelphia and Reading.
Locust Spring,	Northumberland,	R. C. Luther, ...	Pottsville, ...	John Veith, ...	Pottsville, ...	Philadelphia and Reading.
Locust Spring washery,	Northumberland,	R. C. Luther, ...	Pottsville, ...	John Veith, ...	Pottsville, ...	Philadelphia and Reading.
Merriam,	Northumberland,	R. C. Luther, ...	Pottsville, ...	John Veith, ...	Pottsville, ...	Philadelphia and Reading.
Potts,	Columbia, ...	R. C. Luther, ...	Pottsville, ...	John Veith, ...	Pottsville, ...	Philadelphia and Reading.
Bast,	Schuylkill, ...	R. C. Luther, ...	Pottsville, ...	John Veith, ...	Pottsville, ...	Philadelphia and Reading.
Preston No. 3,	Schuylkill, ...	R. C. Luther, ...	Pottsville, ...	John Veith, ...	Pottsville, ...	Philadelphia and Reading.
T. M. Righter & Co.						
Mount Carmel,	Northumberland,	S. D. Warriner, ..	Wilkes-Barre, ...	R. S. Mercur, ...	Centralia, ...	Lehigh Valley.
Seneca Coal Co.						
Sioux,	Northumberland,	S. D. Warriner, ..	Wilkes-Barre, ...	R. S. Mercur, ...	Centralia, ...	Lehigh Valley.
The Union Coal Co.						
Pennsylvania,	Northumberland,	Morris Williams, .	Wilkes-Barre, ...	Wm. R. Reinhardt.	Shamokin, ...	Pennsylvania R. R. (N. C.)
Hickory Swamp,	Northumberland,	Morris Williams, .	Wilkes-Barre, ...	Wm. R. Reinhardt.	Shamokin, ...	Pennsylvania R. R. (N. C.)
Hickory Ridge,	Northumberland,	Morris Williams, .	Wilkes-Barre, ...	Wm. R. Reinhardt	Shamokin, ...	Pennsylvania R. R. (N. C.)
Richards,	Northumberland,	Morris Williams, .	Wilkes-Barre, ...	Wm. R. Reinhardt	Shamokin, ...	Pennsylvania R. R. (N. C.)
Scott shaft,	Northumberland,	Morris Williams, .	Wilkes-Barre, ...	Wm. R. Reinhardt,	Shamokin, ...	Pennsylvania R. R. (N. C.)
Mineral Railroad and Mining Co.						
Cameron,	Northumberland,	Morris Williams, .	Wilkes-Barre, ...	Robert A. Quinn,..	Shamokin, ...	Pennsylvania R. R. (N. C.)
Luke Fidler,	Northumberland,	Morris Williams, .	Wilkes-Barre, ...	Robert A. Quinn,..	Shamokin, ...	Pennsylvania R. R. (N. C.)
Summit Branch and Lykens Valley Coal Co.						
Williamstown,	Dauphin, ...	Morris Williams, .	Wilkes-Barre, ...	Hood McKay, ...	Lykens, ...	Pennsylvania Railroad.
Short Mountain,	Dauphin, ...	Morris Williams, .	Wilkes-Barre, ...	Hood McKay, ...	Lykens, ...	Pennsylvania Railroad.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Excelsior Coal Co.						
Excelsior,	Northumberland,	Andrew Robertson.	Shamokin,	A. D. Robertson,..	Shamokin,	Philadelphia and Reading.
Corbin,	Northumberland,	Andrew Robertson.	Shamokin,	G. W. Robertson,	Shamokin,	Philadelphia and Reading.
Midvalley Coal Co.						
Midvalley No. 1,	Columbia,			T. E. Snyder,	Wilburton,	Lehigh Valley.
Midvalley No. 2,	Columbia,			T. E. Snyder,	Wilburton,	Lehigh Valley.
Enterprise Coal Co.						
Enterprise,	Northumberland,	W. L. Connell,	Scranton,			Philadelphia and Reading.
Shipman Koal Co.						
Colbert,	Northumberland,			E. J. Corliss,	Shamokin,	Pennsylvania R. R. (N. C.)
Greenough Red Ash.						
Greenough,	Northumberland,	George C. Graeber.	Shamokin,			Pennsylvania R. R. (N. C.)
White & White.						
Columbus No. 2,	Northumberland,	E. E. White,	Mt. Carmel,			Lehigh Valley.
Llewellyn Mining Co.						
Royal Oak,	Northumberland,			Wm. H. Llewellyn	Shamokin,	Philadelphia and Reading.
Shamokin Coal Co.						
Natalie,	Northumberland,	Nathaniel Taylor,	Natalie,	G. W. Moon,	Natalie,	Philadelphia and Reading.
Lehigh Valley Coal Co.						
Centralia,	Columbia,	S. D. Warriner,	Wilkes-Barre,	R. S. Mercur,	Centralia,	Lehigh Valley.
Logan,*	Columbia,	S. D. Warriner,	Wilkes-Barre,	R. S. Mercur,	Centralia,	Lehigh Valley.
Continental,*	Columbia,	S. D. Warriner,	Wilkes-Barre,	R. S. Mercur,	Centralia,	Lehigh Valley.
Big Mine Run,*	Schuylkill,	S. D. Warriner,	Wilkes-Barre,	R. S. Mercur,	Centralia,	Lehigh Valley.
Locust Run,†	Columbia,	S. D. Warriner,	Wilkes-Barre,	R. S. Mercur,	Centralia,	Lehigh Valley.
Reno,‡	Columbia,	S. D. Warriner,	Wilkes-Barre,	R. S. Mercur,	Centralia,	Lehigh Valley.
Montana,‡	Columbia,	S. D. Warriner,	Wilkes-Barre,	R. S. Mercur,	Centralia,	Lehigh Valley.
Belmore,‡	Columbia,	S. D. Warriner,	Wilkes-Barre,	R. S. Mercur,	Centralia,	Lehigh Valley.
Morris Ridge,‡	Columbia,	S. D. Warriner,	Wilkes-Barre,	R. S. Mercur,	Centralia,	Lehigh Valley.

*Included in Centralia.
†Pumping station.
‡Abandoned.

TABLE II—Gives the total number of tons of coal mined in each colliery, number of days worked, number of employes, number of employes, killed and injured, number of kegs of powder, etc., used in the Seventh Anthracite District for the year ending December 31, 1902.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Philadelphia and Reading Coal and Iron Co.												
Burnside,	Northumberland,	133,755	38,365	3,923	176,043	139.8	811	2	2	3,753	8,426	129
Stirling,	Northumberland,	.....	.....	.....	.....	.....	327	.....	.....	916	842	.....
Bear Valley,	Northumberland,	95,096	11,814	4,730	111,640	135.6	485	1	1	2,481	4,513	60
Henry Clay,	Northumberland,	54,324	27,249	5,594	87,167	110.6	444	2	5	711	1,060	70
Big Mountain,	Northumberland	.....	.....	.....	.....	.....	118	.....	.....	276	683	.....
North Franklin,	Northumberland,	138,698	19,288	4,210	162,196	142.6	607	2	.....	2,892	12,154	67
Alaska,	Northumberland,	131,191	15,984	144	147,627	136.6	672	1	1	4,204	5,840	87
Reliance,	Northumberland,	113,885	15,402	6,107	135,394	137	596	.....	2	3,976	4,807	55
Locust Gap,	Northumberland,	216,982	79,946	1,514	298,442	129	441	1	3	2,758	4,705	52
Locust Spring,	Northumberland	.....	.....	.....	.....	.....	918	2	2	2,135	11,582	83
Locust Spring washery,	Northumberland,	41,132	.....	.....	41,132	178	41	.....	.....	.....	.....	.....
Merriam,	Northumberland,	.....	33,756	.....	337,56	.....	17	.....	.....	.....	.....	.....
Potts,	Columbia,	167,368	33,760	5,006	206,134	159.4	868	.....	2	85	49,940	77
Bast,	Schuylkill,	60,489	33,137	860	94,486	97.8	632	2	3	169	17,669	74
Preston No. 3,	Schuylkill,	115	13,293	98	13,606	.....	77	1	.....	.....	118	10
		1,153,343	322,094	32,186	1,507,623	133.6	7,054	14	21	24,353	121,369	764
T. M. Righter & Co.												
Mt. Carmel,	Northumberland,	36,627	6,970	159	43,756	54.3	267	.....	1	2	1,100	31
Seneca Coal Co.												
Sioux,	Northumberland,	36,192	10,129	662	46,983	117.6	246	1	4	1,611	3,247	31
The Union Coal Co.												
Pennsylvania,	Northumberland,	175,461	27,828	5,907	209,196	132.5	1,122	2	2	6,892	14,670	107
Hickory Swamp,	Northumberland,	57,336	12,611	884	70,831	116.4	457	.....	1	971	3,286	53

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Hickory Ridge,	Northumberland,	81,118	33,695	1,144	115,957	125.6	651	1	2	2,451	3,126	52
Richards,	Northumberland,	134,146	47,625	1,568	183,279	129.6	964	.....	6	3,988	11,580	89
Scott,	Northumberland,	.....	4,538	.....	4,538	144	186	.....	.....	.....	4,150	7
		448,061	126,297	9,443	583,801	129.3	3,380	3	11	14,402	30,812	348
Mineral Railroad and Mining Co.												
Cameron,	Northumberland,	223,640	30,874	10,573	265,087	141	1,455	6	3	6,578	16,503	141
Luke Fidler,	Northumberland,	128,074	22,530	12,173	162,777	127.5	802	9	2	3,907	11,369	71
		351,714	53,404	22,746	427,864	134.2	2,257	15	5	10,485	27,872	212
Summit Branch and Lykens Valley Coal Co.												
Williamstown,	Dauphin,	77,464	111,513	5,135	194,112	110.9	844	3	3	1,978	7,470	76
Short Mountain,	Dauphin,	125,974	43,149	8,748	183,871	127.5	1,101	.....	1	1,152	5,804	153
		203,438	160,662	13,883	377,983	119.2	1,945	3	4	3,130	13,274	229
Excelsior Coal Co.												
Excelsior,	Northumberland,	66,760	3,720	261	70,741	123.4	251	1	.....	1,412	180	32
Corbin,	Northumberland,	33,042	5,040	.....	38,082	109.1	226	.....	2	1,378	223	22
		99,802	8,760	261	108,823	116.2	477	1	2	2,790	403	54
Midvalley Coal Co.												
Midvalley No. 2,	Columbia,	232,992	8,200	1,311	242,503	141.7	729	1	1	3,208	87,621	87
Enterprise Coal Co.												
Enterprise,	Northumberland,	131,887	15,324	325	147,536	132.9	591	1	.....	5,006	2,751	64

*Totals in this column are averages.

Shipman Koal Co.												
Colbert,	Northumberland,	48,505	4,003	1,399	53,907	115.8*	312	.....	2	1,678	2,200	23
Greenough Red Ash Coal Co.												
Greenough,	Northumberland,	61,708	3,000	80	64,788	132.3	373	1	.....	1,875	4,250	13
White & White.												
Columbia No. 2,	Northumberland,	34,141	935	4,478	39,554	133.4	238	1	.....	3,100	3,000	16
Llewellyn Mining Co.												
Royal Oak,	Northumberland,	8,500	558	494	9,552	46	316	.....	1	210	200	14
Shamokin Coal Co.												
Natalie,	Northumberland,	84,979	15,000	3,333	103,312	113.5	929	2	2	2,350	1,500	73
Lehigh Valley Coal Co.												
Centralia,	Columbia,	186,787	17,679	5,888	210,354	121.2	724	3	4	2,725	36,673	94
Logan,§	Columbia,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Continental,§	Columbia,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Big Mine Run,§	Schuylkill,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Locust Run,†	Columbia,	.....	.....	.....	.....	.....	18	.....	.....	.....	.....	2
Reno,‡	Columbia,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Montana,‡	Columbia,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Belmore,‡	Columbia,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Morris Ridge,‡	Columbia,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		186,787	17,679	5,888	210,354	121.2	742	3	4	2,725	36,673	96
Grand totals,	.....	3,118,676	753,015	96,648	3,968,339	121.2	19,856	46	58	77,105	295,272	2,015

§Included in Centralia.
†Pumping station.
‡Abandoned.
*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Number of Boilers.				Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.	Horse power.		Steam.	Air.	Electric.							
Phila. and Reading Coal and Iron Co., ..	Northumberland,	66	2,274	112	14,560	16,834	8	2	.....	159	19,539	53	46,185	39,343	.....	2
T. M. Righter & Co., ...	Northumberland,	20	380	4	600	980	2	.....	.....	17	1,472	2	3,850	3,850	.....	.....
Seneca Coal Co., ...	Northumberland,	.....	.....	6	1,050	1,050	1	.....	.....	13	1,321	1	313	313	.....	.....
The Union Coal Co., ...	Northumberland,	10	190	50	6,140	6,330	6	.....	.....	75	7,874	21	16,795	5,223	.....	2
Mineral Railroad and Mining Co., ...	Northumberland,	6	120	31	3,970	4,090	4	.....	.....	34	6,176	11	4,738	4,738	1	3
Summit Branch & Lykens Valley Coal Co.,	Dauphin, ...	102	4,980	35	6,945	11,925	9	.....	3	48	4,172	13	11,022	7,003	2	2
Excelsior Coal Co., ...	Northumberland,	36	1,080	.....	.....	1,080	1	.....	.....	15	537	3	1,068	490	.....	.....
Midvalley Coal Co., ...	Columbia.....	.....	.....	11	2,400	2,400	3	.....	.....	8	1,596	3	3,000	1,500	.....	.....
Enterprise Coal Co., ...	Northumberland,	.....	.....	16	2,000	2,000	.....	.....	3	11	1,150	3	2,220	2,220	2	.....
Shipman Koal Co., ...	Northumberland,	5	135	3	270	405	.....	.....	.....	7	560	2	1,296	800	.....	.....
Greenough Red Ash Coal Co., ...	Northumberland,	.....	.....	3	225	225	.....	.....	.....	4	150	2	1,000	100	.....	.....
White & White, ...	Northumberland,	4	120	1	60	180	.....	.....	.....	6	115	.....	.....	.....	.....	.....
Llewellyn Mining Co., ...	Northumberland,	.....	.....	2	300	300	1	.....	.....	6	260	2	577	287	.....	.....
Shamokin Coal Co., ...	Northumberland,	17	340	8	760	1,100	3	.....	.....	18	859	3	1,200	1,200	.....	.....
Lehigh Valley Coal Co., ...	Columbia, ...	15	300	16	2,500	2,800	2	.....	.....	46	8,377	1	1,128	1,128	.....	.....
Grand totals, ...	.....	281	9,919	298	41,780	51,699	40	2	6	467	54,158	123	94,392	68,195	5	9

TABLE III—Showing the number of each class of employes at each colliery in the Seventh Anthracite District during the year 1902.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.									Grand total inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	Pumpmen.	Company men.	All other employes.	Total Inside.		Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Book-keepers and clerks.	All other employes.	Total outside.	
P. & R. Coal and Iron Co.																							
Burnside,	North'd,	2	1	6	264	98	35	12	.....	40	48	506	....	1	10	22	112	25	2	133	305	811	
Stirling,	North'd,	1	....	4	143	46	21	5	.....	17	51	288	....	1	1	9	.....	.....	1	27	39	327	
Henry Clay,	North'd,	1	....	4	79	37	16	6	.....	31	44	218	....	2	10	25	49	20	3	117	226	444	
Big Mountain,	North'd,	1	....	2	56	17	12	.....	.....	8	22	118	....	.....	.....	.....	.....	.....	.....	.....	.....	118	
Bear Valley,	North'd,	1	....	2	176	46	14	4	2	9	56	310	....	1	4	11	54	25	1	79	175	485	
North Franklin,	North'd,	1	....	4	150	83	25	7	3	36	66	375	....	1	12	13	24	42	2	138	232	607	
Alaska,	North'd,	1	1	4	282	36	55	20	.....	29	63	491	....	1	7	25	50	12	2	84	181	672	
Reliance,	North'd,	1	1	4	227	41	32	14	.....	20	60	400	....	1	8	18	76	9	2	82	196	596	
Locust Gap	North'd,	1	....	4	241	46	22	8	.....	24	95	441	....	.....	.....	.....	.....	.....	.....	.....	.....	441	
Locust Spring,	North'd,	2	1	5	195	51	38	11	.....	48	135	487	....	1	14	48	121	32	4	211	431	918	
Locust Spring washery,	North'd,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	....	1	3	1	7	2	1	26	41	41	
Merriam,	North'd,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	....	1	....	9	.....	.....	.....	7	17	17	
Potts,	Columbia,	2	....	10	110	112	42	21	.....	53	150	500	....	1	9	23	136	32	3	164	368	868	
Bast,	Schuylkill,	2	....	8	66	80	28	30	.....	32	111	357	....	1	5	24	75	16	3	151	275	632	
Preston No. 3,	Schuylkill,	1	....	5	.....	.....	.....	.....	.....	6	13	25	....	1	3	24	.....	.....	1	23	52	77	
Totals,		17	1	62	1,990	603	340	138	5	353	914	4,516	....	14	86	252	704	215	25	1,242	2,538	7,054	
T. M. Righter & Co.																							
Mt. Carmel,	North'd,	1	....	2	5	9	5	1	5	20	23	71	....	1	7	12	36	.....	1	139	196	267	
Seneca Coal Co.																							
Sioux,	North'd,	1	....	2	48	13	5	2	5	15	43	134	....	1	8	9	23	.....	1	70	112	246	
The Union Coal Co.																							
Pennsylvania,	North'd,	1	4	12	332	118	46	13	9	181	17	733	....	1	13	27	78	6	3	261	389	1,122	
Hickory Swamp,	North'd,	1	1	3	95	45	20	11	2	94	11	284	....	1	4	11	38	5	2	113	174	457	

TABLE III.—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.											Occupations of Persons Employed Outside.									Grand total inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Book-keepers and clerks.	All other employes.	Total outside.	
Hickory Ridge,	North'd,	1	2	4	156	73	22	3	10	96	18	385	....	1	8	23	75	11	3	145	266	651
Richards,	North'd,	1	3	9	284	93	39	18	6	156	51	660	....	1	9	21	76	27	3	167	304	964
Scott,	North'd,	1	....	....	.....	.....	.....	.....	8	.....	73	82	....	1	5	10	.....	.....	1	87	104	186
Totals,		5	10	28	867	329	127	45	35	527	170	2,143	....	5	39	92	267	49	12	773	1,237	3,380
Mineral Railroad and Mining Co.																						
Cameron,	North'd,	1	6	14	480	160	78	16	8	.....	283	1,046	....	2	18	23	198	11	6	151	409	1,455
Luke Fidler,	North'd,	1	2	9	260	80	32	12	.....	.....	150	546	....	1	11	21	97	6	5	115	256	802
Totals,		2	8	23	740	240	110	28	8	.....	433	1,592	....	3	29	44	295	17	11	266	665	2,257
Summit Branch and Lykens Valley Coal Co.																						
Williamstown,	Dauphin,	2	4	4	130	30	26	3	20	112	.....	331	....	1	14	81	70	.....	3	344	513	844
Short Mountain,	Dauphin,	2	4	5	244	103	86	12	15	318	.....	789	....	1	18	37	73	.....	4	179	312	1,101
Totals,		1	8	9	374	133	112	15	35	430	.....	1,120	....	2	32	118	143	.....	7	523	825	1,945
Excelsior Coal Co.																						
Excelsior,	North'd,	1	2	....	64	52	13	1	1	14	14	162	1	1	4	11	18	4	2	48	89	251
Corbin,	North'd,	1	2	1	86	29	12	.....	2	13	5	151	1	1	3	10	15	3	.....	42	75	226
Totals,		2	4	1	150	81	25	1	3	27	19	313	2	2	7	21	33	7	2	90	164	477
Midvalley Coal Co.																						
Midvalley No. 2,	Columbia,	3	....	2	232	136	42	4	16	40	19	494	1	2	6	15	80	.....	2	129	235	729

Enterprise Coal Co.																						
Enterprise,	North'd,	1	1	....	243	46	46	6	2	42	17	404	1	1	7	21	59	12	1	85	187	591
Shipman Koal Co.																						
Colbert,	North'd,	1	....	1	87	12	12	3	2	48	.....	166	1	1	6	11	75	14	2	36	146	312
Greenough Red Ash Coal Co.																						
Greenough,	North'd,	2	....	2	100	140	9	.....	2	22	.....	277	1	1	5	7	45	6	1	30	96	373
White & White.																						
Columbus No. 2,	North'd,	1	1	....	101	10	15	2	.....	3	30	163	1	1	3	3	30	.....	1	36	75	238
Llewellyn Mining Co.																						
Royal Oak,	North'd,	1	....	3	145	16	15	4	2	19	27	232	1	1	4	5	33	3	1	36	84	316
Shamokin Coal Co.																						
Natalie,	North'd,	3	....	2	208	160	60	20	5	26	57	541	2	1	16	25	113	42	6	183	388	929
Lehigh Valley Coal Co.																						
Centralia,	Columbia,	4	1	3	179	67	43	2	2	41	95	437	1	3	18	21	46	6	3	189	287	724
Logan,*	Columbia,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....
Continental,*	Columbia,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....
Big Mine Run,*	Schuylkill,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....
Locust Run,†	Columbia,	...	...	...	.....	.....	.....	.....	4	3	.....	7	....	1	....	4	.....	.....	.....	6	11	18
Reno,‡	Columbia,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....
Montana,‡	Columbia,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....
Belmore,‡	Columbia,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....
Morris Ridge,‡	Columbia,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....
Totals,		4	1	3	179	67	43	2	6	41	95	444	1	4	18	25	46	6	3	195	298	742
Grand totals,		48	37	140	5,469	2,085	966	271	131	1,616	1,847	12,610	11	40	273	660	1,982	371	76	3,833	7,246	19,856

*Included in Centralia.
†Pumping station.
‡Abandoned.

TABLE III—Continued.

Names of Operators and Collieries.	County.	Number of Days Worked Each Month in Breaker.												
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Philadelphia and Reading Coal and Iron Co.,	Northumberland,	17	15.5	17.2	21	6.9	.....	.5	2.5	4	11.5	20	20.4	136.6
T. M. Righter & Co.,	Northumberland,	.....	.....	.....	.....	.....	.....	.....	.....	.....	6.8	23.5	24	54.3
Seneca Coal Co.,	Northumberland,	19.3	14.9	15.5	18 7	5.6	.....	.....	.....	.....	6	19.7	1 9	117.6
The Union Coal Co.,	Northumberland,	22.6	20.6	19.8	21.3	5 3	.....	.....	.....	.....	4.3	16 5	18.9	129.6
Mineral Railroad and Mining Co.,	Northumberland,	23	21 1	20.1	21 9	6.5	.....	.....	.....	.....	4.8	17 7	19	134.2
Summit Branch and Lykens Valley Coal Co.,	Dauphin,	23.1	20	13.8	16.4	5.9	.....	.....	.....	2	5	14 9	17 9	114.2
Excelsior Coal Co.,	Northumberland,	21 8	17.9	19 8	19 9	6.3	.....	.....	.....	.....	.....	16.1	20 3	116 2
Midvalley Coal Co.,	Northumberland,	24 5	19.8	18	23	5 6	.....	.....	.....	.....	7	19.9	23 9	141.7
Enterprise Coal Co.,	Northumberland,	23.6	17.7	21.4	20.7	6 4	.....	.....	.....	.....	4 9	19	19 2	1 2.9
Shipman Koal Co.,	Northumberland,	20.1	18.1	17.9	18.5	5.2	.....	.....	.....	.....	4 3	15.1	16 6	115.8
Greenough Red Ash Coal Co.,	Northumberland,	23 4	17 7	29 4	19 9	6 6	.....	.....	.....	.....	6.4	17.9	20	132 3
White & White,	Northumberland	23.4	17.8	18 2	17.2	4.7	.....	.....	.....	.....	4.6	22 8	24 7	133.4
Llewellyn Mining Co.,	Northumberland,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	21	2	4
Shamokin Coal Co.,	Northumberland,	18.8	21 4	11.7	17.8	4 5	.....	.....	.....	.....	.....	17 1	22.2	113 5
Lehigh Valley Coal Co.,	Columbia,	21.1	17.3	16.6	18.1	5.8	.....	.....	.....	.....	3.2	18.9	20.2	121 2

TABLE IV—List of fatal accidents that occurred in and about the mines of the Seventh Anthracite District for the year ending December 31, 1902.

Date of accident.		Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan.	4	John Witt,	Russian,	Miner,	53	M.	1	6	Cameron,	North'd,...	Killed by an explosion of gas.
	4	Stonny Yesmuth,	Russian,	Miner,	42	M	1	3	Cameron,	North'd,...	Killed by an explosion of gas.
	14	Howard Esher,	American,	Door boy,	18	S.	....	....	Cameron,	North'd,...	Killed; kicked by a mule.
	18	Joseph Murton,	American,	Car runner,	23	S.	....	....	Centralia,	Columbia,.	Killed by wagons jumping track and causing lumber to fall on him.
	22	Andrew Prochchock,	Slavonic,	Miner,	40	M	1	1	Natalie,	North'd,.	Killed by a fall of rock.
	28	Tony Meroch,	Italian,	Laborer,	35	S.	....	....	Greenough,	North'd,...	Back broken by a fall of slate.
	29	Vasno Morefski,	Polish,	Miner,	37	S.	....	....	Locust Gap,	North'd,...	Killed by a fall of slate.
	31	Thomas Cherlo,	Polish,	Driver,	25	S.	....	....	Excelsior,	North'd,...	Killed by running against a brake lever.
	31	Anthony Daroba,	Austrian,	Miner,	26	M	1	1	Henry Clay,	North'd,...	Burned by an explosion of gas. Died Feb. 8.
Feb.	4	Mike Suto,	Hungarian,	Miner,	35	M	1	5	Henry Clay,	North'd,...	Seriously injured by piece of clod falling on him. Died Feb. 11.
	5	Samuel Puigona,	Russian,	Laborer,	35	M	1	2	Enterprise,	North'd,...	Killed while walking under carriage hoist; cage crushing him.
	5	Chas. Mascarinity,	Slavonic,	Laborer,	26	M	1	1	Natalie,	North'd,...	Killed by piece of clod falling on his head.
	8	James Rusk,	American,	Laborer,	21	S.	....	....	Preston No. 3,	Schuylkill,	Killed by falling from platform at water level.
	15	Sebastian Shassach,	German,	Driver,	18	S.	....	....	North Franklin,	North'd,...	Killed by piece of rock falling down slope, striking him.
	19	John Startzel,	American,	Miner,	37	M	1	2	Burnside,	North'd,...	Killed by falling down manway.
	20	Abraham Markle,	American,	Miner,	52	M	1	1	Pennsylvania,	North'd,...	Killed by falling down manway.
	24	Mike Stankanus,	Russian,	Miner,	25	S	..	....	Cameron,	North'd,...	Suffocated by a rush of coal from breast.
	24	George Stankanus,	Russian,	Miner,	45	M	1	7	Cameron,	North'd,...	Suffocated by a rush of coal from breast.
	28	Enoch Covaleskie,	Polish,	Bottom man,	20	S.	....	....	Columbus No. 2,	North'd,...	Killed by being squeezed between cars.
March	11	Jeremiah Murray,	Irish,	Laborer,	40	M	1	....	Williamstown,	Dauphin,..	Suffocated in culm bank.
	11	John Hill,	American,	Laborer,	20	S	....	....	Williamstown,	Dauphin,..	Suffocated in culm bank.
	21	John Long,	American,	Miner,	23	M	1	1	Hickory Ridge,	North'd,..	Fell down manway, fracturing skull.
	22	Charles Dulk,	Polish,	Laborer,	22	S	..	....	Midvalley No. 1,	Columbia,.	Skull fractured by flying coal from a blast. Died in hospital March 24.
	26.	Grifith Price,	Welsh,	Miner,	47	M	1	6	Alaska,	North'd,...	Killed by fall of slate.
April	2	Isaac Carmitchel,	American,	Driver,	23	S	..	....	Pennsylvania,	North'd,..	Neck broken; fell under mine cars.
	12	Patrick Burns,	American,	Miner,	40	M	1	6	Centralia,	Columbia,.	Caught by loose coal in breast. Died April 13.

TABLE IV—Continued.

Date of accident.		Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
	13	John Cosgrove,	American,	Laborer,	31	S.	....	....	Centralia,	Columbia,.	Caught by loose coal in breast; squeezed against pillar.
	16	Joe Dermedle,	Italian,	Miner,	24	S.	....	....	Locust Spring,....	North'd,...	Killed by premature blast.
	21	Mark McCormick,	Irish,	Starter,	32	M.	1	1	Bast,	Schuylkill,	While tamping a stick of dynamite in hole it exploded.
	25	Nicklo Butts,	Italian,	Laborer,	27	M.	1	....	Williamstown,	Dauphin,..	Killed by piece of slate falling from side of shaft.
	29	William Eby,	American,	Miner,	19	S.	....	....	Bear Valley,	North'd,...	Killed by fall of slate.
	30	William Fisher,	American,	Miner,	....	....	....	....	Burnside,	North'd,..	Killed by premature blast.
May	6	Peter Shearer,	German,	Miner,	40	M.	1	7	Bast,	Schuylkill,	Killed by premature blast.
	9	James Carter,	English,	Loader,	44	M.	1	3	Cameron,	North'd,...	Fell in chute and coal rushed on him.
Aug.	30	George Nolter,	American,	Asst. foreman	28	M.	1	3	Sioux,	North'd,...	Killed by falling down slope.
Nov.	29	Charles Maroot,	Austrian,	Miner,	36	M.	1	1	Luke Fidler,	North'd,...	Killed by an explosion of gas.
	29	Thos. Volandi,	Russian,	Miner,	26	M.	1	1	Luke Fidler,	North'd,...	Killed by an explosion of gas.
	29	Wally Zutchvadge,	Russian,	Miner,	31	M.	1	3	Luke Fidler,	North'd,...	Killed by an explosion of gas.
	29	Leon Secoski,	Russian,	Miner,	30	M.	1	4	Luke Fidler,	North'd,...	Killed by an explosion of gas.
	29	Jesse Koppenhaver,	American,	Miner,	26	M.	1	....	Luke Fidler,	North'd,...	Seriously injured by concussion of gas explosion. Died in Miners' Hospital Dec. 17.
	29	Joseph Bresko,	Russian,	Miner,	37	M.	1	3	Luke Fidler,	North'd,...	Fatally injured from concussion of gas explosion.
	29	Joseph Starauch,	Polish,	Miner,	50	M.	1	....	Luke Fidler,	North'd,...	
Dec.	17	Jos. Mangold,	American,	Loco con.,	19	S.	....	....	Locust Spring,	North'd,...	Killed by falling from locomotive.
	23	Paul Ditch,	Polish,	Miner,	25	M.	1	2	Luke Fidler,	North'd,...	Killed by a fall of rock.
	23	A. N. Morgan,	Welsh,	Fire boss,	43	M.	1	2	North Franklin,	North'd,...	Fell through trap door into sump; scalded.
	24	Jno. Gratchcoskie,	Polish,	Driver,	20	S.	...	....	Luke Fidler,	North'd,...	Large piece of rock fell from side of gangway, killing him.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Seventh Anthracite District for the year ending December 31, 1902.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 7	Chas. Musiak,	American,	Miner,	30	M	Cameron,	Northumberland,	Burned by an explosion of gas.
8	Francis Towers,	English,	Repairman,	30	M	Potts,	Columbia,	Arm broken by being caught in rope wheel.
9	John Bellas,	English,	Repairman,	60	M	Henry Clay,	Northumberland,	Burned by gas.
9	Michael Moore,	Irish,	Fire boss,	32	M	Henry Clay,	Northumberland,	Burned by gas.
9	Dennis Haughney,	Irish,	Miner,	48	S.	Henry Clay,	Northumberland,	Burned by gas.
11	Henry Nace,	American,	Car runner,	20	M	Richards,	Northumberland,	Arm broken by being squeezed by a mule.
13	Benj. Rodarmel,	American,	Bottom man,	23	S	Sioux,	Northumberland,	Crushed between wagons.
15	Albert Pesdoo,	Austrian,	Laborer,	35	M	Cameron,	Northumberland,	Leg broken by a fall of slate.
16	George Bower,	American,	Laborer,	20	S.	Luke Fidler,	Northumberland,	Injured by being squeezed between mine cars.
21	John Duffy,	Irish,	Miner,	33	M	Hickory Ridge,	Northumberland,	Injured by a fall of coal.
21	Alex. Sucklosky,	Polish,	Laborer,	26	S.	Pennsylvania,	Northumberland,	Leg broken by a lump of coal rolling on it.
22	David Andrews,	English,	Miner,	42	M	Centralia,	Columbia,	Burned about face and hands by gas.
23	Anth. Godlefskie,	Polish,	Miner,	25	M	Natalie,	Northumberland,	Lost both eyes and face and chest injured by premature blast.
23	Felix Governioah,	Russian,	Laborer,	35	M	Natalie,	Northumberland,	Lost one eye and body badly injured by premature blast.
8	William Williams,	English,	Fireman,	40	M	Royal Oak,	Northumberland,	Badly scalded on face and hand by steam.
29	Amos Miller,	American,	Laborer,	52	M	Hickory Ridge,	Northumberland,	Leg broken by a fall of slate.
30	Charles Belone,	Polish,	Miner,	30	S.	Sioux,	Northumberland,	Leg broken by a fall of coal.
31	James Cavanaugh,	American,	Slate picker,	16	S	Cameron,	Northumberland,	Leg broken while wrestling.
25	James Crump,	American,	Laborer,	25	S	Williamstown,	Dauphin,	Leg broken by piece of timber.
31	Michael Lark,	Austrian,	Miner,	41	M	Henry Clay,	Northumberland,	Burned by an explosion of gas.
Feb. 3	Wm. Concheis,	Polish,	Miner,	45	M	Reliance,	Northumberland,	Leg broken by piece of coal falling from rib.
3	Victor Kindler,	American,	Chute tender,	13	S.	Short Mountain,	Dauphin,	Leg broken by being caught in jig shaft.
4	Joseph Augustina,	Austrian,	Breaker rep'n,	26	S.	Centralia,	Columbia,	Injured by falling from breaker.
4	Richard S. Parnel,	American,	Miner,	35	S.	Mt. Carmel,	Northumberland,	Two ribs broken by being caught by battery in chute.
6	Michael McNamara,	American,	Conveyor eng. helper.	17	S.	Williamstown,	Dauphin,	Leg broken by being caught in conveyor chain.
6	Steve Oslinskie,	Polish,	Driver,	19	S.	Henry Clay,	Northumberland,	Head hurt; mule ran away and threw him.
10	William Keller,	American,	Rockman,	24	S.	Potts,	Columbia,	Foot mashed; run over by rock dumper.
14	Charles McGill,	Irish,	Miner,	38	S.	Williamstown,	Dauphin,	Burned about hands, neck and back by gas.

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
27	William Manhart,	American,	Laborer,	21	S.	Locust Gap,	Northumberland,	Collar bone broken; caught between chute and wagon.
Mar. 3	Joseph Butsga,	Polish,	Miner,	40	M	Pennsylvania,	Northumberland,	Two fingers blown off by dynamite cap.
4	Frank Mendler,	American,	Carpenter,			Bast,	Schuylkill,	Wrist broken by falling from boiler.
5	John Whyclonas,	Polish,	Miner,	29	S.	Richards,	Northumberland,	Fingers mashed: caught between mine cars at bottom of slope.
11	John Petulis,	Lithuanian,	Miner,	40	M	Centralia,	Columbia,	Seriously burned by gas.
19	Eli Llewellyn,	Welsh,	Carpenter,	39	M	Bast,	Schuylkill,	Ankle broken between car and guard rail.
21	Otto Boos,	German,	Miner,	35	M	Colbert,	Northumberland,	Spine injured by fall of clod.
21	Harry Stepp,	American,	Laborer,	24	M	Colbert,	Northumberland,	Injured back by fall of clod.
24	Peter Homyock,	American,	Fuelman,	16	S	Sioux,	Northumberland,	Leg broken: caught in drag line.
28	Mike Bldock,	Polish,	Laborer,	35	M	Sioux,	Northumberland,	Burned on face and hands by igniting gas.
April 10	Daniel Levan,	American,	Breaker boss,	37	S	Hickory Swamp,	Northumberland,	Bruised about body by falling twenty feet in breaker; slipped and fell down elevator line.
11	Frederick Walters,	German,	Starter,	26	M	Locust Spring,	Northumberland,	Leg broken: caught by rush of coal in chute.
14	Sam Petell,	Italian,	Laborer,	23	S	Richards,	Northumberland,	Leg fractured by car jumping off track.
14	Anton Niskeo,	Italian,	Laborer,	43	M	Richards,	Northumberland,	Leg fractured by car jumping off track.
15	Frank Zitabosky,	Polish,	Miner,	24	M	Richards,	Northumberland,	Burned by gas.
17	Dan'l Schlegle,	American,	Miner,	21	M	Corbin,	Northumberland,	Burned by gas.
17	Fred. Linderman,	American,	Laborer,	35	M	Corbin,	Northumberland,	Burned by gas.
19	Gus Lytle,	American,	Miner,	40	M	Bear Valley,	Northumberland,	Leg broken while barring down coal.
22	Henry Fisher,	American,	Miner,	45	M	Burnside,	Northumberland,	Injured: fell down breast.
24	Joseph Terascavage,	Polish,	Miner,	22	S	Luke Fidler,	Northumberland,	Injured by premature blast.
28	Alex. Sebrock,	Polish,	Miner,	35	M	Midvalley No. I,	Columbia,	Skull fractured by flying coal from shot.
30	John Schoppy,	American,	Driver,			Locust Gap,	Northumberland,	Arm broken: bumped between mine cars.
May 7	Gordon George,	American,	Miner,	23	M	Centralia,	Columbia,	Injured by explosion of percussion cap.
10	John Behlty	Polish,	Miner,	55	M	Reliance,	Northumberland,	Leg broken by fall of rock.
Nov. 8	John Washahofskle,	Polish,	Miner,	35	S	Locust Spring,	Northumberland,	Leg broken by fall of coal.
13	Luther Warey,	American,	Timber cutter,	55	M	Bast,	Schuylkill,	Leg broken by timber rolling on him.
19	Irvin Weary	American,	Miner,	38	M	Burnside,	Northumberland	Leg broken by a fall of slate.
Dec. 11	Wm. Henmarch,	German,	Miner,	42	M	Alaska	Northumberland,	Leg broken by a fall of coal.
15	Peter Maloy,	American,	Loader,	23	S.	Locust Gap,	Northumberland,	Collar bone broken between mine car and timber.
26	David Paul,	American,	Timberman,	49	M	Richards,	Northumberland,	Hand broken by a prop falling on it.

Eighth Anthracite District.

SCHUYLKILL COUNTY.

Pottsville, Pa., March —, 1903.

Hon. James W. Latta, Secretary of Internal Affairs:

Sir: In compliance with the act of Assembly, approved June 8, 1901, I herewith submit my annual report for the year 1902.

In addition to the usual tables and statistics, the report contains a brief narrative of all the improvements, worthy of mention, which have been made at each colliery in my district during the year.

The annual examination for mine foreman and assistant mine foreman was held at the court house at Pottsville on April 24 and 25. But one person passed a successful examination—William A. Davis, of Llewellyn, Pa., who was recommended for mine foreman.

Very truly yours,

MICHAEL J. BRENNAN,
Inspector of Mines.

SUMMARY OF STATISTICS FOR 1902.

Number of mines in district,	38
Number of mines in operation during 1902,	38
Number of tons of coal produced,	3,223,387
Number of tons shipped to market,	2,652,972
Number of tons sold at mines to local trade,	60,116
Number of tons consumed at mines in generating steam and heat,	510,299
Number of persons employed inside the mines,	8,241
Number of persons employed outside,	5,125
Number of fatal accidents inside the mines,	17
Number of tons produced for each fatal accident inside,	189,611
Number of persons employed per fatal accident inside,	457

Number of fatal accidents outside,	6
Number of persons employed per fatal accident outside,	854
Number of wives made widows by fatal accidents,	10
Number of children orphaned by fatal accidents,	30
Number of non-fatal accidents inside of mines,	46
Number of persons employed per non-fatal accident inside,	179
Number of non-fatal accidents outside,	18
Number of persons employed per non-fatal accident outside,	284 +
Number of steam locomotives used inside,	6
Number of electric motors used inside,	4
Number of fans used for ventilation,	47
Number of gaseous mines in operation during 1902,	25
Number of non-gaseous mines in operation during 1902,	13
Number of new mines opened in 1902,	4
Number of old mines abandoned during 1902,	1

A. Production of Coal During the Year 1902.

Name of Companies.	Tons.
Philadelphia and Reading,	1,498,473
Lehigh Coal and Navigation,	479,557
Dodson Coal Company,	97,259
Truman M. Dodson Coal Co.,	91,842
St. Clair Coal Company,	316,605
Beddall Bros.,	58,512
C. S. Shindel,	3,950
Dunkelberger & Young,	9,848
Leisenring & Co.,	95,567
Lytle Coal Co.,	103,707
Silverton Coal Company,	30,512
Davis Bros.,	24,130
E. C. White & Co.,	19,272
Mt. Hope Coal Company,	35,474
East Ridge Coal Company,	76,970
Pine Hill Coal Company,	79,308
Losch, Snyder & Co.,	5,228
Gorman Campion,	18,173
Slattery Bros.,	7,244
Joseph H. Deming,	6,767
Butcher Creek Coal Company,	975

Buck Run Coal Company,	41,480
William Cook,	1,517
Stoddard Coal Company,	45,910
Middleport Coal Company,	*
Smith, Myers & Co.,	65,978
Darkwater Coal Company,	8,068
Phillips Bros.,	1,061
Total,	3,223,387

*No work done during the year.

B. Showing the number of fatal and non-fatal accidents inside and outside the mines; number of tons of coal produced per fatal and non-fatal accident inside the mines; number of persons employed inside and outside; and the number employed inside and outside for every fatal and non-fatal accident for each company during 1902.

Names of Companies	Number of lives lost inside.	Number of lives lost outside.	Total number of lives lost.	Number severely injured inside.	Number severely injured outside.	Total number severely injured.	Tons of coal produced per each life lost inside.	Tons of coal produced per serious injury inside.	Number employes inside of mines.	Number employes outside of mines.	Total number employed.	Number of employes inside for each life lost.	Number of employes inside for each severe injury.	Number of employes outside for each life lost.	Number of employes outside for each severe injury.
Philadelphia and Reading Coal and Iron Co..	7	.....	7	18	5	23	214,667	83,248	4,524	2,502	7,026	646	251	.....	500
Lehigh Coal and Navigation Co.,	2	1	3	6	.....	6	239,778	79,926	1,022	608	1,630	511	170	608	.....
St. Clair Coal Co.,	2	2	4	4	5	9	158,302	79,151	259	252	511	129	64	126	50
Silverton Coal Co.,	1	.....	1	1	2	3	30,512	30,512	138	76	214	138	138	.....	38
Gorman & Campion,	1	.....	1	.....	.....	.....	18,173	.....	33	35	68	33	.....	.....	.....
Lytle Coal Co.,	1	.....	1	2	.....	2	103,707	51,853	490	240	730	490	245	.....	.....
Mt. Hope Coal Co.,	.....	1	1	.....	1	1	.....	35,474	63	81	147	.....	.....	84	84
Leisenring & Co.,	1	.....	1	1	.....	1	95,567	95,567	346	131	477	346	346	.....	.....
Pine Hill Coal Co.,	1	.....	1	4	.....	4	79,308	19,827	222	124	346	222	55	.....	.....
Beddall Bros.,	1	.....	1	.....	.....	.....	58,512	.....	100	87	187	100	.....	.....	.....
East Ridge Coal Co.,	.....	2	2	2	.....	2	.....	38,485	108	134	242	.....	54	67	.....
Dodson Coal Co.,	.....	.....	.....	2	2	4	.....	48,629	198	252	450	.....	99	.....	126
Truman M. Dodson Coal Co.,	.....	.....	.....	3	1	4	.....	30,614	240	127	367	.....	80	.....	127
Darkwater Coal Co.,	.....	.....	.....	1	1	2	.....	8,668	108	35	143	.....	108	.....	35
Buck Run Coal Co.,	.....	.....	.....	2	.....	2	.....	20,740	203	97	300	.....	101	.....	.....
Losch, Snyder & Co.,	.....	.....	.....	.....	1	1	.....	.....	34	28	62	.....	.....	.....	28
C. S. Shindel,	.....	.....	.....	.....	.....	.....	.....	.....	19	35	54	.....	.....	.....	.....
Dunkleberger & Young,	.....	.....	.....	.....	.....	.....	.....	.....	25	30	55	.....	.....	.....	.....
Davis Bros.,	.....	.....	.....	.....	.....	.....	.....	.....	30	47	77	.....	.....	.....	.....
E. C. White & Co.,	.....	.....	.....	.....	.....	.....	.....	.....	4	40	44	.....	.....	.....	.....
Slattery Bros.,	.....	.....	.....	.....	.....	.....	.....	.....	37	15	52	.....	.....	.....	.....
Joseph Denning,	.....	.....	.....	.....	.....	.....	.....	.....	12	16	28	.....	.....	.....	.....
Butcher Creek Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	10	31	41	.....	.....	.....	.....
William Cook,	.....	.....	.....	.....	.....	.....	.....	.....	6	3	9	.....	.....	.....	.....
Stoddart Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	44	44	.....	.....	.....	.....
Smith, Myers & Co.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	40	40	.....	.....	.....	.....
Phillips Bros.,	.....	.....	.....	.....	.....	.....	.....	.....	10	12	22	.....	.....	.....	.....
Totals and averages,	17	6	23	46	18	64	997,926	622,094	8,241	5,125	13,366	2,615	1,711	885	988

C. Classification of Fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						Grand total.
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling Into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
January,	.....	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	4	.....	.....	.....	.....	.....	.....	4
February,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	1	2	2
March,	.....	1	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
April,	.....	3	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	4
July,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1
October,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
November,	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	1	.....	.....	.....	.....	1	4
December,	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	1	.....	.....	1	2	4
Totals,	2	6	2	4	1	.....	.....	1	.....	.....	.....	.....	.....	.....	1	17	1	2	.....	.....	3	6	23

D. Classification of Non-fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling Into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
January,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	2	1	2	.....	.....	.....	3	5
February,	1	.....	.....	2	6	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	10	.....	.....	.....	.....	.....	.....	10
March,	2	.....	.....	2	2	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	7	1	1	.....	.....	.....	2	9
April,	3	1	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	8	1	1	.....	.....	.....	2	10
May,	1	.....	.....	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	1	1	4
July,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	1
October,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	1	2
November,	2	.....	.....	3	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	1	8	1	1	.....	.....	2	4	12
December,	3	.....	.....	1	.....	.....	1	2	.....	.....	.....	.....	.....	.....	.....	7	3	.....	.....	.....	1	4	11
Totals,	13	1	.....	10	11	.....	1	7	.....	.....	1	.....	1	.....	1	46	9	5	.....	.....	4	18	64

E. Occupations of Employes Killed or Fatally Injured Inside and Outside the Mines of the Eighth Anthracite District During 1902.

Months.	Inside.											Outside.									
	Mine foremen.	Assistant Mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door-boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men.)	Book-keepers and clerks.	All other employes.	Total outside.	Grand total.
January,	.....	.....	.....	2	.....	1	.....	.....	.....	1	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
February,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	2	2
March,	.....	.....	.....	2	1	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
April,	.....	.....	.....	3	.....	.....	.....	.....	.....	1	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
July,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	1
October,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
November,	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	1	1	4
December,	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	2	2	4
Totals,	.....	.....	.....	11	1	3	.....	.....	.....	2	17	.....	.....	1	.....	.....	.....	.....	5	6	23

F. Occupations of Employes Severely Injured Inside and Outside the Mines of the Eighth Anthracite District During 1902.

Months.	Inside.											Outside.									
	Mine foremen.	Assistant Mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door-boys and helpers.	Pumpmen.	Company men.	All other employes.	Total Inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men.)	Book-keepers and clerks.	All other employes.	Total outside.	Grand total.
January,	.....	.....	.....	1	.....	.....	.....	1	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	3	3	5
February,	.....	.....	.....	8	1	1	.....	.....	.....	.....	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	10
March,	.....	.....	.....	3	3	.....	.....	.....	1	.....	7	.....	.....	.....	1	.....	.....	.....	1	2	9
April,	.....	.....	.....	6	.....	.....	.....	.....	2	.....	8	.....	.....	.....	.....	.....	.....	.....	2	2	10
May,	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	1	1	4
July,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1
October,	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	1	1	2
November,	.....	.....	.....	5	2	1	.....	.....	.....	.....	8	.....	.....	.....	1	1	.....	.....	2	4	12
December,	.....	.....	.....	6	.....	.....	.....	.....	1	.....	7	.....	.....	.....	.....	.....	.....	.....	4	4	11
Totals,	.....	.....	.....	32	6	2	.....	1	5	.....	46	.....	.....	.....	2	1	.....	.....	15	18	64

G. Nationality of Employes Killed or Fatally Injured Inside and Outside the Mines During 1902.

	Americans.	Germans.	Poles.	Italians.	Slavs.	Lithuanians.	Austrians.
January,	3	.....	.....	.....	1	.....	.....
February,	1	.....	1	.....	.....	.....	.....
March,	.....	.....	1	.....	1	.....	1
April,	1	1	1	.....	.....	1	.....
July,	1	.....	.....	.....	.....	.....	.....
October,	1	.....	.....	.....	.....	.....	.....
November,	.....	.....	3	1	.....	.....	.....
December,	2	1	.....	.....	1	.....	.....
Totals,	9	2	6	1	3	1	1

H. Nationality of Employes Severely Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Welsh.	Irish.	Germans.	Poles.	Hungarians.	Italians.	Slavs.	Lithuanians.	Austrians.	Tyroleans.
January,	1	.....	.....	.....	.....	3	1	.....	.....	.....	.....	.....
February,	4	.....	.....	.....	1	5	.....	.....	.....	.....	.....	.....
March,	4	.....	.....	.....	1	1	1	.....	.....	.....	2	.....
April,	1	1	2	2	3	.....	1	.....	.....	.....	.....	.....
May,	2	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....
July,	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
October,	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
November,	5	.....	1	1	.....	1	1	.....	1	1	.....	1
December,	5	.....	1	3	.....	1	.....	.....	1	.....	.....	.....
Totals,	24	1	4	6	5	11	5	1	2	1	3	1

I. Giving names of operators and mines, kind of openings, type and size of fans; size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each employe per minute in the mines of Eighth Anthracite District for the year 1902.

Names of Operators and mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Phila. & Reading Coal & Iron Co.													
West Brookside No. 1 slope,	Slope,	Non-gas.	Fan,			Guibal,	Steam,	3	14,420	14,420	12,540		
West Brookside No. 2 slope,	Slope,	Non-gas.	Fan,	18 x 6	1.6	Guibal,	Steam,	2	8,000	8,000	8,900	901	361
West Brookside No. 4 slope,	Slope,	Gaseous,	Fan,	18 x 6	2.	Guibal,	Steam,	6	52,466	52,466	55,000		
East Brookside, 2 slopes,	Slope,	Gaseous,	Fan,	21 x 7	1.9	Guibal,	Steam,	10	250,692	250,692	261,998		
Lincoln No. 1 slope,	Slope,	Gaseous,	Fan,	18 x 6	1.4	Guibal,	Steam,	10	82,005	82,605	82,090	547	280
Lincoln No. 2 slope,	Slope,	Gaseous,	Fan,	12 x 4	1.4	Guibal,	Steam,	8	71,320	71,320	71,572		
Good Spring No. 1,	Slope,	Gaseous,	Fan,	18 x 6	1.3	Guibal,	Steam,	5	57,840	57,840	57,840		
Good Spring No. 3,	Slope,	Gaseous,	Fan,	18 x 6	1.3	Guibal,	Steam,	7	31,100	31,100	30,400	330	269
Otto, Nest,	Slope,	Gaseous,	Fan,	15 x 5	.6	Guibal,	Steam,	4	67,400	67,400	67,100		
Otto, White Ash,	Slope,	Gaseous,	Fan,	18 x 6	1.75	Guibal,	Steam,	7	55,100	55,100	57,000	455	262
Phoenix Park No. 3,	Slope,	Gaseous,	Fan,	12 x 4	1.4	Guibal,	Steam,	5	108,500	108,500	132,000	283	383
Richardson, abandoned,				15 x 5	1.								
Glendower,	Slope,	Gaseous,	Fan,	15 x 5	1.	Guibal,	Steam,	8	106,159	106,159	109,225	225	471
Glendower, Taylorsville,	Slope,	Gaseous,	Fan,	18 x 5½	.8	Guibal,	Steam,						
Glendower, Buck Mountain,	Slope,	Gaseous,	Fan,	12 x 4	.8	Guibal,	Steam,						
Silver Creek,	Shaft,	Gaseous,	Fan,	14 x 5	1.	Guibal,	Steam,	15	156,530	156,530	158,525	757	206
Eagle Hill,	Shaft,	Gaseous,	Fan,	18 x 6	1.	Guibal,	Steam,	7	83,200	83,200	90,000	452	184
Wadesville,	Shaft,	Gaseous,	Fan,	18 x 6	1.	Guibal,	Steam,	10	113,920	113,920	*	358	318
				18 x 4	.8								
				14 x 5	1.								
				18 x 6	1.								
				12 x 4½	.6								
				21 x 7	1.1								
				18 x 6	1.								
				21 x 6.6	1.5								
				21 x 7	1.								
				21 x 7	.8								

*Cannot be measured at outlet.

Lehigh Coal and Navigation Co.													
Colliery No. 8,	Drift & shaft,	Gaseous,	Fan,	25 x 6	2.	Guibal,	Steam,	4	80,760	90,600	90,600	370	213
Colliery No. 10,	Slope & drift,	Gaseous,	Fan,	24 x 6	2.1	Guibal,	Steam,	4	51,640	51,640	67,240	305	169
Colliery No. 11,	Shaft,	Gaseous,	Fan,	24 x 6	1.3	Guibal,	Steam,	5	62,000	69,000	69,000	269	230
Colliery No. 12,	Slope,	Gaseous,	Fan,	20 x 5	1.2	Guibal,	Steam,	3	50,500	50,000	50,000	78	647
Dodson Coal Co.													
Morea,	Slope,	Gaseous,	Fan,	18 x 5 24 x 6	1.2 1.1	Guibal,	Steam,	6	42,580	42,580	41,637	198	215
Truman M. Dodson.													
Kaska William,	Shaft,	Gaseous,	Fan,	16 x 4 24 x 6	.9 .5	Guibal,	Steam,	9	61,335	64,335	68,630	249	268
Buck Run Coal Co.													
Buck Run,	Slope,	Gaseous,	Fan,	12 x 3.9 15 x 4.7	.2 .2	Guibal,	Steam,	4	48,800	48,800	50,800	203	240
East Ridge Coal Co.													
East Ridge colliery,	Slope, Drift,	Gaseous, Non-gas.	Fan, Natural,	12 x 4	.25	Guibal,	Steam,	7	41,000	41,000	50,000	108	379
Pine Hill Coal Co.													
Pine Hill colliery,	Shaft, Slope, Drift,	Gaseous, Gaseous, Gaseous,	Fan, Fan, Fan,	20 x 6 ..... 16 x 4.6	1. 5	Guibal, Guibal, Guibal,	Steam, Steam, Steam,	7 7 7	35,865 24,090	35,865 24,090	....	..... 222	..... 270 .....
Gorman & Campion.													
Bell colliery,	Drift,	Non-gas.	Natural,	.....	.....	.....	.....	3	14,500	14,500	12,500	33	439
St. Clair Coal Co.													
St. Clair colliery,	Slope, Drift, Shaft,	Gaseous, Non-gas. Gaseous,	Fan, Fan, Fan,	14 x 5 14 x 5 14 x 5	1.5 ..... 1.25	Guibal, ... Guibal,	Steam, Steam, Steam,	7	86,260	86,260	90,460	259	333
Beddall Bros.													
Greenwood No. 13,	Drift,	Gaseous,	Fan,	12 x 3.3	1.	Guibal,	Steam,	6	14,455	14,455	14,145	100	144
Dunkelberger & Young.													
West Lehigh,	Drift,	Non-gas.	Fan,	12 x 4	1.8	Guibal,	Steam,	2	6,500	6,500	7,000	25	260
Leisenring & Co.													
Oak Hill colliery,	Shaft, Slope,	Gaseous, Gaseous,	Fan, Fan,	24 x 8.1½ 16 x 4.5	1. .8	Guibal, Guibal,	Steam, Steam,	9	99,400	99,400	160,555	346	287
Lytle Coal Co.													
Lytle colliery,	Shaft, Slope,	Gaseous, Gaseous,	Fan, Fan,	20 x 4 18 x 7	2. 2.1	Guibal, Guibal,	Steam, Steam,	10	86,314	86,314	89,571	490	176
Silverton Coal Co.													
Silverton colliery,	Slope, Slope,	Gaseous, Gaseous,	Fan, Fan,	16 x 4.9 16 x 4.9	1.5 1.25	Guibal, Guibal,	Steam, Steam,	8	52,000	52,000	52,800	138	376

List of Improvements for 1902—Philadelphia and Reading Coal and Iron Company.

Lincoln Colliery.—There is a new breaker under course of construction, which, when completed, will have a capacity of 1,800 tons.

A new tail rope has been installed, 2,500 feet long, to the head of No. 1 Slope, to haul the coal to the surface. The old gate landing has been dispensed with; the cars, when landed, run around through tunnel, to the tail rope, which does away with back switching.

There are two pairs of 40″x60″ first-motion hoisting engines erected at the water shaft, the drums of which are 20′ 8″ in diameter, with new water tanks, having a combined capacity of 8,000 gallons. These tanks will dispense with eleven steam pumps.

The Pine Knot shaft was down 225 feet on the 1st of January.

Otto Colliery.—A tunnel has been driven in the Nest Slope, north from White Ash, to White Ash through an anticlinal into the old White Ash basin.

White Ash Slope: A double track plane ninety-one yards long has been driven in No. 59 breast, first lift, West Top Bench of Mammoth Vein. On top of the plane, a double track cross cut has been driven, cutting the bottom bench of Mammoth at a distance of 73 feet.

Phoenix Park No. 3 Colliery.—A tunnel is being driven on the lower level from the Diamond Vein S to the Tracey.

A new plane has been driven 600 feet and completed from No. 16 breast E. Diamond lower level.

Anchor Washery.—Three new tubular boilers have been added to the plant.

Silverton Coal Company.

Two fire box tubular boilers, 150 horse power each, have been added to the plant.

A ten-inch steam line has been laid on the surface, to substitute two 6″ and one 3″ lines.

A new breaker engine has been installed under the breaker. The position of the former engine was across the road, west of the breaker. The power was transmitted to the breaker by means of ropes, a distance of 170 feet. It is now a belt connection, 45 feet centre.

There have been 328,000 feet of lumber used in remodelling the breaker.

Seven Anthracite Separator Company's patent spiral pickers have been installed.

Dodson Coal Company.

Morea Colliery.—A tunnel has been driven on the east side of the slope at Breast No. 108 from bottom split of Main, cutting the top split of Main at a distance of fifty feet.

Truman M. Dodson Coal Co.

Kaska William.—A new double track slope is now being sunk inside on the south dip, Skidmore vein, in the North Dale basin. It is proposed to sink it to a depth of 300 feet and then tunnel south to the bottom bench of the Mammoth Vein.

The new inside shaft noticed in last year's report, is down 330 feet, cutting the Primrose Vein at this point. It has been extended a distance of 200 feet during the year.

Pine Hill Coal Company.

Pine Hill Shaft has been extended sixty feet during the year.

Buck Run Coal Company.

The new breaker reported last year commenced operations March 12. Its capacity is 1,200 tons per day. A new exhaust fan, fifteen feet diameter, has been installed on the Crosby Vein and one, twelve feet diameter, on the Daniel Vein.

East Lehigh Colliery.

One new fire box tubular boiler, 150 horse power, has been added to the plant.

Lehigh Coal and Navigation Company.

No. 10 Colliery.—A new pump house has been made thirty-five feet from the gangway on the west side of the slope, and a new double-acting Goyne pump, 10″ plunger, 4′ stroke, 12″ column line, installed, to be used in case of high water.

A new pair of 32″x60″ first-motion hoisting engines, drum eight feet diameter, have been erected to hoist from the slope. The old engines they replaced having been incapable of performing the work.

Gorman and Campion.

Bell Colliery.—One return tubular boiler has been added to the plant.

Howard Colliery.

One Fire Box tubular boiler, 125 horse power, has been added to the plant.

List of Improvements for 1903—The St. Clair Coal Company.

The St. Clair Coal Company has installed an electric plant the past year, and has used power both for lighting and hauling coal.

The lighting plant consists of a Hazleton Machinery and Supply Company Engine, belt connected to a general electric multi polar dynamo of 30 Killowatt capacity at 110 volts pressure, running at 1,000 revolutions per minute.

Over 100 24 candle power lamps and 18 G. E. 5 ampere direct current enclosed arc lamps furnish light for the breaker, washery, engine houses, boiler house and offices, doing away with all mine lamps and facilitating the handling of coal to a very marked degree.

The haulage plant was put in operation October 20 last, and is thoroughly up to date in every feature.

A 15″x17″ McEwen engine furnishes the motive power to run a 6-pole general electrical 110 Killowatt generator, with its armature direct, connected to the engine shaft, which runs at a speed of 270 revolutions per minute, furnishing power at 250 volts pressure and is over compounded to make up for the losses due to heavy flow of current.

Slate switch boards are used, with the switches, circuit breakers and meters mounted direct on the board.

From the switch board, two circuits are run out. One is carried on poles a distance of two miles to a tunnel and consists of two No. 4-0 feeders, and supplies a G. E. mine locomotive of seven tons, equipped with two G. E. 60 motors of 37 horse power each.

This locomotive has a run of 2,500 feet and is fed by 4-0 trolley wire; the rails are all bounded and used as the return wire to the power house.

The second circuit is of one 4-0 feed wire and one 4-0 return wire and runs to the bottom of a slope, a distance of over 3,000 feet from the power house. At this point, the current is fed to two 4-0 trol leys, which run east and west, about three-fourths of a mile each.

The locomotive that is used in these gangways, is of eight tons weight and equipped with the G. E. 60 motors. Near the point of distribution at this slope, an electric hoist, equipped with a G. E. 58 motor, is used in sinking an inside slope.

All trolley wire used is of the grooved type, and on all the con trollers are a special mine controller, which operates the motors either in series or parallel.

Have installed, during the year, four new tubular boilers, 150 horse power each, 18 feet and 72 inches in diameter; also, one pair direct acting 24x60 hoisting engines, for hoisting rock and dirt from breaker up to culm bank.

List of New Collieries, 1902.

The Silver Hill Coal Company.—Has leased a tract of land from P. & R., Bickell, Schall and Replier, one-fourth of a mile south of Middleport, and has commenced operations on the site of the old Nevilles Tunnel.

The Darkwater Coal Company.—Has secured possession of the old Roberts Colliery, at New Castle, which has been idle for some time. They are reopening the water level drift on the Jugular Vein. The Crosby Slope has been retimbered. A new washery has been erected, which has a capacity of 300 tons per day.

The Crystal Run Coal Company.—Has secured the lease of the Altamont No. 2 Mine, which had been abandoned for a period of sixteen years. They have erected a new breaker of 600 tons capacity, and expect to ship coal in the early part of 1903. This colliery is known as the Broad Mountain, and is situated about one mile southeast of the borough of Frackville.

The Black Diamond Coal Company.—Began operations latter part of October, immediately after the strike. The company is sinking a slope upon the Big Tracy Vein, which at the present writing, is down 265 feet. They have also made connection with the Philadelphia and Reading Railroad, and are continuing the extension of track to a point where the breaker and other improvements will be located. This work is now in progress, as well as the foundations for the breaker, which are about complete. The company has purchased the land, but have also a lease for 999 years from David Starr. It is located in Branch and Reilly townships.

List of Collieries Drowned Out During the Strike of 1902.

Lytle Colliery.
Oak Hill Colliery.
Richardson Colliery.
Howard Colliery.

Collieries Abandoned.

Richardson, P. & R.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Eighth Anthracite District for the year 1902.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Phila. & Reading Coal and Iron Co.						
West Brookside,	Schuylkill,	R. C. Luther,	Pottsville,	John Veith,	Pottsville,	Philadelphia and Reading.
Lincoln,	Schuylkill,	R. C. Luther,	Pottsville,	John Veith,	Pottsville,	Philadelphia and Reading.
Good Spring,	Schuylkill,	R. C. Luther,	Pottsville,	John Veith,	Pottsville,	Philadelphia and Reading.
Otto,	Schuylkill,	R. C. Luther,	Pottsville,	John Veith,	Pottsville,	Philadelphia and Reading.
Phoenix Park No. 3,	Schuylkill,	R. C. Luther,	Pottsville,	John Veith,	Pottsville,	Philadelphia and Reading.
Richardson,	Schuylkill,	R. C. Luther,	Pottsville,	John Veith,	Pottsville,	Philadelphia and Reading.
Glendower,	Schuylkill,	R. C. Luther,	Pottsville,	John Veith,	Pottsville,	Philadelphia and Reading.
Silver Creek,	Schuylkill,	R. C. Luther,	Pottsville,	John Veith,	Pottsville,	Philadelphia and Reading.
Eagle Hill,	Schuylkill,	R. C. Luther,	Pottsville,	John Veith,	Pottsville,	Philadelphia and Reading.
Wadesville,	Schuylkill,	R. C. Luther,	Pottsville,	John Veith,	Pottsville,	Philadelphia and Reading.
Pine Knot,	Schuylkill,	R. C. Luther,	Pottsville,	John Veith,	Pottsville,	Philadelphia and Reading.
Kalmia washery,	Schuylkill,	R. C. Luther,	Pottsville,	John Veith,	Pottsville,	Philadelphia and Reading.
Anchor washery,	Schuylkill,	R. C. Luther,	Pottsville,	John Veith,	Pottsville,	Philadelphia and Reading.
Lehigh Coal and Navigation Co.						
Colliery No. 8,	Schuylkill,	W. D. Zehner,	Lansford,	Baird Snyder, Jr.,	Lansford,	Central R. R. of N. J.
Colliery No. 10,	Schuylkill,	W. D. Zehner,	Lansford,	Baird Snyder, Jr.,	Lansford,	Central R. R. of N. J.
Colliery No. 11,	Schuylkill,	W. D. Zehner,	Lansford,	Baird Snyder, Jr.,	Lansford,	Central R. R. of N. J.
Colliery No. 12,	Schuylkill,	W. D. Zehner,	Lansford,	Baird Snyder, Jr.,	Lansford,	Central R. R. of N. J.
Dodson Coal Co.						
Morea,	Schuylkill,	E. L. Bullock,	Audenried,	W. J Hays,	Morea,	Lehigh Valley.
Truman M. Dodson.						
Kaska-William,	Schuylkill,	E. L. Bullock,	Audenried,	T. C. Reese,	Kaska,	Philadelphia and Reading.
St. Clair Coal Co.						
St. Clair,	Schuylkill,			W. T. Smith,	Pottsville,	Philadelphia and Reading.
Beddall Bros.						
Greenwood No. 13,	Schuylkill,			M. A. Gerber,	Tamaqua,	Central R. R. of N. J.
Chas. S. Shindel.						
East Lehigh,	Schuylkill,	E. M. B. Shepp,	Tamaqua,			Philadelphia and Reading.
Dunkelberger & Young.						
West Lehigh,	Schuylkill,			John Young,	Tamaqua,	Philadelphia and Reading.
Leisenring & Co.						
Oak Hill,	Schuylkill,			William Schwenk,	Minersville,	Philadelphia and Reading.

Lytle Coal Co. Lytle,	Schuylkill,	Morris Williams,	Wilkes-Barre,	Arthur Kennedy,	Minersville,	Pennsylvania.
Silverton Coal Co. Silverton,	Schuylkill,			T. R. Bowen,	Llewellyn,	Philadelphia and Reading.
Davis Bros. Ellsworth,	Schuylkill,	John H. Davis,	St. Clair,			Philadelphia and Reading.
E. C. White & Co. Howard,	Schuylkill,	Richard White,	Pottsville,			Philadelphia and Reading.
Mt. Hope Coal Co. Mt. Hope,	Schuylkill,	S. D. Kynor,	Pottsville,			Philadelphia and Reading.
East Ridge Coal Co. East Ridge,	Schuylkill,	B. E. Kingsley,	Minersville,			Philadelphia and Reading.
Pine Hill Coal Co. Pine Hill,	Schuylkill,			Richard J. Uren,	Minersville,	Pennsylvania.
Losch & Snyder. Lorberry,	Schuylkill,	Michael Flanigan,	Tremont,	Michael Flanigan,		Philadelphia and Reading.
Gorman & Campion. Bell,	Schuylkill,			Edward Gorman,	Tuscarora,	Philadelphia and Reading.
Slattery Bros. Tuscarora,	Schuylkill,			Daniel Slattery,	Tuscarora,	Philadelphia and Reading.
Joseph H. Denning. Sebastopol,	Schuylkill,	Jos. H. Denning,	St. Clair,			No railroad.
Butler Creek Coal Co. Jugular,	Schuylkill,			Jas. J. Whims,	St. Clair,	Coal hauled to Ellsworth siding. P. & R.
Buck Run Coal Co. Buck Run,	Schuylkill,	Wm. R. Wilson,	Minersville,			Philadelphia and Reading.
Wm. Cook. Oakley,	Schuylkill,	Wm. Cook,	Tuscarora,			Coal hauled to P. & R. siding ot Tuscarora.
Darkwater Coal Co. Roberts,	Schuylkill,	H. K. Myer,	Philadelphia,	Wm. Yarnall,	Pottsville,	Pennsylvania.
Phillips Bros. Silver Hill,	Schuylkill,	David Phillips,	Mahanoy City,			Coal hauled to P. & R. siding at Middleport.
Stoddart Coal Co. Stoddart washery,	Schuylkill,			D. H. McGee	Minersville,	Philadelphia and Reading.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Middleport Coal Co. Middleport washery,*	Schuylkill, ...	.....	.....	Jas. S. Kearns, ...	Middleport, ...	Philadelphia and Reading.
Smith, Myers & Co. Myers washery, ...	Schuylkill, ...	Henry Myers, ...	Minersville, ...	Chas. Myers, ...	Pottsville.	

*No work done during the year.

TABLE II—Gives the total number of tons of coal mined in each colliery, number of days worked, number of employes, number of employes killed and injured, number of kegs of powder, etc., used in the Eighth Anthracite District for the year ending December 31, 1902.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Philadelphia and Reading Coal and Iron Co.						*						
West Brookside,	Schuylkill, ...	213,134	65,387	109	278,630	160.4	1,339	.....	7	2,349	32,130	131
Lincoln,	Schuylkill, ...	145,362	21,725	3,257	170,344	145	801	.....	3	3,761	4,348	85
Good Spring,	Schuylkill, ...	119,887	14,309	2,027	136,223	175.45	555	.....	3	3,071	14,667	47
Otto,	Schuylkill, ...	111,765	30,209	1,012	142,986	151.05	689	.....	2	2,250	13,257	57
Phoenix Park No. 3,	Schuylkill, ...	64,157	12,341	540	77,338	149.95	419	1	.....	715	12,559	50
Richardson,	Schuylkill, ...	24,272	10,377	258	34,887	69.35	313	.....	.....	19	5,440	37
Glendower,	Schuylkill, ...	58,310	23,569	186	88,065	124.4	476	.....	.....	633	8,923	56
Silver Creek,	Schuylkill, ...	196,351	24,410	1,969	222,730	153.85	1,058	5	4	2,805	7,109	73
Eagle Hill,	Schuylkill, ...	108,694	23,766	1,441	133,301	143	676	.....	1	1,018	4,940	58
Wadesville,	Schuylkill, ...	72,201	23,959	3,204	99,364	114.45	522	1	.....	1,524	8,034	42
Pine Knot,	Schuylkill, ...	.....	640	.....	640	.....	94	.....	.....	.....	5,787	4
Kalmia washery,	Schuylkill, ...	59,090	3,795	.....	62,885	234.4	33	.....	.....	.....	3	.....
Anchor washery,	Schuylkill, ...	47,870	3,210	.....	51,080	207.5	51	.....	.....	.....	4	.....
Totals,	.....	1,220,773	263,697	14 0 3	1,498,473	152+	7,026	7	23	18,145	117,210	640
Lehigh Coal and Navigation Co.												
Colliery No. 8,	Schuylkill, ...	157,385	13,820	4,299	175,504	141.3	546	1	2	280	44,000	126
Colliery No. 10,	Schuylkill, ...	81,774	17,170	3,7 1	102,684	97.95	501	1	1	380	16,950	81
Colliery No. 11,	Schuylkill, ...	113,573	9,466	2,742	126,761	135.90	442	1	2	420	23,500	60
Colliery No. 12,	Schuylkill, ...	57,024	14,040	3,544	74,608	176.45	142	.....	1	60	10,000	14
Totals,	.....	409,736	54,505	15,316	479,557	137.9	1,630	4	6	1,140	94,450	281
Dodson Coal Co.												
Morea,	Schuylkill, ...	75,735	21,000	524	97,259	105.5	450	.....	4	1,820	15,000	55

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Truman M. Dodson Coal Co.												
Kaska-William,	Schuylkill, ...	63 917	27,375	550	91,842	120.7*	367	.....	4	975	14,150	34
St. Clair Coal Co.												
St. Clair,	Schuylkill, ...	269 764	45,050	1,791	167,041	142.8	511	4	9	4,578	3,757.5	50
Washery,	Schuylkill, ...	.....	.....	.....	149,564	239.2	.....	.....	.....	.....	.....	.....
Totals,	.....	269,764	45,050	1,791	316,605	191	511	4	9	4,578	3,757.5	50
Beddall Bros.												
Greenwood No. 13,	Schuylkill, ...	46,441	2,710	9,371	58,512	170.8	187	1	.....	225	5,000	18
Chas. S. Shindel.												
East Lehigh,	Schuylkill, ...	3,700	250	.....	3,950	120.5	54	.....	.....	50	750	6
Dunkelberger & Young.												
West Lehigh,	Schuylkill, ...	7 426	442	1,980	9,848	147	57	....	.....	25	1,600	9
Leisenring & Co.												
Oak Hill,	Schuylkill, ...	76,258	18,000	1,309	95,567	117.3	477	1	1	1,969	11,275	41
Lytle Coal Co.												
Lytle,	Schuylkill, ...	66,865	34 847	1,995	103,707	89.6	730	1	2	1,406	27,079	74
Silverton Coal Co.												
Silverton,	Schuylkill, ...	19,307	10,950	225	30 512	98 6	210	1	3	88	10,764	.....
Davis Bros.												
Ellsworth,	Schuylkill, ...	22 424	1,500	205	24,130	161.6	77	....	....	.....	3,000	6

*Totals in this column are averages.

E. C. White & Co.												
Howard,	Schuylkill,	15,561	3,600	111	19,272	110.6	44	.....	.....	.....	.....	6
Mt. Hope Coal Co.												
Mt. Hope,	Schuylkill,	27,545	4,000	3,929	35 474	115	147	1	1	1,260	5,350	14
East Ridge Coal Co.												
East Ridge,	Schuylkill,	72,473	4,400	97	76,970	103.7	242	2	2	1,420	1,990	18
Pine Hill Coal Co.												
Pine Hill,	Schuylkill,	71,688	6,510	1,110	79,308	124.9	346	1	4	2,300	12,250	19
Losch, Snyder & Co.												
Lorberry,	Schuylkill,	4,369	700	219	5,228	42.4	62	.....	1	14	186	4
Gorman & Campion.												
Bell,	Schuylkill,	17,934	229	10	18,173	152.9	68	1	.....	400	1,850	7
Slattery Bros.												
Tuscarora,	Schuylkill,	7,001	175	68	7,244	127	52	.....	.....	200	600	6
Joseph H. Denning.												
Sebastopol,	Schuylkill,	144	500	6,123	6,767	260	28	.....	.....	15	400	10
Butcher Creek Coal Co.												
Jugular mine,	Schuylkill,	959	12	4	975	12	41	.....	.....	.....	.....	7
Buck Run Coal Co.												
Buck Run,	Schuylkill,	35,422	5,880	178	41,480	82.3	300	.....	2	654	4,040	13
Wm. Cook.												
Oakley,	Schuylkill,	1,034	99	384	1,517	199	9	.....	.....	70	200	1
Darkwater Coal Co.												
Roberts,	Schuylkill,	7,718	350	.....	8,068	49	143	.....	2	50	200	12
Phillips Bros.												
Silver Hill,	Schuylkill,	872	10	179	1,061	104	22	.....	.....	4	.....	1
Stoddart Coal Co.												
Wolf Creek washery,	Schuylkill,	43 558	1,918	434	45,910	137	44	.....	.....	.....	.....	2
Middleport Coal Co.												
Middleport washery,	Schuylkill,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Smith, Myers & Co.												
Myers washery,	Schuylkill,	64,378	1,600	.....	65,978	201	40	.....	.....	.....	.....	3
Grand totals,		2,652,972	510,299	60,116	3,223 387	136	13,382	23	61	36,808	331,101	1,338

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Number of Boilers.				Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.	Horse power.		Steam.	Air.	Electric.							
Philadelphia and Reading Coal and Iron Co.,	Schuylkill, ...	149	4,925	93	8,600	17,165	11	.....	.....	105	28,513	31	45,190	28,064	.....	.....
Lehigh Coal and Navigation Co.,	Schuylkill, ...	49	9.6	40	4,733	5,649	6	.....	.....	67	1,950	9	15,815	6,496	.....	.....
Dodson Coal Co.,	Schuylkill, ...	26	520	15	1,840	2,360	4	.....	.....	30	2,200	4	7,000	2,500	.....	.....
Truman M. Dodson Coal Co.,	Schuylkill, ...	.....	.....	12	1,440	1,440	.....	.....	.....	10	1,380	2	2,350	1,000	.....	1
St. Clair Coal Co.,	Schuylkill, ...	9	450	16	2,400	2,850	3	.....	2	22	1,200	4	1,020	600	2	.....
Beddall Bros.,	Schuylkill, ...	.....	.....	7	450	450	2	.....	.....	8	230	.....	.....	.....	.....	.....
Chas. S. Shindel,	Schuylkill, ...	.....	.....	2	230	230	.....	.....	.....	5	103	.....	.....	.....	.....	.....
Dunkelberger & Young,	Schuylkill, ...	.....	.....	2	80	80	.....	.....	.....	5	90	.....	.....	.....	.....	.....
Leisenring & Co.,	Schuylkill, ...	20	300	5	790	1,090	1	.....	.....	9	950	5	3,400	1,550	.....	.....
Lytle Coal Co.,	Schuylkill, ...	.....	.....	26	4,100	4,100	1	.....	.....	14	6,875	.....	5,000	5,000	.....	3
Silverton Coal Co.,	Schuylkill, ...	8	480	5	821	1,301	.....	.....	.....	10	608	2	518	518	.....	1
Davis Bros.,	Schuylkill, ...	.....	.....	4	60	240	.....	.....	.....	3	130	1	450	450	.....	.....
E. C. White & Co.,	Schuylkill, ...	6	180	1	125	305	.....	.....	.....	7	280	2	1,600	1,400	.....	.....
Mt. Hope Coal Co.,	Schuylkill, ...	4	80	12	725	805	2	.....	.....	.....	240	1	120	120	.....	.....
East Ridge Coal Co.,	Schuylkill, ...	.....	.....	6	570	570	.....	.....	.....	14	720	2	500	200	.....	.....
Pine Hill Coal Co.,	Schuylkill, ...	.....	.....	6	900	900	.....	.....	2	6	850	1	1,000	600	1	1
Losch, Snyder & Co.,	Schuylkill, ...	.....	.....	4	400	400	.....	.....	.....	4	118	1	200	150	.....	.....
Gorman & Campbell,	Schuylkill, ...	.....	.....	1	80	80	.....	.....	.....	1	40	.....	.....	.....	.....	.....
Slattery Bros.,	Schuylkill, ...	.....	.....	1	75	75	1	.....	.....	1	20	.....	.....	.....	.....	.....
Joseph H. Denning,	Schuylkill, ...	1	18	1	15	33	.....	.....	.....	3	70	.....	.....	.....	.....	.....
Butcher Creek Coal Co.,	Schuylkill, ...	.....	.....	2	90	90	.....	.....	.....	2	70	.....	.....	.....	.....	.....
Buck Run Coal Co.,	Schuylkill, ...	.....	.....	6	800	800	.....	.....	.....	8	500	1	450	450	.....	.....
Wm. Cook,	Schuylkill, ...	.....	.....	1	45	45	.....	.....	.....	2	24	.....	.....	.....	.....	.....
Darkwater Coal Co.,	Schuylkill, ...	7	210	2	90	300	.....	.....	.....	3	200	1	150	150	.....	.....
Phillips Bros.,	Schuylkill, ...	.....	.....	1	6	6	.....	.....	.....	1	4	.....	.....	.....	.....	.....
Stoddart Coal Co.,	Schuylkill, ...	4	64	3	280	344	.....	.....	.....	8	248	1	200	200	.....	.....
Middleport Coal Co.,	Schuylkill, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Smith, Myers & Co.,	Schuylkill, ...	.....	.....	3	150	150	1	.....	.....	6	300	.....	.....	.....	.....	.....
Grand totals,	....	292	8,143	277	13,282	21,425	32	.....	4	361	47,913	68	84,963	49,548	3	6

TABLE III—Showing the number of each class of employes at each colliery in the Eighth Anthracite District, during the year 1902.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.									Grand total inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.		Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Book-keepers and clerks.	All other employes.	Total outside.	
P. & R. Coal and Iron Co.																							
West Brooksdale,	Schuylkill, ..	4	2	11	306	141	66	26	.....	114	223	901	....	1	16	54	113	22	3	229	438	1,339	
Lincoln,	Schuylkill, ..	2	2	4	225	82	23	.....	.....	45	164	547	....	1	11	34	54	14	3	137	254	801	
Good Spring,	Schuylkill, ..	2	....	5	120	66	10	7	.....	47	79	330	....	1	7	24	83	12	2	96	225	555	
Otto,	Schuylkill, ..	1	1	5	207	89	28	13	.....	38	73	455	....	1	8	25	62	31	2	105	234	689	
Phoenix Park No. 3,	Schuylkill, ..	1	....	5	130	36	11	5	2	31	62	283	....	1	4	9	48	9	2	63	136	419	
Richardson,	Schuylkill, ..	1	....	3	33	28	9	5	.....	46	35	160	....	1	5	24	35	10	2	76	153	313	
Glendower,	Schuylkill, ..	1	....	4	85	52	16	5	.....	21	41	225	....	1	7	35	45	32	1	130	251	476	
Silver Creek,	Schuylkill, ..	1	1	10	250	144	36	9	.....	49	257	757	....	1	8	22	76	66	2	126	301	1,058	
Eagle Hill,	Schuylkill, ..	1	....	8	200	103	24	10	4	28	74	452	....	1	7	20	71	27	2	96	224	676	
Wadesville,	Schuylkill, ..	1	....	4	187	34	19	11	.....	29	73	358	....	1	5	21	45	21	2	66	161	522	
Pine Knot,	Schuylkill, ..	....	....	.....	2	54	.....	.....	.....	.....	.....	56	....	1	3	4	.....	.....	.....	30	38	94	
Kalmia washery,	Schuylkill, ..	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	1	.....	1	2	3	1	25	33	33	
Anchor washery,	Schuylkill, ..	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	1	2	1	3	3	1	40	51	51	
Totals,	.....	15	6	59	1,745	826	242	91	6	448	1,086	4,524	....	13	83	274	637	253	23	1,219	2,502	7,026	
Lehigh Coal and Nav. Co.																							
Colliery No. 8,	Schuylkill, ..	2	1	7	84	16	24	17	.....	83	136	370	....	1	5	13	27	24	.....	106	176	546	
Colliery No. 10,	Schuylkill, ..	1	2	5	64	32	31	13	2	57	98	305	....	1	6	20	44	18	.....	106	195	500	
Colliery No. 11,	Schuylkill, ..	1	1	4	56	23	16	9	2	45	114	269	....	1	7	14	53	15	.....	93	173	442	
Colliery No. 12,	Schuylkill, ..	1	1	1	4	6	12	.....	4	23	26	78	....	1	2	11	8	.....	.....	42	64	142	
Totals,	.....	5	5	17	208	75	83	39	8	208	374	1,022	....	4	20	58	132	57	.....	347	608	1,630	
Truman M. Dodson.																							
Kaska-William,	Schuylkill, ..	1	....	4	99	16	16	6	4	18	76	240	1	2	9	15	37	16	2	44	127	367	

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.											Occupations of Persons Employed Outside.									Grand total inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses and assistants.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	Pumpmen.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers (boys).	Slate pickers (men).	Book-keepers and clerks.	All other employes.	Total outside.	
Dodson Coal Co. Morea,	Schuylkill, ..	1	....	2	73	51	25	3	4	32	7	198	1	1	14	22	46	25	5	138	252	450
St. Clair Coal Co. St Clair colliery,	Schuylkill, ..	2	1	4	164	72	29	13	6	.....	28	259	1	1	10	30	33	6	3	168	252	511
Beddall Bros. Greenwood No. 13,	Schuylkill, ..	1	....	1	38	8	12	3	.....	30	7	100	1	1	5	5	30	1	1	43	87	187
Charles S. Shindel. East Lehigh,	Schuylkill, ..	1	1	.....	10	4	3	.....	.....	.....	.....	19	1	1	2	5	5	.....	2	19	35	54
Dunkelberger & Young. West Lehigh.	Schuylkill, ..	1	1	1	12	2	7	1	.....	.....	.....	25	1	1	3	4	3	.....	1	17	30	55
Leisenring & Co. Oak Hill.	Schuylkill, ..	1	....	6	220	41	27	8	4	39	.....	346	1	1	6	18	40	2	4	59	131	477
Lytle Coal Co. Lytle,	Schuylkill, ..	1	1	7	203	70	35	12	.....	39	122	490	1	2	21	37	76	8	7	88	240	730
Silverton Coal Co. Silverton,	Schuylkill, ..	1	....	3	63	19	18	5	2	27	.....	138	1	1	7	12	9	.....	1	45	76	214
Davis Bros. Ellsworth,	Schuylkill, ..	1	1	.....	4	18	5	.....	1	.....	.....	30	1	1	3	3	7	1	1	30	47	77

E. C. White & Co. Howard,	Schuylkill, ..	1	....	.....	.....	.....	.....	.....	2	1	.....	4	1	1	2	5	8	1	1	21	40	44
Mt. Hope Coal Co. Mt. Hope,	Schuylkill, ..	1	2	.....	6	6	6	.....	2	20	20	63	1	1	5	21	20	2	1	33	84	147
East Ridge Coal Co. East Ridge,	Schuylkill, ..	1	....	1	43	33	7	.....	2	2	19	108	1	1	6	9	14	27	2	74	134	242
Pine Hill Coal Co. Pine Hill,	Schuylkill, ..	1	2	3	111	28	9	3	2	5	58	222	1	1	2	8	53	1 4	2	43	124	346
Losch & Snyder. Lorberry,	Schuylkill, ..	1	....	2	9	20	.....	.....	2	.....	.....	34	....	1	1	7	3	.....	1	15	28	62
Corman & Campion. Bell,	Schuylkill, ..	1	....	.....	19	4	3	2	.....	4	.....	33	1	1	2	1	12	13	1	4	35	68
Slattery Bros. Tuscarora,	Schuylkill, ..	1	....	.....	24	6	3	.....	.....	3	.....	37	1	1	1	2	4	2	.....	4	15	52
Joseph H. Denning, Sebastopol,	Schuylkill, ..	1	1	.....	3	7	.....	.....	.....	.....	.....	12	1	1	.....	3	4	.....	.....	7	16	28
Butcher Creek Coal Co. Jugular,	Schuylkill, ..	1	....	.....	2	5	2	.....	.....	.....	.....	10	1	1	3	3	4	2	1	16	31	41
Buck Run Coal Co. Buck Run,	Schuylkill, ..	1	....	2	107	29	7	.....	2	32	23	203	1	1	8	7	25	5	3	47	97	300
William Cook. Oakley,	Schuylkill, ..	1	....	.....	3	1	1	.....	.....	.....	.....	6	....	....	.....	1	2	.....	.....	.....	3	9
Darkwater Coal Co. Roberts,	Schuylkill, ..	1	1	.....	25	60	6	.....	.....	15	.....	108	1	1	4	5	8	.....	1	15	35	143
Phillips Bros. Silver Hill,	Schuylkill, ..	1	....	.....	4	4	1	.....	.....	.....	.....	10	1	1	1	1	2	.....	1	5	12	22
Stoddart Coal Co. Wolf Creek washery,	Schuylkill, ..	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1	6	3	.....	1	31	44	44
Middleport Coal Co. Middleport washery,	Schuylkill, ..	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....
Smith, Myers & Co. Myers washery,	Schuylkill, ..	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	4	5	3	.....	2	24	40	40
Grand totals,	.....	44	22	112	3,135	1,405	547	186	47	923	1,820	8,241	23	43	224	574	1,220	435	67	2,556	5,142	13,383

TABLE III—Continued.

Names of Operators and Collieries.	County.	Number of Days Worked Each Month in Breaker.												
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Philadelphia and Reading Coal and Iron Co.,	Schuylkill,	20.37	20.38	19.40	21.88	7.16	.....	.66	3.40	5.27	11.05	21 06	21.59	152.2
Lehigh Coal and Navigation Co.,	Schuylkill,	15.5	15.9	15.28	19.16	6.86	.....	1.57	5.85	5.77	9.25	21.67	20.83	137.9
Truman M. Dodson,	Schuylkill,	20	10	18	18	6	.....	.....	.....	.....	10	24	21	127
Dodson Coal Co.,	Schuylkill,	14.3	19.5	16.2	8.2	.....	.....	.....	.....	.....	5.1	21 3	21.8	106.5
St. Clair Coal Co.,	Schuylkill,	21.2	18.3	21.1	22.9	9	.....	21	27.4	25.6	28.5	23.4	20.8	239.2
Beddall Bros.,	Schuylkill,	22.6	19.4	20	21.7	8.1	.....	.....	.....	11.6	23.1	21.6	22.7	170.8
Charles S. Shindel,	Schuylkill,	.....	9.3	21	19.2	9	.....	.....	.....	.....	17	22	22	120.5
Dunkelberger & Young,	Schuylkill,	24	20	21	16	10	.....	.....	.....	.....	15	20	21	117
Leisenring & Co.,	Schuylkill,	16.3	20.6	19.9	21.3	6.7	.....	.....	.....	.....	.....	17.2	15.3	117.3
Lytle Coal Co.,	Schuylkill,	19.3	17.7	16 3	18.2	5.5	.....	.....	.....	.....	.....	.....	12 6	89.6
Silverton Coal Co.,	Schuylkill,	3.1	14.6	16.6	18.7	.....	.....	.....	.....	.....	5.7	18.6	21 3	98.6
Davis Bros.,	Schuylkill,	24.8	22 5	24	23.8	9	.....	.....	.....	.....	8	24	25.5	161.6
E. C. White & Co.,	Schuylkill,	3.6	15.3	14.1	20.7	7.1	.....	.....	.....	.....	3	23.3	23.1	110.2
Mt. Hope Coal Co.,	Schuylkill,	15	11	16	21	8	.....	.....	.....	.....	7	20	17	115
East Ridge Coal Co.,	Schuylkill,	13.4	12.6	14 6	16	5	.....	.....	.....	.....	6.6	18.9	16.6	103.7
Pine Hill Coal Co.,	Schuylkill,	19.4	17.7	17.9	17	4.5	.....	.....	.....	.....	4.7	22	21.7	124.9
Losch & Snyder,	Schuylkill,	.....	.....	.....	.....	.....	.....	.....	.....	.....	6.1	22.7	13.6	42 4
Gorman & Campion,	Schuylkill,	22.4	22.5	21	21.3	6.7	.....	.....	.....	.....	8	25	26	152 9
Slattery Bros.,	Schuylkill,	20	17.6	15	16.2	6.9	.....	.....	.....	.....	2.8	21.8	20.4	120.7
Joseph H. Denning,	Schuylkill,	21	20	21	21	21	20	21	23	22	23	23	24	260
Butcher Creek Coal Co.,	Schuylkill,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12	12
Buck Run Coal Co.,	Schuylkill,	.....	.....	9.1	20.2	5.7	.....	.....	.....	.....	6.1	19.1	22.1	82.2
William Cook,	Schuylkill,	13	13	10	11	4	.....	.....	.....	10	13	13	12	99
Darkwater Coal Co.,	Schuylkill,	7	.....	.....	.....	.....	.....	.....	.....	.....	7	24	18	56
Phillips Bros.,	Schuylkill,	.....	.....	.....	.....	.....	.....	.....	.....	24	27	26	27	104
Stoddart Coal Co.,	Schuylkill,	20.4	17.5	20.6	22	7.6	.....	.....	.....	.....	5.6	22.1	21	137
Middleport Coal Co.,	Schuylkill,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Smith, Myers & Co.,	Schuylkill,	15	12	9	24	20	.....	3	23	24	26	17	28	201

TABLE IV—List of fatal accidents that occurred in and about the mines of the Eighth Anthracite District for the year ending December 31, 1902.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of Widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 18	Michael Adamus,	Slav,	Miner,	44	M.	1	4	St. Clair,	Schuylkill,	Killed by fall of rock.
21	Hen. Rosenberger,	American,	Miner,	42	M.	1	8	Silverton,	Schuylkill,	Killed by fall of slate.
24	Cyrus Miller,	American,	Driver,	19	S.			Bell,	Schuylkill,	Killed by battery in chute breaking away.
29	Jas. Cannon,	American,	Bot. man,	17	S.			Lytle,	Schuylkill,	Fatally injured by being caught between car and prop.
Feb. 1	Thos. J. Ryan,	American,	Laborer,	17	S.			East Ridge,	Schuylkill,	Killed by being caught in cog wheels of elevators.
27	Michl. Leko,	Pole,	Laborer,	26	S.			Mt. Hope,	Schuylkill,	Killed by chute falling on him.
March 15	Jos. Kobella,	Slav,	Miner,	45	M.	1	7	Oak Hill,	Schuylkill.	Killed by fall of rock.
24	Con. Dalphias,	Austrian,	Miner,	21	S.			Pine Hill,	Schuylkill,	Fatally injured by premature blast. Died March 26.
25	Mart. Barniss,	Pole,	Laborer,	35	M.	1		Silver Creek,	Schuylkill,	Killed by fall of slate.
April 10	Barney Purcitus,	Pole,	Miner,	23	S.			Silver Creek,	Schuylkill,	Fatally burned by explosion of gas. Died April 20.
10	Chas. Binski,	Lithuanian,	Miner,	46	M.	1	6	Phoenix Park,	Schuylkill,	Killed by fall of slate.
11	Wm. Heffelfinger,	American,	Loader,	20	S.			Colliery No. 10,	Schuylkill,	Killed; piece of slate fell on him.
29	Wm. Brode,	German,	Miner,	28	M.	1	1	Colliery No. 8,	Schuylkill,	Killed by fall of slate.
July 2	John Doyle,	American,	Asst. carp.,	17	S.			St. Clair,	Schuylkill,	Killed by being run over by car at breaker.
Oct. 28	Ed. Thomas,	Welsh,	Repairman,	27	M.	1	1	St. Clair,	Schuylkill,	Killed by being run over by mine cars.
Nov. 6	Anth. Poharski,	Pole,	Miner,	42	S.			Silver Creek,	Schuylkill,	Killed by fall of slate.
20	Frk. Bolman,	Pole,	Miner,	48	M.	1	3	Silver Creek,	Schuylkill,	Fatally injured by fall of coal; died same day.
24	Jos. Gray,	Pole,	Miner,	50	S.			Silver Creek,	Schuylkill,	Fatally injured by fall of coal; died same day.
27	Thos. Mitchell,	Italian,	Loco. helper	20	S.			St. Clair,	Schuylkill,	Fatally injured; caught between car and locomotive.
Dec. 6	Eug. Sullivan,	American,	Driver,	18	S.			Wadesville,	Schuylkill,	Fatally injured; stepped under mine car while attempting to get on.
12	Fred. Arner,	American,	Driver,	17	S.			Greenwood,	Schuylkill,	Killed; caught between gangway and mine car.
18	John Sinko,	Slav,	Laborer,	35	M.	1		East Ridge,	Schuylkill,	Fatally injured; struck by tension wheel of tram line.
31	Jacob Klshart,	German,	Miner,	57	M.	1		Colliery No. 11,	Schuylkill,	Killed; struck by piece of coal rolling from top of stripping.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Eighth Anthracite District for the year ending December 31, 1902.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 1	John Batick,	Pole,	Pumpman,	28	M.	Morea,	Schuylkill.	Arm broken while repairing pump.
2	Mich. Joebry,	Pole,	Driver,	17	S.	St. Clair,	Schuylkill.	Leg injured; caught between cars.
10	John Wendling,	American,	Laborer,	20	S.	Lorberry,	Schuylkill,	Hand mashed; caught in cog wheels.
25	Luke Radingo,	Hungarian,	Jig runner,	14	S.	St. Clair,	Schuylkill,	Leg broken; stepped into jig.
28	Jos. Mochitus,	Pole,	Miner,	44	M.	Lytie,	Schuylkill,	Head and body injured by coal bursting out of face of chute.
Feb. 8	Mat. Metlavage,	Pole,	Miner,	27	S.	Silver Creek,	Schuylkill.	Injured by fall of coal.
12	Edgar McGeary,	American,	Driver,	19	S.	Lytie,	Schuylkill,	Injured; caught between car and timebr while riding on side of car.
13	Thomas Farrel,	American,	Miner,	36	S.	Pine Hill,	Schuylkill,	Burned by explosion of gas.
13	Chas. Breman,	American,	Miner,	41	M.	Pine Hill,	Schuylkill,	Burned by explosion of gas.
17	Christ. Long,	American,	Miner,	35	M.	Lincoln,	Schuylkill,	Arm broken; struck by piece of coal from blast.
19	Adam Locloski,	Pole,	Miner,	30	M.	Eagle Hill,	Schuylkill,	Burned by explosion of gas.
20	Simon Feeler,	German,	Miner,	40	M.	Colliery No. 10,	Schuylkill.	Burned by explosion of gas.
21	Jos. Cecitus,	Pole,	Miner,	39	M.	Morea,	Schuylkill,	Leg injured; attempted to cross between cars.
28	Jos. Dougshes,	Pole,	Miner,	29	S.	Silver Creek,	Schuylkill.	Burned by explosion of gas.
28	And. Koodeski,	Pole,	Laborer,	26	S.	Silver Creek,	Schuylkill,	Burned by explosion of gas.
March 3	John Yost,	German,	Engineer,	21	S.	Eagle Hill,	Schuylkill,	Injured by being thrown into fly wheel pit.
5	John Hoke,	American,	Miner,	42	S.	Oak Hill,	Schuylkill,	Hip dislocated by fall of coal.
12	Hen. Simmons,	American,	Miner,	33	M.	St. Clair,	Schuylkill,	Burned by explosion of gas.
12	Jos. Haiuska,	Pole,	Laborer,	38	M.	St. Clair,	Schuylkill,	Burned by explosion of gas.
15	John Wallushick,	Austrian,	Laborer,	32	S.	St. Clair,	Schuylkill,	Leg broken while unhooking chains from car.
24	Jos. Daletoram,	Austrian,	Miner,	24	S.	Pine Hill,	Schuylkill,	Arm broken; premature explosion of blast.
24	Thomas McGolick,	American,	Laborer,	20	S.	Colliery No. 8,	Schuylkill,	Leg injured between cars.
27	John Kalko,	Hungarian,	Laborer,	36	M.	Silverton,	Schuylkill,	Leg injured by car.
28	Hump. Horan,	American,	Loader,	23	S.	Buck Run,	Schuylkill,	Toe mashed by coal rolling down slope.
April 3	Mich. Demshut,	Hungarian,	Laborer,	44	M.	Mt. Hope,	Schuylkill,	Leg broken by dumper falling on him.
7	Frk. Guetting,	German,	Laborer,	19	S.	Silverton,	Schuylkill,	Leg injured by being caught in shaft of wheel.
12	Jas. Lloyd,	Welsh,	Miner,	38	M.	Eagle Hill,	Schuylkill,	Hip dislocated by fall of coal.
15	Danl. Rodgers,	Irish,	Miner,	35	M.	Colliery No. 11,	Schuylkill,	Burned by explosion of gas.

	15	Mich. Burns,	Irish,	Miner,	40	S.	Colliery No. 11,	Schuylkill,	Burned by explosion of gas.
	16	Lew Remph,	German,	Miner,	28	M.	Otto,	Schuylkill,	Leg broken by fall of coal.
	21	John Wood,	English,	Footman,	25	S.	St. Clair,	Schuylkill,	Leg broken by being caught between empty cars.
	25	Pat. Dougherty,	American,	Loader,	21	S.	Kaska William,	Schuylkill,	Body injured by falling down schute.
	28	Dav. Jones,	Welsh,	Miner,	47	M.	Colliery No. 8,	Schuylkill,	Ankle and four ribs broken by fall of slate.
	30	Peter Sheaffer,	German,	Miner,	55	M.	Brookside,	Schuylkill,	Hand injured by fall of coal.
May	1	Jos. Wagner,	American,	Miner,	45	M.	Good Spring,	Schuylkill,	Face and chest injured by premature explosion of blast.
	2	Pet. Gallagher,	Hungarian,	Miner,	27	M.	Eagle Hill,	Schuylkill,	Burned by explosion of gas.
	6	John O'Neil,	American,	Miner,	40	M.	Kaska William,	Schuylkill,	Leg broken by piece of coal rolling on it from the gob.
	10	Jos. Stelso,	Austrian,	Tip man,	22	S.	Kaska William,	Schuylkill,	Arm broken by falling from breaker trestle.
July	2	Anth. Heatton,	Italian,	Laborer,	19	S.	St. Clair,	Schuylkill,	Leg torn off; caught between wheels of railroad car.
Oct.	4	Hen. E. Smith,	American,	Laborer,	44	M.	Brookside,	Schuylkill,	Foot mashed between cars.
	30	Har. Koble,	American,	Loader,	19	S.	Lincoln,	Schuylkill,	Injured between car and schute.
Nov.	5	Hilry Mcase,	American,	Driver,	28	M.	Lincoln,	Schuylkill,	Leg broken; bumped between car and mule.
	5	Chas. Tobias,	American,	Slate picker,	15	S.	Silverton,	Schuylkill,	Legs broken; fell on line shaft of coal elevators.
	5	Geo. Jubin,	Hungarian,	Laborer,	33	M.	Morea,	Schuylkill,	Contusion of head; struck by dumper on stripping.
	12	Geo. Brady,	American,	Pumpman,	22	S.	St. Clair,	Schuylkill,	Leg broken; struck by piece of lumber.
	15	Wm. Conseavage,	Pole,	Miner,	27	S.	Colliery No. 12,	Schuylkill,	Fingers blown off by premature explosion of blast.
	17	Emil Zemblarzi,	Tyrolean,	Miner,	32	S.	Otto,	Schuylkill,	Arm broken by explosion of blast.
	19	Wm. H. James,	Welsh,	Miner,	31	S.	Pine Hill,	Schuylkill,	Body badly bruised; back supposed to be fractured; struck by fall of coal.
	19	Irvin Gist,	American,	Laborer,	19	S.	Brookside,	Schuylkill,	Arm broken; while riding on car. It jumped the track, throwing him on rail.
	25	Frk. Botwich,	Lithuanian,	Laborer,	27	M.	Kaska William,	Schuylkill,	Collar bone broken; struck by mine car.
	25	Mich. Matika,	Slav,	Miner,	25	S.	St. Clair,	Schuylkill,	Head and leg injured by fall of coal and bone.
	27	Harry Williams,	American,	Laborer,	18	S.	Darkwater,	Schuylkill,	Foot injured while walking on rail.
	29	Rob. Walters,	Irish,	Miner,	42	M.	Brookside,	Schuylkill,	Arm broken; struck by hammer in hands of partner.
Dec.	1	John Sonvka,	Slav,	Laborer,	25	S.	Morea,	Schuylkill,	Leg bruised; struck by car turning over on him.
	1	John R. Brennan,	Irish,	Miner,	48	M.	East Ridge,	Schuylkill,	Face and head cut; struck by coal from blast.
	1	James Curran,	Irish,	Miner,	31	M.	East Ridge,	Schuylkill,	Face and head cut; struck by coal from blast.
	3	John Farrel,	Irish,	Miner,	32	M.	Good Spring,	Schuylkill,	Face and hands burned by explosion of powder in keg.
	3	Irving Rupp,	American,	Laborer,	19	S.	Brookside,	Schuylkill,	Leg broken; attempted to get on mine locomotive while it was in motion.
	6	Wm. Kramer,	American,	Laborer,	45	M.	Brookside,	Schuylkill,	Fingers mashed while unloading oil barrel from truck.
	21	John Scriddie,	Pole,	Miner,	30	S.	Silver Creek,	Schuylkill,	Body injured and leg fractured by fall of coal.

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Dec. 22	Jeremiah Mahoney, ...	American, ...	Miner, ...	51	M.	Darkwater, ...	Schuylkill,	Cut on wrist by fall of coal.
22	Thos. R. Jones, ...	Welsh, ...	Miner, ...	66	M.	Buck Run, ...	Schuylkill,	Arm broken; caught between mine car and timber at head of slope.
24	Jonathan Troutman, ..	American, ...	Repairman, ...	46	M.	Brookside, ...	Schuylkill,	Leg broken; struck by piece of coal rolling down slope.
26	And. Hentz, ...	American, ...	Laborer, ...	25	S.	Good Spring, ...	Schuylkill,	Arm caught between locomotive and mine car.

First Bituminous District.

ALLEGHENY, FAYETTE, WASHINGTON, WESTMORELAND AND GREENE COUNTIES.

Monongahela, Pa., March 31, 1903.

Hon. James W. Latta, Secretary of Internal Affairs:

Sir:I have the honor to submit herewith my annual report as Inspector of Mines for the First Bituminous District, for the year ending December 31, 1902.

Two new mines have been opened and one abandoned since my last report.

The total production of coal for the year, as reported by the operators, shows 10,980,533 tons, being an increase of 2,871,875 tons over that of the previous year.

Two hundred and forty-six accidents occurred in and about the mines; sixty-six of which proved fatal.

By these accidents, thirty-nine wives were made widows and eighty-seven children fatherless.

In the body of the report the condition of each mine district is described.

A marked increase in the sanitary condition of the mines was shown in the examinations made.

The usual tables accompany this report, together with others of interest, to which the reader is referred.

Respectfully submitted,

HENRY LOUTTIT,
Inspector of Mines.

Summary of Statistics for 1902.

Number of mines in district,	87
Number of mines in operation during 1902,	73
Number of tons of coal produced,	10,980,533
Number of tons shipped to market,	10,773,732
Number of tons sold at mines to local trade,	53,302

Number of tons consumed at mines in generating steam and heat,	153,499
Number of tons produced by pick mining,	2,487,349
Number of tons produced by compressed air machines,	1,693,920
Number of tons produced by electrical machines,	6,799,264
Number of persons employed inside the mines,	10,592
Number of persons employed outside,	1,540
Number of fatal accidents inside the mines,	63
Number of tons produced for each fatal accident inside,	174,294
Number of persons employed per fatal accident inside,	192
Number of fatal accidents outside,	3
Number of persons employed per fatal accident outside,	4,044
Number of wives made widows by fatal accidents,	39
Number of children orphaned by fatal accidents,	87
Number of non-fatal accidents inside of mines,	176
Number of persons employed per non-fatal accident inside,	68
Number of non-fatal accidents outside,	4
Number of persons employed per non-fatal accident outside,	3,033
Number of electric motors used inside,	42
Number of fans used for ventilation,	58
Number of furnaces used for ventilation,	25
Number of gaseous mines in operation during 1902,	50
Number of non-gaseous mines in operation during 1902,	23
Number of new mines opened in 1902,	2
Number of old mines abandoned during 1902,	1

A. Production of Coal During the Year 1902.

Names of Companies.	Tons.
M. R. C. C. and C. Co.,	4,172,544
Pittsburg Coal Co.,	2,223,130
Vesta Coal Co.,	1,465,179
James W. Ellsworth & Co.,	618,934
Manufacturers' and Consumers' Coal Co.,	361,315
C. Jutte & Co.,	329,563
Charleroi Coal Co.,	268,881
United Coal Co.,	235,476
Hazel Kirk Gas Coal Co.,	211,391
Schoenberger Gas Coal Co.,	205,180
Clyde Coal Co.,	145,136
Stockdale Coal Co.,	137,760

Henderson Coal Co.,	133,353
A. R. Budd,	122,108
Crescent Coal Co.,	109,798
Star Coal Co.,	101,500
Bunola Mining Co.,	40,817
Dilworth Coal Co.,	36,400
People's Coal Co.,	27,691
W. H. Flint & Co.,	22,747
Domestic Coal Co.,	10,675
Dunkirk Coal Co.,	955

Coal production by counties:

Washington county,	6,159,948
Fayette county,	1,902,177
Allegheny county,	1,825,336
Westmoreland county,	1,056,672
Greene county,	36,400

Number of tons produced per employe, 905.08.

Total,	10,980,533

B. Showing the number of fatal and non-fatal accidents inside and outside the mines; number of tons of coal produced per fatal and non-fatal accident inside the mines; number of persons employed inside and outside; and the number employed inside and outside for every fatal and non-fatal accident for each company during 1902.

Names of Companies.	Number of lives lost inside.	Number of lives lost outside.	Total number of lives lost.	Number severely injured inside.	Number severely injured outside.	Total number severely injured.	Tons of coal produced per each life lost inside.	Tons of coal produced per serious injury inside.	Number employes inside of mines.	Number employes outside of mines.	Total number employed.	Number of employes inside for each life lost.	Number of employes inside for each severe injury.	Number of employes outside for each life lost.	Number of employes outside for each severe injury.
Monongahela River Consolidated Coal and Coke Co.	26	.....	26	83	2	85	160 482	50,271	4,383	577	4,960	168	52	.....	288
Pittsburg Coal Co.,	10	1	11	39	2	41	223,130	57,003	2,060	300	2,360	206	52	300	150
Charlerol Coal Co.,	1	.....	1	4	.....	4	268,881	67,220	228	24	252	228	57	.....	.....
James W. Ellsworth & Co.,	2	2	4	7	.....	7	349,467	88,419	521	124	645	260	74	62	.....
Vesta Coal Co.,	7	.....	7	6	.....	6	209 311	241.196	1,067	181	1,248	152	177	.....	.....
C. Jutte & Co.,	3	.....	3	1	.....	1	109,854	329,563	310	42	352	103	310	.....	.....
Hazel Kirk Gas Coal Co.,	2	.....	2	6	.....	6	105 695	35,231	160	19	179	80	26	.....	.....
Schoenberger Gas Coal Co.,	1	.....	1	9	.....	9	205,180	22,797	199	29	228	199	199	.....	.....
Clyde Coal Co.,	1	.....	1	1	.....	1	145,136	145,136	141	21	162	141	141	.....	.....
Dilworth Coal Co.,	.....	.....	.....	1	.....	1	.....	36,400	63	36	99	.....	63	.....	.....
Stockdale Coal Co.,	1	.....	1	2	.....	2	137,760	68,880	122	14	136	122	61	.....	.....
Domestic Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	21	9	30	.....	.....	.....	.....
Henderson Coal Co.,	1	.....	1	2	.....	2	133,353	66,676	112	11	123	112	56	.....	.....
W. H. Flint & Co.,	.....	.....	.....	.....	.....	.....	.....	.....	52	13	65	.....	.....	.....	.....
Star Coal Co.,	.....	.....	.....	2	.....	2	.....	50,750	125	13	138	.....	62	.....	.....
A. R. Budd,	1	.....	1	2	.....	2	122 198	61,054	211	19	230	211	105	.....	.....
Crescent Coal Co.,	1	.....	1	2	.....	2	109,798	54,899	112	16	128	112	56	.....	.....
United Coal Co.,	2	.....	2	.....	.....	.....	117,738	.....	169	21	190	84	.....	.....	.....
Dunkirk Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	14	9	23	.....	.....	.....	.....
Manufacturers' and Consumers' Coal Co.,	4	.....	4	8	.....	8	90,328	45,164	416	44	460	104	52	.....	.....
People's Coal Co.,	.....	.....	.....	1	.....	1	.....	27,691	106	18	124	.....	106	.....	.....
Totals and averages,	63	3	66	176	4	180	2,448,221	1,451,350	10,592	1,540	12,132	2,282	1,649	362	438

C. Classification of Fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total Inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
January,	.....	3	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	6
February,	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	1	2
March,	.....	2	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	8	.....	.....	.....	.....	.....	.....	8
April,	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
May,	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	5	.....	.....	.....	.....	.....	.....	5
June,	1	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	7	.....	.....	.....	.....	.....	.....	7
July,	1	6	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	9	.....	1	.....	.....	.....	1	10
August,	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	.....	.....	.....	.....	.....	.....	2
September,	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
October,	.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	7	.....	.....	.....	.....	.....	.....	7
November,	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	4	.....	.....	.....	.....	.....	.....	4
December,	.....	2	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	8	.....	.....	.....	.....	1	1	9
Totals,	2	36	.....	4	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	12	63	1	1	.....	.....	1	3	66

D. Classification of Non-fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						
	By Falls of								By Falling into														
	Coal.	Slate.	Roof.	By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	Shafts.	Slopes.	Manways, breasts, etc.	Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
January,	3	5	.....	5	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	6	20	.....	.....	.....	.....	.....	.....	20
February,	.....	4	.....	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	9	.....	.....	.....	.....	.....	.....	9
March,	1	4	1	3	2	.....	.....	1	1	.....	.....	.....	.....	.....	2	15	.....	.....	.....	.....	1	1	16
April,	5	5	1	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	3	16	.....	.....	.....	.....	.....	.....	16
May,	.....	4	2	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	15	.....	.....	.....	.....	.....	.....	15
June,	1	10	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	17	.....	.....	.....	.....	1	1	18
July,	.....	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	13	.....	.....	.....	.....	.....	.....	13
August,	1	6	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	16	.....	.....	.....	.....	1	1	17
September,	.....	10	1	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	19	.....	.....	.....	.....	.....	.....	19
October,	1	3	.....	1	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	7	1	.....	.....	.....	.....	1	8
November,	.....	2	2	4	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	6	15	.....	.....	.....	.....	.....	.....	15
December,	1	4	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	14	.....	.....	.....	.....	.....	.....	14
Totals,	13	66	9	31	3	.....	1	5	1	.....	.....	.....	.....	.....	47	176	1	.....	.....	.....	3	4	180

E. Occupations of Employes Killed or Fatally Injured Inside and Outside the Mines of the First Bituminous District During 1902.

Months.	Inside:												Outside.								Grand total.
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
January,	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	.....	.....	6
February,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	1	2
March,	1	.....	2	3	.....	.....	.....	1	.....	1	.....	8	.....	.....	.....	.....	.....	.....	.....	.....	8
April,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
May,	.....	.....	.....	4	.....	.....	.....	.....	1	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	5
June,	.....	.....	.....	8	.....	.....	.....	.....	.....	1	.....	9	.....	.....	.....	.....	.....	.....	.....	.....	9
July,	.....	.....	.....	8	.....	.....	.....	.....	1	.....	.....	9	.....	.....	.....	1	.....	.....	.....	1	10
August,	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	3
September,	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	3
October,	.....	.....	.....	4	1	.....	1	1	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	.....	.....	7
November,	.....	.....	.....	3	1	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	4
December,	.....	.....	.....	7	.....	.....	.....	.....	.....	1	.....	8	.....	1	.....	.....	.....	.....	.....	1	9
Totals,	1	.....	2	50	2	.....	1	2	2	3	.....	63	.....	1	.....	1	.....	.....	1	3	66

F. Occupations of Employes Severely Injured Inside and Outside the Mines of the First Bituminous District During 1902.

Months	Inside.												Outside.								Grand total.
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
January,	.....	.....	.....	14	2	.....	1	1	1	1	.....	20	.....	.....	.....	.....	.....	.....	.....	.....	20
February,	.....	.....	.....	6	.....	.....	.....	3	.....	.....	.....	9	.....	.....	.....	.....	.....	.....	1	1	10
March,	.....	.....	.....	10	1	.....	.....	1	.....	3	.....	15	.....	.....	.....	.....	.....	.....	.....	.....	16
April,	.....	.....	.....	13	.....	.....	1	3	.....	.....	.....	16	.....	.....	.....	.....	.....	.....	.....	.....	15
May,	.....	.....	.....	11	.....	.....	.....	3	.....	1	.....	15	.....	.....	.....	.....	.....	.....	.....	.....	15
June,	.....	.....	1	15	.....	.....	.....	1	.....	.....	.....	17	.....	.....	.....	.....	.....	.....	1	1	18
July,	.....	.....	1	11	.....	.....	1	.....	.....	.....	.....	13	.....	.....	.....	.....	.....	.....	.....	.....	13
August,	1	.....	.....	11	.....	1	1	1	.....	1	.....	16	.....	.....	1	.....	.....	.....	.....	1	17
September,	.....	.....	.....	15	1	.....	.....	2	.....	1	.....	19	.....	.....	.....	.....	.....	.....	.....	.....	19
October,	.....	.....	.....	6	.....	.....	.....	1	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	1	1	8
November,	.....	.....	.....	9	2	.....	1	1	1	1	.....	15	.....	.....	.....	.....	.....	.....	.....	.....	15
December,	.....	.....	.....	9	.....	.....	.....	4	.....	1	.....	14	.....	.....	.....	.....	.....	.....	.....	.....	14
Totals,	1	.....	2	130	6	1	5	20	2	9	.....	176	.....	.....	1	.....	.....	.....	3	4	180

G. Nationality of Employes Killed or Fatally Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Welsh.	Scotch.	Germans.	Poles.	Hungarians.	Italians.	Slavs.	Lithuanians.	Austrians.	Russians.	French.	Finns.	Grand total.
January,								3	1			1	1		6
February,					1		1								8
March,	1	4		1			1		1						8
April,								1							1
May,						1	1		1			1		1	5
June,	2						3	2	1					1	9
July,	2	1			1	1	1		1		3				10
August,	1	1													2
September,			1						1	1					3
October,	1	1				1			2		2				7
November,						1	1					2			4
December,	3							2	3			1			9
Totals,	10	7	1	1	2	4	8	8	11	1	5	5	1	2	66

H. Nationality of Employes Severely Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Welsh.	Scotch.	Irish.	Germans.	Poles.	Hungarians.	Italians.	Slavs.	Lithuanians.	Austrians.	Russians.	French.	Finns.	Grand total.
January,	6					2	3	2	1	1			5			20
February,	3	1	1						1	3						9
March,	3	3					3		3			3			1	16
April,	2							5	5	4	1		1			16
May,	3			1		1	1	2	3	4						15
June,	3	1			1		3	3	1	4		1			1	18
July,	2			2			2	3		4						13
August,	5	1				1	1	1	2	5		1				17
September,	4	3					3	2		6			1			19
October,	2						1		3	2						8
November,	5					2		2	3	1				2		15
December,	3			2		1			4	2			1		1	14
Totals,	41	9	1	5	1	7	17	20	24	35	1	5	8	2	3	180

I. Giving names of operators and mines, kind of openings, type and size of fans; size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each employe per minute in the mines of First Bituminous District for the year 1902.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Monongahela River Consolidated Coal and Coke Co.														
Abe Hays,	Drift,	Gaseous,	Furnace,					45						
Allequippa,	Drift,	Non-gas.	Furnace,											
Apollo,	Drift,	Gaseous,	Fan,	6 x 18		Robinson,	Steam,		3	27,000	26,230	39,000	200	135
Bunola,	Drift,	Gaseous,	Fan,	5 x 16		Pollock,	Steam,			36,000	13,500	56,000	42	857
Black Diamond,	Drift,	Gaseous,	Fan,	6 x 20		Scranton,	Steam,							
Beaumont,	Slope,	Gaseous,	Fan,	4 x 14		Cole,	Steam,		4	28,800	30,480	30,640	151	190
Camden,	Drift,	Non-gas.	Furnace,					42						
Coal Bluff,	Drift,	Gaseous,	Fan,	4 x 9.4		Capell,	Steam,		2	65,800	29,910	56,000	142	463
Cincinnati,	Drift,	Gaseous,	Fan,	6.4 x 16		Irwin,	Steam,		2	53,200	21,680	40,000	143	372
Catsburg,	Drift,	Gaseous,	Fan,	4 x 16		Pollock,	Steam,		1	45,000	35,630	47,000	143	314
Champion,	Drift,	Gaseous,	Furnace,					64						
Clipper,	Drift,	Non-gas.	Fan,	3 x 10		Brazil,			2	14,000	15,240	18,000	137	102
Crescent,	Slope,	Gaseous,	Fan,						1	34,400	12,800	36,000	124	277
Eclipse,	Drift,	Gaseous,	Fan,	5 x 18		Pollock,	Steam,		3	44,370	26,380	69,000	132	336
Fayette City,	Drift,	Gaseous,	Fan,	5 x 16		Vulcan,	Steam,		3	48,000	38,500	50,000	139	345
Fox,	Drift,	Non-gas.	Furnace,											
Gallatin,	Drift,	Gaseous,	Fan,	7 x 20		Pollock,	Steam,		3	57,600	16,210	54,000	130	443
Hilldale,	Drift,	Non-gas.	Furnace,					52	2	22,020	12,060	24,000	95	231
Ivill,	Drift,	Gaseous,	Fan,	8.8 x 20		Pollock,	Steam,							
Knob,	Slope,	Gaseous,	Fan,	5.6 x 19		Vulcan,	Steam,		2	35,000	26,200	54,000	181	193
Little Redstone,	Drift,	Gaseous,	Fan,	7 x 20		Pollock,	Steam,		2	39,980	27,000	57,000	125	296
Milesville,	Drift,	Gaseous,	Fan,	6.6 x 20		Pollock,	Steam,		2	44,100	38,700	64,000	178	373
Mongah,	Drift,	Gaseous,	Fan,	7 x 20		Pollock,	Steam,		3	61,300	32,240	60,000	150	408
New Eagle,	Drift,	Gaseous,	Furnace,											
Old Eagle,	Drift,	Gaseous,	Fan,	6 x 20		Scranton,	Steam,							
Pine Run,	Drift,	Non-gas.	Fan,	1.6 x 6		Cole,	Steam,							

Rock Run,	Drift, ..	Non-gas.	Furnace,					40	3	20,960	22,760	36,000	115	182
Risher,	Drift, ..	Non-gas.	Fan, ...	6.6 x 20	.....	Pollock, ...	Steam, ..	.....	.....	13,600	7,600	23,000	15	906
Rostraver,	Drift, ..	Non-gas.	Furnace,		.....			16	3	10,260	9,200	16,650	68	150
Riverville,	Drift, ..	Non-gas.	Furnace,		.....			.....	.....	.....	.....	.....	.....	.....
Tremont,	Drift, ..	Gaseous,	Fan, ...	4.6 x 16	.....	Robinson, ..	Steam, ..	.....	3	42,140	19,920	33,200	154	273
Vigilant,	Slope, ..	Gaseous,	Fan, ...	8 x 25	.....	Pollock, ...	Steam, ..	.....	.....	48,000	15,500	35,000	160	360
Walton, Upper and Lower,*	Drift, ..	Gaseous,	Furnace,		.....			120	.....	.....	.....	.....	.....	.....
Pittsburg Coal Co.														
Arnolds, Nos. 1 and 3,	Drift, ..	Gaseous,	Fan, ...	9 x 25	.....	Robinson, ..	Steam, ..	.....	5	77,500	59,960	78,200	132	587
Arnold No. 2,	Shaft, ..	Gaseous,	Fan, ...	6 x 18	.....	Nelsonville,	Steam, ..	.....	4	79,400	38,000	78,000	116	606
Anderson,	Drift, ..	Non-gas.	Fan, ...	4 x 12	.....	Pollock, ...	Steam, ..	.....	.....	.....	.....	.....	.....	.....
Banner,	Drift, ..	Gaseous,	Fan, ...	7 x 20	.....	Brazil, ...	Steam, ..	.....	2	41,650	30,580	40,350	167	389
Buffalo,	Drift, ..	Gaseous,	Fan, ...		.....			.....	.....	.....	.....	.....	.....	.....
Cliff,	Drift, ..	Gaseous,	Furnace,		.....			.....	.....	.....	.....	.....	.....	.....
Courtney,	Slope, ..	Gaseous,	Furnace,		.....			25	.....	20,000	11,600	27,000	59	338
Equitable,	Drift, ..	Gaseous,	Fan, ...	4.6 x 16	.....	Pollock, ...	Steam, ..	.....	2	27,000	17,220	30,000	97	278
Eclipse,	Drift, ..	Gaseous,	Fan, ...	1.6 x 6	.....	Clark, ...	Steam, ..	.....	3	36,500	24,340	45,000	116	314
Fidelity,	Drift, ..	Non-gas.	Furnace,		.....			30	.....	.....	.....	.....	.....	.....
Germania,	Drift, ..	Non-gas.	Fan, ...	4 x 12	.....	Pollock, ...	Steam, ..	.....	3	43,550	28,320	42,000	110	395
Gastonville No. 1,	Drift, ..	Non-gas.	Furnace,		.....			.....	.....	.....	.....	.....	.....	.....
Gastonville No. 2,	Drift, ..	Non-gas.	Furnace,		.....			.....	.....	.....	.....	.....	.....	.....
Little Squaw,	Drift, ..	Gaseous,	Fan, ...	4 x 16	.....	Pollock, ...	Steam, ..	.....	2	40,600	10,500	43,200	132	307
Manown,	Drift, ..	Gaseous,	Fan, ...	7 x 20	.....	Brazil, ...	Steam, ..	.....	2	34,400	24,150	54,000	104	330
North Webster,	Drift, ..	Gaseous,	Furnace,		.....			40	2	24,000	19,200	36,000	110	218
Nottingham,	Drift, ..	Gaseous,	Fan, ...	4 x 15	.....	Brazil, ...	Steam, ..	.....	.....	.....	.....	.....	.....	.....
Somers No. 1,	Drift, ..	Gaseous,	Fan, ...	5 x 18	.....	Robinson, ..	Steam, ..	.....	4	59,320	30,580	65,000	131	452
Somers No. 2,	Drift, ..	Gaseous,	Fan, ...	5 x 18	.....	Robinson, ..	Steam, ..	.....	6	39,000	65,510	60,000	171	228
Somers No. 3,	Drift, ..	Non-gas.	Furnace,		.....			20	.....	20,940	11,500	20,640	54	387
Somers No. 4,	Drift, ..	Non-gas.	Fan, ...	1 x 6	.....	Stine, ...	Electric,	.....	.....	36,000	19,000	25,000	60	600
Charleroi Coal Co.														
Charleroi No. 1,	Drift, ..	Gaseous,	Fan, ...	5 x 20	.....	Vulcan, ...	Steam, ..	.....	3	61,750	20,200	72,000	135	457
Charleroi No. 2,	Drift, ..	Gaseous,	Furnace,		.....			15	.....	.....	.....	.....	.....	.....
Henderson Coal Co.														
Irons,	Drift, ..	Non-gas.	Furnace,		.....			42	3	31,590	26,900	54,000	93	339
W. H Flint & Co.														
Iron City,	Drift, ..	Non-gas.	Furnace,		.....			38.6	.....	7,890	5,590	15,480	43	183
Star Coal Co.														
Star,	Drift, ..	Gaseous,	Fan, ...	6 x 16	.35	Pollock, ...	Steam, ..	.....	3	43,000	26,700	64,000	61	704
A. R. Budd.														
Budd,	Drift, ..	Non-gas.	Fan, ...	6.8 x 20	.....	Pollock, ...	Steam, ..	.....	2	36,120	22,620	38,400	136	265
Crescent Coal Co.														
Peters Creek No. 1,	Drift, ..	Non-gas.	Fan, ...	4 x 16	.....	Marine, ...	Steam, ..	.....	.....	.....	.....	.....	.....	.....
Peters Creek No. 2,	Drift, ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
United Coal Co.														
Ella,	Drift, ..	Gaseous,	Fan, ...	6 x 20	.....	Pollock, ...	Steam, ..	.....	5	54,000	32,480	52,000	143	377

*Non-gaseous.

TABLE I—Continued.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Schoenberger Gas Coal Co.														
Schoenberger,	Drift, ..	Gaseous,	Fan, ...	4.6 x 16	.....	Kenney, ...	Steam, ...		2	52,000	36,960	80,000	214	242
Clyde Coal Co.														
Clyde,	Drift, ..	Gaseous,	Fan, ...	7 x 16	.....	Capell, ...	Steam, ...		6	118,000	45,240	169,400	106	113
Dilworth Coal Co.														
Dilworth,	Shaft, ..	Gaseous,	Fan, ...	8 x 14	.....	Capell, ...	Steam, ...	.....		48,000	15,000	46,800	37	1,297
Stockdale Coal Co.														
Acme,	Drift, ..	Non-gas.	Furnace,	.....	.....	.....	.....	42	3	24,500	6,000	26,500	100	215
Domestic Coal Co.														
Domestic,	Drift, ..	Non-gas.	Furnace,	.....	.....	.....	.....	.....	.....	4,800	4,800	14,400	27	177
James W. Ellsworth & Co.														
Ellsworth No. 1,	Shaft, ..	Gaseous,	Fan, ...	5 x 13.6	.....	Capell, ...	Steam, ...		4	141,000	68,500	127,000	186	774
Ellsworth No. 2,	Shaft, ..	Gaseous,	Fan, ...	5 x 13.6	.....	Capell, ...	Steam, ...		2	132,000	31,200	80,000	156	846
Ellsworth No. 3,	Shaft, ..	Gaseous,	Fan, ...	5.6 x 15	.....	Capell, ...	Steam, ...		4	110,000	75,180	53,040	145	758
Ellsworth No. 4,	Shaft, ..	Gaseous,	Fan, ...	5.6 x 15	.....	Capell, ...	Steam, ...	.....	.....	.....	.....	.....	.....	.....
Vesta Coal Co.														
Vesta No. 1,	Drift, ..	Gaseous,	Fan, ...	8 x 16	.....	Capell, ...	Steam, ...		4	68,000	27,000	144,000	160	425
Vesta No. 2,	Drift, ..	Gaseous,	Fan, ...	.....	.....	.....	Steam, ...		2	46,800	30,360	.....	108	433
Vesta No. 3,	Drift, ..	Gaseous,	Fan, ...	3.8 x 12.4	.....	Brazil, ...	Steam, ...		2	48,000	42,780	51,500	178	269
Vesta No. 4,	Drift, ..	Non-gas.	Furnace,	.....	.....	.....	.....	11.33 / 2.18	2	9,500	4,050	10,000	20	475
C. Jutte & Co.														
Coal Centre,	Drift, ..	Gaseous,	Fan, ...	6 x 18	.....	Pollock, ...	Steam, ...	.....		13,500	4,950	25,000	63	214
Marine,	Drift, ..	Gaseous,	Fan, ...	8 x 20	.....	Leonard, ...	Steam, ...		3	49,000	32,510	50,400	151	224

Hazel Kirk Gas Coal Co.														
Hazel Kirk,	Shaft, ..	Gaseous,	Fan, ...	6.9 x 20	.4	Pollock, ...	Steam, ..	.....	3	102,000	36,820	110,000	107	953
Dunkirk Coal Co.														
Dunkirk,	Drift, ..	Non-gas.	Nat., ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Manufacturers' and Consumers' Coal Co.														
Blanche,	Drift, ..	Gaseous.	Fan, ...	4 x 12	.....	Pollock, ...	Steam, ..	.....	2	37,200	29,200	36,000	58	641
Bertha,	Drift, ..	Non-gas.	Fan, ...	4 x 12	.....	Pollock, ...	Steam, ..	.....	3	41,500	43,800	30,000	114	364
Rachel,	Drift, ..	Non-gas.	Furnace,	.....	.....	.....	.....	25	2	3,900	15,000	20,000	80	45
People's Coal Co.														
Clinton,	Drift, ..	Gaseous,	Fan, ...	4 x 12	.....	Pollock, ...	Steam, ..	.....	3	31,500	28,440	40,000	5	6,300

J. Names of mines using coal cutting machines, names of machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines during 1902.

	Kind of opening.	Gaseous or non-gaseous.	Name and Number of Machines in Use.										Total machines used.	Power used by machines.	Geological and local name of seam.	Average thickness in inches.	Height of seam in inches.		Approximate number of tons produced by machines.
			Ingersol.	Sullivan.	Harrison.	Jeffrey.	Morgan-Gardner.	Goodman.	Brown.	Link Belt.	H. and H.	Pittsburg.					Thickest.	Thinnest.	
Black Diamond,	Drift,	Gaseous,	....	....	....	6	....	....	....	....	....	....	6	Electric,	Pittsburg Thin,	60	62	59	47,191
Beaumont,	Slope,	Gaseous,	....	....	....	2	....	....	....	....	....	....	2	Electric,	Pittsburg Thick,	86	90	82	80,504
Bunola,	Drift,	Gaseous,	....	....	....	4	....	....	....	....	....	....	4	Electric,	Pittsburg Thin,	69	72	66	69,138
Camden,	Drift,	Non-gas.	....	....	....	....	4	....	....	....	....	....	4	Electric,	Pittsburg Thin,	62	64	61	26,686
Coal Bluff,	Drift,	Geasous,	....	....	....	1	7	....	....	....	....	....	8	Electric,	Pittsburg Thin,	58	60	56	194,778
Cincinnati,	Drift,	Gaseous,	....	....	....	....	8	....	....	....	....	....	8	Electric,	Pittsburg Thin,	59	61	58	191,296
Catsburg,	Drift,	Gaseous,	....	....	....	7	....	....	....	....	....	....	7	Electric,	Pittsburg Thin,	61	62	60	233,434
Crescent,	Slope,	Gaseous,	....	....	....	4	....	....	....	....	....	....	4	Electric,	Pittsburg Thick,	83	84	82	125,858
Eclipse,	Drift,	Gaseous,	....	....	....	....	8	....	....	....	....	....	8	Electric,	Pittsburg Thick,	93	108	78	249,138
Fayette City,	Drift,	Gaseous,	....	....	8	....	....	....	....	....	....	....	8	Compressed air,	Pittsburg Thick,	81	84	78	296,836
Gallatin,	Drift,	Gaseous,	....	....	....	6	....	....	....	....	....	....	6	Electric,	Pittsburg Thin,	65	72	58	190,973
Ivill,	Drift,	Gaseous,	....	....	....	5	....	....	....	....	....	....	5	Electric,	Pittsburg Thin,	61	63	59	42,955
Knob,	Slope,	Gaseous,	....	....	....	6	....	....	....	....	....	....	6	Electric,	Pittsburg Thick,	86	90	82	202,338
Little Redstone,	Drift,	Gaseous,	....	....	....	....	6	....	....	....	....	....	6	Electric,	Pittsburg Thick,	82	84	80	181,064
Mongah,	Drift,	Gaseous,	....	....	....	1	7	....	....	....	....	....	8	Electric,	Pittsburg Thin,	60	64	57	253,190
Milesville,	Drift,	Gaseous,	....	....	....	....	6	....	....	....	....	....	6	Electric,	Pittsburg Thin,	59	62	56	172,292
Risher,	Drift,	Non-gas.	....	....	....	....	6	....	....	....	....	....	6	Electric,	Pittsburg Thin,	58	61	56	79,850
Rostraver,	Drift,	Non-gas.	....	....	....	3	....	....	....	....	....	....	3	Electric,	Pittsburg Thin,	68	71	65	78,042
Tremont,	Drift,	Gaseous,	....	....	1	7	....	....	....	....	....	....	8	Compressed air,	Pittsburg Thick,	84	90	78	223,086
Vigilant,	Slope,	Gaseous,	....	....	....	4	....	....	....	....	....	1	5	Electric,	Pittsburg Thick,	82	84	82	236,949
Arnold No. 1,	Drift,	Gaseous,	....	....	....	6	....	....	....	....	....	....	6	Electric,	Pittsburg Thick,	80	86	75	233,510
Arnold No. 2,	Shaft,	Gaseous,	....	....	....	5	....	....	....	....	....	....	5	Electric,	Pittsburg Thick,	81	86	76	189,668
Arnold No. 3,	Drift,	Gaseous,	....	....	....	....	....	....	....	....	....	....	....	....	Pittsburg Thick,	....	....	....	....
Banner,	Drift,	Gaseous,	....	....	....	....	....	....	....	4	....	....	4	Electric,	Pittsburg Thin,	64	72	57	112,251
Courtney,	Slope,	Gaseous,	....	....	....	3	....	....	....	....	....	....	3	Electric,	Pittsburg Thin,	57	60	54	40,138
Eclipse,	Drift,	Gaseous,	....	....	....	....	7	....	....	....	....	....	7	Electric,	Pittsburg Thin,	62	64	60	63,540
Equitable,	Drift,	Gaseous,	....	....	....	5	....	....	....	....	....	....	5	Electric,	Pittsburg Thin,	62	64	60	110,230
Little Squaw,	Drift,	Gaseous,	....	....	....	4	....	....	....	....	....	....	4	Electric,	Pittsburg Thick,	85	96	75	93,341
Manown,	Drift,	Gaseous,	....	2	....	4	....	....	....	....	....	....	6	Compressed air,	Pittsburg Thin,	62	64	60	81,392
North Webster,	Drift,	Gaseous,	....	....	....	4	....	....	....	....	....	....	4	Electric,	Pittsburg Thin,	62	64	60	92,736

Nottingham,	Drift,	Gaseous,					7					7	Electric,	Pittsburg Thin,	57	60	54	122,849
Somers No. 1,	Drift,	Gaseous,				7						7	Electric,	Pittsburg Thick,	82	84	80	206,700
Somers No. 2,	Drift,	Gaseous,				1	8					9	Electric,	Pittsburg Thick,	66	72	60	237,489
Somers No. 3,	Drift,	Non-gas.				1						1	Electric,	Pittsburg Thick,	78	84	72	44,133
Somers No. 4,	Drift,	Non-gas.				3						3	Electric,	Pittsburg Thick,	72	75	70	75,997
Charleroi No. 1,	Drift,	Gaseous,				6						6	Electric,	Pittsburg Thin,	72	72	72	233,437
Charleroi No. 2,	Drift,	Gaseous,				1						1	Electric,	Pittsburg Thin,	72	72	72	9,684
Ellsworth No. 1,	Shaft,	Gaseous,	2	8		5						15	Compressed air,	Pittsburg Thin,	73	80	66	223,921
Ellsworth No. 2,	Shaft,	Gaseous,	6	3		7						16	Compressed air,	Pittsburg Thin,	74	82	66	228,827
Ellsworth No. 3,	Shaft,	Gaseous,	3			7						10	Compressed air,	Pittsburg Thin,	71	78	64	131,094
Ellsworth No. 4,	Shaft,	Gaseous,												Pittsburg Thin,				
Vesta No. 1,	Drift,	Gaseous,	11	2	10	2						25	Compressed air,	Pittsburg Thick,	78	96	60	946,241
Vesta No. 2,	Drift,	Gaseous,												Pittsburg Thick,				
Star,	Drift,	Gaseous,				3						3	Compressed air,	Pittsburg Thin,	60	60	60	101,500
Hazel Kirk,	Shaft,	Gaseous,				6						6	Electric,	Pittsburg Thin,	63	66	60	198,516
Domestic,	Drift,	Non-gas.				1						1	Electric,	Pittsburg Thin,	60	60	60	10,675
Budd,	Drift,	Non-gas.					5					5	Electric,	Pittsburg Thin,	70	71	69	122,108
Dilworth,	Shaft,	Gaseous,					3					3	Electric,	Pittsburg Thick,	96	108	84	36,400
Ella,	Drift,	Gaseous,					7					7	Electric,	Pittsburg Thin,	66	72	60	231,646
Peters Creek,	Drift,	Gaseous,					6					6	Electric,	Pittsburg Thin,	68	72	64	100,216
Marine,	Drift,	Gaseous,				5						5	Electric,	Pittsburg Thick,	96	96	96	231,191
Shoenberger,	Drift,	Gaseous,					6					6	Electric,	Pittsburg Thin,	65	68	62	184,380
Bertha,	Drift,	Non-gas.				6						6	Electric,	Pittsburg Thin,	75	84	66	175,540
Blanche,	Drift,	Gaseous,	2			4				1		7	Air,	Pittsburg Thin,	72	78	66	63,822
Rachel,	Drift,	Non-gas.						5				5	Electric,	Pittsburg Thin,	69	72	66	61,965
Clyde,	Drift,	Gaseous,		1		5						6	Electric,	Pittsburg Thick,	72	84	60	145,126
Irons,	Drift,	Non-gas.				2						2	Electric,	Pittsburg Thin,	72	72	72	126,973
Iron City,	Drift,	Non-gas.				2						2	Electric,	Pittsburg Thin,	72	72	72	22,747
Clinton,	Drift,	Gaseous,					5					5	Electric,	Pittsburg Thin,	60	60	60	27,691
Totals,			24	16	19	161	106	5		4	1	1	237						$8,493,184

Fatal Accidents.

Constantine Rami, a miner, was fatally injured January 2, in Knob mine, by a fall of slate, while making a place to set a post.

On January 4, Joseph Cabitchie, a miner, was fatally injured in Fayette City mine, by a fall of slate, while making a place to set a post.

At Eclipse (river) mine, January 9, John Balser, a miner, was instantly killed by being run over by the Dilly trip, while he was on his way out of the mine. He was warned to get into a "shelter hole," but did not do so.

Joseph Colenso, miner, was instantly killed, and Alexander Joback, miner, was fatally injured, January 18, in Tremont mine, by being struck by the Dilly trip, while on their way out of the mine. These men should not have been on the Dilly road, as it was not the travelling way.

At Coal Centre mine, January 20, Giovanni Tayliaferi, a miner, was fatally injured by a fall of slate while knocking coal.

Charles Waschko, a dumper, was fatally injured February 3, at North Webster mine, by being struck by a runaway car from incline.

On February 20, Louis Schraider, a miner, employed at the Bertha mine, was fatally injured by a fall of slate.

About noon on March 6, an explosion of fire damp occurred in the Catsburg mine, which resulted in the death of five persons: Isaac Eastwood, Robert Howey, James Howey, John Gelder and William McFarland, and the serious injury of James Ternent and a slight injury to John Hager.

On March 3d, an entry had taken fire from a blast, and very little, if any, effort was made by the person who fired the shot to extinguish the flames. When the officials of the mine were informed of the fire it had gained such progress, as to make it impossible for them to reach the scene of the fire. After a hasty consultation it was decided to isolate it by the use of stoppings; these were made of wood and put in. Within 48 hours they concluded that the fire was extinguished and proceeded to remove the boards. While doing this work, the explosion occurred, with the result above stated.

This was a terrible oversight on the part of these unfortunate men, to attempt to remove the stoppings so soon after they had been put up, and I can only attribute it to a case of over anxiousness, as they were all practical men.

On March 8, Frank Kudrick, a loader, was fatally injured in Irons mine, while trying to put a post under a piece of slate, which fell, striking him and resulting as above stated.

Larimer Shook, a miner, employed in the Apollo mine, was instantly killed by a fall of slate, March 15. At the time of the acci-

dent, he was preparing to put in a cross-bar. The slate had been "sounded" a short time before, and was considered safe.

In Clyde mine, March 20, John Johnson, a miner, was instantly killed by a fall of coal, while "bearing in." He had fired a shot which was on the solid; this shot "jumped," shattering the coal along the face of the room for quite a distance, and while Johnson was undermining it deeper, it fell with above result.

Giovanni Dolfi, a miner, employed in the Hazel Kirk mine, was fatally injured April 7, by a fall of slate, while shoveling coal from under it. This accident was the result of an error of judgment, as posts were used in such a manner as not to cover a slip that appeared in the slate.

In Vesta No. 1 mine, May 7, Tabel Maskey, a miner, was instantly killed by a fall of slate, while knocking coal.

John Bacus, a trapper, in the Eclipse (railroad) mine, was fatally injured by being caught between a door and car, while attempting to get between the hitchings. This accident occurred May 15.

On May 15, Paul Bookhard, a miner, employed in the Apollo mine, was instantly killed by a fall of slate, which fell out between the posts.

John Camaskey, a miner, was fatally injured May 19 by a fall of slate while loading a car. The slate fell out between post and rib. This accident was caused by the negligence of deceased, as the space between the post and rib was ten feet.

On May 31, Andrew Grabic, a miner, employed at the Ellsworth No. 3 mine, was fatally injured by a fall of slate. Deceased had been warned about the dangerous condition of the slate.

Peter Andre, a miner, was instantly killed June 2, in Charleroi No. 1 mine, by a fall of slate while loading a car.

At Arnold No. 2 mine, June 2, Smith Anthony, a miner. The deceased had fired a shot in the coal, but it failed to throw it all, and while he was knocking the remainder, coal and slate fell, killing him instantly.

Robert Johnson, a miner, was instantly killed in Fayette City mine, June 5, by a fall of slate. The deceased worked in an entry and after firing a shot, started to load a car without making any examination of the slate. Previous to the shot being fired, he had been instructed to make the slate safe, but neglected to do so.

On June 6, at Acme mine, an accident occurred which resulted in the death of Andrew Kolman, a miner, by a fall of slate, while "bearing in." The condition of the room showed that the deceased had been careless.

At Vesta No. 1 mine, June 9, Charles Eskleman, a miner, was fatally injured by being struck by a post, which in turn had been dis

lodged by falling slate. The deceased, at the time of the accident, was drawing slate posts for the purpose of taking the slate down.

Antonio Boreal, a miner, while at work in Ellsworth No. 2 mine, June 12, was instantly killed by being struck by a descending cage, while, as is supposed, he was passing from one side of the shaft to the other. Boreal should have made use of the proper passageway around shaft.

At Shoenberger mine, June 17, Peter Maylato, a miner, was fatally injured by a fall of slate. The deceased was working in a room rib and while knocking coal next to the slate, the slate fell on him, with the above result.

Stephen Werber, a miner, employed at the Hazel Kirk mine, was fatally injured June 19, by a fall of slate. At the time of the accident the deceased was removing a stump that had been left in bearing in.

At North Webster mine, June 23, Charles Cowles, a miner, was instantly killed by a fall of slate, while loading a car. A driver was in the place at the time of the accident and previous to its occurrence told the deceased to "watch the slate," and Cowles said "all right;" this was followed immediately by the slate falling.

John Emery, a miner, was instantly killed in Bertha mine, July 2, by a fall of slate. The slate had been examined a short time previous and was considered safe, but the deceased found it unsafe and told his partner to "jump," but the former failed to get out of the way.

At Bertha mine, July 2, Thomas Yoriak, a miner, was fatally injured by a fall of slate, while knocking coal.

July 3, Gottlieb Zelunder, a miner, was fatally injured by a fall of slate while loading a car. The deceased had been warned by his partner that the slate was dangerous.

Thomas Barton, a trapper, was fatally injured in Vesta No. 1 mine, July 15, by being caught between electric motor and a trip of cars. The deceased was warned by the mine foreman, as I am informed, not to interfere with the motor.

On July 16, Michael Bossick, a miner, was fatally injured by being caught between a car and entry pillar, in Marine mine. The deceased had changed the latches for the purpose of switching the car in on an entry, and afterwards walked beside of the car until it caught him, as stated. There was ample room at the latches for the car to pass.

At Vesta No. 3 mine, July 16, Marko Peteresic, a miner, was fatally injured by a fall of coal while "bearing-in." His partner had warned him of the dangerous condition of the coal, some time previous to the accident.

James Payne, a miner, employed at the Coal Bluff mine, was in-

stantly killed July 18, by a fall of slate, while loading a car of coal. He had been warned that the slate was dangerous.

On July 22, Charles Yagors, a miner, while at work in the Cincinnati mine, was instantly killed by a fall of slate. There was no evidence to show what the deceased was doing at the time of the accident.

At Ellsworth No. 1 mine, July 23, Thomas Hansom, an engineer, was instantly killed by the bursting of a steam heater in the engine room, part of which struck him.

John Ketchner, a miner, was fatally injured by a fall of slate, while breaking up a piece of slate, which had previously been blasted down. This accident occurred in the Budd mine, July 24.

On August 11, at Knob mine, John Polent, a miner, was instantly killed by a fall of upper slate. It is not known positively when the accident occurred or what the deceased was doing at the time, as he was found some distance from where he should have been at work.

At Vigilant mine, August 12, Conrad Conlin, a miner, was fatally injured by a fall of slate, while loading a car.

John Williamson, a miner, employed at the Arnold No. 2 mine, was instantly killed on September 6, by a fall of slate, while loading a car.

September 12, at Blanche mine, by a fall of slate, Alexander Dowker, was killed instantly, while loading a car.

George Schobanko, a miner, in Catsburg mine, September 22, was instantly killed by a fall of slate, while loading a car.

At Vigilant mine, October 14, John Holliday, a machine runner, was fatally injured by a fall of slate, while running a mining machine.

Michael Holock and Michael Augustine, miners employed at Arnold No. 2 mine, were instantly killed by a fall of slate, October 21. They had loaded a car, and it is supposed that they were resting under the slate. On examination of the place, I found that the "tight" had been opened by a shot, part of the coal having been loaded out, leaving an exposure of slate of nearly 56 square feet, which was, in a great measure, cut off by slips, their angle of fracture being against safety. Posting had been done, but posts were improperly located.

At Ivill mine, October 23, John Masko, a driver, was instantly killed by a fall of rock, while assisting at the fire which was in progress in the mine.

October 24, at Nottingham mine, John Dragi, a miner, was fatally injured by a fall of slate, while drawing a post under it.

John Roberts, a machine scraper, was instantly killed, October 25, in Ella mine, by a fall of slate, while removing dust from a mining machine. No examination of the place had been made by the deceased or his partner, previous to the accident.

Stephen Guidas, a miner, employed in the Somers No. 1 mine, was

so seriously injured October 29, by a fall of slate, that death resulted on November 28th.

On November 1, John Augustinack, a miner, was instantly killed in Vesta No. 3 mine, by a fall of slate, while knocking a post from under it.

At Marine mine, November 18, Kovenic Weazly, a miner, was fatally injured by a fall of slate.

John Troth, a machine runner, employed at Arnold No. 2 mine, November 22, had his right leg cut off by the bitts of a mining machine. He was removed to the hospital and died from the effects of the injury.

In Vesta No. 3 mine, November 22, Charles Brattis, was instantly killed by a fall of rock. His body was found not less than one thousand yards from his working place, and in a road unfrequented, except by a few persons who made use of it on account of its being a nearer road to their homes, but this was not the case with Brattis, as his route was by the haulage way.

At Eclipse railroad mine, December 1, James E. Morris, a miner, was instantly killed by coming in contact with an electric wire used to convey power to mining machines. Morris had loaded a car and was on the entry to get an empty one, and to allow the driver to pass, he stepped back, and in doing so, he touched the wire, which resulted as above stated.

James Calvert, a day hand, employed at the Vesta No. 3 mine, was fatally injured December 1, by being caught between coal pillar and a trip of cars . He was removing coal from the road and did not notice the trip coming toward him.

At Vigilant mine, December 10, William Bertash, a miner, was instantly killed by a fall of slate, while loading a car.

Michael Plisko, a miner, while at work in Peters Creek No. 1 mine, December 15, was fatally injured by a fall of "horseback," while loading a car.

On December 24, at Ellsworth No. 3 mine, Henry C. Evans, assistant outside foreman, was fatally injured by falling from the Ram platform of the tipple house, striking a steel girder some 15 feet below, then to the ground, 7 feet. He lived about four hours.

Joseph Kosel, Albert Kosel, Charles Crow and Frank Mobiani, miners, were instantly killed December 27, in Little Redstone mine, by an explosion of fire damp, while on their way to their several working places in the mine. The mine had been idle for several days owing to some connections which were being made in the power house, which caused the stoppage of the fan; the gas accumulated in the entry known as No. 12, extending itself to the main entry for some distance, where it was ignited, as is supposed, by the open light of Joseph Kosel, resulting as above.

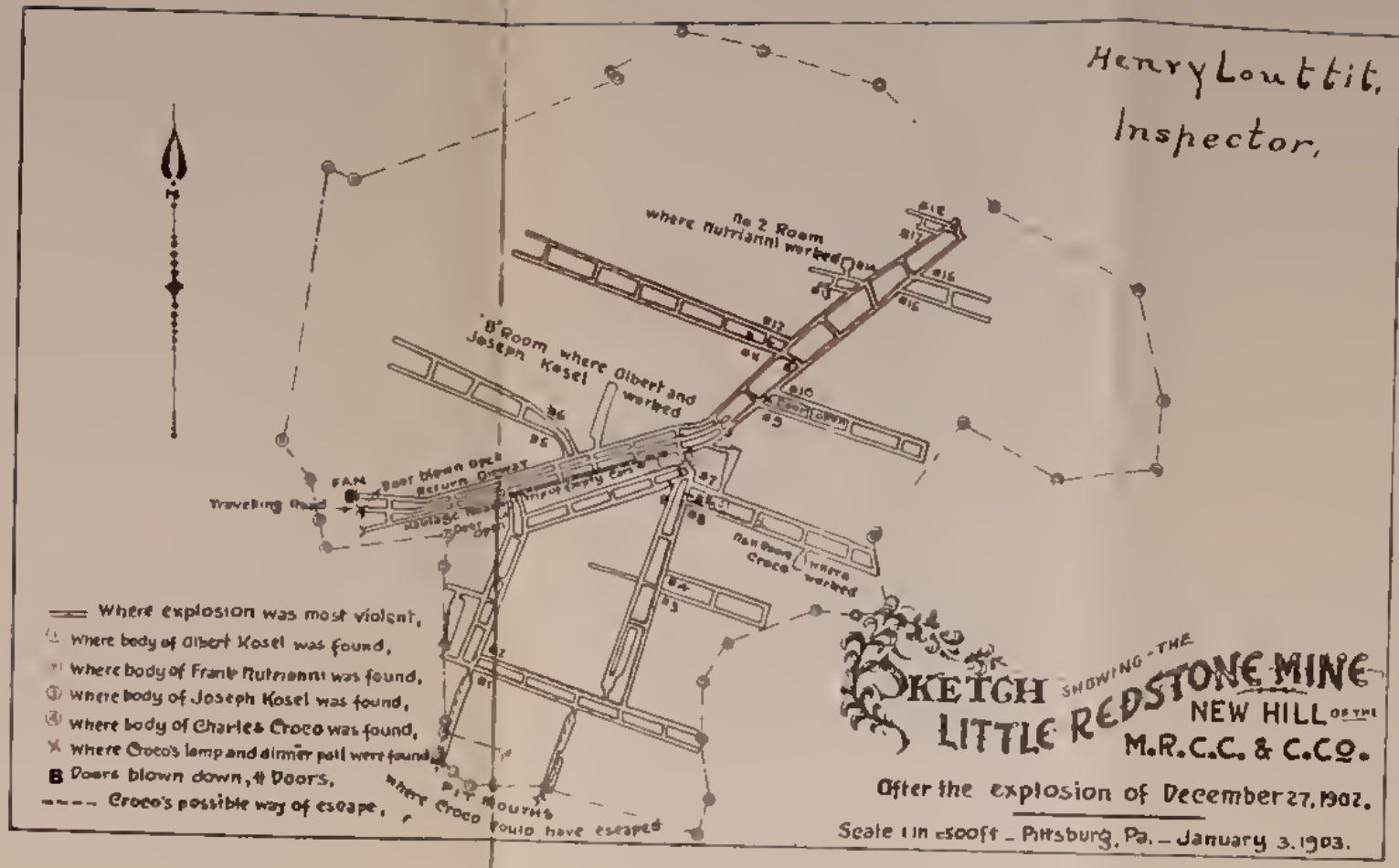
The verdict of the coroners jury was to the effect that these per-

nry Louttit,

nspector,

NG THE
DSTONE MINE
NEW HILL OF THE
M.R.C.C. & C.Co.
of December 27, 1902.

, Pa. – January 3, 1903.


Henry Louttit,
Inspector,
No 2 Room where Nutrianni worked
B Room where Albert and Joseph Kosel worked
Where explosion was most violent,
Where body of Albert Kosel was found,
Where body of Frank Nutrianni was found,
Where body of Joseph Kosel was found,
Where body of Charles Croco was found,
Where Croco's lamp and dinner pail were found,
Doors blown down, 4 Doors,
Croco's possible way of escape,
Where Croco could have escaped
SKETCH SHOWING THE LITTLE REDSTONE MINE NEW HILL OF THE M.R.C.C. & C.Co.
After the explosion of December 27, 1902.
Scale 1 in 50oft - Pittsburg, Pa. - January 3, 1903.

sons came to their death by violating the law in passing the permanent danger signal, which was in position and locked. A map accompanies this report showing the extent of the explosion.

Examination of Candidates for Mine Foremen.

The annual examination was held in council chambers, at Monongahela, Pa., January 21, 22 and 23. The Board of Examiners was D. B. Blackburn, operator; J. P. N. Coulter, miner, and Henry Loutitt, Mine Inspector. Forty-five applicants appeared before the board, of which twenty-seven were successful, viz: First grade: Alexander McClymont, John L. Rea, Richard Maize, Thomas Harper, James A. Jenkins, Thomas A. Furniss, John Morgan, William McNeill, Daniel Collins, John Gelder, Daniel M. Griffith, Charles Elliot, Peter Neil, James D. Stevenson, John J. Cairns, T. B. Cavanaugh, John Jackson, Charles A. Davis, Thomas P. Kearney, John G. Hall, J. F. Charlesworth, Daniel Blower. Second grade: Joseph Novack, William Cowell, Robert Barr, Harris Booker and William Shotton.

Mines on the Monongahela Division of the Pennsylvania Railroad.

Charleroi No. 1.—General condition of ventilation and drainage fair.

Charleroi No. 2.—Does not employ a sufficient number of persons, at the present time, for the law to apply to it.

Fidelity.—This mine has been idle since the early part of the year; seems to have been abandoned.

Acme.—Ventilation and drainage requires improvement, in parts of the mine.

Shoenberger.—General condition of mine, fair.

Courtney.—When last examined, was found in a fair condition as regards ventilation and drainage.

Star.—General condition of mine satisfactory.

Little Squaw.—Ventilation and drainage required improvement in parts of the mine.

Banner.—General condition of ventilation and drainage satisfactory.

Buffalo and Cliff.—These mines were idle the entire year.

Mines on the Monongahela and Washington Division of the Pennsylvania Railroad.

Dunkirk.—A new slope opening, located about one-half mile north of Frye's station. At present the ventilation is produced by exhaust

steam, but this method will be replaced by a ventilating fan, the construction of which is now under way.

Hazel Kirk No. 1.—General condition of mine satisfactory.

Ellsworth Nos. 2, 3 and 4.—In fair condition as regards ventilation, but the drainage required improvement in parts of the mines.

Ellsworth No. 1.—General condition of mine fair.

Hazel Kirk No. 2.—This is a new shaft opening, located about one mile north of No. 1. Has not advanced sufficiently for a general description.

Mines on the Monongahela River.

Budd.—In fair condition, as regards ventilation and drainage.

Riverville, Fox, Champion, Old Eagle, New Eagle, Pine Run and Abe Hays.—Idle during the entire year.

Clipper.—The ventilation requires improvement, as there is much air lost owing to a large number of the stoppings on the butt entries having been made of the refuse of the mine. I have suggested that they be replaced by other material, so as to prevent, as far as possible, the air escaping into the return before reaching the faces of the working places. Drainage is also a matter that should be attended to.

Mongah.—General condition of mine satisfactory.

Hilldale.—This mine, on my last visit, was in a very unsatisfactory condition, as regards ventilation and drainage. It seems that no earnest effort was being made to improve matters until those in charge were peremptorily ordered to improve them.

Fayette City.—In fair condition when last visited.

Risher.—General condition of mine satisfactory.

Crescent.—The inlet air measurement was 34,400 cubic feet, while the maximum quantity on any of the entries was only 6,500 cubic feet; showing a very large leakage between these places. Suggestions were made with a view to the betterment of these conditions.

Ella.—General condition of drainage, fair; ventilation required improvement in parts of the mine.

Marine.—General condition of mine fair.

Milesville.—General condition of the ventilation, satisfactory. Considerable work has been done on the traveling way of this mine to put it in such condition, as required by law. Drainage, fair.

Black Diamond.—This mine ceased operation before I reached it for inspection.

Vigilant.—The ventilation, in some parts of this mine, was unsatisfactory, which is owing entirely to the improper distribution of the air, as the quantity entering the inlets is ample, at the present time.

Coal Bluff.—Ventilation and drainage, fair. The passage way to the fan, which is also the emergency travelling way, has been much improved since a former visit.

Cincinnati.—Previous to reaching the mine, on my last visit, gas was found to have accumulated on some falls on one of the entries. This entry was vacated. On examining the places, I directed that the entry parallel to it be also vacated. Each entry remained so until the fire-damp was removed. Aside from this, the mine was in fair condition.

Camden.—Not in operation when last visited.

Clinton.—General condition of mine, satisfactory.

Bunola.—General condition of mine, fair.

Coal Centre.—Ventilation and drainage, unsatisfactory. The greater part of the work now being done at this mine is the drawing of the entry pillars and room ribs.

Rock Run.—Condition of drainage, satisfactory. Ventilation, in parts of the mine, required improvement.

Vesta No. 3.—As a whole, this mine is in fair condition, but one section, owing to it being part of the "return" of the other, was not up to the legal requirements.

Allequippa.—Not in operation when last visited.

Catsburg.—General condition of mine, fair.

Ivill.—Mine not in operation. On the morning of April 17th last, this mine was discovered to be on fire near the main double parting, which at this writing is still burning.

Walton Upper.—Did not visit this mine while it was in operation.

Gallatin.—Ventilation and drainage required improvement in parts of the mine.

Iron City.—The ventilation and drainage in parts of this mine is very unsatisfactory. The passageway to the second means of egress was driven under the old system of mining; it is narrow and low. The present company has further obstructed it by the introduction of electric wires and water pipes. By direction, quite an amount of work has been done on it, but it is yet far from being in the condition required by law.

Dilworth.—On my last visit to this mine, I found it in a satisfactory condition.

Tremont.—Ventilation and drainage required improvement in parts of the mine. I gave directions relative to these matters, and I am informed that a marked improvement has been made in its sanitary condition.

Vesta No. 1.—In a general way, this mine is in fair condition, as regards ventilation. The traveling way required attention, in parts, to comply with the law.

Vesta No. 2.—Now part of Vesta No. 1, in fair condition, as regards ventilation and drainage.

Apollo.—While the drainage of this mine is satisfactory, the ventilation in parts of it is not. There is an ample current of air entering the mine, for the number of persons employed, but a greater portion of it does not reach the working faces. I have called the attention of the management to the matter with a view of bettering its condition.

Eclipse.—Ventilation and drainage, in parts of the mine, are inadequate. Since my visit, I am informed, much improvement has been made.

Walton Lower.—Now abandoned.

Rostraver.—The ventilation, as regards New Hill, fair, as is also Front Hill, but the Old Hill is very unsatisfactory. I ordered part of this to be vacated, owing to the presence of black damp. The drainage required improvement.

Beaumont.—General condition of mine, fair.

Champion.—Not in operation.

Little Redstone.—General condition of mine, fair.

Vesta No. 4.—Has not as yet commenced to ship coal; entries are being driven but the coal is being stocked. General condition of mine, fair.

Knob.—Ventilation required improvement, in parts of the mine, when last visited.

Clyde.—General condition of mine, satisfactory. The mine is opened on the three entry system, the intake air current entering on the side entries and returning to the fan by the centre one. The mining is done exclusively by electric mining machines, five of the Jeffrey and one of the Sullivan type being in use. The power house, machine and blacksmith shops are built of sandstone; the pier and abutment supporting the tipple is built of the same material. The tipple is of steel and equipped with two automatic cross-over dumps. After the cars are emptied, they are elevated by automatic chain hoisting device. Two chain hauls which are operated by two engines, which elevate the cars after they pass over the reverse switch; from here they run back by gravity to the mine entrance, a distance of 500 feet. All the buildings have slate roofs. A 300 horse power engine furnishes the power for a 175 K. W. Westinghouse generator. Immediately adjoining the power house is a 16 foot Capell ventilating fan, operated by an engine with 20″ cylinders, having a stroke of 18 inches. A 13 ton Electric locomotive is used in the movement of cars from central points, which pushes the full cars out and hauls the empty ones in, thus avoiding the necessity of making a flying switch. The cars are of three ton capacity. The air current is in six divisions.

Mines on the Peters Creek Division of the Pennsylvania Railroad.

Rachel.—General condition of drainage, fair. The ventilation, in parts of the mine, should be increased to comply with the law.

Peters Creek Nos. 1 and 2.—Mines not in operation when last visited.

Mines on the Pittsburg and Lake Erie Railroad.

Domestic.—A new drift opening, located opposite Monongahela City. Ventilation is produced by boiler furnace and exhaust steam. Persons employed, 27. General condition of mine, fair.

Naomi.—A new slope and shaft opening, located near Naomi station. Only a few persons are at work inside—driving an entry from the shaft to slope. Extensive improvements are being made on the outside, consisting of trestle, tracks, tipple, etc.

North Webster.—Ventilation and drainage, fair.

Irons.—Ventilation, satisfactory; drainage required improvement in parts of the mine.

Somers No. 4.—Ventilation, fair. Drainage, in parts of the mine, is not up to the legal requirements.

Arnold No. 2.—Condition of mine as regards ventilation, satisfactory. Drainage required improvement in parts of the mine.

Somers No. 3.—Ventilation and drainage requires improvement in parts of the mine.

Equitable.—Ventilation and drainage in parts of the mine, are not up to the legal requirements. A marked improvement has been made in the sanitary condition of the mine since my visit.

Somers No. 1.—On my last visit to this mine, the inlet air measurement showed 59,320 cubic feet entering the mine, but a large quantity of this escaped into the "return" before it reached the working faces, consequently the latter were not ventilated as required by law. Since my visit, I am informed that the cause of complaint has been removed.

Manown.—General condition of mine, fair. A natural gas well has passed through the neck of one of the abandoned rooms; the well being with 28 feet of one of the inlet air passageways. The well is a producer and shows a very heavy pressure. The movement of the gas through the casing of the well is plainly discernable in the vicinity of the place where it passes through the workings. Being of the opinion that the presence of this well was a menace to the safety of the mine, owing to the possibility of leakage of gas from it becoming mixed with the intake air of the mine, I called the attention of the management to the matter, and after consultation with representatives of the gas company, it was decided, that under the circumstances, the best thing to do was to encase the well by a brick wall.

and cement the opening between the casing and wall of the well, for some distance below the floor of the mine.

Arnold No. 1.—General condition of mine, fair.

Somers No. 2.—The general condition of this mine, when last visited, was fair.

Mines on the Pittsburg and Wheeling Division of the Baltimore and Ohio Railroad.

Anderson, Gastonville Nos. 1 and 2.—These mines were idle the entire year.

Eclipse.—General condition of mine, fair.

Germania.—When last visited, the mine was in fair condition, as regards ventilation and drainage.

Blanche.—Ventilation, fair; drainage, in parts of the mine, was very unsatisfactory.

Nottingham.—Not in operation when last visit was made.

Bertha.—Ventilation and drainage inadequate; the former was owing to the air currents not having been properly conducted, as the fan was producing an ample quantity.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the First Bituminous District for the year 1902.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Monongahela River Consolidated Coal and Coke Co.						
Allequipa,	Allegheny,	O. A. Blackburn,	Pittsburg,	Thomas Watkins,	Camden,	M. D. of the P. R. R.
Abe Hays,	Washington,	O. A. Blackburn,	Pittsburg,	John McVicker,	Monongahela,	M. D. of the P. R. R.
Apollo,	Fayette,	O. A. Blackburn,	Pittsburg,	Andrew Frazer,	Fayette City,	P. and L. E. R. R.
Black Diamond,	Washington,	O. A. Blackburn,	Pittsburg,	John McVicker,	Monongahela,	M. D. of the P. R. R.
Beaumont,	Washington,	O. A. Blackburn,	Pittsburg,	E. L. Morris,	West Brownsville	M. D. of the P. R. R.
Bunola,	Allegheny,	O. A. Blackburn,	Pittsburg,	Geo. W. Peterson,	Bunola,	P. and L. E. R. R.
Camden,	Allegheny,	O. A. Blackburn,	Pittsburg,	Wm. Griffith,	Camden,	M. D. of the P. R. R.
Coal Bluff,	Washington,	O. A. Blackburn,	Pittsburg,	Thos. A Watson,	Coal Bluff,	M. D. of the P. R. R.
Cincinnati,	Washington,	O. A. Blackburn,	Pittsburg,	John McMeneny,	Courtney,	M. D. of the P. R. R.
Catsburg,	Washington,	O. A. Blackburn,	Pittsburg,	John McVicker,	Monongahela,	M. D. of the P. R. R.
Champion,	Washington,	O. A. Blackburn,	Pittsburg,	Wm. Minford,	Elco,	M. D. of the P. R. R.
Clipper,	Washington,	O. A. Blackburn,	Pittsburg,	W. G. Fife,	Allenport,	M. D. of the P. R. R.
Crescent,	Washington,	O. A. Blackburn,	Pittsburg,	John A. Powell,	California,	M. D. of the P. R. R.
Eclipse,	Washington,	O. A. Blackburn,	Pittsburg,	Wm. Minford,	Elco,	M. D. of the P. R. R.
Fayette City,	Fayette,	O. A. Blackburn,	Pittsburg,	Andrew Frazer,	Fayette City,	P. and L. E. R. R.
Fox,	Washington,	O. A. Blackburn,	Pittsburg,	E. L. Morris,	West Brownsville	By Morgantown boat.
Gallatin,	Allegheny,	O. A. Blackburn,	Pittsburg,	Chas. McVicker,	Manown,	P. and L. E. R. R.
Hilldale,	Washington,	O. A. Blackburn,	Pittsburg,	D. W. Phillips,	Floreffe,	M. D. of the P. R. R.
Ivill,	Washington,	O. A. Blackburn,	Pittsburg,	John McVicker,	Monongahela,	M. D. of the P. R. R.
Knob,	Washington,	O. A. Blackburn,	Pittsburg,	E. L. Morris,	West Brownsville	M. D. of the P. R. R.
Little Redstone,	Fayette,	O. A. Blackburn,	Pittsburg,	Joseph Morris,	Fayette City,	P. and L. E. R. R.
Mongah,	Allegheny,	O. A. Blackburn,	Pittsburg,	A. E. Speakman,	Monongahela,	P. and L. E. R. R.
Milesville,	Allegheny,	O. A. Blackburn,	Pittsburg,	T. E. Cowell,	Sunny Side,	P. and L. E. R. R.
New Eagle,	Washington,	O. A. Blackburn,	Pittsburg,	John McVicker,	Monongahela,	M. D. of the P. R. R.
Old Eagle,	Allegheny,	O. A. Blackburn,	Pittsburg,	Geo. W. Peterson,	Bunola,	P. and L. E. R. R.
Pine Run,	Allegheny,	O. A. Blackburn,	Pittsburg,	Thos. Watkins,	Camden,	M. D. of the P. R. R.
Rock Run,	Allegheny,	O. A. Blackburn,	Pittsburg,	Thos. Watkins,	Camden,	M. D. of the P. R. R.
Risher,	Allegheny,	O. A. Blackburn,	Pittsburg,	James Henderson,	Dravosburg,	M. D. of the P. R. R.
Rostraver,	Westmoreland,	O. A. Blackburn,	Pittsburg,	A. E. Cowan,	Lock No. 4,	P. and L. E. R. R.
Riverville,	Washington,	O. A. Blackburn,	Pittsburg,	E. L. Morris,	West Brownsville	By Morgantown boat.
Tremont,	Fayette,	O. A. Blackburn,	Pittsburg,	Wm. Billingsley,	Bellevernon,	P. and L. E. R. R.
Vigilant,	Washington,	O. A. Blackburn,	Pittsburg,	John A. Powell,	California,	M. D. of the P. R. R.
Walton, Upper,	Allegheny,	O. A. Blackburn,	Pittsburg,	D. W. Phillips,	Florette,	M. D. of the P. R. R.
Walton, Lower,	Allegheny,	O. A. Blackburn,	Pittsburg,	D. W. Phillips,	Florette,	M. D. of the P. R. R.
Pittsburg Coal Co.						
Anderson,	Washington,	G. W. Schluederberg,	Pittsburg,	W. B. McCoy,	Finleyville,	P. & W. D. of B. & O.
Arnold No. 1,	Fayette,	G. W. Schluederberg,	Pittsburg,	J. C. Baker,	Arnold City,	P. and L. E. R. R.
Arnold No. 2,	Fayette,	G. W. Schluederberg,	Pittsburg,	J. C. Baker,	Arnold City,	P. and L. E. R. R.

TABLE 1—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Arnold No. 3,	Fayette,	G. W. Schluederberg,	Pittsburg,	J. C. Baker,	Arnold City,	P. and L. E. R. R.
Banner,	Washington,	G. W. Schluederberg,	Pittsburg,	H. B. N. Louttit,	Monongahela,	M. D. of the P. R. R.
Buffalo,	Washington,	G. W. Schluederberg,	Pittsburg,	H. B. N. Louttit,	Monongahela,	M. D. of the P. R. R.
Cliff,	Washington,	G. W. Schluederberg,	Pittsburg,	H. B. N. Lourtit,	Monongahela,	M. D. of the P. R. R.
Courtney,	Washington,	G. W. Schluederberg,	Pittsburg,	H. B. N. Louttit,	Monongahela,	M. D. of the P. R. R.
Equitable,	Westmoreland,	G. W. Schluederberg,	Pittsburg,	Wm. Gibson,	Manown,	P. and L. E. R. R.
Eclipse,	Washington,	G. W. Schluederberg,	Pittsburg,	W. B. McCoy,	Finleyville,	P. & W. D. of B. & O.
Fidelity,	Washington,	G. W. Schluederberg,	Pittsburg,	H. B. N. Louttit,	Monongahela,	M. D. of the P. R. R.
Germania,	Washington,	G. W. Schluederberg,	Pittsburg,	W. B. McCoy,	Finleyville,	P. & W. D. of B. & O.
Gastonville No. 1,	Washington,	G. W. Schluederberg,	Pittsburg,	W. B. McCoy,	Finleyville,	P. & W. D. of B. & O.
Gastonville No. 2,	Washington,	G. W. Schluederberg,	Pittsburg,	W. B. McCoy,	Finleyville,	P. & W. D. of B. & O.
Little Squaw,	Washington,	G. W. Schluederberg,	Pittsburg,	H. B. N. Louttit,	Monongahela,	M. D. of the P. R. R.
Manown,	Allegheny,	G. W. Schluederberg	Pittsburg,	Wm. Gibson,	Manown,	P. and L. E. R. R.
North Webster,	Westmoreland,	G. W. Schluederberg,	Pittsburg,	W. B. Gibson,	Manown,	P. and L. E. R. R.
Nottingham,	Washington,	G. W. Schluederberg,	Pittsburg,	W. B. McCoy,	Finleyville,	P. & W. D. of B. & O.
Somers No. 1,	Fayette,	G. W. Schluederberg	Pittsburg,	Matthew Dixon,	Bellevernon,	P. and L. E. R. R.
Somers No. 2,	Westmoreland,	G. W. Schluederberg,	Pittsburg,	Matthew Dixon,	Bellevernon,	P. and L. E. R. R.
Somers No. 3,	Westmoreland,	G. W. Schluederberg,	Pittsburg,	Matthew Dixon,	Bellevernon,	P. and L. E. R. R.
Somers No. 4,	Westmoreland,	G. W. Schluederberg,	Pittsburg,	Matthew Dixon,	Bellevernon,	P. and L. E. R. R.
Charleroi Coal Co.						
Charleroi No. 1	Washington,			Jesse K. Johnston,	Charleroi,	M. D. of the P. R. R.
Charleroi No. 2,	Washington,			Jesse K. Johnston,	Charleroi,	M. D. of the P. R. R.
James W. Ellsworth & Co.						
Ellsworth No. 1,	Washington,	James W. Miller,	Ellsworth,	A. R. Fulton,	Ellsworth,	M. & W. D. of P. R. R.
Ellsworth No. 2,	Washington,	James W. Miller,	Ellsworth,	H. E. Huston,	Ellsworth,	M. & W. D. of P. R. R.
Ellsworth No. 3,	Washington,	James W. Miller,	Ellsworth,	David Thomas,	Scenery Hill,	M. & W. D. of P. R. R.
Ellsworth No. 4,	Washington,	James W. Miller,	Ellsworth,	David Thomas,	Scenery Hill,	M. & W. D. of P. R. R.
Vesta Coal Co.						
Vesta No. 1,	Washington,	R. B. Drum,	California,			M. D. of the P. R. R.
Vesta No. 2,	Washington,	R. B. Drum,	California,			M. D. of the P. R. R.
Vesta No. 3,	Washington,	R. B. Drum,	California,			M. D. of the P. R. R.
Vesta No. 4,	Washington,	R. B. Drum,	California,			M. D. of the P. R. R.
C. Jutte & Co.						
Coal Centre,	Washington,			Charles Bradford,	Coal Centre,	M. D. of the P. R. R.
Marine,	Fayette,			W. S. Gibson,	Fayette City,	P. and L. E. R. R.
Henderson Coal Co.						
Irons,	Westmoreland	W. M. Henderson,	Clearleroi,			P. and L. E. R. R.

W. H. Flint & Co.						
Iron City,	Westmoreland,			Loyd E. Flint,	Monessen,	P. and L. E. R. R.
Star Coal Co.						
Star,	Washington,			N. H. Robinson,	Monongahela,	M. D. of the P. R. R.
A. R. Budd.						
Budd,	Westmoreland,	A. R. Budd,	Pittsburg,	A. G. Leonard,	Webster,	P. and L. E. R. R.
Crescent Coal Co.						
Peters Creek No. 1,	Allegheny,	Henry E. Kinloch,	Epton,	Henry E. Kinloch,	Epton,	P. C. Branch of P. R. R.
Peters Creek No. 2,	Allegheny,	Henry E. Kinloch,	Epton,	Henry E. Kinloch,	Epton,	P. C. Branch of P. R. R.
United Coal Co.						
Ella,	Allegheny,	W. L. Coulson,	Pittsburg,	Wm. Bainbridge,	Sunny Side,	P. and L. E. R. R.
Dunkirk Coal Co.						
Dunkirk,	Washington,	Andrew S. Braznell,	Pittsburg,	And. S. Braznell,	Monongahela,	N. D. 28, M. & D. of the P. R. R.
Hazel Kirk Gas Coal Co.						
Hazel Kirk,	Washington,	Lute Hornickel,	Monongahela,	Lute Hornickel,	Monongahela,	M. & W. D. of P. R. R.
Schoenberger Gas Coal Co.						
Schoenberger,	Washington,	W. S. Lewis,	Monongahela,	W. S. Lewis,	Monongahela,	M. D. of the P. R. R.
Clyde Coal Co.						
Clyde,	Washington,	J. H. Sanford,	Carnegie,	Lee M. Crowthers,	Fredericktown,	By Morgantown boat.
Dilworth Coal Co.						
Dilworth,	Greene,	James Black,	Rice's Landing,	Hugh Ferguson,	Rice's Landing,	By Morgantown boat.
Stockdale Coal Co.						
Acme,	Washington,			C. W. Braznell,	Stockdale,	M. D. of the P. R. R.
Naomi Coal Co.						
Naomi,	Fayette,			John M. Crawford,	Fayette City,	P. and L. E. R. R.
Domestic Coal Co.						
Domestic,	Allegheny,	S. A. Taylor,	Pittsburg,	R. C. Campbell,	Monongahela,	P. and L. E. R. R.
People's Coal Co.						
Clinton,	Allegheny,			John S. Griffith,	Monongahela,	P. and L. E. R. R.
Manufacturers' and Consumers' Coal Co.						
Bertha,	Allegheny,	David G. Jones,	Hazelwood,	James B. Neel,	Broughton,	P. & W. D. of B. & O.
Rachel,	Allegheny,	David G. Jones,	Pittsburg,	W. J. Neilson,	Wilson,	P. C. D. of the P. R. R.
Blanche,	Washington,	David G. Jones,	Pittsburg,	Geo. H. Fleming,	Venetia,	P. & W. D. of B. & O.

TABLE II—Gives the total number of tons of coal mined and tons of coke produced in each colliery, number of days worked, number of employes, number of employes killed and injured, number of kegs of powder, etc., used in the First Bituminous District for the year ending December 31, 1902.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Monongahela River Consolidated Coal and Coke Co.												
Allequippa,	Allegheny,	37,649	174	668	38,491	62	158	.....	2	95	.....	8
Abe Hays,	Washington,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Apollo,	Fayette,	209,249	1,892	240	211,381	211	267	2	3	715	.....	16
Black Diamond,	Washington,	57,500	509	.....	58,009	85	123	.....	.....	113	.....	13
Beaumont,	Washington,	182,439	1,504	1,607	185,550	235	154	.....	4	678	.....	15
Bunola,	Allegheny,	28,858	1,121	433	30,412	111	108	.....	.....	84	.....	10
Camden,	Allegheny,	47,812	269	463	48,544	81	168	.....	2	111	.....	17
Coal Bluff,	Washington,	199,055	737	186	199,978	256	191	1	2	513	.....	15
Cincinnati,	Washington,	197,591	2,792	.....	200,383	213	201	2	2	520	.....	15
Catsburg,	Washington,	251,939	1,026	6,726	259,691	248	225	6	12	668	.....	18
Champion,	Washington,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clipper,	Washington,	121,441	306	518	122,265	197	142	.....	.....	363	.....	8
Crescent,	Washington,	159,618	845	.....	160,463	215	200	.....	3	615	.....	18
Eclipse,	Washington,	289,564	2,691	394	292,649	269	288	1	2	1,056	.....	24
Fayette City,	Fayette,	292,286	3,926	1,026	297,238	250	250	2	3	1,168	.....	22
Fox,	Washington,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gallatin,	Allegheny,	197,156	3,211	5,639	206,006	270	185	.....	10	591	.....	23
Hilldale,	Washington,	81,956	281	3	82,240	226	118	.....	.....	160	.....	6
Ivill,	Washington,	47,756	577	49	48,382	67	156	1	4	141	.....	9
Knob,	Washington,	253,512	4,605	490	258,607	242	221	2	4	954	.....	17
Little Redstone,	Fayette,	189,253	2,029	429	191,711	187	172	4	3	756	.....	20
Mongah,	Allegheny,	255,182	2,696	13	257,891	283	228	.....	9	786	.....	22
Milesville,	Allegheny,	178,808	1,371	190	180,369	256	210	.....	7	534	.....	14
New Eagle,	Washington,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Old Eagle,	Allegheny,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pine Run,	Allegheny,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

						*						
Rock Run,	Allegheny,	70,702	220	514	71,136	111	132	.....	.....	197	.....	12
Risher,	Allegheny,	114,534	1,645	3,245	119,424	127	243	.....	1	321	.....	16
Rostraver,	Westmoreland,	94,395	.....	.....	94,395	263	151	.....	1	272	.....	8
Riverville,	Washington,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tremont,	Fayette,	244,156	6,612	662	251,430	259	256	2	6	923	.....	24
Vigilant,	Washington,	245,741	1,178	4,890	251,809	264	233	3	4	910	.....	19
Walton, Upper,	Allegheny,	51,750	558	1,482	53,790	84	130	.....	1	118	.....	10
Walton, Lower,												
Totals,		4,099,902	42,775	29,867	4,172,544	195.07	4,960	26	85	13,362	.....	399
Pittsburg Coal Co.												
Anderson,	Washington,	.....	.....	76	76	.....	.....	.....	.....	.....	.....	.....
Arnold No. 1,	Fayette,	279,711	3,765	335	283,811	210.7	272	.....	3	1,980	.....	22
Arnold No. 2,	Fayette,	203,204	2,251	1,162	206,617	244	179	5	1	1,090	.....	18
Arnold No. 3,	Fayette,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Banner,	Washington,	116,815	2,243	478	119,536	186	150	.....	3	630	50	14
Buffalo,	Washington,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cliff,	Washington,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Courtney,	Washington,	53,812	500	368	54,680	181.5	65	.....	.....	190	.....	5
Equitable,	Westmoreland,	116,235	1,909	1,209	119,353	215	124	.....	6	700	5	11
Eclipse,	Washington,	110,716	2,392	238	113,346	155	150	2	4	954	700	17
Fidelity,	Washington,	11,105	23	58	11,186	65.5	25	.....	.....	35	.....	3
Germania,	Washington,	121,259	303	178	121,740	190.5	116	.....	1	1,000	50	22
Gastonville No. 1,	Washington,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gastonville No. 2,	Washington,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Little Squaw,	Washington,	134,101	930	506	135,537	178	140	.....	3	540	75	13
Manown,	Allegheny,	109,422	3,141	410	112,973	267	125	.....	4	500	.....	11
Nottingham,	Washington,	147,776	2,779	206	150,761	178	181	1	1	1,000	100	26
North Webster,	Westmoreland,	115,026	2,713	67	117,806	236	124	2	3	650	.....	11
Somers No. 1,	Fayette,	226,478	2,273	47	228,798	255	222	1	2	1,500	100	20
Somers No. 2,	Westmoreland,	288,024	3,814	1,218	293,056	277	338	.....	4	2,400	800	18
Somers No. 3,	Westmoreland,	74,188	.....	.....	74,188	270	59	.....	2	300	300	.4
Somers No. 4,	Westmoreland,	79,666	.....	.....	79,666	299	90	.....	4	600	600	9
Totals,		2,187,538	29,036	6,556	2,223,130	213.01	2,360	11	41	14,069	2,780	224
Charlerol Coal Co.												
Charlerol No. 1,	Washington,	252,137	3,360	3,700	259,197	276	243	1	4	1,375	400	18
Charlerol No. 2,	Washington,	9,684	.....	.....	9,684	.....	9	.....	.....	.....	.....	3
Totals,		261,821	3,360	3,700	268,881	276	252	1	4	1,375	400	21
James W. Ellsworth & Co.												
Ellsworth No. 1,	Washington,	227,149	17,709	.....	244,858	301	242	1	4	.....	22,119	17
Ellsworth No. 2,	Washington,	234,556	6,184	2,242	242,982	298	236	1	3	.....	21,269	19
Ellsworth Nos. 3 and 4,	Washington,	118,287	12,729	78	131,094	246	167	2	.....	.....	16,582	15
Totals,		579,992	36,622	2,320	618,934	281.66	645	4	7	.....	59,970	51

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Vesta Coal Co.												
Vesta No. 1, Vesta No. 2,	Washington,	1,077,278	16,899	2,061	1,096,241	565	950	3	5	5,000	1,000	60
Vesta No. 3,	Washington,	366,338	2,600	.....	368,938	267	248	4	1	1,200	200	20
Vesta No. 4,	Washington,	.....	.....	.....	.....	.....	50	.....	.....	.....	.....	5
Totals,		1,443,616	19,499	2,061	1,465,179	416	1,248	7	6	6,200	1,200	85
C. Jutte & Co.												
Coal Centre,	Washington,	95,878	2,314	150	98,372	228.4	111	1	.....	600	.....	11
Marine,	Fayette,	228,615	2,160	416	231,191	244.3	241	2	1	1,100	45	16
Totals,		324,493	4,501	566	329,563	236.35	352	3	1	1,700	45	27
Henderson Coal Co.												
Irons,	Westmoreland,	133,353	.....	.....	133,353	268	123	1	2	657	.....	7
W. H. Flint & Co.												
Iron City,	Westmoreland,	22,567	180	.....	22,747	119	65	.....	.....	150	.....	5
Star Coal Co.												
Star,	Washington,	100,000	700	800	101,500	175	128	.....	2	500	.....	9
A. R. Budd.												
Budd,	Westmoreland,	121,757	326	25	122,108	236	230	1	2	600	.....	10
Crescent Coal Co.												
Peters Creek No. 1, Peters Creek No. 2,	Allegheny,	109,198	600	.....	109,798	274	128	1	2	540	.....	9

*Totals in this column are averages.

United Coal Co.												
Ella,	Allegheny,	227,796	3,300	4,380	235,476	296*	190	2	.....	10	.....	20
Dunkirk Coal Co.												
Dunkirk,	Washington,	935	.....	20	955	96	23	.....	.....	4	.....	2
Hazel Kirk Coal Co.												
Hazel Kirk,	Washington,	209 016	2,000	375	211,391	254	179	2	6	700	1,000	12
Schoenberger Coal Co.												
Schoenberger,	Washington,	202,800	1,460	920	205,180	284	228	1	9	1,800	.....	21
Clyde Coal Co.												
Clyde,	Washington,	142,906	2,230	.....	145,136	233	162	1	1	726	.....	12
Dilworth Coal Co.												
Dilworth,	Greene,	34,000	2,400	.....	36,400	153	99	.....	1	50	10,000	5
Stockdale Coal Co.												
Acme,	Washington,	136,110	450	1,200	137,760	250	136	1	2	1,100	.....	12
Naomi Coal Co.												
Naomi,	Fayette,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Domestic Coal Co.												
Domestic,	Allegheny,	10,500	150	25	10,675	100	30	.....	.....	50	.....	4
Manufacturers' and Consumers' Coal Co.												
Blanche,	Washington,	78,128	1,600	44	79,772	223	131	1	5	700	500	10
Bertha,	Allegheny,	183 647	1,000	131	184,778	226	187	3	3	2,500	150	20
Rachel,	Allegheny,	96,515	250	.....	96,765	233	142	.....	.....	120	10	7
Totals,	.....	358,290	2,850	175	361,315	227.33	460	4	8	3,320	660	37
People's Coal Co.												
Clinton,	Allegheny,	27,609	82	.....	27,691	151	124	.....	1	240	.....	12
Bunola Mining Co.												
Bunola,	Allegheny,	39,533	975	309	40,817	.....	.....	.....	.....	.....	.....	.....
Grand totals,	.....	19,773,732	153,799	53,302	10,980,533	216.07	12,132	66	180	47,153	76,055	987

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	Number of Boilers.					Locomotives.								
	Cylindrical.	Horse power.	Tubular.	Horse power.	Total horse power.	Steam.	Electric.	Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
Monongahela River Consolidated Coal and Coke Co.,	15	330	73	2,205	7,140	1	13	72	5,131	28	4,601	2,725	19	4
Pittsburg Coal Co.,	25	643	19	1,922	3,477	.....	7	48	3,481	21	3,445	2,960	13	2
Charleroi Coal Co.,	.....	.....	5	180	480	.....	3	2	270	3	437	218	2	.....
James W. Ellsworth & Co.,	.....	.....	24	375	3,000	.....	.....	10	3,070	4	1,358	575	1	5
Vesta Coal Co.,	1	80	10	3,150	3,230	.....	10	10	1,168	11	350	175	2	3
C. Jutte & Co.,	6	120	1	35	155	.....	.....	8	135	4	630	250	1	.....
Henderson Coal Co.,	.....	.....	.....	.....	.....	.....	1	.....	.....	1	130	.....	.....	.....
W. H. Flint & Co.,	.....	.....	2	.....	.....	.....	.....	2	.....	2	500	.....	1	.....
Star Coal Co.,	.....	.....	2	300	300	.....	.....	4	400	.....	.....	.....	1	.....
A. R. Budd,	.....	.....	1	125	125	.....	.....	3	275	.....	.....	.....	1	.....
Crescent Coal Co.,	.....	.....	2	150	300	.....	1	2	200	.....	.....	.....	1	.....
United Coal Co.,	.....	.....	5	.....	600	.....	2	5	600	2	300	200	2	.....
Dunkirk Coal Co.,	.....	.....	2	300	300	.....	.....	.....	.....	1	.....	.....	.....	.....
Hazel Kirk Gas Coal Co.,	.....	.....	3	150	450	.....	.....	6	375	1	816	250	1	.....
Schoenberger Coal Co.,	.....	.....	3	.....	400	.....	2	3	.....	1	100	75	2	.....
Clyde Coal Co.,	.....	.....	2	150	300	.....	1	4	520	2	100	.....	1	.....
Dilworth Coal Co.,	.....	.....	4	600	600	.....	.....	4	400	3	500	40	1	.....
Stockdale Coal Co.,	.....	.....	1	80	80	.....	.....	1	.....	.....	.....	.....	.....	.....
Naomi Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Domestic Coal Co.,	.....	.....	1	60	60	.....	.....	1	50	.....	.....	.....	1	.....
Manufacturers' and Consumers' Coal Co.,	1	.....	4	400	700	.....	2	8	700	10	385	385	3	1
People's Coal Co.,	.....	.....	2	75	150	.....	.....	1	100	.....	.....	.....	1	.....
Bunola Mining Co.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand totals,	48	1,173	166	10,257	21,847	1	42	194	16,875	94	13,652	7,853	54	15

TABLE III—Showing the number of each class of employes at each colliery in the First Bituminous District during the year 1902.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.							Grand total inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Book-keepers and clerks.	All other employes.	Total outside.	
Monongahela River Consolidated Coal and Coke Co.																					
Allequippa,	Allegheny,	1	....	....	120	.....	.....	.....	9	3	3	.....	135	1	....	2	2	1	17	23	158
Apollo,	Fayette,	1	....	2	200	.....	.....	.....	16	5	.....	13	237	1	....	3	6	1	19	30	267
Black Diamond,	Washington,	1	....	2	15	5	65	5	10	3	4	.....	110	1	....	2	2	1	7	13	123
Beaumont,	Washington,	1	....	1	50	2	55	2	14	2	8	.....	135	1	....	2	3	1	12	19	154
Bunalo,	Allegheny,	1	....	1	10	4	48	4	10	.....	8	.....	86	1	1	3	4	1	12	22	108
Camden,	Allegheny,	1	....	....	66	5	54	5	13	.....	4	.....	148	1	....	2	2	1	14	20	168
Coal Bluff,	Washington,	1	....	2	7	7	120	7	14	4	6	.....	168	1	1	4	6	1	10	23	191
Cincinnati,	Washington,	1	....	2	9	11	120	11	15	3	6	.....	178	1	....	3	3	1	15	23	201
Catsburg,	Washington,	1	....	4	16	8	126	8	16	3	13	.....	195	1	1	5	6	1	16	30	225
Clipper,	Washington,	1	....	....	110	.....	.....	.....	10	2	.....	2	125	1	1	1	2	1	11	17	142
Crescent,	Washington,	1	....	2	35	5	95	5	17	2	11	7	180	1	....	3	3	1	12	20	200
Eclipse,	Washington,	1	....	2	21	8	185	8	20	10	10	.....	265	1	....	3	4	1	14	23	288
Fayette City,	Fayette,	1	....	3	.....	15	152	15	17	3	11	2	219	1	....	3	7	1	19	31	250
Gallatin,	Allegheny,	1	....	3	20	8	80	8	17	5	15	.....	157	1	1	5	3	1	17	28	185
Hilldale,	Washington,	1	....	....	98	.....	.....	.....	5	2	2	.....	108	1	....	1	2	1	5	10	118
Ivill,	Washington,	1	....	3	14	6	85	6	12	4	6	.....	137	1	1	3	3	1	10	19	156
Knob,	Washington,	1	....	3	30	6	106	6	19	10	16	.....	196	1	....	1	6	1	16	25	221
Little Redstone,	Fayette,	1	....	3	12	8	90	8	15	2	8	.....	147	1	....	3	4	1	16	25	172
Mongah,	Allegheny,	1	....	2	.....	13	145	13	21	4	6	2	207	1	....	6	3	1	10	21	228
Milesville,	Allegheny,	1	....	3	9	8	125	8	15	4	15	.....	188	1	1	3	3	1	13	22	210
Rock Run,	Allegheny,	1	....	....	102	.....	.....	.....	10	1	3	.....	117	1	....	2	.....	1	11	15	132
Risher,	Allegheny,	1	....	....	65	8	110	8	17	1	5	.....	215	1	....	3	4	1	19	28	243
Rostraver,	Westmoreland,	1	....	....	20	3	80	3	8	.....	16	.....	131	1	....	2	2	1	14	20	151
Tremont,	Fayette,	1	....	2	26	4	150	4	20	7	14	.....	228	1	....	4	6	1	16	28	256
Vigilant,	Washington,	1	....	2	25	6	130	6	17	3	12	8	210	1	1	3	5	1	12	23	233

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.							Grand total inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Boss-keepers and clerks.	All other employes.	Total outside.	
Walton, Upper,	Allegheny,	1	1	....	143	.....	.....	.....	9	3	4	.....	161	1	1	2	4	1	10	19	180
Walton, Lower,	Allegheny,																				
Totals,		26	1	12	1,223	140	2,120	140	366	85	206	31	4,383	26	9	74	95	26	347	577	4,960
Pittsburg Coal Co.																					
Arnold No. 1,	Fayette,	1	....	3	42	7	125	7	22	5	1	19	232	1	....	6	3	2	28	40	272
Arnold No. 2,	Fayette,	1	....	2	18	5	85	5	18	3	1	14	172	1	....	3	4	1	18	27	199
Banner,	Washington,	1	....	1	7	6	90	6	12	3	3	1	130	1	....	2	4	1	12	20	150
Courtney,	Washington,	1	....	1	15	2	20	2	5	2	2	1	51	1	....	1	3	1	8	14	65
Equitable,	Westmoreland,	1	....	2	15	5	58	5	10	2	8	.....	106	1	....	3	4	1	9	18	124
Eclipse,	Washington,	1	....	2	40	8	42	8	15	4	7	.....	127	1	....	3	6	1	12	23	150
Fidelity,	Washington,	1	....	...	20	.....	.....	.....	2	.....	.....	.....	23	.....	.....	.....	.....	.....	2	2	25
Germania,	Washington,	1	....	...	76	.....	.....	.....	13	1	4	.....	95	1	....	3	4	1	12	21	116
Little Squaw,	Washington,	1	....	1	40	4	56	4	10	2	2	5	125	1	....	3	2	1	8	15	140
Manown,	Allegheny,	1	....	2	28	6	45	6	10	3	7	.....	108	1	....	3	4	1	8	17	125
North Webster,	Westmoreland,	1	....	2	28	4	49	4	8	1	7	.....	107	1	....	3	3	.....	10	17	124
Nottingham,	Washington,	1	....	2	27	8	83	8	13	4	12	.....	158	1	....	3	6	1	12	23	181
Somers No. 1,	Fayette,	1	....	2	15	7	125	7	20	7	1	15	200	1	....	3	4	1	12	21	221
Somers No. 2,	Westmoreland,	1	....	2	49	10	183	10	18	7	21	9	310	1	....	3	5	1	18	28	338
Somers No. 3,	Westmoreland,	1	....	...	30	1	14	1	3	1	.....	3	54	1	....	...	.....	1	3	5	59
Somers No. 4,	Westmoreland,	1	....	...	10	3	44	3	6	1	.....	14	82	....	....	1	.....	1	6	8	90
Totals,		16	....	22	460	76	1,019	76	185	49	76	81	2,060	14	....	40	52	16	178	300	2,360

Charleroi Coal Co.																				
Charleroi No. 1,	Washington,	1	....	1	.....	10	170	10	18	2	.....	7	219	1	....	3	2	2	16	24	243
Charleroi No. 2,	Washington,	....	....	1	.....	4	.....	.....	2	.....	.....	2	9	....	....	....	....	.....	.....	.....	9
Totals,		1	....	2	.....	14	170	10	20	2	.....	9	228	1	....	3	2	2	16	24	252
James W. Elsworth & Co.																				
Ellsworth No. 1,	Washington,	1	1	1	21	18	94	15	19	4	3	24	201	....	1	3	6	3	28	41	242
Ellsworth No. 2,	Washington,	1	1	1	13	15	96	13	19	4	7	24	194	....	1	3	6	4	28	42	236
Ellsworth No. 3,	Washington,	1	1	1	.....	10	60	8	12	2	8	23	126	....	1	3	7	5	25	41	167
Ellsworth No. 4,	Washington,																				
Totals,		3	3	3	34	43	250	36	50	10	18	71	521	....	3	9	19	12	81	124	645
Vesta Coal Co.																				
Vesta No. 1,	Washington,	4	3	5	80	50	500	50	60	15	.....	51	818	1	2	5	20	4	100	132	950
Vesta No. 3,	Washington,	1	1	1	175	.....	.....	.....	20	4	.....	20	222	1	1	2	6	1	15	26	248
Vesta No. 4,	Washington,	1	....	1	25	.....	.....	.....	.....	.....	.....	.....	27	....	1	5	.....	1	16	23	50
Totals,		6	4	7	280	50	500	50	80	19	.....	71	1,067	2	4	12	26	6	131	181	1,248
C. Jutte & Co.																				
Coal Centre,	Washington,	1	....	1	72	.....	.....	.....	8	1	2	10	95	1	....	1	2	1	11	16	111
Marine,	Fayette,	1	....	1	6	8	152	8	20	5	.....	14	215	1	....	2	2	1	20	26	241
Totals,		2	....	2	78	8	152	8	28	6	2	24	310	2	....	3	4	2	31	42	352
Henderson Coal Co.																				
Irons,	Westmoreland,	1	....	...	12	4	75	4	7	3	2	4	112	1	....	1	.....	1	8	11	123
W. H. Flint & Co.																				
Iron City,	Westmoreland,	1	1	...	.....	2	42	2	3	1	.....	.....	52	1	....	2	2	1	7	13	65
Schoenberger Gas Coal Co.																				
Schoenberger,	Washington,	1	....	2	.....	8	120	8	15	3	7	35	199	1	2	6	3	3	14	29	228
Clyde Coal Co.																				
Clyde,	Washington,	1	....	1	.....	7	110	7	10	1	4	.....	141	1	....	2	3	.....	15	21	162
Dilworth Coal Co.																				
Dilworth,	Greene,	2	....	2	.....	4	45	4	5	1	.....	.....	63	1	....	5	4	2	24	36	99
Stockdale Coal Co.																				
Acme,	Washington,	1	....	....	110	.....	.....	.....	8	.....	3	.....	122	1	....	1	1	2	9	14	136
Naomi Coal Co.																				
Naomi,	Fayette,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	.....	.....	.....	.....	.....
Domestic Coal Co.																				
Domestic,	Allegheny,	1	....	....	.....	2	14	2	2	.....	.....	.....	21	1	....	1	1	.....	6	9	30
People's Coal Co.																				
Clinton,	Allegheny,	1	....	1	4	5	75	5	8	2	.....	5	106	1	....	2	2	1	12	18	124

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.							Grand total inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Book-keepers and clerks.	All other employes.	Total outside.	
Star Coal Co.																					
Star,	Washington,	1	....	1	5	6	95	6	6	3	.....	2	125	1	....	1	3	.....	8	13	138
A. R. Budd.																					
Budd,	Westmoreland,	1	....	....	.....	10	120	10	9	4	5	52	211	1	1	2	2	1	12	19	230
Crescent Coal Co.																					
Peters Creek No. 1,	Allegheny,	1	....	...	10	5	80	5	7	1	3	.....	112	1	....	2	2	1	10	16	128
United Coal Co.																					
Ella,	Allegheny,	1	....	3	10	9	100	9	20	4	13	.....	169	1	....	3	4	1	12	21	190
Dunkirk Coal Co.																					
Dunkirk,	Washington,	1	....	....	.....	.....	.....	.....	1	.....	.....	12	14	1	....	1	1	1	5	9	23
Hazel Kirk Gas Coal Co.																					
Hazel Kirk,	Washington,	1	....	1	15	8	100	8	10	3	4	10	160	1	1	3	3	1	10	19	179
Manufacturers' and Consumers' Coal Co.																					
Blanche,	Washington,	1	1	1	15	10	60	10	10	.....	10	.....	118	1	....	2	4	1	5	13	131
Bertha,	Allegheny,	1	....	....	5	6	130	6	12	2	8	.....	170	1	1	3	2	2	8	17	187
Rachel,	Allegheny,	1	1	....	60	4	45	4	7	2	4	.....	128	1	....	2	1	2	8	14	142
Totals,		3	2	1	80	20	235	20	29	4	22	.....	416	3	1	7	7	5	21	44	460
Grand totals,		72	11	90	2,321	421	5,422	410	869	201	365	410	10,592	62	21	180	236	84	957	1,540	12,132

TABLE III—Continued.

Names of Operators and Collieries.	Number of Days Worked in Each Month.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Monongahela River Consolidated Coal and Coke Co.,	16.1	8.8	18.5	19.1	18.5	15.4	16.2	17.6	17.3	16.7	15.2	15.1	195.07
Pittsburg Coal Co.,	18.4	14	15.6	18.6	18.1	19.4	17.7	17.9	18.1	19	17.9	17.7	213.01
Charleroi Coal Co.,	24	22	23	24	21	24	23	22	23	24	23	23	276
James W. Ellsworth & Co.,	17.3	14.6	24	26	26.6	24.6	25.3	25	23.6	26.6	23.3	24.3	281.66
Vesta Coal Co.,	32	21	34.5	36.5	34	37.5	36	36.5	36.5	40	35.5	36	416
C. Jutte & Co.,	17.8	9.7	21.2	21.5	17.6	19.1	20.3	22.2	20.1	24.3	20.7	21.6	236.35
Henderson Coal Co.,	22	16	19	13	25	25	22	26	23	26	25	26	268
W. H. Flint & Co.,	.....	.....	.....	.....	.....	.....	17	22	20	22	21	17	119
Schoenberger Gas Coal Co.,	24	24	26	22	25	21	26	26	24	26	19	21	284
Clyde Coal Co.,	20	8	22	18	25	16	19	25	18	20	22	20	233
Dilworth Coal Co.,	.....	.....	.....	.....	20	.....	20	23	21	25	24	20	153
Stockdale Coal Co.,	21	18	21	22	24	19	25	19	23	18	17	23	250
Naomi Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Domestic Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	25	25	25	25	100
People's Coal Co.,	25	20	24	23	12	.....	.....	.....	.....	11	18	18	151
Star Coal Co.,	9	8	14	16	23	18	23	11	16	11	12	14	175
A. R. Budd,	21	12	23	24	25	4	23	24	8	26	22	24	236
Crescent Coal Co.,	19	20	21	24	26	25	26	25	22	21	19	26	274
United Coal Co.,	25	23	25	19	26	26	25	26	25	26	25	25	296
Dunkirk Coal Co.,	.....	.....	.....	.....	.....	.....	.....	10	22	23	21	20	96
Hazel Kirk Gas Coal Co.,	19	14	17	15	22	25	25	25	22	23	23	24	254
Manufacturers' and Consumers' Coal Co.,	17	15	17.6	17.3	20	20.6	19	17.6	17.3	22.3	21.3	22	227.33

TABLE IV—List of fatal accidents that occurred in and about the mines of the First Bituminous District for the year ending December 31, 1902.

Date of accident.		Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief
Jan.	2	Constantine Romi, ..	French, ...	Miner, ...	26	S.	....	....	Knob, ...	Washington,	Fatally injured by a fall of slate.
	4	Joseph Coblsher, ...	Slovak, ...	Miner, ...	17	S.	....	....	Fayette City, ...	Fayette,.....	Fatally injured by a fall of slate.
	9	John Balser, ...	Russian, ...	Miner, ...	30	S.	....	....	Eclipse, River, ...	Washington,	Instantly killed by being run over by dilly trip.
	18	Joseph Colenso, ...	Italian, ...	Miner, ...	31	S.	....	....	Tremont, ...	Fayette,.....	Killed instantly by being run over by dilly trip.
	18	Alexander Joback, ..	Italian, ...	Miner, ...	30	M.	1	3	Tremont, ...	Fayette,.....	Fatally injured by being run over by dilly trip.
	20	Giovanni Tayliaferl,	Italian, ...	Miner, ...	26	S.	....	....	Coal Centre, ...	Washington,	Fatally injured by a fall of slate.
Feb.	3	Charles Waschko, ..	German, ...	Company man,	17	S.	....	....	North Webster, ...	Westmorel'd,	Fatally injured by being struck by a runaway car.
	20	Louis Schraider, ...	Hungarian,	Miner, ...	40	M.	1	2	Bertha, ...	Allegheny, ..	Fatally injured by a fall of slate.
Mar	6	Isaac Eastwood, ...	English, ...	Fire boss, ...	47	M.	1	4	Catsburg, ...	Washington,	Killed instantly by an explosion of fire damp.
	6	Robert Howey, ...	English, ...	Mine foreman,	50	M	1	....	Catsburg, ...	Washington,	
	6	James Howey, ...	English, ...	Company man,	28	M	1	....	Catsburg, ...	Washington,	
	6	John Gelder, ...	English, ...	Fire boss, ...	46	M.	1	4	Catsburg, ...	Washington,	
	6	William McFarland, .	Scotch, ...	Driver, ...	32	M.	1	....	Catsburg, ...	Washington,	
	8	Frank Kudrick, ...	Slovak, ...	Miner, ...	27	S.	....	....	Irons, ...	Westmorel'd,	Fatally injured by a fall of slate.
	15	Larimer Shook, ...	American, .	Miner, ...	24	M.	1	....	Apollo, ...	Fayette,.....	Instantly killed by a fall of slate.
	20	John Johnson, ...	Hungarian,	Miner, ...	44	M.	1	2	Clyde, ...	Washington,	Instantly killed by a fall of coal and slate.
April	7	Giovanni Dolpl, ...	Italian, ...	Miner, ...	18	S.	....	....	Hazel Kirk, ...	Washington,	Fatally injured by a fall of slate.
May	7	Tobol Maskey, ...	Finlander, .	Miner, ...	15	S.	....	....	Vesta No. 1, ...	Washington,	Instantly killed by a fall of slate.
	15	John Bakur, ...	Slovak, ...	Door boy, ...	14	S.	....	....	Eclipse, Railroad..	Washington,	Injured by being caught between door and car; died from effects of the injury.
	15	Paul Bookhard, ...	Hungarian,	Miner, ...	40	M.	1	4	Apollo, ...	Fayette,.....	Instantly killed by a fall of slate.
	19	John Comaskey, ...	Pole, ...	Miner, ...	40	M	1	4	Cincinnati, ...	Washington,	Fatally injured by a fall of slate.
	21	Andrew Grable, ...	Russian, ...	Miner, ...	35	M.	1	1	Ellsworth No. 3, .	Washington,	Fatally injured by a fall of slate.
June	2	Smith Anthony, ...	American, .	Miner, ...	44	M	1	1	Arnold No. 2, ...	Fayette,.....	Instantly killed by a fall of coal and slate.
	2	Peter Andre, ...	Hungarian,	Miner, ...	35	M.	1	1	Charlerol No. 1, ..	Washington,	Instantly killed by a fall of slate.
	5	Robert Johnson, ...	American, .	Miner, ...	48	M	1	....	Fayette City, ...	Fayette,.....	Instantly killed by a fall of slate.
	6	Andrew Kolman, ...	Hungarian,	Miner, ...	50	M.	1	1	Acme, ...	Washington,	Instantly killed by a fall of slate.
	9	Charles Eskelman, ..	Finlander, .	Miner, ...	20	S.	....	....	Vesta No. 1	Washington,	Fatally injured by being struck by a post.
	12	Antonio Boreal, ...	Italian, ...	Company man,	25	S.	....	....	Ellsworth No. 2,	Washington,	Instantly killed by being struck by a descending cage

	17	Peter Maylato, ...	Italian, ...	Miner, ...	18	M	1	5	Schoenberger, ...	Washington,	Fatally injured by a fall of slate.
	19	Stephen Merber, ...	Hungarian,	Miner, ...	38	M	1	1	Hazel Kirk, ...	Washington,	Fatal y injured by a fall of coal.
	23	Charles Cowler, ...	Slovak, ...	Miner, ...	20	S.	....	....	North Webster, ...	Westmorel'd	Instantly killed by a fall of slate.
July	2	John Emery, ...	Hungarian,	Miner, ...	40	M.	1	5	Bertha, ...	Allegheny, ..	Instantly killed by a fall of slate.
	2	Thomas Yoriak, ...	Pole, ...	Miner, ...	39	M	1	2	Bertha, ...	Allegheny, ..	Fatally injured by a fall of slate.
	3	Gottleib Zelinder, ..	German, ...	Miner, ...	31	S.	...	....	Ella, ...	Allegheny, ..	Fatally injured by a fall of slate.
	15	Thomas Barton, ...	American, .	Door boy, ...	15	S.	....	....	Vesta No. 1, ...	Washington,	Fatally injured by being caught between car and electric motor.
	16	Michael Bossick, ...	Austrian, ..	Miner, ...	42	M	1	4	Marine, ...	Fayette,.....	Fatally injured by being caught between car and empty pillar.
	16	Marko Peteresic, ...	Austrian, ..	Miner, ...	44	M	1	1	Vesta No. 3, ...	Washington,	Fatally injured by a fall of coal.
	18	James Payne, ...	American, .	Miner, ...	28	M	1	3	Coal Bluff, ...	Washington,	Instantly killed by a fall of slate.
	22	Charles Zagore, ...	Austrian, ..	Miner, ...	29	M.	1	2	Cincinnati, ...	Washington,	Instantly killed by a fall of slate.
	23	Thomas Hansom, ...	English, ...	Engineer, ...	40	M	1	3	Ellsworth No. 1,	Washington,	Instantly killed by the bursting of a steam heater.
	24	John Ketschner, ...	Slovak, ...	Miner, ...	37	M.	1	5	Budd, ...	Westmorel'd,	Fatally injured by a fall of slate.
Aug.	11	John Polent, ...	English, ...	Miner, ...	65	M.	....	....	Knob, ...	Washington,	Instantly killed by a fall of slate.
	12	Conrad Conlin, ...	American, .	Miner, ...	20	S.	....	....	Vigilant, ...	Washington,	Fatally injured by a fall of slate.
Sept.	6	John Williamson, ..	Welsh, ...	Miner, ...	20	M	1	....	Arnold No. 2, ...	Fayette,.....	Instantly killed by a fall of slate.
	8	Alexander Dowker, .	Lithuanian,	Miner, ...	50	M	1	1	Blanche, ...	Washington,	Instantly killed by a fall of slate.
	22	George Sehobouka,..	Slovak, ...	Miner, ...	25	S.	...	...	Catsburg, ...	Washington,	Instantly killed by a fall of slate.
Oct.	14	John Halliday, ...	English, ...	Machine runner,	30	M.	1	3	Vigilant, ...	Washington,	Back broken by a fall of slate; proved fatal.
	21	Michael Holock, ...	Slovak, ...	Miner, ...	26	S.	....	....	Arnold No. 2, ...	Fayette,.....	Instantly killed by a fall of slate.
	21	Michael Augustine, .	Slovak, ...	Miner, ...	24	S.	...	....	Arnold No. 2, ...	Fayette,.....	
	23	John Masho, ...	Pole, ...	Driver, ...	27	M	1	....	Ivill, ...	Washington,	Instantly killed by a fall of rock.
	24	John Dorogi, ...	Austrian, ..	Miner, ...	34	M.	1	3	Nottingham, ...	Washington,	Fatally injured by a fall of slate.
	25	John Roberts, ...	American, .	Mach'e scraper,	24	M	1	....	Ella, ...	Allegheny, ..	Instantly killed by a fall of slate.
	29	Stephen Guidar, ...	Austrian, ..	Miner, ...	30	M	1	...	Somers No. 1, ...	Fayette,.....	Fatally injured by a fall of slate.
Nov.	1	John Augustinae, ..	Russian, ...	Miner, ...	27	S	...	....	Vesta No. 1, ...	Washington,	Instantly killed by a fall of slate.
	18	Kovenic Waozly, ...	Pole, ...	Miner, ...	31	S.	...	...	Marine, ...	Fayette,.....	Fatally injured by a fall of slate.
	22	John Tooth, ...	Hungarian,	Machine man,..	36	M.	1	5	Arnold No. 2, ...	Fayette.....	Fatally injured by mining machine.
	22	Charles Brattis, ...	Russian, ...	Miner, ...	32	S.	..	...	Vesta No. 3, ...	Washington,	Instantly killed by a fall of rock.
Dec.	1	James E. Morris, ..	American, .	Miner, ...	28	M.	1	...	Eclipse, Railroad,	Washington,	Instantly killed by electric shock.
	1	Jason Calvert, ...	American, .	Company man,	42	M.	1	3	Vesta No. 3, ...	Washington,	Fatally injured by being caught between car and entry pillar.
	10	William Bertash, ...	Russian, ...	Miner, ...	35	S.	...	...	Vigilant, ...	Washington,	Instantly killed by a fall of slate.
	13	Michael Plisco, ...	Slovak, ...	Miner, ...	42	M	1	5	Peters Creek No. 1	Allegheny, ..	Fatally injured by a fall of slate.
	24	Henry C. Evans, ...	American, .	Asst. foreman,	..	...	...	...	Ellsworth No. 3, .	Washington,	Fatally injured by falling a distance of 22 feet.
	27	Joseph Kosel, ...	Slovak, ...	Miner, ...	47	M	1	6	Little Redstone, ..	Fayette,.....	
	27	Albert Kosel, ...	Slovak, ...	Miner, ...	18	S	..	...	Little Redstone, ..	Fayette,.....	Killed by an explosion of fire damp.
	27	Charles Croco, ...	Italian, ...	Miner, ...	40	M	1	3	Little Redstone, ..	Fayette,.....	
	27	Frank Matrionni, ..	Italian, ...	Miner, ...	20	S.	..	...	Little Redstone, ..	Fayette,.....	

TABLE V—List of non-fatal accidents that occurred in and about the mines of the First Bituminous District for the year ending December 31, 1902.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 3	John Leever,	American,	Miner,	25	M.	Gallatin,	Allegheny,	Arm broken by a fall of slate.
6	Stephen Mosack,	Hungarian,	Miner,	26	M.	Catsburg,	Washington,	Big toe cut off by a fall of slate.
7	Frederick Klein,	German,	Miner,	45	M.	Risher,	Allegheny,	Foot sprained by a fall of coal.
7	John Sickler,	American,	Door boy,	14	S.	Milesville,	Allegheny,	Foot sprained by being caught between cars.
9	Bane Sulvolka,	Pole,	Miner,	40	S.	Cincinnati,	Washington,	Injured by blast through room rib.
9	William Kospoutur,	Russian,	Miner,	20	S.	Eclipse, River,	Washington,	Leg cut off by being run over by dilly trip.
10	William Jarskir,	Pole,	Miner,	18	S.	Ellsworth No. 2,	Washington,	Leg fractured by a fall of coal and slate.
11	Stephen Petrof,	Russian,	Machine runner	27	M.	Ellsworth No. 2,	Washington,	Leg broken by being struck by mining machine.
13	Joseph Molinska,	Russian,	Miner,	30	M.	Vigilant,	Washington,	Leg mashed; run over by motor trip.
14	John Crumpashic,	Russian,	Miner,	25	M.	Hazel Kirk,	Washington,	Foot bruised by a fall of slate.
15	Michael Havril,	Hungarian,	Miner,	35	M.	Mongah,	Allegheny,	Foot injured by a pick passing through it.
17	John Zavala,	Pole,	Miner,	32	S.	Knob,	Washington,	Bruised by a fall of slate.
20	Lawrence Germanto,	Italian,	Miner,	37	M.	Charlerol No. 1,	Washington,	Collar bone broken by a fall of coal.
20	Alexander Volscheek,	Slovak,	Miner,	31	M.	Irons,	Westmorel'd,	Ankle broken by a fall of slate.
20	Peter Schoskey,	Russian,	Miner,	25	S.	Somers No. 4,	Westmorel'd,	Two fingers cut off by a car.
21	James Cook,	American,	Machine runner,	30	M.	Somers No. 1,	Fayette,	Injured by mining machine.
22	Hugh Lavery,	American,	Driver,	23	S.	Hazel Kirk,	Washington,	Foot bruised; caught by a car.
22	Thomas Patronic,	German,	Miner,	31	S.	Somers No. 1,	Fayette,	Collar bone and three ribs broken by a fall of coal.
31	James Gilchrist,	American,	Mach'e scraper,	26	S.	Arnold No. 1,	Fayette,	Feet injured by being caught in machine biltt.
31	Hugh Lavery,	American,	Company man,	24	S.	Fayette City,	Fayette,	Leg broken; struck by a mining machine.
Feb. 2	Thomas J. Jones,	Welsh,	Miner,	58	S.	Ivill,	Washington,	Ankle bruised by a piece of slate sliding on it.
3	Thomas Drasheth,	Slovak,	Miner,	32	M.	Budd,	Westmorel'd,	Leg broken by a fall of slate.
4	George Halcik,	Slovak,	Miner,	24	S.	Little Redstone,	Fayette,	Leg broken by a fall of slate.
7	James Holland,	English,	Miner,	52	M.	Little Redstone,	Fayette,	Leg broken by a fall of slate.
10	John Brown,	American,	Driver,	55	M.	Clinton,	Allegheny,	Injured by cars.
11	Samuel Goverlap,	Slovak,	Miner,	25	S.	Manown,	Allegheny,	Leg broken by a fall of slate.
17	James Carney,	American,	Driver,	38	M.	Milesville,	Allegheny,	Foot injured; caught between cars.
24	Petro Pellegrine,	Italian,	Miner,	26	M.	Mongah,	Allegheny,	Ankle sprained; caught between cars.
24	Stephen Robinson,	American,	Driver,	22	S.	Apollo,	Fayette,	Injured by an explosion of fire damp.
Mar. 3	Thomas Laws,	English,	Miner,	45	M.	Mongah,	Allegheny,	Body crushed by a fall of coal.
6	David Marlin,	Pole,	Miner,	50	M.	Tremont,	Fayette,	Arm broken by coal from a blast.

	6	John Hagar,	American,	Company man,	28	M.	Catsburg,	Washington,	Slightly injured by an explosion of fire damp.
	6	James Torrent,	English,	Company man,	45	M.	Catsburg,	Washington,	Severely injured by an explosion of fire damp.
	15	Rudolf Much,	Italian,	Miner,	24	S.	Mongah,	Allegheny,	Injured by a fall of slate.
	18	Bruce Feathers,	American,	Company man,	21	S.	Ellsworth No. 1,	Washington,	Arm broken by falling down shaft.
	20	William Hewitt,	English,	Miner,	58	M.	Catsburg,	Washington,	Injured by a fall of slate.
	25	Frank Segum,	Pole,	Miner,	38	M.	Milesville,	Allegheny,	Injured by a fall of slate.
	26	Joseph Sersneck,	Austrian,	Driver,	30	M.	Knob,	Washington,	Leg broken by being caught between cars.
	26	Oscar Webb,	Finlander,	Machine runner,	30	S.	Tremont,	Fayette,	Arm broken by a fall of slate.
	27	George Leveskie,	Pole,	Miner,	29	S.	Cincinnati,	Washington,	Leg broken: struck by the dilly trip.
	28	Frederick Heilman,	Austrian,	Miner,	28	S.	Camden,	Allegheny,	Leg cut off by a fall of roof.
	28	Rudolf Sevey,	Austrian,	Miner,	26	M.	Camden,	Allegheny,	Ribs broken by a fall of roof.
	29	Vitra Polonis,	Italian,	Miner,	21	S.	Ivill,	Washington,	Injured by a car.
	29	Frank Cornella,	Italian,	Miner,	30	S.	Ivill,	Washington,	Scalp injured by a fall of coal.
	31	William Weller,	American,	Company man,	56	M.	Walton, Upper,	Allegheny,	Ribs fractured and shoulder dislocated; struck by a wheel.
April	3	John Danla,	Italian,	Miner,	27	S.	Hazel Kirk,	Washington,	Leg broken by a fall of slate.
	4	Antonia Feshikus,	Hungarian,	Miner,	29	M.	Knob,	Washington,	Head injured by a fall of slate.
	4	Michael Habeck,	Russian,	Miner,	20	S.	Knob,	Washington,	Leg broken by a fall of slate.
	7	George Smalley,	Slovak,	Miner,	44	M.	Little Redstone,	Fayette,	Foot injured by a fall of slate.
	8	Joseph Satco,	Slovak,	Miner,	42	M.	Beaumont,	Washington,	Arm broken by a fall of coal.
	10	Joseph Matuse,	Hungarian,	Miner,	43	S.	Somers No. 2,	Westmorel'd,	Foot bruised by a fall of coal.
	11	John Daniel,	American,	Miner,	64	M.	Ivill,	Washington,	Jaw broken by a fall of coal and slate.
	11	George Stemko,	Hungarian,	Miner,	45	M.	Somers No. 2,	Westmorel'd,	Injured by a fall of slate and coal.
	11	George Perkins,	American,	Driver,	21	S.	Ellsworth No. 1,	Washington,	Jaw broken: struck by the butt stick of a mule's harness.
	14	John Buttner,	Hungarian,	Miner,	42	M.	Crescent,	Washington,	Injured by a fall of coal.
	15	Stephen Leptock,	Hungarian,	Mach'e scraper,	26	M.	Catsburg,	Washington,	Injured by a fall of coal.
	15	John Plesko,	Slovak,	Miner,	42	M.	Nottingham,	Washington,	Injured by a fall of coal.
	16	John Mountan,	Lithuanian,	Miner,	29	S.	Blanche,	Washington,	Burned by powder from cartridge.
	16	Roffner McNally,	Italian,	Driver,	23	S.	Mongah,	Allegheny,	Both legs broken by cars.
	19	Angelo Martinetti,	Italian,	Miner,	30	M.	Charleroi,	Washington,	Back dislocated by a fall of coal.
	22	Michael Bobitetck,	Slovak,	Miner,	31	M.	Apollo,	Fayette,	Injured by a fall of slate.
May	5	Frederick Collier,	American,	Driver,	24	M.	Gallatin,	Allegheny,	Foot injured by cars.
	6	John Dommineck,	Italian,	Miner,	28	M.	Schoenberger,	Washington,	Leg broken by a fall of slate.
	13	Michael Popit,	Slovak,	Miner,	22	S.	North Webster,	Westmorel'd,	Body bruised, hand and head cut by being caught between car and rib.
	14	Joseph Shatto,	Hungarian,	Miner,	42	M.	Milesville,	Allegheny,	Leg broken by a fall of coal and slate.
	14	John Donnelly,	Scotch,	Miner,	40	S.	Milesville,	Allegheny,	Injured; caught between cars.
	24	Joseph Francisconey,	Italian,	Miner,	22	S.	Little Squaw,	Washington,	Seriously injured by a fall of slate.
	26	George Surger,	Slovak,	Miner,	35	M.	Ellsworth No. 1,	Washington,	Foot mashed by a fall of coal and slate.
	26	John Ornock,	Hungarian,	Miner,	53	M.	Catsburg,	Washington,	Body injured by a fall of coal.
	26	John Julla,	Italian,	Miner,	35	M.	Clyde,	Washington,	Leg broken by a fall of slate.
	28	Frederick Bigley,	American,	Miner,	21	S.	Somers No. 3,	Westmorel'd,	Leg broken by a fall of roof.
	28	John Gela,	Pole,	Driver,	32	S.	Gallatin,	Allegheny,	Foot injured by cars.
	29	Michael Yonso,	Slovak,	Driver,	20	S.	Milesville,	Allegheny,	Collar bone broken by a mining machine running on him.
	29	Walter Ridgeway,	American,	Driver,	16	S.	Vesta No. 1,	Washington,	Ankle fractured by cars.
	29	Andrew Saitis,	Slovak,	Miner,	26	S.	North Webster,	Westmorel'd,	Back injured by fall of slate.
	30	Louis Paring,	German,	Company man,	21	S.	Schoenberger,	Washington,	Leg bruised; caught between motor and door.
June	3	Frank Herilo,	Slovak,	Miner,	22	S.	Vigilant,	Washington,	Body bruised by a fall of slate.
	3	Frank Farer,	Pole,	Miner,	23	S.	Eclipse,	Washington,	Arm broken by a fall of slate.
	4	Stephen Bowinskie,	Pole,	Miner,	42	M.	Gallatin,	Allegheny,	Leg broken by a fall of slate.
	6	John Seamer,	Hungarian,	Miner,	35	M.	Beaumont,	Washington,	Thigh bruised by a fall of shale.
	10	Frank Sweeney,	American,	Miner,	24	S.	Vigilant,	Washington,	Collar bone broken by being run over by car.

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
11	Paul Manick,	Slovak,	Miner,	37	M	Irons,	Westmorel'd,	Ankle broken by a fall of slate.
12	Michael Lyock,	Slovak,	Miner,	25	S.	North Webster,	Westmoreld',	Severely injured by a fall of slate.
14	Simon Resko,	Hungarian,	Miner,	36	M.	Somers No. 2,	Westmorel'd,	Injured by a fall of slate.
15	Peter Pajoka,	Finlander,	Miner,	24	M.	Vesta No. 1,	Washington,..	Leg broken by a fall of coal.
16	Edward Heller,	Irish,	Miner,	37	M.	Marine,	Fayette,	Injured by a fall of slate.
19	John Sturbank,	Pole,	Miner,	52	M	Eclipse, Railroad,	Washington,..	Leg broken by a fall of slate.
20	Mark Eastwood,	American,	Driver,	19	S.	Catsburg,	Washington,..	Injured internally; caught between mule and car.
21	Samuel Mikolay,	Austrian,	Miner,	28	S.	Hazel Kirk,	Washington,..	Foot injured by a car running on it.
23	Michael Kaspjah,	Slovak,	Miner,	28	M	Hazel Kirk,	Washington,..	Leg fractured by a fall of slate.
23	Samuel Wainwright,	American,	Company man,	14	S.	Eclipse, River,	Washington,..	Arm broken by falling from tipple.
24	Perenti Demetria,	Italian,	Miner,	47	M	Mongah,	Allegheny,	Toe smashed by a fall of slate.
25	E. B. Quinn,	English,	Fire boss,	42	M.	Beaumont,	Washington,..	Collar bone broken and arm bruised by being struck by brattice boards.
30	John Marktine,	Hungarian,	Miner,	52	M	Catsburg,	Washington,..	Seriously injured; run over by a mining machine.
July 2	John Tate,	Hungarian,	Miner,	47	M	Banner,	Washington,..	Back injured by a fall of slate.
3	Thomas Haddock,	American,	Miner,	60	M	Coal Bluff,	Washington,..	Injured by a fall of slate.
3	Robert Hamilton,	Scotch,	Miner,	58	M	Equitable,	Westmorel'd,	Fingers mashed by a fall of slate.
8	James Kirk,	Scotch,	Fire boss,	70	M	Fayette City,	Fayette,	Four ribs broken by a fall.
12	John Jones,	American,	Miner,	16	S	Equitable,	Westmorel'd,	Three ribs fractured by a fall of horse-back.
19	Martin Morets,	Slovak,	Miner,	28	M	Mongah,	Allegheny,	Left shoulder dislocated; struck by a post.
21	Peter Peclager,	Slovak,	Miner,	45	S.	Vigilant,	Washington,..	Collar bone broken by a fall of slate.
21	John Swansk,	Pole,	Miner,	35	S	Ellsworth No. 1,	Washington,..	Injured by a fall of slate.
22	Michael Plevo,	Slovak,	Miner,	50	M	Crescent	Washington,..	Ankle sprained by a fall of slate.
26	Michael Marchek,	Slovak,	Miner,	38	M	Somers No. 2,	Westmorel'd,	Five toes crushed by a fall of slate.
28	Stephen Lockash,	Hungarian,	Miner,	48	M	Crescent	Washington,..	Ankle sprained by being struck by a post.
28	Frank Tomasko,	Pole,	Miner,	26	S	Arnold No. 1,	Fayette,	Two ribs broken by a fall of slate.
30	George Dvodish,	Hungarian,	Scraper,	42	M.	Vesta No. 1,	Washington,..	Injured by a fall of slate.
Aug. 1	Joseph Tomlen,	Slovak,	Miner,	21	S.	Schoenberger,	Washington,..	Arm broken by a fall of roof coal.
5	William Kernes,	American,	Company man,	28	M	Equitable,	Westmorel'd,	Injured by being caught by dilly trip.
5	James Lavash,	Granish,	Miner,	26	S.	Eclipse Railroad,	Washington,..	Back injured by a fall of slate.
6	Vincent Blesko,	Slovak,	Miner,	19	S.	Gallatin	Allegheny,	Leg broken by a fall of slate.
6	Frank Zellman,	Pole,	Miner,	18	S	Arnold No. 1,	Fayette,	Wrist broken by a fall of slate.
7	Peter Carparian,	Slovak,	Miner,	29	M.	Mongah,	Allegheny,	Leg broken; struck by a post
14	Robert Gates, Jr.,	English,	Scraper,	30	M.	Little Squaw,	Washington,..	Shoulder dislocated by a fall of coal and slate.

	14	Rueben Gosney,	American,	Driver,	20	S.	Peters Creek No. 1,	Allegheny,	Leg broken by car.
	16	George Haynda,	Slovak,	Miner,	26	S.	Milesville,	Allegheny,	Back injured by a fall of slate.
	20	Adolph Machia,	Slovak,	Miner,	17	S.	Equitable,	Westmorel'd,	Leg broken by a fall of coal.
	20	John Cowper,	American,	Loader,	45	M.	Blanche,	Washington,	Injured by a runaway trip.
	20	Michael Ventiora,	Italian,	Miner,	46	M.	Schoenberger,	Washington,	Injured by a fall of slate.
	21	Peter Kirsch,	German,	Miner,	53	M.	Allequippa,	Allegheny,	Leg broken by a fall of coal.
	22	James Jenkins,	American,	Mine foreman,	38	M.	Coal Bluff,	Washington,	Head cut by roof while riding on dilly trip
	23	Charles Lovarty,	Hungarian,	Miner,	28	M.	Somers No. 4,	Westmorel'd,	Injured by a fall of coal.
	25	James S. Lewis,	American,	Carpenter,	22	M	Somers No. 4,	Westmorel'd,	Seriously injured by falling from tipple.
	30	Joseph Marea,	Italian,	Miner,	18	S.	Catsburg,	Washington,	Injured by a fall of slate.
Sept.	6	Conrad Rovich,	Pole,	Miner,	29	S.	Gallatin,	Allegheny,	Injured by coal and slate rolling on him.
	9	Charles Gregg,	American,	Miner,	40	M.	Fayette City,	Fayette,	Arm broken by a fall of slate.
	12	Michael Bolinskey,	Hungarian,	Miner,	42	M.	Bertha,	Allegheny,	Injured by a fall of slate.
	12	Martin Drahoo,	Slovak,	Miner,	18	S.	Acme,	Washington,	Leg fractured by a fall of slate.
	12	John Porcher,	Russian,	Miner,	35	M	Manown,	Allegheny,	Injured by a fall of coal.
	16	John Botsak,	Polish,	Miner,	36	M	Gallatin,	Allegheny,	Leg broken by a fall of slate.
	16	James Newman,	English,	Machine runner	29	S.	Schoenberger,	Washington,	Leg broken by being struck by a block.
	17	James Piett,	American,	Company man,	22	S.	Catsburg,	Washington,	Injured; run over by cars.
	17	John Nichols,	English,	Driver,	23	M.	Somers No. 4,	Westmorel'd,	Injured; caught between car and post.
	17	Stanjulas Yuslak,	Slovak,	Miner,	26	S.	Manown,	Allegheny,	Injured by a fall of slate.
	18	Daniel Dunn,	American,	Driver,	21	S.	Manown	Allegheny,	Injured; caught between cars.
	22	Paul Jacobs,	Slovak,	Miner,	42	M	Hazel Kirk,	Washington,	Leg broken by a fall of slate.
	22	John Kowash,	Slovak,	Miner,	45	M.	Apollo,	Fayette,	Leg broken; struck by a post.
	23	John Posh,	Hungarian,	Miner,	22	S.	Catsburg,	Washington,	Injured by a fall of slate.
	24	Antonio Mouska,	Pole,	Miner,	24	S.	Catsburg,	Washington,	Injured by a fall of slate.
	25	Joseph Inkoskey,	Slovak,	Miner,	23	S.	Blanche,	Washington,	Injured by a fall of roof.
	27	James White	English,	Miner,	47	M	Bertha,	Allegheny,	Injured; caught between cars
	27	Jacob Chesruse,	Slovak,	Miner,	29	M.	Budd,	Westmorel'd,	Arm broken by a fall of slate.
	27	William Walsh,	American,	Miner,	18	S.	Peters Creek No. 1,	Allegheny,	Leg cut by a fall of slate, necessitating amputation.
Oct.	4	Martin Gezzo,	Pole,	Miner,	45	M	Rostraver,	Westmorel'd,	Spine injured by a fall of slate.
	7	Arcos Barstella,	Italian,	Miner,	45	M	Tremont,	Fayette,	Back broken by a fall of coal.
	17	James Rue,	American,	Company man,	54	M	Equitable,	Westmorel'd,	Injured by a car running on him.
	18	Frank Levi,	Italian,	Miner,	41	M	Germania,	Washington,	Leg broken by a fall of slate.
	21	Michael Peke,	Slovak,	Miner,	24	S	Vesta No. 1,	Washington,	Injured by blast through rib.
	28	John Rasowla,	Slovak,	Miner,	27	M	Blanche,	Washington,	Injured by a fall of slate.
	28	George Balm,	Italian,	Miner,	25	S.	Schoenberger,	Washington,	Injured by a blast through rib.
	28	Samuel Gilmore,	American,	Driver,	22	S.	Equitable,	Westmorel'd,	Foot crushed; caught between cars.
Nov.	10	John Browler,	American,	Driver,	20	S.	Star,	Washington,	Injured; run over by a car.
	11	Laida Carbine,	Italian,	Miner,	37	M	Dilworth,	Greene,	Injured by a piece of slate sliding on him.
	12	German Nohl,	French,	Miner,	45	M.	Star,	Washington,	Face cut by blast through rib.
	13	John Govern,	German,	Scraper,	33	M	Tremont,	Fayette,	Seriously injured by a fall of roof coal.
	17	Patrick Frank,	Hungarian,	Miner,	33	M	Beaumont	Washington,	Injured; caught between cars.
	18	John Wiley,	American,	Miner,	26	M	Eclipse, Railroad,	Washington,	Injured by a fall of slate and coal.
	19	Jacob Nagle,	German,	Miner,	34	M	Risher,	Allegheny,	Arm nearly cut off by an axe.
	19	Joseph Muscaron,	Italian,	Miner,	27	S	Tremont,	Fayette,	Foot injured by a pick.
	20	Michael Deposka,	Italian	Miner,	24	S.	Ellsworth No. 2,	Washington,	Leg fractured by a fall of coal and slate.
	24	David Davis,	American,	Door boy,	17	S	Vesta No. 3,	Washington,	Injured; caught between cars.
	24	John Swenda,	Slovak,	Miner,	40	M	Somers No. 2,	Westmorel'd,	Injured by fall of slate.
	25	David Burgess,	American,	Machine runner	26	M	Arnold No. 2,	Fayette,	Left foot cut off by bitt of mining machine
	25	Timothy Donovan,	American,	Machine runner	24	M	Gallatin,	Allegheny,	Injured by a fall of coal.
	27	Phillip Cerea,	French,	Company man,	39	M	Schoenberger,	Washington,	Injured; caught between cars.
	28	Lewis Kish,	Hungarian,	Miner,	21	S	Bertha,	Allegheny,	Injured by a fall of slate
Dec.	1	Michael Haley,	Finlander,	Miner,	60	M	Tremont	Fayette,	Thigh and ankle dislocated by a fall of slate.
	3	Antonio Borea,	Italian,	Miner,	20	S	Little Squaw,	Washington,	Leg broken by being struck by a post

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
4	Henry Carrington, ...	American, .	Driver, ...	18	S.	Catsburg, ...	Washington,..	Injured; caught between car and post.
5	Andrew Ploucher, ...	Slovak, ...	Driver, ...	31	M.	Banner, ...	Washington,..	Injured by a fall of coal and slate.
5	Peter Wilson, ...	Scotch, ...	Miner, ...	45	M	Banner, ...	Washington,..	Injured by a fall of roof coal and slate.
9	Alphonse Pasgrola, ...	Italian, ...	Miner, ...	28	M.	Mongah, ...	Allegheny, ...	Leg broken by a fall of slate.
12	John Ingram, ...	American, .	Driver, ...	32	M.	Schoenberger, ...	Washington,..	Two fingers on right hand mashed by car.
12	William Burkhart, ...	German, ...	Driver, ...	19	S.	Aeme, ...	Washington,..	Hip dislocated by being caught by cars.
12	C. Koshet, ...	Slovak, ...	Miner, ...	25	S.	Charlerol No. 1, ...	Washington,..	Toe cut off by a fall of slate.
15	John Bergocia, ...	Italian, ...	Miner, ...	31	M.	Schoenberger, ...	Washington,..	Thumb cut off by an axe.
17	W. L. Maize, ...	Scotch, ...	Company man,	25	M.	Gallatin, ...	Allegheny, ...	Injured; caught by dilly trip.
19	William Ganer, ...	Russian, ...	Miner, ...	40	M.	Vesta No. 2, ...	Washington,..	Leg broken by a fall of slate.
20	William Jester, ...	American, .	Driver, ...	42	M.	Blanche, ...	Washington,..	Injured; caught between car and rib.
22	John Tocl, ...	Italian, ...	Miner, ...	27	M.	Gallatin, ...	Allegheny, ...	Injured by a fall of coal.

Second Bituminous District.

ALLEGHENY, INDIANA AND WESTMORELAND COUNTIES.

Greensburg, Pa., March 24, 1903.

Hon. James W. Latta, Secretary of Internal Affairs:

Sir: I have the honor to herewith submit my report as Inspector of Mines for the Second Bituminous District for the year ending December 31, 1902, in compliance with Section 2 of Article 10 of the Bituminous Mining Act, approved the 15th day of May, 1893.

The coal and coke trade in this district is still on the increase. In 1901 the total production was 8,222,731 tons of coal and 1,498,520 tons of coke, while in 1902 the production was 11,031,423 tons of coal and 1,996,906 of coke, an increase of 2,808,692 tons of coal and 498,386 tons of coke over the output of 1901.

There has also been an increase in the number of persons employed. In 1901 the number was 11,517. In 1902, 14,516, an increase of 2,999.

I regret to report 42 fatal accidents, an increase of 13 over 1901. As a result of these fatalities twenty-six wives were made widows and seventy-three children fatherless.

The number of non-fatal accidents was 67, showing a decrease of 15 from the year 1901.

Several of the fatal accidents might have been prevented if the unfortunate persons had exercised ordinary care. The same may be said of the non-fatal accidents. Quite a number were due to carelessness on the part of the injured persons.

I am pleased to report that the condition of the mines has been improved, with but few exceptions. This is especially true in regard to ventilation. Three furnaces and seven fans were put into operation, and two small fans have been replaced by larger ones. Three new air shafts have been sunk where the old ones proved to be too small after the workings were extended.

The report contains the usual tables and statistics, with a brief description of the mines, together with the most important improvements made; also a description of the fatal accidents and a report of the annual examination of applicants for mine foremen certificates.

One violation of the mining law was reported to me during the year,

upon the basis of which I made an information against one Frank Canepeli, a miner, charging him with unlocking and lighting his safety lamp in a portion of the Denmark mine, in which locked safety lamps were used, a statement of which is also made a part of this report.

Respectfully submitted,

C. B. ROSS,
Inspector.

SUMMARY OF STATISTICS FOR 1902.

Number of mines in district,	81
Number of mines in operation during 1902,	77
Number of tons of coal produced,	11,031,423
Number of tons shipped to market,	7,675,700
Number of tons sold at mines to local trade,	73,839
Number of tons consumed at mines in generating steam and heat,	228,419
Number of coke ovens in the district,	4,548
Number of coke ovens in operation during 1902,	4,324
Number of tons of coke produced,	1,996,906
Number of tons of coal used in manufacture of coke,	3,053,465
Number of tons produced by pick mining,	9,048,595
Number of tons produced by compressed air machines,	948,417
Number of tons produced by electrical machines,	1,034,411
Number of persons employed inside the mines,	11,317
Number of persons employed outside, including coke workers,	3,199
Number of persons employed at manufacture of coke,	1,545
Number of fatal accidents inside the mines,	40
Number of tons produced for each fatal accident inside,	275,785 +
Number of persons employed per fatal accident inside,	362 +
Number of fatal accidents outside,	2
Number of persons employed per fatal accident outside,	7,258
Number of wives made widows by fatal accidents,	26
Number of children orphaned by fatal accidents,	73
Number of non-fatal accidents inside of mines,	64
Number of persons employed per non-fatal accident inside,	226 +
Number of non-fatal accidents outside,	3
Number of persons employed per non-fatal accident outside,	4,839—
Number of steam locomotives used inside,	1
Number of compressed air locomotives used inside,	3
Number of electric motors used inside,	11

Number of fans used for ventilation,	50
Number of furnaces used for ventilation,	20
Number of gaseous mines in operation during 1902,	27
Number of non-gaseous mines in operation during 1902,	50
Number of new mines opened in 1902,	8
Number of old mines abandoned during 1902,	2

A. Production of Coal During the Year 1902.

Names of Companies.	Tons.
Keystone Coal and Coke Co.,	2,156,657
Westmoreland Coal Co.,	1,568,748
Penn Gas Coal Co.,	715,298
Jamison Coal and Coke Co.,	642,991
Loyalhanna Coal and Coke Co.,	504,034
Hostetter Connellsville Coke Co.,	560,000
American Coke Co.,	459,740
Atlantic Crushed Coke Co.,	159,041
Ligonier Coal Co.,	28,063
Burrell Coal Co.,	62,111
McCreary Coke Co.,	151,444
Blairsville Coke Co.,	33,100
Superior Coal and Coke Co.,	175,905
Pittsburg and Baltimore Coal Co.,	241,005
Ocean Coal Co.,	196,869
Maher Coal and Coke Co.,	49,758
Manor Gas Coal Co.,	321,673
Spring Hill Gas Coal Co.,	115,990
W. B. Skelly Coal Co.,	89,657
Penn Manor Shaft Co.,	100,421
Alexandria Coal Co.,	296,035
Donohoe Coal and Coke Co.,	215,691
Huron Coal Co.,	153,060
Latrobe Coal Co.,	305,000
H. C. Frick Coke Co.,	138,716
Saxman Coal and Coke Co.,	127,624
Derry Coal and Coke Co.,	273,586
Bessemer Coke Co.,	212,757
Millwood Coal and Coke Co.,	110,597
Reese-Hammond Fire Brick Co.,	19,262
Bolivar Coal and Coke Co.,	24,500
Harris Coal and Coke Co.,	33,299
Elkins Gas Coal Co.,	259,512

American Steel Hoop Co.,	144,000
Ray Coal Co.,	62,539
Robert Smith,	50,820
Graff Coal Co.,	60,000
Dixon Brothers,	34,025
Glenmore Coal and Coke Co.,	27,600
Joseph Wharton,	45,086
Mitchell Watson Coal and Coke Co.,	5,164
Bowman Coal Mining Co.,	28,940
Edri Coal Co.,	10,704
Johnstown Coal Co.,	45,060
Latrobe, Connellsville Coal and Coke Co.,	8,415
Peters Paper Co.,	6,926
Total,	11,031,423

Production by Counties.	Tons.
Allegheny,	115,990
Indiana,	669,154
Westmoreland,	10,246,279
Total,	11,031,423

B. Showing the number of fatal and non-fatal accidents inside and outside the mines; number of tons of coal produced per fatal and non-fatal accident inside the mines; number of persons employed inside and outside; and the number employed inside and outside for every fatal and non-fatal accident for each company during 1902.

Names of Companies.	Number of lives lost inside.	Number of lives lost outside.	Total number of lives lost.	Number severely injured inside.	Number severely injured outside.	Total number severely injured.	Tons of coal produced per each life lost inside.	Tons of coal produced per serious injury inside.	Number of employes inside of mines.	Number employes outside of mines.	Total number employed.	Number of employes inside for each life lost.	Number of employes inside for each severe injury.	Number of employes outside for each life lost.	Number of employes outside for each severe injury.
Keystone Coal and Coke Co.,	6	.....	6	10	.....	10	359,413	215,666	2,004	349	2,353	334	200.4	.....	.....
Westmoreland Coal Co.,	2	.....	2	4	.....	4	784,374	392,187	1,519	186	1,705	759.5	379.7	.....	.....
Penn Gas Coal Co.,	5	.....	5	4	.....	4	143,060	178,824	795	141	936	159	198.7	.....	.....
Jamison Coal and Coke Co.,	8	1	9	6	.....	6	80,374	107,165	814	334	1,148	101.7	135.6	334	.....
Loyalhanna Coal and Coke Co.,	2	.....	2	3	.....	3	252,017	168,011	466	107	573	233	155.3	.....	.....
Hostetter Connellsville Coke Co.,	.....	.....	.....	2	.....	2	.....	280,000	506	317	823	.....	253	.....	.....
American Coke Co.,	1	.....	1	1	.....	1	459,740	459,740	404	292	696	404	404	.....	.....
Atlantic Crushed Coke Co.,	.....	.....	.....	2	.....	2	.....	79,520	139	47	186	.....	69.5	.....	.....
Ligonier Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	79	14	93	.....	.....	.....	.....
Burrell Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	57	8	65	.....	.....	.....	.....
McCreary Coke Co.,	1	1	2	1	.....	1	151,444	151,444	293	95	388	293	293	95	.....
Blairsville Coke Co.,	.....	.....	.....	.....	.....	.....	.....	.....	50	1	51	.....	.....	.....	.....
Superior Coal and Coke Co.,	1	.....	1	1	.....	1	175,905	175,905	160	35	195	160	160	.....	.....
Pittsburg and Baltimore Coal Co.,	2	.....	2	3	.....	3	120,502	80,335	175	25	200	87.5	58.3	.....	.....
Ocean Coal Co.,	1	.....	1	7	.....	7	196,869	28,124	166	32	198	166	23.7	.....	.....
Maher Coal and Coke Co.,	.....	.....	.....	.....	.....	.....	.....	.....	47	4	51	.....	.....	.....	.....
Manor Gas Coal Co.,	2	.....	2	3	1	4	160,836	107,224	360	28	388	180	120	.....	28
Spring Hill Gas Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	112	14	126	.....	.....	.....	.....
W. B. Skelly Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	110	11	121	.....	.....	.....	.....
Penn Manor Shaft Co.,	1	.....	1	.....	.....	.....	100,421	.....	157	25	182	157	.....	.....	.....
Alexandria Coal Co.,	2	.....	2	3	1	4	148,018	98,678	299	121	420	149.5	99.6	.....	121
Donohoe Coal and Coke Co.,	.....	.....	.....	2	1	3	.....	107,845	156	105	261	.....	78	.....	105
Huron Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	187	20	207	.....	.....	.....	.....
Latrobe Coal Co.,	.....	.....	.....	2	.....	2	.....	152,500	265	104	369	.....	132.5	.....	.....
H. C. Frick Coke Co.,	1	.....	1	.....	.....	.....	138,716	.....	103	98	201	104	.....	.....	.....
Saxman Coal and Coke Co.,	.....	.....	.....	1	.....	1	.....	127,624	131	45	176	131	.....	.....	.....
Derry Coal and Coke Co.,	.....	.....	.....	2	.....	2	.....	136,793	241	101	342	.....	120.5	.....	.....
Bessemer Coke Co.,	.....	.....	.....	1	.....	1	.....	212,757	213	167	380	.....	213	.....	.....
Millwood Coal and Coke Co.,	2	.....	2	1	.....	1	55,298	110,597	119	21	140	59.5	119	.....	.....

TABLE B—Continued.

Names of Companies.	Number of lives lost inside.	Number of lives lost outside.	Total number of lives lost.	Number severely injured inside.	Number severly injured outside.	Total number severely injured.	Tons of coal produced per each life lost outside.	Tons of coal produced per serious injury inside.	Number employes inside of mines.	Number employes outside of mines.	Total number employed.	Number of employes inside for each life lost.	Number of employes inside for each severe injury.	Number of employes outside for each life lost.	Number of employes outside for each severe injury.
Reese-Hammond Fire Brick Co.,	......	......	......	......	......	......	....	....	20	3	23	....	....	....	....
Oliver Coal and Coke Co.,	......	......	......	1	......	1	....	24,500	33	19	52	....	33	....	....
Harris Coal and Coke Co.,	......	......	......	......	......	......	....	....	52	6	58	....	....	....	....
Elkins Gas Coal Co.,	2	......	2	1	......	1	129,756	259,512	280	20	300	140	280	....	....
American Steel Hoop Co.,	1	......	1	......	......	......	144,000	....	124	101	225	124	....	....	....
Roy Coal Co.,	......	......	......	......	......	......	....	....	53	5	58	....	....	....	....
Robert Smith,	......	......	......	......	......	......	....	....	68	1	69	....	....	....	....
Graff Coal Co.,	......	......	......	......	......	......	....	....	81	7	88	....	....	....	....
Dixon Brothers,	......	......	......	......	......	......	....	....	31	1	32	....	....	....	....
Glenmore Coal and Coke Co.,	......	......	......	......	......	......	....	....	40	4	41	....	....	....	....
Joseph Whitton,	......	......	......	3	......	3	....	15,028	198	144	342	....	66	....	....
Mitchell-Watson Coal and Coke Co.,	......	......	......	......	......	......	....	....	17	3	20	....	....	....	....
Bowman Coal Mining Co.,	......	......	......	......	......	......	....	....	42	5	47	....	....	....	....
Eden Coal Co.,	......	......	......	......	......	......	....	....	34	5	39	....	....	....	....
Johnstown Coal Co.,	......	......	......	......	......	......	....	....	57	4	61	....	....	....	....
Latrobe-Connellsville Coal and Coke Co.,	......	......	......	......	......	......	....	....	40	20	60	....	....	....	....
[illegible] Paper Co.,	......	......	......	......	......	......	....	....	20	4	24	....	....	....	....
Totals and averages,	40	2	42	64	3	67	275,785+	172,366−	11,317	3,199	14,516	282+	176+	1,599+	1,066+

C. Classification of Fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
	Coal	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
January,	2															2							2
February,	1	1														2							2
March,	1	1													1	3							3
April,		2														2							2
May,		4		1												5							5
June,		6													1	7							7
July,	1															1							1
August,	2		4													6							6
September,	1	1														2		1				1	3
October,	1	2		1			1									4					1	1	5
November,	1	1	1													3							3
December,		1	1													2							2
Totals,	10	19	6	2			1								2	40		1			1	2	42

D. Classification of Non-fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						Grand total.
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
January,	1	1	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	1	.....	.....	.....	.....	1	7
February,	2	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	1	.....	.....	.....	.....	1	5
March,	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
April,	1	5	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	7
May,	1	3	.....	3	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	10	.....	.....	.....	.....	.....	.....	10
June,	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
July,	.....	2	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	6	.....	.....	.....	.....	.....	.....	6
August,	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	5	.....	.....	.....	.....	.....	.....	5
September,	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	1	.....	.....	.....	.....	1	4
October,	1	3	.....	1	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	1	8	.....	.....	.....	.....	1	1	9
November,	1	2	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	4
December,	1	2	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	1	1	6
Totals,	10	24	3	15	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	5	62	3	.....	.....	.....	2	5	67

E. Occupations of Employes Killed or Fatally Injured Inside and Outside the Mines of the Second Bituminous District During 1902.

Months.	Inside.													Outside.									Grand total.
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
January,	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	3
February,	.....	.....	.....	2	1	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	3
March,	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	5
April,	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	1	3	.....	.....	.....	.....	.....	.....	.....	.....	3
May,	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	5
June,	.....	.....	.....	4	.....	2	.....	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	.....	.....	6
July,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
August,	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	1	1	7
September,	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	1	1	3
October,	.....	.....	.....	2	.....	.....	.....	1	.....	.....	1	4	.....	.....	.....	.....	.....	.....	.....	.....	4
November,	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	3
December,	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	2
Totals,	.....	.....	.....	34	1	2	.....	1	.....	.....	2	40	.....	.....	.....	.....	.....	.....	2	2	42

F. Occupations of Employes Severely Injured Inside and Outside the Mines of the Second Bituminous District During 1902.

Months.	Inside.												Outside.								Grand total
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
January				4				3				7									7
February				3				1				4							1	1	5
March				1								1									1
April				6				1				7									7
May				6				3			1	10									10
June				3								3									3
July				3		1		1			1	6									6
August				2				2			1	5									5
September				3								3							1	1	4
October				7							1	8							1	1	9
November				3				1				4									4
December				4				1			1	6									6
Totals				45		1		13			5	64							3	3	67

G. Nationality of Employes Killed or Fatally Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Welsh.	Scotch.	Germans.	Poles.	Italians.	Slavonians.	Lithuanians.	Austrians.	Russians.	Bohemians.	Grand total.
January,				1				1					
February,													
March,	1							1	1	1			
April,						1							
May,							1			1			
June,		1	1			2		3					
July,							3	2					
August,	1									1			
September,	1				1		2	2		1			
October,	3				1	1							
November,		1					1			1	1	1	
December,						1		1			1		
Totals,	5	2	1	1	2	5	8	9	1	5	2	1	42

H. Nationality of Employes Severely Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Scotch.	Irish.	Germans.	Poles.	Hungarians.	Italians.	Slavonians.	Austrians.	Russians.	Swedes.	Bohemians.	Grand total.
January,	4					1				2				
February,		1	1						1			1	1	
March,														
April,	2			2		1								
May,	3							1	1	1				
June,					1	3			1	1				
July,	2						1	1	1				1	
August,				1			1	2						
September,	1	1	1						2		1	1		
October,	1	1						2						
November,	1	1			1			2	3		1			
December,		1	2		1			1						
Totals,	14	5	4	3	3	5	3	10	10	4	2	2	2	67

I. Giving names of operators and mines, kind of openings, type and size of fans; size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each employe per minute in Second Bituminous District for the year 1902.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Keystone Coal and Coke Co.														
Greensburg No. 1,	Slope, ..	Non-gas.	Fan,.....	12 x 3½	1.5	Guibal, ...	Steam, ...	1	45,000	45,000	27,520	121	371.9
Greensburg No. 2,	Slope, ..	Non-gas.	Fan,.....	16 x 4½	1.6	Guibal, ...	Steam, ...	4	58,800	38,480	56,800	200	284
Greensburg No. 3,	Slope, ..	Non-gas.	Fan,.....	6 x 3½	.2	Murphy, ...	Steam, ...	1	21,600	21,600	12,440	28	771.4
Claridge,	Drift,....	Non-gas.	Fan,.....	16 x 7	1	Guibal, ...	Steam, ...	7	75,600	57,400	36,800	282	268
Carbon,	Slope, ..	Non-gas.	Fan,.....	13½ x 5	1.3	Capell, ...	Steam, ...	5	120,000	84,100	97,480	211	568.7
Arona,	Slope, ..	Non-gas.	Fan,.....	25 x 8	1.9	Guibal, ...	Steam, ...	7	97,500	45,200	75,360	283	344.5
Sewickley,	Slope, ..	Gaseous,	Fan,.....	25 x 8	.7	Guibal, ...	Steam, ...	6	117,000	88,620	106,800	233	502.1
Madison,	Drift,....	Non-gas.	Fan,.....	18 x 6	.5	Guibal, ...	Steam, ...	5	92,400	79,040	102,000	235	393.2
Salem,	Drift,....	Non-gas.	Fan,.....	10 x 3	.2	Stein, ...	Steam, ...	1	29,400	29,400	41,600	200	147
Hempfield,	Slope, ..	Non-gas.	Fan,.....	12 x 3½	1.25	Guibal, ...	Steam, ...	3	56,000	32,700	44,600	171	327.5
Hempfield No. 2,	Drift,....	Non-gas.	Natural,	.....	.....	.....	.....	.....	.....	.....	.....	9	.....
Seaboard,	Shaft, .	Non-gas.	Radi. by steam.	.....	.....	.....	Steam, ...	.....	.....	6,750	6,750	2,600	11	613.6
Seward,	Drift,....	Non-gas.	Fan,.....	10 x 3	.....	Brazil, ...	Steam, ...	.....	.....	.....	.....	.....	20	.....
Keystone.*	Shaft, ..	Non-gas.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Westmoreland Coal Co.														
Export,	Drift,....	Gaseous,	Fan,.....	25 x 8	2.2	Guibal, ...	Steam, ...	8	165,920	165,920	186,000	573	289.5
Larimer,	Slope, ..	Gaseous,	Fan,.....	20 x 9	1.5	Guibal, ...	Steam, ...	8	200,100	100,860	97,200	368	543.7
Osborne,	Drift,....	Non-gas.	Fan,.....	7 x 3½	.4	Guibal, ...	Steam, ...	1	27,020	27,020	32,200	168	160.8
Westmoreland shaft,	Shaft, ..	Gaseous,	Fan,.....	24 x 10	1.5	Guibal, ...	Steam, ...	6	130,720	115,400	202,100	410	318.8
Penn Gas Coal Co.														
Coal Run,	Drift,....	Gaseous,	Furnace,	.....	.....	.....	 48	2	20,800	20,800	24,000	94	221.2
No. 1 Penn Gas,	Shaft, ..	Gaseous,	Fan,.....	18 x 6	.....	Guibal, ...	Steam, ...	2	42,700	39,840	53,900	153	279.8
No. 2 Penn Gas,	Shaft, ..	Gaseous,	Fan,.....	15 x 7	3.5	Capell, ...	Steam, ...	5	109,560	93,960	134,400	310	353.4
No. 5 Penn Gas,	Slope, ..	Gaseous,	Fan,.....	14 x 6	2.9	Capell, ...	Electricity, ...	4	101,000	62,500	112,500	238	424.3

Jamison Coal and Coke Co.														
Jamison No. 1,	Slope, ..	Gaseous,	Fan,.....	12 x 3½	1	Brazil, ...	Steam, ...	3	45,500	47,600	62,400	310	227.9
Jamison No. 2,	Drift,....	Gaseous,	Fan,.....	10 x 3	.....	Guibal, ...	Steam, ...	2	25,150	31,050	44,000	.....	.....
Jamison No. 3,	Shaft, ..	Gaseous,	Fan,.....	13 x 6	1.2	Capell, ...	Steam, ...	6	79,800	76,150	88,000	425	187.7
Jamison No. 4,	Shaft, ..	Gaseous,	Fan,.....	13 x 6	.....	Capell, ...	Steam, ...	1	24,000	24,000	22,800	79	303.8
Loyalhanna Coal and Coke Co.														
Loyalhanna Nos. 1 and 2, ...	Shafts, .	Gaseous,	Fan,.....	18 x 6	.....	Brazil, ...	Steam, ...	5	68,000	52,180	50,400	299	228
Pandora, ...	Shaft, ..	Gaseous,	Fan,.....	25 x 8	.....	Guibal, ...	Steam, ...	3	70,000	46,400	81,000	167	419.1
Hostetter Connellsville Coke Co.														
Hostetter, ...	Slope, ..	Gaseous,	Fan,.....	16 x 4½	.6	Guibal, ...	Steam, ...	7	75,600	65,360	62,400	256	295.3
Whitney, ...	Slope, ..	Gaseous,	Fan,.....	16 x 4½	.4	Guibal, ...	Steam, ...	4	71,440	66,880	67,200	250	285.6
American Coke Co.														
Puritan, or Baggaley, ...	Slope, ..	Gaseous,	Fan,.....	20 x 6	1.7	Guibal, ...	Steam, ...	5	113,400	83,100	109,200	234	484.6
Dorothy, ...	Shaft, ..	Gaseous,	Fan,.....	20 x 6	.5	Guibal, ...	Steam, ...	3	94,500	46,900	95,500	170	555.8
Atlantic Crushed Coke Co.														
Atlantic No. 1, ...	Drift,....	Non-gas.	Natural, ...	.....	.....	.....	....	1	6,500	6,500	11,200	22	295.4
Atlantic No. 2, ...	Slope, ..	Gaseous.	Fan,.....	6 x 4½	.5	Capell, ...	Steam, ...	2	52,000	52,000	58,800	117	444.4
Atlantic No. 3,*	Shaft, ..	Non-gas.	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....
Ligonier Coal Co.														
S. H. Smith, ...	Drift,....	Non-gas.	Furnace, ...	.....	.....	.....	....	36	1	8,000	8,000	11,050	25	320
Ligonier No. 2, ...	Shaft, ..	Non-gas.	Fan,.....	12 x 4	.....	Guibal, ...	Steam, ...	1	27,500	27,500	29,680	54	509.2
Burrell Coal Co.														
Burrell No. 1,†	Drift,....	Non-gas.	Furnace, ...	.....	.....	.....	....	30	1	2,000	12,800	12,800	15	133.3
Burrell No. 2, ...	Drift,....	Non-gas.	Furnace, ...	.....	.....	.....	....	30	1	21,600	21,600	26,400	42	514.2
McCreary Coke Co.														
Graceton No. 1, ...	Drift,....	Non-gas.	Fan,.....	9 x 3½	.....	Brazil, ...	Steam, ...	1	24,000	24,000	25,600	75	320
Graceton No. 2, ...	Drift,....	Non-gas.	Fan,.....	11 x 3½	.....	Brazil, ...	Steam, ...	2	31,600	31,600	36,000	218	144.9
Blairsville Coke Co.														
Graff, ...	Drift,....	Non-gas.	Furnace, ...	.....	.....	.....	....	24	1	12,600	12,600	10,760	.....	.....
Graff No. 2, ...	Drift,....	Non-gas.	Natural, ...	.....	.....	.....	....	.....	1	3,840	3,840	3,600	14	271.7
Superior Coal and Coke Co.														
Superior No. 1, ...	Shaft, ..	Non-gas.	Fan,.....	12 x 3½	.4	Brazil, ...	Steam, ...	5	70,200	59,040	67,600	160	438.7
Superior No. 2,*	Drift,....	Non-gas.	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....
Pittsburg and Baltimore Coal Co.														
Baltimore No. 1, ...	Slope, ..	Non-gas.	Fan,.....	12 x 8	.....	Robinson, ..	Steam, ...	4	40,200	39,350	42,000	175	229.7
Baltimore No. 2.*	Shaft, ..	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....
Ocean Coal Co.														
Ocean Nos. 1 and 2, ...	Shafts, .	Gaseous,	Fan,.....	15 x 7	2	Capell, ...	Steam, ...	7	202,500	94,680	185,300	166	1,219.8
Maher Coal and Coke Co.														
Maher No. 3, ...	Drift,....	Non-gas.	Furnace, ...	.....	.....	.....	....	30	1	12,600	12,600	10,700	47	267.6

*In course of construction.
†Abandoned.

TABLE 1—Continued.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed in inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Manor Gas Coal Co.														
Denmark,	Slope.	Gaseous,	Fan,	12 x 5½	1.4	Guibal,	Steam,	8	70,000	62,660	106,600	360	194.4	
Spring Hill Gas Coal Co.														
Spring Hill,	Drift.	Non-gas.	Furnace,					42 36	3	69,340	103,120	103,120		
W. E. Scully Coal Co.														
Elizabeth	Drift,	Non-gas.	Furnace,		.2			48	2	16,800	16,800	23,460	110	152.7
Penn Manor Shaft Co.														
Penn Manor,	Shaft.	Gaseous,	Fan,	20 x 6	.2	Guibal,	Steam,		2	75,900	75,900	68,110	157	483.4
Alexandria Coal Co.														
Alexandria,	Slope.	Non-gas.	Fans,	16 x 6½ 15 x 4	1.1 1	Guibal, Guibal,	Steam,	9	107,000	89,460	90,900	299	359.5	
Donohoe Coal and Coke Co.														
Donohoe,	Drift,	Non-gas.	Fan,	14 x 5	1	Capell,	Steam,	3	111,000	78,040	113,400	156	730.7	
Huron Coal Co.														
Huron,	Drift,	Non-gas.	Fan,	10 x 3	.3	Brazil,	Steam,	2	56,000	54,400	54,400	187	299.4	
Latrobe Coal Co.														
Latrobe,	Slope.	Gaseous,	Fan,	20 x 6	.4	Guibal,	Steam,	4	87,600	79,800	68,000	285	330.5	
H. C. Frick Coke Co.														
Monastery,	Slope.	Gaseous,	Fan,	15 x 4	2.2	Guibal,	Steam,	2	31,400	28,200	41,300	104	301.9	
Saxman Coal and Coke Co.														
M. Saxman,	Shaft.	Non-gas.	Fan,	12 x 3½	.4	Brazil,	Steam,	2	48,600	36,600	32,100	131	370.9	

Derry Coal and Coke Co. Derry,	Shaft, ..	Gaseous,	Fan,	20 x 6	.....	Guibal,	Steam,	.....	2	70,000	47,400	59,800	241	290.4
Bessemer Coke Co. St. Clair,	Slope, ..	Non-gas.	Fan,	18 x 5½	.5	Brazil,	Steam,	.....	2	47,500	47,500	36,000	213	323
Millwood Coal and Coke Co. Millwood,	Shaft, ..	Gaseous,	Fan,	13½ x 5	1	Capell,	Steam,	.....	2	56,520	56,520	66,000	119	474.9
Reese-Hammond Fire Brick Co. Indiana,	Drift,	Non-gas.	Natural,					.....	1	10,800	10,800	12,600	20	540
Bolivar Coal and Coke Co. Lockport,	Drift,	Non-gas.	Furnace,					56	1	7,200	7,200	4,160	33	218.1
Harris Coal and Coke Co. Lincoln,	Drift,	Non-gas.	Furnace,					48	1	16,500	16,500	14,400	52	317.3
Elkins Gas Coal Co. Lyons Run,	Drift,	Non-gas.	Furnace,					90 / 60	5	49,280	49,280	60,000	280	176
American Steel Hoop Co. Isabella,	Slope, ..	Gaseous,	Fan,	12 x 7	1.5	Guibal,	Steam,	.....	1	31,950	31,500	60,500	124	257.6
Ray Coal Co. Ray,	Drift,	Non-gas.	Furnace,					30	2	26,800	19,800	19,800	53	505.6
Robert Smith. Smith,	Drift,	Non-gas.	Furnace,					30	1	26,860	26,860	32,100	68	395
Graff Coal Co. Blacklick,	Drift,	Non-gas.	Furnace,					30	1	16,410	16,410	19,060	81	202.7
Dixon Brothers. Dixon,	Drift,	Non-gas.	Furnace,					48	1	12,000	12,000	13,200	31	387
Glenmore Coal and Coke Co. Tearing Run,	Drift,	Non-gas.	Furnace,					30	1	4,480	4,480	5,000	40	112
Joseph Wharton. Mitchell,	Drift,	Non-gas.	Fan,	10 x 3	.....	Brazil,	Steam,	.....	1	18,000	18,000	15,600	198	90.9
Mitchell-Watson Coal and Coke Co. Mitchell-Watson No. 1,	Drift,	Non-gas.	Natural,					.....	1	1,920	1,920	2,970	.....	.....
Bowman Coal Mining Co. Bowman,	Drift,	Non-gas.	Furnace,					24	1	11,660	11,660	12,600	42	276.2
Edri Coal Co. Edri,	Drift,	Non-gas.	Furnace,					20	1	9,240	9,240	10,800	34	271.7
Johnstown Coal Co. Cramer,	Drift	Non-gas.	Fan,	12 x 3	.....	Brazil,	Steam,	.....	2	34,000	31,000	36,100	57	596.4

TABLE I—Continued.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-Gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water Gauge developed—in inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Latrobe-Connellsville Coal and Coke Co.	Slope, ..	Non-gas.	Natural,	.....	.....	.....	.....	.....	.....	.....	.....	.....	40	.....
Gilson, ...														
Peters Paper Co.	Drift,.....	Non-gas.	Natural,	.....	.....	.....	.....	.....	1	16,800	16,800	11,000	20	840
Peters, ...														

J. Names of mines using coal cutting machines, names of machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines during 1902.

Names of Mines.	Kind of opening.	Gaseous or non-gaseous.	Name and Number of Machines in Use.						Total machines used.	Power used by machines.	Geological and local name of seam.	Average thickness in inches.	Height of seam in inches.		Approximate number of tons produced by machines.
			Ingersoll.	Sullivan.	Harrison.	Jeffrey.	Morgan-Gardner.	Goodman.					Thickest.	Thinnest.	
Export,	Drift,	Gaseous,	....	....	....	10	....	....	10	Electricity,	Pittsburg,	66	78	69	307,000
Larimer,	Slope,	Gaseous,	....	....	....	7	....	2	9	Electricity,	Pittsburg,	72	78	66	276,300
Westmoreland,	Shaft,	Gaseous,	....	....	....	9	....	....	9	Compressed air,	Pittsburg,	72	78	66	261,000
No. 2 Penn Gas,	Shaft,	Gaseous,	....	....	....	8	....	....	8	Compressed air,	Pittsburg,	72	78	66	112,481
No. 5 Penn Gas,	Slope,	Non-gas.	....	....	....	5	2	....	7	Electricity,	Pittsburg,	66	72	60	195,261
Ocean Nos. 1 and 2,	Shafts,	Gaseous,	6	6	8	....	....	....	20	Compressed air,	Pittsburg,	66	73	56	151,589
Baltimore No. 1,	Slope,	Non-gas.	....	....	1	....	....	6	7	Electricity,	Pittsburg,	84	90	78	171,850
Penn Manor,	Shaft,	Gaseous,	....	....	....	....	4	....	4	Electricity,	Pittsburg,	66	72	60	20,000
Jamison No. 3,	Shaft,	Gaseous,	12	7	....	....	....	....	19	Compressed air,	Pittsburg,	78	84	76	190,000
Jamison No. 4,	Shaft,	Non-gas.	3	6	....	....	....	....	9	Compressed air,	Pittsburg,	81	86	78	24,000
Salem,	Drift,	Non-gas.	7	2	2	....	....	....	11	Compressed air,	Pittsburg,	90	96	84	154,347
Derry,	Shaft,	Gaseous,	....	....	....	....	4	....	4	Electricity,	Pittsburg,	60	108	48	40,000
Pandora,	Shaft,	Gaseous,	....	....	....	....	4	....	4	Electricity,	Pittsburg,	75	78	72	24,000
Graceton No. 1,	Drift,	Non-gas.	....	3	....	....	....	....	3	Compressed air,	D, or Lower Freeport,	38	60	36	5,000
Graceton No. 2,	Drift,	Non-gas.	....	36	....	....	....	....	36	Compressed air,	D, or Lower Freeport,	38	60	36	50,000
Totals,			28	60	11	39	11	8	160			....	....	....	1,982,828

Description of Fatal Accidents that Occurred During the Year.

Paul Kruspir was so seriously injured by a fall of coal in Jamison No. 3 mine, January 11, that death resulted on the 14th inst. The accident occurred in the south main entry parallel. Kruspir was employed as an entry driver, and had been warned by a fellow workmen of the dangerous condition of the coal shortly before it fell.

Daniel Hamilton, a miner boy, was instantly killed by a fall of coal at face of room in the Madison mine, January 22. He was at work with an older brother, and at the time of the accident was loading a car. Upon examination I found that the coal had not been spragged as it should have been. I was informed by the mine foreman that he had frequently called Hamilton's attention to his neglect in this particular, and had done so as late as the date before the accident.

Norgles Yeronius was so seriously injured in Export mine, February 1, by being caught in a mining machine, that death resulted on the 6th instant. Yeronius was employed as a machine runner and had undercut a proper distance and was then backing out when he stepped upon the machine to loosen the front jack. His foot slipped, allowing the bit chain to come in contact with his pantaloons and draw his leg between the chain and machine frame, thereby crushing it, which resulted in his death.

Bartol Ansets was seriously injured in Denmark mine, February 10, by a fall of slate and death resulted on the 12th inst. The accident occurred in pillar workings and was the result of not spragging the coal. The coal had been undermined to a depth of about two and one-half feet and for a distance of nine feet. Ansets was passing the face of the coal when it suddenly fell.

Mike Pepsu was so seriously injured in Jamison No. 3 mine, February 12, by a fall of coal that death resulted on the 12th inst. The accident occurred in No. 1 entry east, where he was employed as an entry driver.

Edward McIntyre was instantly killed in the Greensburg No. 2 mine, March 10, by a fall of coal. He was on his way out of the mine, and was passing along No. 7 cross entry, when a piece of coal fell from the roof killing him.

Ignats Jimbo was so seriously injured in Jamison No. 3 mine, March 12, by a fall of slate that death resulted on April 4. He was loading a car of slate which he had taken down the day before. The piece which killed him was partly cut off by a slip, the existence of which was not perceptible until after it fell.

Joseph Sassi was instantly killed in the Ocean No. 1 mine, April 7, by a fall of slate, at the face of No. 26 entry north. He had been

told but a short time before the fall by a fire boss to put a post under the slate, but failed to carry out the instructions.

Frank Woliff was instantly killed in the Alexandria mine, April 16, by a fall of slate. He was engaged in loading a car and told a man who worked with him to cut a post and set it under the slate while he loaded the car. The man suggested that Woliff set the post, but he refused, and while he was preparing the post, the slate fell upon Woliff.

Henry A. Dunn was instantly killed by a fall of slate at face of entry in the Penn Gas No. 2 mine, May 8.

Daniel Greek was injured by a fall of slate at face of pillar in Denmark mine, May 8. The injury proved fatal June 15.

Frank Nowalk was instantly killed in the Alexandria mine by a fall of slate, May 12. The mine foreman was in his room but a short time before the accident occurred, and noticed that the slate was loose and told Nowalk to secure it with posts until he loaded the loose coal from under it. Nowalk failed to carry out his instructions and lost his life.

Martin Nokovich was so seriously injured by being caught between mine car and roof, in the Superior No. 1 mine, May 22, that death resulted the following day. Nokovich was at work in No. 5 parallel entry and had loaded his last wagon and started it down the entry. He boarded the car, evidently intending to stop it at the chute. In this he failed, as the car ran on and collided with two other cars standing on No. 5 entry at No. 5 room, and the rear end of the car on which Nokovich was standing raised up, fastening him between it and the roof, causing his death.

Joseph Rushnack was instantly killed by a fall of slate at face of room in the Jamison No. 3 mine, May 27. He was taking the slate down for the purpose of making the place safe when the accident occurred.

Charles Crupell was instantly killed by falling from an ascending cage in the Jamison No. 3 mine, May 31. Crupell had worked in this mine until May 3, when he left, but returned to get his pay on the day the accident occurred. Thomas Yessen, who had also previously worked in this mine, was with him. By some means Crupell lost his balance and fell against the side of shaft, was dragged through between the shaft and cage and fell to the bottom, a distance of about thirty-five feet.

Bartolo Domenegatto was instantly killed by a fall of slate at face of room in the Westmoreland shaft mine, June 3.

Andrew Metrick was fatally injured while at work in the Jamison No. 3 mine, June 14, by a fall of slate; death resulted in twenty minutes. The accident occurred in a room where he and his brother were engaged in taking a "slab" off a pillar.

Nicol Guiseppe was fatally injured while at work in the Millwood mine, June 16, by a fall of slate. Death resulted in twelve hours. The accident occurred in pillar workings.

Peter Rosetti was so seriously injured by a fall of slate at face of room in the Isabella mine, June 19, that death resulted on the 30th inst. He had been warned in the morning by the fire boss as to the dangerous condition of the slate in his room, who ordered him to secure it with timber. The fire boss marked with chalk the places where the timber should be set, but Rosetti failed to heed the warning.

Benjamin Gause, a miner boy, was so seriously injured by a fall of slate in the Baltimore No. 1 mine, June 23, that death resulted on the 25th inst. The accident occurred at face of room, where the boy was at work with his father.

Daniel Devey was fatally injured while at work in the Greensburg No. 2 mine, June 30, by a fall of slate. Death resulted in thirty minutes. The accident occurred in pillar workings, where he was drawing timber.

Frank Weiss was injured by a fall of coal at face of room in Penn Gas No. 5 mine, July 18. The injury proved fatal August 4.

Nickel Jim was so seriously injured by a fall of coal in Jamison No. 2 mine, August 7, that death resulted on the 9th inst. The accident occurred at face of room and was caused by his failing to sprag the coal.

Michael Barno was instantly killed on August 8 by a fall of roof in the Graceton No. 1 mine. The accident occurred in pillar workings.

Frank Stepneck was fatally injured while at work in the Claridge mine, August 11, by a fall of coal. Death resulted in ten minutes. The accident occurred in the pillar workings.

Musi Angelo was instantly killed by a fall of roof in the Millwood mine, August 13. The accident occurred in the pillar workings where he was engaged in drawing timber.

George Uhas was instantly killed by a fall of roof in pillar workings in the Puritan mine, August 23. Two roadmen went into the place and were preparing to lay a turn in the road and Uhas and his partner commenced to set posts. The roadmen heard the roof working and told Uhas it was not safe, but he insisted that it was. They then went back a short distance and called to Uhas to come, as did also Pohollo, his partner, and Edward Goodman, a driver, but he paid no attention to their warnings, when suddenly the roof fell, crushing him beneath it.

Edward Higgins was injured by a fall of roof at face of room in Greensburg No. 3 mine, August 28. The injury proved fatal September 9.

John Bitner was instantly killed while oiling an engine that operates the coke crusher at the Graceton No. 2 mine, August 30. His clothes were caught by a set screw in the shaft.

Thomas Smith was instantly killed by being struck by a descending cage at the top landing at Jamison No. 4 mine, September 4. Smith was employed to assist in dumping coal. One cage only was used for hoisting at this time. The other cage was so arranged as to hang on the rope three and one-half feet above the top landing when the one in use was on the bottom of shaft. This was done in order to prevent cage from reaching the bottom, which was not yet completed, while the one in use was landed properly at top landing. Smith lay down on top landing and was looking down at the engineers, who were doing some work on the ground landing. While in this position, a signal from below was given to hoist and the descending cage struck him on the back of the head, killing him instantly.

Jacob Mitinger was injured by a fall of coal in pillar workings in Greensburg No. 3 mine, September 4. He was undermining the coal at the time and had the coal properly spragged, but the coal, being of a soft nature, broke off near a sprag, fell on him and injured him so that he died on the 6th inst.

Andrew Kroul was fatally injured by a fall of slate at face of room in Lyons Run Mine, September 10. Death resulted in three hours.

Frank Licar was instantly killed by a fall of coal at face of room in the Lyons Run mine, October 9.

Ross Lee was suffocated by fumes from a dynamite blast in a new air shaft at Penn Gas No. 2 mine, October 9.

Anthony Siaranic was instantly killed by a fall of slate in the Jamison No. 1 mine, October 10. The accident occurred at face of room.

Frank Weaver was fatally injured by a fall of slate at face of room in the Penn Gas No. 2 mine, October 11. Death resulted in one hour.

A. F. Anderson was instantly killed by being run over by a car in the Baltimore mine No. 1, October 24. Anderson was employed as a driver. The supposition is that he was letting the car down the chute by walking in front of it, when he slipped and fell and the car passed over him.

Michael Fox was instantly killed by a fall of roof in the Loyalhanna No. 1 mine, November 7. The accident occurred in pillar workings.

Frank Allegrinni was instantly killed by a fall of slate at face of room in the Loyalhanna No. 1 mine, November 12.

Andrew Morris was so seriously injured by a fall of coal and slate in No. 5 Penn Gas mine, November 22, that death resulted on the 26th inst.

Peter Viskoski was injured by a fall of slate in pillar workings in

the Penn Manor mine, December 4. The injury proved fatal on the 21st.

Mike Kushinskey was fatally injured by a fall of roof in the Monastery mine, December 5. Death resulted in four hours. The accident occurred in pillar workings.

Commonwealth of Pa.
v.
Frank Canepeli.

In the Court of Quarter Sessions of Westmoreland county, Pa.
No. 20 May Term, 1902.
Charge, violating mining laws.
C. B. Ross, Inspector, prosecutor.

February 10, 1902, I made information against Frank Canepeli before Jacob Hoffer, justice of the peace, in the borough of Greensburg, charging him with the following offences:

That at the coal mines of the Manor Gas Coal Company, located at Claridge, in the township of Penn, county of Westmoreland, on Monday, January 20, 1902, said defendant, Frank Canepeli, being a miner at work in said mine on the entry where none but locked safety lamps were allowed to be used, did intentionally and carelessly use an open lamp in and about his business of mining, and also, with a key then in his possession, unlock the safety lamp and light the same; and that the said lamp was kept open for some length of time and used as a common lamp, thereby endangering the lives, safety and health of persons working in said mine and endangering the security of the mines and machinery.

That said defendant also did intentionally and carelessly injure the safety lamp and disobey the orders of the mine boss by using said safety lamp open and by lighting the same at a place in said mine where the use of open lights or lighting safety lamps was prohibited by the mine boss and by the law. And further, that the said Frank Canepeli had in his possession on said date and prior thereto a key or instrument for the purpose of unlocking safety lamps in said mine, where locked safety lamps were used. He at the same time not being a person duly authorized by the mine foreman to have in his possession such a key or instrument for the purpose aforesaid, which key he unlawfully and wrongfully took and appropriated to his own use from the office of the fire boss at said mines, contrary to the acts of the General Assembly in such cases made and provided.

The defendant was arrested and brought before the justice on the 11th of February, 1902, and in default of bail was committed for a hearing on the 14th of February, 1902, from two to three o'clock P. M., on which date the hearing was had. It was proven by the witnesses for the Commonwealth that the defendant was a miner in said mines; that the place where he worked was on an entry where a fall

of slate had occurred and was worked exclusively by locked safety lamps. The defendant's lamp went out and instead of going out to the proper place, as prescribed by the orders of the mine boss, he borrowed another lamp from a fellow workman and went down the entry to and passed where two other men were removing the fall of slate. At the time he passed them his lamp was out. He went down a short distance and came back directly with the lamp lighted.

One of the witnesses testified that he did not have time to go to the station in the mine where lamps were lighted. Witnesses also showed that he had in his possession a key to open locked safety lamps and that he had no authority or right to have it in his possession.

The defendant went on the stand and denied that he lit the lamp in the entry, but admitted having a key.

After the hearing the defendant was bound over to court and in default of three hundred dollars bail, was committed to the county jail.

March 5th, 1902, the defendant waives the finding of the bill in indictment and entered a plea of guilty to the charges set forth in the information, which plea was received by the court and on the same day the defendant was sentenced to pay a fine of one dollar, pay the costs of prosecution and be confined in the jail of said county for a period of thirty days, and stand committed until the sentence was complied with.

Description of Mines and Mine Improvement.

Mines on and Near the Pittsburg Division of the Pennsylvania Railroad.

Spring Hill—The general condition, ventilation and drainage were fairly good.

Larimer.—Was in good condition. On my last visit I measured 200,100 cubic feet of air per minute passing in at the inlet, which was well distributed throughout the workings.

Osborne.—Is a new drift opening in the Pittsburg seam, which when visited was in good condition as to ventilation and drainage.

Penn Gas Coal Run.—Ventilation and drainage were in fair condition.

Penn Gas No. 1.—Was in favorable condition as to ventilation and drainage.

Westmoreland Shaft.—Was in good condition as to ventilation and drainage. The ventilating fan at this mine has been rebuilt, and at my last visit I measured 200,100 cubic feet of air per minute passing out at the outlet, which was well distributed throughout the workings

Penn Gas No. 5.—This mine was in good condition, with plenty of air in circulation.

Greensburg No. 3.—Was in good condition upon my last visit, as to ventilation and drainage. A ventilating fan of the Murphy type, six feet in diameter, has been installed, which provides ample ventilation, as the underground workings are small.

Hempfield.—The condition of this mine has been favorable, except that the ventilating current at the face of a part of the workings was rather weak. The management has informed me that they have under consideration the erection of a larger ventilating fan, which, when put in operation, will remedy all defects in the ventilation for some time to come.

Hempfield No. 2.—Is a drift opening in the Pittsburg seam, which is just being opened.

Monastery.—The condition of this mine was satisfactory upon each visit.

Latrobe.—The ventilation, drainage and general condition of this mine have been good upon each visit.

Saxman was in fairly good condition upon each visit.

Loyalhanna Nos. 1 and 2 have been in fairly good condition, except that the ventilation at face of workings is somewhat defective. The attention of the management has been called to this, and they have expressed a willingness to improve it.

Pandora.—General condition was fairly good.

Derry Shaft was in reasonably good condition upon each visit, except that the ventilation at face of workings was rather weak. A new air shaft has been sunk and a more powerful ventilating fan of the Capell type is being installed, which, when completed, will improve the ventilation.

Atlantic No. 1.—Worked out and abandoned.

Atlantic No. 2.—Was in good condition as to ventilation and drainage.

Atlantic No. 3.—Is a new shaft just being opened to the Pittsburg seam.

Saint Clair.—Was in favorable condition, except that the ventilation was rather weak at the face of a part of the workings. This, however will be improved.

Superior No. 1.—Was in good condition both as to ventilation and drainage. The electric system of haulage is being installed.

Superior No. 2.—Is a new drift opening into the Pittsburg seam, and is just being opened up.

Gilson.—Is a slope opening to the Pittsburg seam and is just being opened up.

Ligonier No. 2.—Is a new shaft opening into the Pittsburg seam

and was in good condition when visited. The former opening, which was a drift, has been abondoned.

Millwood.—General condition has been fairly good during the year.

Lockport.—Was in favorable condition upon each visit.

Seward.—Is a new drift opening into Bed B or the Miller seam, and is just being opened.

Mines on or Near the Turtle Creek Branch of the Pennsylvania Railroad.

Export.—Was in good condition at each visit.

Elizabeth.—Was in fairly good condition at each visit. A new ventilating furnace has been erected which has greatly improved the ventilation.

Lyons Run.—General condition has been good during the year. The tail rope system of haulage is being installed. A new slope opening is now being made which, when completed, will develop the coal lying to the dip of the present workings.

Penn Gas No. 2.—Is located on the Youghiogheny Branch of the Pennsylvania Railroad, and was in fairly good condition upon each visit. A new air shaft has been sunk near the ventilating fan which will cause the fan to give better results, thereby improving the ventilation.

Mines on or Near the Manor Branch of the Pennsylvania Railroad.

Claridge.—Was in good condition upon each visit during the year.

Denmark.—Was in favorable condition upon each visit, except that the ventilating current at the face of a part of the workings was rather weak. The air current will soon be improved, as a more powerful ventilating fan of the Capell type is now being installed, the diameter of which is seventeen feet, width seven feet. It will be driven by a 20″x18″ Chambersburg high speed engine. Also one pair of haulage engines 18″x24″, link motion and reversible, geared 4 to 1, and connected to six foot grooved drums, are in course of construction. The improvements already completed are two return tubular boilers, 72″x18″, adding to the boiler power three hundred horse power. There has also been added a one thousand horse power Stillwell feed water heater, which is being connected to the boilers by a special Yough boiler feed pump, 10″x6″x18″. The inside improvements consist of one 20″x30″x36″ outside packed plunger Yough pump. When all these improvements are completed they will add greatly to the safety and economy of operation, and value of the mine.

Penn Manor.—The general condition of this mine was fairly good.

Electric mining machines of the Morgan-Gardner type have been installed during the year.

Greensburg No. 1.—Located on South West Branch of the Pennsylvania Railroad, near Huff Station. The ventilation was good; drainage fair.

Mines on and Near the Hempfield Branch of the South West Pennsylvania Railroad.

Seaboard.—Was operated by the Seaboard Coal Company until September 12, when it passed into the hands of the Keystone Coal and Coke Company, which is now operating it. The main object is to connect this shaft with the Carbon and Greensburg No. 2 mines, after which it will be used principally as a pumping station, with the exception of the coal that will be hoisted to supply the local trade.

Greensburg No. 2.—Was in fairly good condition upon each visit.

Carbon.—When last visited was in good condition as to ventilation and drainage. The ventilation has been improved by the installation of a new ventilating fan of the Capell type; diameter thirteen and one-half feet; width six feet.

Arona.—Was in fairly good condition upon each visit during the year.

Sewickley.—Was in good condition upon each visit.

Madison.—Was in good condition upon each visit. The ventilation has been improved by the installation of a ventilating fan.; diameter eighteen feet, width six feet. The ventilation was formerly produced by a furnace.

Keystone.—Is a new shaft just being opened into the Pittsburg Seam.

Baltimore No. 1.—Was in good condition upon each visit.

Baltimore No. 2.—Is a new shaft just being opened into the Pittsburg seam.

Ocean Nos. 1 and 2.—Was in good condition upon each visit.

Mines on and Near the Alexandria Branch of the Pennsylvania Railroad.

Jamison Nos. 1 and 2.—Were in fairly good condition upon each visit, except that the ventilating current at the face of a part of the workings was rather weak. The roads in some places were wet and muddy.

Jamison No. 3.—Was in fairly good condition upon each visit, except the ventilation, which has been improved by the installation of a more powerful ventilating fan of the Capell type. Diameter thirteen feet, width six feet.

Jamison No. 4.—Was in fairly good condition upon each visit. A ventilating fan of the Capell type has been installed at this mine; diameter thirteen feet, width six feet. The Ingersoll and Sullivan mining machines are in use in this mine. The power used for operating the machines is compressed air.

Donohoe.—Was in fairly good condition upon each visit.

Salem.—Was in fairly good condition.

Alexandria.—Was in fairly good condition upon each visit.

Huron.—Was in fairly good condition upon each visit. A ventilating fan of the Brazil type was erected during the year. This has improved the ventilation.

Mines on and Near the Unity Branch of the Pennsylvania Railroad.

Dorothy.—Was in fairly good condition throughout.

Puritan.—Was in good condition upon each visit.

Hostetter and Whitney.—Were in good condition as to ventilation and drainage.

Mines on and Near the Ligonier Valley Railroad.

S. H. Smith.—Worked out and abandoned.

Peters.—Is a new drift opening into the Upper Freeport seam, which was in favorable condition when visited. The product of this mine is used principally for steam purposes at the Peters Paper Company Mills, which are located about one mile from the mine; the coal is conveyed from the mine to the mill over a tram road by a small steam locomotive.

Mines on and Near the Indiana Branch of the Western Pennsylvania Division of the Pennsylvania Railroad.

Isabella.—Was in fairly good condition. The ventilation has been improved by a new air shaft which was sunk near face of workings.

Burrell No. 1.—Worked out and abandoned.

Burrell No. 2.—Was in favorable condition upon each visit.

Graff.—The condition of this mine was favorable.

Maher No. 3.—The condition of this mine has been fairly good.

Smith.—Was in favorable condition upon each visit.

Dixon.—Was in fairly good condition upon each visit. A ventilating furnace, with a grate area of 48 square feet, was erected during the year. This has greatly improved the ventilation.

Blacklick.—Was in fairly good condition as to ventilation and drainage.

Mitchell.—The condition of this mine was reasonably good at each visit. This mine was purchased at the beginning of the year by Mr. Joseph Wharton, who is now operating it and has many improvements under way, with a view of increasing the output. A new opening into the coal, which lies to the dip of the present workings, is now being made. The number of coke ovens has been increased from 24 to 140, with more in course of erection. Machinery of the latest improved type, is being installed at all points necessary for the successful operation of the plant. A new town of about 100 houses is about completed. The indications at present are that this plant will be one of the largest in Indiana county.

Graceton Nos. 1 and 2.—Were in fairly good condition upon each visit.

Tearing Run.—Was in favorable condition. The ventilation has been improved by the erection of a ventilating furnace.

Mines on and near the Bolivar Branch of the Pennsylvania Railroad.

Ray.—The general condition of this mine was favorable during the year. The ventilation has been improved by the erection of a new furnace.

Graff No. 2.—Was in favorable condition when visited.

Indiana.—Was in reasonably good condition when visited.

Lincoln.—Was in favorable condition upon each visit.

Cramer.—This mine was in good condition upon my last visit. A new ventilating fan of the Brazil type had been installed, which greatly improves the ventilation.

Mines on and near the Western Pennsylvania Division of the Pennsylvania Railroad.

Mitchell-Watson No. 1.—The condition of this mine was favorable.

Bowman.—Was in fairly good condition.

Edri.—The condition of this mine was good.

Examination of Applicants for Certificates of Competency as Mine Foremen.

The annual examination of applicants for certificates of competency as mine foremen was held in Fisher's Hall, Greensburg, Pa., January 21, 22 and 23, 1902.

The Board of Examiners was composed of C. B. Ross, Inspector; R. O. Thomas, Superintendent and William Severn, Mine Foreman.

Twenty-six applicants appeared and were examined and the follow-

ing nine, having passed a satisfactory examination, received certificates:

First Grade.

David Fulton, Darragh.
M. I. Patterson, Bolivar.
Samuel Horrell, Calumet.
W. W. Laughlin, Luxor.
Alex. Baird, Greensburg.
G. Brooks Ross, Greensburg.
Charles M. O'Connell, Irwin.
John McElhaney, Irwin.
Ephraim Beardsley, Larimer.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Second Bituminous District for the year 1902.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Keystone Coal & Coke Co.						
Greensburg No. 1,	Westmoreland,.	A. D. Harmon, ...	Greensburg, ...	Henry Welty, ...	Greensburg, ...	S. W. P. R. R.
Greensburg No. 2,	Westmoreland,.	A. D. Harmon, ...	Greensburg, ...	H. H. Null, Jr., ...	Greensburg, ...	S. W. P. R. R.
Greensburg No. 3,	Westmoreland,.	A. D. Harmon, ...	Greensburg, ...	.....	.....	Pennsylvania Railroad.
Claridge,	Westmoreland,.	.....	.....	Howard Patton, ...	Greensburg, ...	Pennsylvania Railroad.
Carbon,	Westmoreland,.	A. D. Harmon, ...	Greensburg, ...	J. D. Wentling, ...	Greensburg, ...	S. W. P. R. R.
Arona,	Westmoreland,.	H. F. Bovard, ...	Darragh, ...	H. F. Bovard, ...	Darragh, ...	Pennsylvania Railroad.
Sewickley,	Westmoreland,.	H. F. Bovard, ...	Darragh, ...	H. F. Bovard, ...	Darragh, ...	Pennsylvania Railroad.
Madison,	Westmoreland,.	H. F. Bovard, ...	Darragh, ...	H. F. Bovard, ...	Darragh, ...	Pennsylvania Railroad.
Salem,	Westmoreland,.	A. D. Harmon, ...	Greensburg, ...	Alex Coulter, ...	Greensburg, ...	Pennsylvania Railroad.
Hempfield,	Westmoreland,.	A. D. Harmon, ...	Greensburg, ...	A. O. Jones, ...	Greensburg, ...	Pennsylvania Railroad.
Hempfield No. 2,	Westmoreland,.	A. D. Harmon, ...	Greensburg, ...	A. O. Jones, ...	Greensburg, ...	Pennsylvania Railroad.
Seaboard,	Westmoreland,.	A. D. Harmon, ...	Greensburg, ...	J. D. Wentling, ...	Greensburg, ...	S. W. P. R. R.
Seward,	Westmoreland,.	.....	.....	James Keenan, ...	Seward, ...	S. W. P. R. R.
Keystone,	Westmoreland,.	H. F. Bovard, ...	Darragh, ...	.....	.....	S. W. P. R. R.
Westmoreland Coal Co.						
Export,	Westmoreland,.	R. J. Jones, ...	Irwin, ...	T. D. Parfitt, ...	Export, ...	Pennsylvania Railroad.
Larimer,	Westmoreland,.	R. J. Jones, ...	Irwin, ...	Leonard Colerick, ...	Irwin, ...	Pennsylvania Railroad.
Osborne,	Westmoreland,.	R. J. Jones, ...	Irwin, ...	Leonard Colerick, ...	Irwin, ...	Pennsylvania Railroad.
Westmoreland shaft,	Westmoreland,.	R. J. Jones, ...	Irwin, ...	J. W. Fisher, ...	Irwin, ...	Pennsylvania Railroad.
Penn Gas Coal Co.						
Coal Run,	Westmoreland,.	F. Frank Wolf, ...	Irwin, ...	William Rogers, ...	Irwin, ...	Pennsylvania Railroad.
No. 1 Penn Gas,	Westmoreland,.	F. Frank Wolf, ...	Irwin, ...	Samuel Wilson, ...	Irwin, ...	Pennsylvania Railroad.
No. 2 Penn Gas,	Westmoreland,.	F. Frank Wolf, ...	Irwin, ...	Amos Stitely, ...	Irwin, ...	Pennsylvania Railroad.
No. 5 Penn Gas,	Westmoreland,.	F. Frank Wolf, ...	Irwin, ...	John Heintzelman, .	Penn Station, ...	Pennsylvania Railroad
Jamison Coal & Coke Co.						
Jamison No. 1,	Westmoreland,.	W. W. Jamison,...	Greensburg, ...	R. H. Jamison, ...	Greensburg, ...	Pennsylvania Railroad.
Jamison No. 2,	Westmoreland,.	W. W. Jamison,...	Greensburg, ...	R. H. Jamison, ...	Greensburg, ...	Pennsylvania Railroad.
Jamison No. 3,	Westmoreland,.	W. W. Jamison,...	Greensburg, ...	Thos. S. Jamison, ..	Greensburg, ...	Pennsylvania Railroad.
Jamison No. 1,	Westmoreland,.	W. W. Jamison,...	Greensburg, ...	J. C. Jamison, ...	Greensburg, ...	Pennsylvania Railroad.
Loyalhanna Coal & Coke Co.						
Loyalhanna Nos. 1 and 2,	Westmoreland,.	C. C. Watt, ...	Philadelphia, ...	William Leckie, ...	Loyalhanna, ...	Pennsylvania Railroad.
Pandora,	Westmoreland,.	C. C. Watt, ...	Philadelphia, ...	William Leckie, ...	Loyalhanna, ...	Pennsylvania Railroad

Hostetter-Connellsville Coke Co.						
Hostetter,	Westmoreland,	J. R. Marshall,	Whitney,	J. R. Marshall,	Whitney,	Pennsylvania Railroad.
Whitney,	Westmoreland,	J. R. Marshall,	Whitney,	J. R. Marshall,	Whitney,	Pennsylvania Railroad.
American Coke Co.						
Puritan or Baggaley,	Westmoreland,	O. W. Kennedy,	Scottdale,	Jas. Dumphy,	Baggaley,	Pennsylvania Railroad.
Dorothy,	Westmoreland,	O. W. Kennedy,	Scottdale,	A. F. Downing,	Latrobe,	Pennsylvania Railroad.
Atlantic Crushed Coke Co.						
Atlantic No. 1,	Westmoreland,			H. C. Burkett,	Greensburg,	Pennsylvania Railroad.
Atlantic No. 2,	Westmoreland,			H. C. Burkett,	Greensburg,	Pennsylvania Railroad.
Atlantic No. 3,	Westmoreland,			H. C. Burkett,	Greensburg,	Pennsylvania Railroad.
Ligonier Coal Co.						
S. H. Smith,	Westmoreland,	Murray Forbes,	Greensburg,	Daniel Craig,	Derry Station,	Ligonier Valley R. R.
Ligonier No. 2,	Westmoreland,			Daniel Craig,	Derry Station,	Ligonier Valley R. R.
Burrell Coal Co.						
Burrell No. 1,	Indiana,			Thos. Maher,	Blairsville,	Pennsylvania Railroad.
Burrell No. 2,	Indiana,			Thos. Maher,	Blairsville,	Pennsylvania Railroad.
McCreary Coke Co.						
Graceton No. 1,	Indiana,			Everhart Bierer,	Graceton,	Pennsylvania Railroad.
Graceton No. 2,	Indiana,			Everhart Bierer,	Graceton,	Pennsylvania Railroad.
Blairsville Coke Co.						
Graff,	Indiana,			Wilber P. Graff,	Blairsville,	Pennsylvania Railroad.
Graff No. 2,	Indiana,			Wilber P. Graff,	Blairsville,	Pennsylvania Railroad.
Superior Coal and Coke Co.						
Superior No. 1,	Westmoreland,	M. W. Saxman,	Latrobe,	E. M. Saxman,	Latrobe,	Pennsylvania Railroad.
Superior No. 2,	Westmoreland,	M. W. Saxman,	Latrobe,	W. R. Siard,	Latrobe,	Pennsylvania Railroad.
Pittsburg and Baltimore Coal Co.						
Baltimore No. 1,	Westmoreland,	E. M. Steck,	Park Bldg., Pittsburg,	W. L. Coulston,	Adamsburg,	S. W. P. R. R.
Baltimore No. 2,	Westmoreland,	E. M. Steck,	Park Bldg., Pittsburg,	W. L. Coulston,	Adamsburg,	S. W. P. R. R.
Ocean Coal Co.						
Ocean Nos. 1 and 2,	Westmoreland,	Thos. Fisher,	305 Betz Bldg., Phila.,	F. I. Kimball,	Herminie,	S. W. P. R. R.
Maher Coal and Coke Co.						
Maher No. 3,	Westmoreland,			Thomas Maher,	Blairsville,	Pennsylvania Railroad.
Manor Gas Coal Co.						
Denmark,	Westmoreland,	A. P. Cameron,	Claridge,	A. P. Cameron,	Claridge,	Pennsylvania Railroad.
Spring Hill Gas Coal Co.						
Spring Hill,	Allegheny,			W. W. Dempster,	Pittsburg,	Pennsylvania Railroad.
W. B. Skelly Coal Co.						
Elizabeth,	Westmoreland,			W. B. Skelly,	Export,	Pennsylvania Railroad.

TABLE 1—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Penn Manor Shaft Co. Penn Manor,	Westmoreland,	H. A. Kuhn,	616 Frick Bldg., Pgh.,	J. G. Ferguson,	Harrison City,	Pennsylvania Railroad.
Alexandria Coal Co. Alexandria,	Westmoreland,			D. D. Munro,	Greensburg,	Pennsylvania Railroad.
Donohoe Coal and Coke Co. Donohoe,	Westmoreland,	John P. Donohoe,	Greensburg,	C. Rae King,	Goff,	Pennsylvania Railroad.
Huron Coal Co. Huron,	Westmoreland,			Howard Patton,	Greensburg,	Pennsylvania Railroad.
Latrobe Coal Co. Latrobe,	Westmoreland,	John Loyd,	Arcade Bldg., Phila.,	D. W. Jones,	Latrobe,	Pennsylvania Railroad.
H. C. Frick Coke Co. Monastery,	Westmoreland,	O. W. Kennedy,	Scottdale,	A. F. Downing,	Latrobe,	Pennsylvania Railroad.
Saxman Coal and Coke Co. M. Saxman,	Westmoreland,	M. W. Saxman,	Latrobe,	E. M. Saxman,	Latrobe,	Pennsylvania Railroad.
Derry Coal and Coke Co. Derry,	Westmoreland,	E. F. Saxman,	Latrobe,			Pennsylvania Railroad.
Bessemer Coke Co. Saint Clair,	Westmoreland,	R. L. Martin,	712 Lewis Blk., Pgh.,	R. L. Martin, Jr.,	Bradenville,	Pennsylvania Railroad.
Millwood Coal and Coke Co. Millwood,	Westmoreland,	E. B. Kimmell,	Millwood,	E. B. Kimmell,	Millwood,	Pennsylvania Railroad.
Reese-Hammond Fire Brick Co. Indiana,	Indiana,			Robert Binnie,	Bolivar,	Pennsylvania Railroad.
Bolivar Coal and Coke Co. Lockport,	Westmoreland,	Geo. H. Anderson,	Chamber Commerce, Pittsburg.	Jno. McHall,	Bolivar,	Pennsylvania Railroad.
Harris Coal and Coke Co. Lincoln,	Indiana,	Jas. Kerr,	11 Broadway, N. Y.,	L. Blenkinsopp,	Lockport,	Pennsylvania Railroad.
Elkins Gas Coal Co. Lyons Run,	Westmoreland,			J. H. Powell,	Haser,	Pennsylvania Railroad.

American Steel Hoop Co. Isabella,	Westmoreland,	O. W. Kennedy,	Scottdale,	J. M. Gallagher,	Blairsville,	Pennsylvania Railroad.
Ray Coal Co. Ray,	Indiana,			Thos. Maher,	Blairsville,	Pennsylvania Railroad.
Robert Smith. Smith,	Indiana,	Roy Gerard,	Blairsville,	R. Gerard,	Blairsville,	Pennsylvania Railroad.
Graff Coal Co. Blacklick,	Indiana,			F. N. Graff,	Blairsville,	Pennsylvania Railroad.
Dixon Brothers. Dixon,	Indiana,			G. W. Dixon,	Blairsville,	Pennsylvania Railroad.
Glenmore Coal & Coke Co. Tearing Run,	Indiana,	J. M. Guthrie,	Indiana,	Joe J. Campbell,	Homer City,	Pennsylvania Railroad.
Joseph Wharton. Mitchell,	Indiana,	Harry McCreary,	Coral,			Pennsylvania Railroad.
Mitchell-Watson Coal & Coke Co. Mitchell-Watson No. 1,	Indiana,			G. P. McCartney,	Indiana,	Pennsylvania Railroad.
Bowman Coal Mining Co. Bowman,	Indiana,			S. J. Robinson,	Saltsburg,	Pennsylvania Railroad
Edri Coal Co. Edri,	Indiana,	L. W. Hicks,	Leechburg,			Pennsylvania Railroad.
Johnstown Coal Co. Cramer,	Indiana,			H. C. Burkett,	Greensburg,	Pennsylvania Railroad.
Latrobe, Connellsville Coal and Coke Co. Gilson,	Westmoreland,	M. W. Saxman,	Latrobe,	W. R. Siard,	Latrobe,	Pennsylvania Railroad.
Peters Paper Co. Peters,	Westmoreland,	James Peters,	Latrobe,	James F. Peters,	Latrobe,	Ligonier Valley R. R.

TABLE II—Gives the total number of tons of coal mined and tons of coke produced in each colliery, number of days worked, number of employes, number of employes killed and injured, number of kegs of powder, etc., used in the Second Bituminous District for the year ending December 31, 1902.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Keystone Coal and Coke Co..								*						
Greensburg No. 1,	Westmoreland, ..	155,327	2,263	1,098	160,332	1,082	10	286.25	141	.....	.....	.....	.....	19
Greensburg No. 2,	Westmoreland, ..	250,821	2,388	1,095	254,304	.....	.....	270.6	223	2	.....	6	100	25
Greensburg No. 3,	Westmoreland, ..	32,123	40	.....	32,163	.....	.....	253	30	2	1	.....	.....	4
Claridge,	Westmoreland, ..	202,298	2,026	599	204,923	.....	.....	295	315	1	.....	500	800	14
Carbon,	Westmoreland, ..	131,708	3,575	9,427	287,517	27,602	57	279.6	263	.....	2	200	225	26
Arona,	Westmoreland, ..	272,022	1,580	637	274,239	.....	.....	281	317	.....	.....	.....	.....	28
Sewickley,	Westmoreland, ..	250,060	4,551	332	254,943	.....	.....	291	277	.....	1	18	700	24
Madison,	Westmoreland, ..	226,368	384	46	226,798	.....	.....	285	265	1	3	.....	.....	22
Salem,	Westmoreland, ..	159,312	2,747	924	205,796	29,226	50	267.1	272	.....	2	312	780	36
Hempfield,	Westmoreland. ..	236,765	4,360	8,051	249,176	.....	.....	312	203	.....	1	600	500	30
Hempfield No. 2,	Westmoreland, ..	1,325	.....	9	1,334	.....	.....	37	9	.....	.....	.....	.....	2
Seaboard,	Westmoreland, ..	.....	235	2,855	3,090	.....	.....	68	15	.....	.....	.....	.....	1
Seward,	Westmoreland, ..	2,002	20	.....	2,022	.....	.....	67	24	.....	.....	50	50	4
Keystone,	Westmoreland, ..	.....	.....	.....	.....									
Totals,	.....	1,920,121	24,169	25,093	2,156,657	57,910	117	230.2	2,354	6	10	1,686	3,155	235
Westmoreland Coal Co.														
Export,	Westmoreland, ..	645,697	4,798	1,526	652,021	.....	.....	307	630	1	.....	.....	.....	49
Larimer,	Westmoreland, ..	510,990	5,667	1,576	518,233	.....	.....	307	427	.....	3	.....	.....	34
Osborne,	Westmoreland, ..	.....	.....	.....	.....	.....	.....	191	179	.....	.....	.....	.....	6
Westmoreland shaft,	Westmoreland, ..	382,493	13,912	2,089	398,494	.....	.....	290	469	1	1	.....	.....	40
Totals,	.....	1,539,180	24,377	5,191	1,568,748	.....	.....	273.75	1,705	2	4	.....	.....	129
Penn Gas Coal Co.														
Coal Run,	Westmoreland, ..	93,396	.....	116	93,512	.....	.....	246	114	.....	.....	.....	.....	7
No. 1 Penn Gas,	Westmoreland, ..	121,656	7,362	706	132,724	.....	.....	245	174	.....	1	.....	.....	10

No. 2 Penn Gas,	Westmoreland, ..	228,950	11,723	1,218	241,896	.....	.....	278	352	3	2	.....	.....	28
No. 5 Penn Gas,	Westmoreland, ..	244,944	952	1,270	247,166	.....	.....	252.5	296	2	1	.....	.....	24
Totals,		691,946	20,042	3,310	715,298	.....	.....	255.4	936	5	4	.....	.....	69
Jamison Coal and Coke Co.														
Jamison No. 1,	Westmoreland, ..	103,872	11,680	2,866	321,799	122,080	296	310	436	1	5	1,500	9,600	50
Jamison No. 2,	Westmoreland, ..									1	1			
Jamison No. 3,	Westmoreland, ..	117,495	10,096	1,801	292,892	92,521	300	311	617	6	.....	1,600	14,000	38
Jamison No. 4,	Westmoreland, ..	26,655	1,508	137	28,300	.....	.....	98	95	1	.....	.....	1,000	9
Totals,		248,022	23,284	4,804	642,991	214,601	596	239.6	1,148	9	6	3,100	24,600	97
Loyalhanna Coal and Coke Co.														
Loyalhanna Nos. 1 and 2,	Westmoreland, ..	199,534	3,405	6,825	322,846	70,673	240	299	391	2	2	.....	250	36
Pandora,	Westmoreland, ..	175,389	4,722	1,077	181,188	.....	.....	276	182	.....	1	.....	300	11
Totals,		374,923	8,127	7,902	504,034	70,673	240	287.5	573	2	3	.....	550	47
Hostetter Connellsville Coke Co.														
Hostetter,	Westmoreland, ..	.....	6,400	1,300	280,000	200,000	355	289	406	.....	1	.....	.....	40
Whitney,	Westmoreland, ..	.....	6,400	1,300	280,000	200,000	352	290	417	.....	1	.....	.....	45
Totals,		.....	12,800	2,600	560,000	400,000	707	289.5	823	.....	2	.....	.....	85
American Coke Co.														
Puritan, or Baggaley,	Westmoreland, ..	2,713	4,698	1,287	319,714	207,000	400	292	421	1	.....	.....	.....	41
Dorothy,	Westmoreland, ..	3,670	6,008	1,084	140,026	98,000	230	298	275	.....	1	.....	10,400	34
Totals,		6,383	10,706	2,371	459,740	305,000	630	295	696	1	1	.....	10,400	75
Atlantic Crushed Coke Co.														
Atlantic No. 1,	Westmoreland, ..	88,436	2,820	490	15,036	44,718	79	140.5	22	.....	.....	.....	.....	14
Atlantic No. 2,	Westmoreland, ..	.....	.....	.....	144,005	.....	.....	282	173	.....	2	.....	.....	
Atlantic No. 3,§	Westmoreland, ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals,		88,436	2,820	490	159,041	44,718	79	211.25	186	.....	2	.....	.....	14
Ligonier Coal Co.														
S. H. Smith,	Westmoreland, ..	22,093	.....	100	22,193	.....	.....	290	26	.....	.....	.....	.....	1
Ligonier No. 2,	Westmoreland, ..	5,150	420	300	5,870	.....	20	174	67	.....	.....	.....	200	3
Totals,		27,243	420	400	28,063	.....	20	232	93	.....	.....	.....	200	4
Burrell Coal Co.														
Burrell No. 1,†	Indiana, ...	11,081	.....	.....	11,081	.....	.....	185	19	.....	.....	.....	.....	2
Burrell No. 2,	Indiana, ...	51,030	.....	.....	51,030	.....	.....	274	46	.....	.....	.....	.....	4
Totals,		62,111	.....	.....	62,111	.....	.....	229.5	65	.....	.....	.....	.....	6

*Totals in this column are averages. §In course of construction. †Abandoned during the year.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
McCreary Coke Co.								*						
Graceton No. 1,	Indiana,	240	1,860	768	40,181	21,403	49	302	102	1	.....	.....	.....	.....
Graceton No. 2,	Indiana,	.....	4,685	92	111,263	62,210	150	306	286	1	1	.....	.....	.....
Totals,		240	6,545	860	151,444	83,613	199	304	388	2	1	.....	.....	.....
Blairsville Coke Co.														
Graff,	Indiana,	30,580	.....	.....	30,580	.....	.....	250	36	.....	.....	240	.....	5
Graff No. 2,	Indiana,	2,500	.....	20	2,520	.....	.....	95	15	.....	.....	.....	.....	2
Totals,		33,080	.....	20	33,100	.....	.....	172.5	51	.....	.....	240	.....	7
Superior Coal and Coke Co.														
Superior No. 1,	Westmoreland, ..	114,171	799	393	175,905	44,241	71	303	195	1	1	.....	.....	18
Superior No. 2,§	Westmoreland, ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals,		114,171	799	393	175,905	44,241	71	303	195	1	1	.....	.....	18
Pittsburg and Baltimore Coal Co.														
Baltimore No. 1,	Westmoreland, ..	237,305	2,500	1,200	241,005	.....	.....	293	200	2	3	.....	350	20
Baltimore No. 2,§	Westmoreland, ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals,		237,305	2,500	1,200	241,005	.....	.....	293	200	2	3	.....	350	20

Production, etc., of single collieries will be found in the Recapitulation.

*Totals in this column are averages.

§In course of construction.

Recapitulation.

								*						
Keystone Coal and Coke Co., ...	Westmoreland, ..	1,920,121	24,169	25,093	2,156,657	57,910	117	230.2	2,354	6	10	1,686	3,155	235
Westmoreland Coal Co., ...	Westmoreland, ..	1,533,180	24,377	5,191	1,568,748	.....	.....	273.75	1,705	2	4	.....	.....	129
Penn Gas Coal Co., ...	Westmoreland, ..	691,946	20,042	3,310	715,298	.....	.....	255 4	936	5	4	.....	.....	69
Jamison Coal and Coke Co., ...	Westmoreland, ..	248,022	23,284	4,804	642,991	214,601	596	239.6	1,148	9	6	3,100	24,600	97
Loyalhanna Coal and Coke Co., ...	Westmoreland, ..	374,923	8,127	7,902	504,034	70,673	240	287.5	573	2	3	.....	550	47
Hostetter Connellsville Coke Co., ..	Westmoreland, ..	.....	12,800	2,600	560,000	400,000	707	289.5	823	.....	2	.....	.....	85
American Coke Co., ...	Westmoreland, ..	6,383	10,706	2,371	459,740	305,000	630	295	696	1	1	.....	10,400	75
Atlantic Crushed Coke Co., ...	Westmoreland, ..	88,436	2,820	490	159,041	44,718	79	211.25	186	.....	2	.....	.....	14
Ligonier Coal Co., ...	Westmoreland, ..	27,243	420	400	28,063	.....	20	232	93	.....	.....	.....	200	4
Burrell Coal Co., ...	Indiana, ...	62,111	.....	.....	62,111	.....	.....	229.5	65	.....	.....	.....	.....	6
McCreary Coke Co., ...	Indiana, ...	240	6,545	860	151,444	83,613	199	304	388	2	1	.....	.....	22
Blairsville Coke Co., ...	Indiana, ...	33,080	.....	20	33,100	.....	.....	172.5	51	.....	.....	240	.....	7
Superior Coal and Coke Co., ...	Westmoreland, ..	114,171	799	393	175,905	44,241	71	303	195	1	1	.....	.....	18
Pittsburg and Baltimore Coal Co.,	Westmoreland, ..	237,305	2,500	1,200	241,005	.....	.....	293	200	2	3	.....	350	20
Ocean Coal Co., ...	Westmoreland, ..	181,950	12,526	2,333	196,809	.....	.....	262.3	198	1	7	1,000	800	31
Maher Coal and Coke Co., ...	Westmoreland, ..	49,758	.....	.....	49,758	.....	.....	255	51	.....	.....	.....	.....	4
Manor Gas Coal Co., ...	Westmoreland, ..	315,928	5,201	544	321,673	.....	.....	304	388	2	4	600	350	32
Spring Hill Gas Coal Co.,‡	Allegheny, ...	112,829	1,121	2,040	115,990	.....	.....	313	126	.....	.....	.....	.....	9
W. B. Skelly Coal Co., ...	Westmoreland, ..	87,985	500	1,172	89,657	.....	.....	238.25	121	.....	.....	.....	.....	6
Penn Manor Shaft Co., ...	Westmoreland, ..	97,617	2,284	520	100,421	.....	43	288	182	1	.....	.....	1,000	19
Alexandria Coal Co., ...	Westmoreland, ..	166,465	6,000	1,725	296,035	77,740	204	299	420	2	4	1,600	12,000	40
Donohoe Coal and Coke Co., ...	Westmoreland, ..	101,191	5,400	2,000	215,691	82,500	180	272	261	.....	3	.....	.....	14
Huron Coal Co., ...	Westmoreland, ..	152,601	225	234	153,060	.....	.....	277	207	.....	.....	.....	.....	9
Latrobe Coal Co., ...	Westmoreland, ..	189,019	5,392	2,202	305,000	83,348	136	291.25	369	.....	2	.....	.....	40
H. C. Frick Coke Co., ...	Westmoreland, ..	.....	8,003	619	138,716	86,700	208	289	201	1	.....	.....	500	17
Saxman Coal and Coke Co., ...	Westmoreland, ..	56,095	1,049	454	127,624	47,237	80	308	176	.....	1	.....	.....	20
Derry Coal and Coke Co., ...	Westmoreland, ..	64,402	5,913	1,020	273,586	134,834	224	302	342	.....	2	.....	.....	20
Bessemer Coke Co., ...	Westmoreland, ..	15,185	2,390	50	212,757	118,463	244	293	380	.....	1	.....	.....	28
Millwood Coal and Coke Co., ...	Westmoreland, ..	105,440	4,897	260	110,597	.....	.....	290	140	2	1	.....	50	18
Reese-Hammon Fire Brick Co., ..	Indiana, ...	.....	19,262	.....	19,262	.....	.....	300	23	.....	.....	.....	.....	3
Bolivar Coal and Coke Co., ...	Westmoreland, ..	8,275	150	125	24,500	9,320	53	248	52	.....	1	250	100	4
Harris Coal and Coke Co., ...	Indiana, ...	33,099	.....	200	33,299	.....	.....	269	58	.....	.....	.....	.....	6
Elkins Gas Coal Co., ...	Westmoreland, ..	258,017	619	846	259,512	.....	.....	258.5	300	2	1	150	75	22
American Steel Hoop Co., ...	Westmoreland, ..	.....	6,500	60	144,060	110,000	252	311	225	1	.....	1,200	100	14
Ray Coal Co., ...	Indiana, ...	62,539	.....	.....	62,539	.....	.....	309	58	.....	.....	.....	.....	4
Robert Smith, ...	Indiana, ...	50,420	.....	400	50,820	.....	.....	254	69	.....	.....	120	.....	10
Graff Coal Co., ...	Indiana, ...	60,000	.....	.....	60,000	.....	.....	258	88	.....	.....	.....	.....	12
Dixon Brothers, ...	Indiana, ...	33,965	.....	60	34,025	.....	.....	237	32	.....	.....	.....	.....	3
Glenmore Coal and Coke Co., ...	Indiana, ...	27,150	50	400	27,600	.....	.....	184	44	.....	.....	100	.....	4
Joseph Wharton, ...	Indiana, ...	9,920	2,920	222	45,086	23,444	140	240	342	.....	3	.....	750	14
Mitchell-Watson Coal and Coke Co.	Indiana, ...	5,124	.....	40	5,164	.....	.....	181	20	.....	.....	100	25	1
Bowman Coal Mining Co., ...	Indiana, ...	28,722	.....	218	28,940	.....	.....	202	47	.....	.....	120	25	5
Edri Coal Co., ...	Indiana, ...	10,654	50	.....	10,704	.....	.....	99	39	.....	.....	50	.....	2
Johnstown Coal Co., ...	Indiana, ...	44,735	150	175	45,060	.....	.....	273	61	.....	.....	550	.....	5
Latrobe, Connellsville Coal and Coke Co., ...	Westmoreland, ..	3,494	600	.....	8,415	2,564	125	104	60	.....	.....	15	1,500	5
Peters Paper Co., ...	Westmoreland, ..	.....	.....	1,226	6,926	.....	.....	128	24	.....	.....	.....	.....	3
Totals, ...	.....	7,675,700	228,419	73,839	11,031,423	1,996,906	4,548	256.6	14,516	42	67	10,881	56,530	1,252

*Totals in this column are averages. ‡Estimated.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Number of Boilers.				Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.	Horse power.		Steam.	Air.	Electric.							
Keystone Coal and Coke Co.,	Westmoreland, ..	3	180	30	2,315	2,495	.....	1	.....	29	1,191	24	7,680	2,559	.....	5
Westmoreland Coal Co.,	Westmoreland, ..	16	1,140	10	1,415	2,555	.....	.....	.....	10	576	6	3,184	2,250	3	2
Penn Gas Coal Co.,	Westmoreland, ..	8	216	4	1,200	1,416	.....	2	3	12	1,545	8	4,970	1,160	5	2
Jamison Coal and Coke Co.,	Westmoreland, ..	.....	.....	13	1,960	1,960	2	.....	.....	13	3,010	3	9,000	3,000	1	1
Loyalhanna Coal and Coke Co.,	Westmoreland, ..	.....	.....	15	1,200	1,200	1	.....	4	16	750	7	4,700	2,200	3	.....
Hostetter Connellsville Coke Co.,	Westmoreland, ..	.....	.....	12	1,080	1,080	3	.....	.....	6	1,090	5	2,875	1,500	.....	.....
American Coke Co.,	Westmoreland, ..	.....	.....	10	1,400	1,400	2	.....	.....	10	680	3	1,645	400	1	2
Atlantic Crushed Coke Co.,	Westmoreland, ..	.....	.....	3	280	280	.....	.....	.....	4	.....	2	375	275	.....	.....
Ligonier Coal Co.,	Westmoreland, ..	.....	.....	2	200	200	.....	.....	.....	2	200	2	225	150	.....	.....
Burrell Coal Co.,	Indiana,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
McCreary Coke Co.,	Indiana,	.....	.....	9	820	820	.... .	.....	.....	.....	.....	.....	.....	.....	.....	3
Blairsville Coke Co.,	Indiana,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Superior Coal and Coke Co.,	Westmoreland, ..	.....	.....	2	200	200	.....	.....	1	3	312	2	600	200	1	.....
Pittsburg and Baltimore Coal Co.,	Westmoreland, ..	.....	.....	4	600	600	.....	.....	.....	4	400	2	40	35	1	1
Ocean Coal Co.,	Westmoreland, ..	.....	.....	7	1,550	1,550	.....	.....	.....	14	3,000	5	1,400	350	2	4
Maher Coal and Coke Co.,	Westmoreland, ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Manor Gas Coal Co.,	Westmoreland, ..	.....	.....	7	515	515	.....	.....	.....	4	125	4	1,525	450	.....	1
Spring Hill Gas Coal Co.,	Allegheny, ...	1	50	1	100	150	1	.....	.....	2	70	.....	.....	.....	.....	.....
W. B. Skelly Coal Co.,	Westmoreland, ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Penn Manor Shaft Co.,	Westmoreland, ..	2	100	2	200	300	.....	.....	.....	4	520	2	350	200	1	.....
Alexandria Coal Co.,	Westmoreland, ..	.....	.....	7	695	695	1	.....	.....	7	575	2	400	300	.....	1
Donohoe Coal and Coke Co.,	Westmoreland, ..	.....	.....	3	450	450	.....	.....	2	6	800	2	500	250	2	1
Huron Coal Co.,	Westmoreland, ..	.....	.....	1	150	150	.....	.....	.....	1	20	.....	.....	.....	.....	1
Latrobe Coal Co.,	Westmoreland, ..	2	50	6	460	510	1	.....	.....	10	430	4	1,950	400	.....	1
H. C. Frick Coke Co.,	Westmoreland, ..	7	318	4	430	748	.....	.....	.....	6	550	4	2,000	1,200	.....	2
Saxman Coal and Coke Co.,	Westmoreland, ..	.....	.....	3	150	150	.....	.....	1	3	107	4	1,500	800	.....	.....
Derry Coal and Coke Co.,	Westmoreland, ..	.....	.....	6	600	600	.....	.....	3	4	700	3	4,000	2,000	2	.....
Bessemer Coke Co.,	Westmoreland, ..	.....	.....	6	600	600	.....	.....	.....	3	350	1	660	500	.....	.....
Millwood Coal and Coke Co.,	Westmoreland, ..	8	340	.....	.....	340	2	.....	.....	4	415	1	560	560	.....	1
Reese-Hammon Fire Brick Co.,	Indiana,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bolivar Coal and Coke Co.,	Westmoreland, ..	.....	.....	1	15	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Harris Coal and Coke Co.,	Indiana,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Elkins Gas Coal Co.,	Westmoreland, ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

American Steel Hoop Co.,	Westmoreland, ..	9	520	.....	.....	520	1	.....	.....	5	200	2	1,080	850	.....	.....
Ray Coal Co.,	Indiana,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Robert Smith,	Indiana,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Graff Coal Co.,	Indiana,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dixon Brothers,	Indiana,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Glenmore Coal and Coke Co.,	Indiana,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Joseph Wharton,	Indiana,	.....	.....	5	750	750	.....	.....	.....	.....	.....	1	40	40	1	1
Mitchell-Watson Coal and Coke Co.,	Indiana,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bowman Coal Mining Co.,	Indiana,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Edri Coal Co.,	Indiana,	1	20	.....	.....	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Johnstown Coal Co.,	Indiana,	.....	.....	1	45	45	.....	.....	.....	1	15	.....	.....	.....	.....	.....
Latrobe, Connellsville Coal and Coke Co.,	Westmoreland, ..	.....	.....	3	300	300	.....	.....	.....	3	460	1	600	200	.....	1
Peters Paper Co.,	Westmoreland, ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals,	.....	57	2,934	177	19,680	22,614	14	3	14	186	18,090	100	51,759	21,829	23	30

TABLE III—Showing the number of each class of employes at each colliery in the Second Bituminous District during the year 1902.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door-boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
Keystone Coal & Coke Co.																						
Greensburg No. 1,	Westmoreland,	1	....	....	97	.....	.....	.....	14	1	7	1	121	....	....	2	4	2	1	10	19	140
Greensburg No. 2,	Westmoreland,	1	1	....	178	.....	.....	.....	12	.....	8	.....	201	1	....	4	5	.....	1	12	23	224
Greensburg No. 3,	Westmoreland,	1	....	....	23	.....	.....	.....	3	.....	.....	1	28	....	....	.....	.....	.....	.....	2	2	30
Claridge,	Westmoreland,	1	....	1	245	.....	.....	.....	19	4	7	5	282	1	1	5	3	.....	1	22	33	315
Carbon,	Westmoreland,	1	1	....	180	.....	.....	.....	19	.....	.....	10	211	1	1	4	4	22	1	19	52	263
Arona,	Westmoreland,	1	....	....	244	.....	.....	.....	19	6	.....	13	283	2	1	5	3	.....	1	22	34	317
Sewickley,	Westmoreland,	1	....	2	196	.....	.....	.....	16	3	.....	15	233	2	1	5	5	.....	1	30	44	277
Madison,	Westmoreland,	1	....	....	200	.....	.....	.....	17	5	.....	12	235	2	1	2	3	.....	1	21	30	265
Salem,	Westmoreland,	1	1	....	30	10	100	10	20	5	.....	23	200	1	2	5	2	30	2	30	72	272
Hempfield,	Westmoreland,	1	1	....	140	.....	.....	.....	19	3	7	.....	171	1	....	3	5	.....	1	22	32	203
Hempfield No. 2,	Westmoreland,	1	....	....	6	.....	.....	.....	1	.....	1	.....	9	....	....	.....	.....	.....	.....	.....	.....	9
Seaboard,	Westmoreland,	....	....	....	10	.....	.....	.....	1	.....	.....	.....	11	....	1	.....	2	.....	.....	1	4	15
Seward,	Westmoreland,	1	....	....	16	.....	.....	.....	2	.....	1	.....	20	....	....	2	.....	.....	.....	2	4	24
Keystone,*	Westmoreland,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....
Totals,	.....	12	4	3	1,565	10	100	10	162	27	31	80	2,004	11	8	37	36	54	10	193	349	2,353
Westmoreland Coal Co.																						
Export,	Westmoreland,	1	1	3	151	15	280	15	54	25	28	.....	573	....	1	5	5	.....	4	42	57	630
Larimer,	Westmoreland,	1	1	2	85	10	189	10	36	18	16	.....	368	....	1	4	4	.....	2	48	59	427
Osborne,	Westmoreland,	1	....	....	155	.....	.....	.....	6	3	3	.....	168	....	....	.....	1	.....	.....	10	11	179
Westmoreland shaft,	Westmoreland,	1	1	3	77	15	241	14	43	10	22	.....	410	....	1	6	13	.....	2	37	59	469
Totals,	.....	4	3	8	468	40	693	39	139	56	69	.....	1,519	....	3	15	23	.....	8	137	186	1,705
Penn Gas Coal Co.																						
Coal Run,	Westmoreland,	1	....	1	81	.....	.....	.....	6	.....	5	.....	94	....	1	2	.....	.....	1	16	20	114
No. 1 Penn Gas,	Westmoreland,	1	....	2	125	.....	.....	.....	11	3	11	.....	153	....	1	3	4	.....	1	12	21	174

No. 2 Penn Gas,	Westmoreland,	1	....	5	99	14	112	14	28	7	30	.....	310	....	1	6	9	.....	1	25	42	352
No. 5 Penn Gas,	Westmoreland,	1	....	1	49	14	112	14	24	10	13	.....	238	....	1	4	3	.....	1	49	58	296
Totals,		4	....	9	354	28	224	28	69	20	59	.....	745	....	4	15	16	.....	4	102	141	936
Jamison Coal & Coke Co.																						
Jamison No. 1, Jamison No. 2,	Westmoreland,	2	....	1	240	.....	.....	.....	33	5	29	.....	310	1	2	7	9	105	2	.....	126	436
Jamison No. 3,	Westmoreland,	1	....	2	220	10	127	10	25	3	18	9	425	1	2	6	7	125	2	49	192	617
Jamison No. 4,	Westmoreland,	1	....	1	29	3	29	3	.....	.....	7	6	79	1	1	3	4	.....	1	6	16	95
Totals,		4	....	4	489	13	156	13	58	8	54	15	814	3	5	16	20	230	5	55	334	1,148
Loyalhanna Coal & Coke Co.																						
Loyalhanna Nos. 1 and 2,	Westmoreland,	1	1	2	231	.....	.....	.....	25	5	24	10	299	1	2	5	8	50	4	22	92	391
Pandora,	Westmoreland,	1	....	1	122	4	.....	4	10	3	20	2	167	....	1	3	3	.....	1	7	15	182
Totals,		2	1	3	353	4	.....	4	35	8	44	12	466	1	3	8	11	50	5	29	107	573
Hostetter-Connellsville Coke Co.																						
Hostetter,	Westmoreland,	1	....	2	217	.....	.....	.....	18	4	10	4	256	1	1	5	6	92	1	44	150	406
Whitney,	Westmoreland,	1	....	2	214	.....	.....	.....	18	2	10	3	250	1	1	5	6	90	2	62	167	417
Totals,		2	....	4	431	.....	.....	.....	36	6	20	7	506	2	2	10	12	182	3	106	317	823
American Coke Co.																						
Puritan or Baggaley, ...	Westmoreland,	1	1	2	182	.....	.....	.....	22	4	22	.....	234	1	2	5	4	169	2	4	187	421
Dorothy,	Westmoreland,	1	....	2	130	.....	.....	.....	12	3	7	15	170	1	1	4	6	70	1	22	105	275
Totals,		2	1	4	312	.....	.....	.....	34	7	29	15	404	2	3	9	10	239	3	26	292	696
Atlantic Crushed Coke Co.																						
Atlantic No. 1,	Westmoreland,	1	....	....	18	.....	.....	.....	2	.....	1	.....	22	....	....	.....	.....	.....	.....	.....	.....	22
Atlantic No. 2,	Westmoreland,	1	....	1	96	.....	.....	.....	8	5	6	.....	117	....	1	2	4	33	1	6	47	164
Atlantic No. 3,*	Westmoreland,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....
Totals,		2	....	1	114	.....	.....	.....	10	5	7	.....	139	....	1	2	4	33	1	6	47	186
Ligonier Coal Co.																						
S. H. Smith,	Westmoreland,	1	1	....	20	.....	.....	.....	2	.....	1	.....	25	1	....	.....	.....	.....	.....	.....	1	26
Ligonier No. 2,	Westmoreland,	1	....	....	40	.....	.....	.....	4	.....	3	6	54	....	....	4	3	2	.....	4	13	67
Totals,		2	1	....	60	.....	.....	.....	6	.....	4	6	79	1	....	4	3	2	.....	4	14	93
Burrell Coal Co.																						
Burrell No. 1,†	Indiana,	1	....	....	12	.....	.....	.....	2	.....	.....	.....	15	1	....	.....	.....	.....	1	2	4	19
Burrell No. 2,	Indiana,	1	....	....	38	.....	.....	.....	3	.....	.....	.....	52	1	....	.....	.....	.....	1	2	4	46
Totals,		2	....	....	50	.....	.....	.....	5	.....	.....	.....	57	2	....	.....	.....	.....	2	4	8	65

*In course of construction.

†Abandoned during the year.

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, Inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door-boys and helpers.	Company men.	All other employes.	Total Inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
McCreary Coke Co.																						
Graceton No. 1,	Indiana,	1	....	....	56	2	2	2	8	2	2	.....	75	1	1	1	2	18	1	3	27	102
Graceton No. 2,	Indiana,	1	1	....	52	36	36	36	40	8	8	.....	218	....	3	6	8	50	1	.....	68	286
Totals,		2	1	....	108	38	38	38	48	10	10	.....	293	1	4	7	10	68	2	3	95	388
Blairsville Coke Co.																						
Graff,	Indiana,	1	....	....	28	.....	.....	.....	4	.....	.....	3	36	....	....	.....	.....	.....	.....	.....	.....	36
Graff No. 2,	Indiana,	1	....	....	12	.....	.....	.....	1	.....	.....	.....	14	1	....	.....	.....	.....	.....	.....	1	15
Totals,		2	....	....	40	.....	.....	.....	5	.....	.....	3	50	1	....	.....	.....	.....	.....	.....	1	51
Superior Coal and Coke Co.																						
Superior No. 1,	Westmoreland,	1	....	....	134	.....	.....	.....	15	4	6	.....	160	1	1	2	3	22	2	4	35	195
Superior No. 2,*	Westmoreland,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....
Totals,		1	....	....	134	.....	.....	.....	15	4	6	.....	160	1	1	2	3	22	2	4	35	195
Pittsburg & Balt. Coal Co.																						
Baltimore No. 1,	Westmoreland,	1	....	....	50	10	75	10	20	4	5	.....	175	1	1	4	3	.....	1	15	25	200
Baltimore No. 2,	Westmoreland,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....
Totals,		1	....	....	50	10	75	10	20	4	5	.....	175	1	1	4	3	.....	1	15	25	200

Persons employed, etc., of single collieries will be found in the Recapitulation.

*In course of construction.

Recapitulation.

Keystone Coal and Coke Co.,	Westmoreland,	12	4	3	1,565	10	100	10	162	27	31	80	2,004	11	8	37	36	54	10	193	349	2,353
Westmoreland Coal Co.,	Westmoreland,	4	3	8	468	40	693	39	139	56	69	.....	1,519	....	3	15	23	.....	8	137	186	1,705
Penn Gas Coal Co.,	Westmoreland,	4	....	9	354	28	224	28	69	20	59	.....	795	....	4	15	16	.....	4	102	141	936
Jamison Coal and Coke Co.,	Westmoreland,	4	....	4	489	13	156	13	58	8	54	15	814	3	5	16	20	230	5	55	334	1,148
Loyalhanna Coal & Coke Co.,	Westmoreland,	2	1	3	353	4	.....	4	35	8	44	12	466	1	3	8	11	50	5	29	107	573
Hostetter-Connellsville Coke Co.,	Westmoreland,	2	....	4	431	.....	.....	.....	36	6	20	7	506	2	2	10	12	182	3	106	317	823
American Coke Co.,	Westmoreland,	2	1	4	312	.....	.....	.....	34	7	29	15	404	2	3	9	10	239	3	26	292	696
Atlantic Crushed Coke Co.,	Westmoreland,	2	....	1	114	.....	.....	.....	10	5	7	.....	139	....	1	2	4	33	1	6	47	186
Ligonier Coal Co.,	Westmoreland,	2	1	....	60	.....	.....	.....	6	.....	4	6	73	1	....	4	3	2	.....	4	14	93
Burrell Coal Co.,	Indiana,	2	....	....	50	.....	.....	.....	5	.....	.....	.....	57	2	....	.....	.....	.....	2	4	8	65
McCreary Coke Co.,	Indiana,	2	1	....	108	38	38	38	48	10	10	.....	293	1	4	7	10	68	2	3	95	388
Blairsville Coke Co.,	Indiana,	2	....	....	40	.....	.....	.....	5	.....	.....	3	50	1	....	.....	.....	.....	.....	.....	1	51
Superior Coal and Coke Co.,	Westmoreland,	1	....	....	134	.....	.....	.....	15	4	6	.....	160	1	1	2	3	22	2	4	35	195
Pittsburg and Baltimore Coal Co.,	Westmoreland,	1	....	....	50	10	75	10	20	4	5	.....	175	1	1	4	3	.....	1	15	25	200
Ocean Coal Co.,	Westmoreland,	1	....	3	30	10	70	10	20	8	.....	14	166	1	1	3	7	.....	2	18	32	198
Maher Coal and Coke Co.,	Westmoreland,	1	....	....	43	.....	.....	.....	3	.....	.....	.....	47	1	....	.....	.....	.....	1	2	4	51
Manor Gas Coal Co.,	Westmoreland,	1	1	2	295	.....	.....	.....	30	9	20	2	361	1	1	5	4	.....	2	15	28	388
Spring Hill Gas Coal Co.,*	Allegheny,	1	....	....	95	.....	.....	.....	8	3	5	.....	112	1	1	2	4	.....	1	5	14	126
W. B. Skelly Coal Co.,	Westmoreland,	1	....	....	100	.....	.....	.....	5	2	2	.....	110	1	....	1	.....	.....	1	8	11	121
Penn Manor Shaft Co.,	Westmoreland,	1	1	2	60	5	60	5	10	3	5	5	157	1	....	4	4	.....	1	15	25	182
Alexandria Coal Co.,	Westmoreland,	1	2	....	260	.....	.....	.....	25	3	8	.....	299	1	3	6	10	86	2	13	121	420
Donohoe Coal & Coke Co.,	Westmoreland,	1	1	....	138	.....	.....	.....	8	2	3	3	156	1	1	4	4	84	1	10	105	261
Huron Coal Co.,	Westmoreland,	1	....	....	150	2	20	2	9	1	2	.....	187	1	....	4	4	.....	1	10	20	207
Latrobe Coal Co.,	Westmoreland,	1	....	2	218	.....	.....	.....	27	3	12	2	265	1	1	9	7	49	2	35	104	369
H. C. Frick Coke Co.,	Westmoreland,	1	....	....	76	.....	.....	.....	15	4	.....	7	103	1	2	4	8	74	1	8	98	201
Saxman Coal and Coke Co.,	Westmoreland,	1	....	....	105	.....	.....	.....	11	2	10	2	131	1	1	3	4	27	2	7	45	176
Derry Coal and Coke Co.,	Westmoreland,	1	....	3	175	5	.....	5	26	7	12	7	241	1	1	5	5	80	3	6	101	342
Bessemer Coke Co.,	Westmoreland,	1	....	1	175	.....	.....	.....	19	7	8	2	213	1	1	6	5	152	1	1	167	380
Millwood Coal and Coke Co.,	Westmoreland,	1	....	1	93	.....	.....	.....	18	2	4	.....	119	1	....	3	3	.....	.....	14	21	140
Reese-Hammond Fire Brick Co.,	Indiana,	1	....	....	16	.....	.....	.....	2	.....	.....	1	20	1	.....	.....	.....	.....	.....	2	3	23
Bolivar Coal and Coke Co.,	Westmoreland,	1	....	....	25	.....	.....	.....	4	1	2	.....	33	1	1	.....	1	16	.....	.....	19	52
Harris Coal and Coke Co.,	Indiana,	1	....	....	40	.....	.....	.....	5	.....	6	.....	52	1	....	1	.....	.....	.....	4	6	58
Elkins Gas Coal Co.,	Westmoreland,	1	1	....	240	.....	.....	.....	22	8	8	.....	280	1	....	3	.....	.....	3	13	20	300
American Steel Hoop Co.,	Westmoreland,	1	....	1	90	.....	.....	.....	13	2	9	8	124	1	1	6	8	40	2	43	101	225
Ray Coal Co.,	Indiana,	1	....	....	48	.....	.....	.....	3	.....	1	.....	53	1	....	.....	.....	.....	1	3	5	58
Robert Smith,	Indiana,	1	....	....	60	.....	.....	.....	5	.....	2	.....	68	1	....	.....	.....	.....	.....	.....	1	69
Graff Coal Co.,	Indiana,	1	....	....	70	.....	.....	.....	6	.....	4	.....	81	1	....	1	.....	.....	.....	5	7	88
Dixon Brothers,	Indiana,	1	....	....	27	.....	.....	.....	3	.....	.....	.....	31	1	....	.....	.....	.....	.....	.....	1	32
Glenmore Coal and Coke Co.,	Indiana,	1	1	....	30	.....	.....	.....	5	1	2	.....	40	1	1	1	.....	.....	.....	1	4	44
Joseph Wharton,	Indiana,	1	1	....	130	5	8	5	8	3	27	10	198	1	2	19	4	50	3	65	144	342
Mitchell-Watson Coal and Coke Co.,	Indiana,	1	....	....	15	.....	.....	.....	1	.....	.....	.....	17	1	.....	.....	.....	.....	.....	2	3	20
Bowman Coal Mining Co.,	Indiana,	1	....	....	35	.....	.....	.....	4	.....	2	.....	42	1	....	1	.....	.....	.....	3	5	47
Edri Coal Co.,	Indiana,	1	....	....	30	.....	.....	.....	2	1	.....	.....	34	1	.....	.....	.....	.....	.....	4	5	39
Johnstown Coal Co.,	Indiana,	1	1	....	50	.....	.....	.....	4	.....	1	.....	57	....	....	1	.....	.....	.....	3	4	61

*Estimated.

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door-boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
Latrobe, Connellsville Coal and Coke Co.,	Westmoreland,	1	1	....	21	5	.....	5	3	.....	5	.....	40	1	1	2	3	7	1	5	20	60
Peters Paper Co.,	Westmoreland,	1	....	....	14	.....	.....	.....	3	.....	2	.....	20	1	....	.....	.....	.....	.....	3	4	24
Totals,		74	21	51	7,482	175	1,444	174	968	227	500	201	11,317	57	54	223	236	1,545	77	1,007	3,199	14,516

TABLE III—Continued.

Names of Operators and Collieries.	County.	Number of Days Worked in Each Month.												
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Keystone Coal and Coke Co.,	Westmoreland,	19.3	16.5	16	18.3	19.6	19	19.4	18.3	18.6	20	20.6	24.6	230.2
Westmoreland Coal Co.,	Westmoreland,	27	23.6	25	26	22.5	25	24	24.5	26	26.5	24	25.75	273.75
Penn Gas Coal Co.,	Westmoreland,	25.6	19	19.5	20.5	22.2	22.7	22	19.9	23	22.4	18.9	19.5	255.4
Jamison Coal and Coke Co.,	Westmoreland,	27	24	26	26	27	25	26	26	26	25.6	24	26	239.6
Loyalhanna Coal and Coke Co.,	Westmoreland,	25.25	21.25	21.75	24.5	25.5	24.5	26	24.5	23.25	24.5	23	23.5	287.5
Hostetter-Connellsville Coke Co.,	Westmoreland,	22	18.5	22	21.5	25.5	25	27	26	26	27	23	26	289.5
American Coke Co.,	Westmoreland,	23.5	24	26	26	26.5	24.5	27	26	26	25	17.5	23	295
Atlantic Crushed Coke Co.,	Westmoreland,	26	20.5	24	25	25	21	26	22	22	23	22.5	24	211.25
Ligonier Coal Co.,	Westmoreland,	24	24	24	24	24	24.5	24.5	24.5	24.5	24.5	24.5	25	232
Burrell Coal Co.,	Indiana,	25	22.5	22	24	26.5	25.5	26.5	13	19	25	24	23	239.5
McCreary Coke Co.,	Indiana,	27	23	25	26	26	24.5	26	25.5	24.5	27	23.5	26	304
Blairsville Coke Co.,	Indiana,	24	18	15	23	17	14	23	23	23	25.5	23	22.5	172.5
Superior Coal and Coke Co.,	Westmoreland,	27	24	25	25	26	25	26	26	26	27	24	26	303
Pittsburg and Baltimore Coal Co.,	Westmoreland,	27	21	26	26	27	26	20	20	23	27	24	26	293
Ocean Coal Co.,	Westmoreland,	26.8	17.5	18.7	22.1	26.7	24.5	25.5	22.7	20.8	21.1	16.1	19.8	262.3
Maher Coal and Coke Co.,	Westmoreland,	25	20	16	22	27	25	26	19	15	21	19	20	255
Manor Gas Coal Co.,	Westmoreland,	26	24	26	26	26	25	26	24	26	26	24	25	304
Spring Hill Gas Coal Co.,	Allegheny,	27	24	26	26	27	25	27	25	26	26	27	27	313
W. B. Skelly Coal Co.,	Westmoreland,	23.5	20	14.75	17.75	20.5	23	23.5	16.5	20	23.5	18	18.25	238.25
Penn Manor Shaft Co.,	Westmoreland,	26	23	24	26	24	24	22	23	26	26	20	24	288
Alexandria Coal Co.,	Westmoreland,	27	22	24	23	24	25	25	27	25	26	24	27	299
Donohoe Coal and Coke Co.,	Westmoreland,	23	23	22	22	23	24	22	23	23	24	23	22	273
Huron Coal Co.,	Westmoreland,	26	20	20	23	26	23	25	25	24	25	18	22	277
Latrobe Coal Co.,	Westmoreland,	25.75	22	20	23.5	25.5	24.75	25.75	24.5	24.75	26.5	23.5	24.75	291.25
H. C. Frick Coke Co.,	Westmoreland,	23	24	26	14	26	25	27	26	26	25	21	26	289
Saxman Coal and Coke Co.,	Westmoreland,	27	24	26	25	26	25	26	26	26	27	24	26	308
Derry Coal and Coke Co.,	Westmoreland,	26	24	25	26	26	25	26	26	26	26	21	25	302
Bessemer Coke Co.,	Westmoreland,	17	21	24	26	27	25	26	26	26	27	22	26	293
Millwood Coal and Coke Co.,	Westmoreland,	25	22	25	24	25	23	25	25	24	25	23	24	290
Reese-Hammond Fire Brick Co.,	Indiana,	25	25	25	25	25	25	25	25	25	25	25	25	300
Bolivar Coal and Coke Co.,	Westmoreland,	26	24	26	25	27	25	21	26	26	25	23	24	298
Harris Coal and Coke Co.,	Indiana,	18	19	21	24	22	24	23	25	25	26	21	21	269

TABLE III—Continued.

Names of Operators and Collieries.	County.	Number of Days Worked in Each Month.												
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Elkins Gas Coal Co.,	Westmoreland,	24	19.75	24.5	23	24.5	15.5	24.75	23.5	20	20.75	17.25	21	258.5
American Steel Hoop Co.,	Westmoreland,	27	24	26	26	27	25	26	26	26	27	25	26	311
Ray Coal Co.,	Indiana,	27	24	20	24	29	29	30	28	22	28	23	25	309
Robert Smith,	Indiana,	25	22	17	24	27	21	21	22	13	26	18	22	264
Graff Coal Co.,	Indiana,	21	20	23	21	22	23	20	22	21	20	23	22	258
Dixon Brothers,	Indiana,	23	18	13	18	22	16	21	22	18	25	20	21	237
Glenmore Coal and Coke Co.,	Indiana,	18	16	20	12	16	13	10	17	16	21	13	12	184
Joseph Wharton,	Indiana,	24	24	24	24	24	24	24	24	24	24	24	24	240
Mitchell-Watson Coal and Coke Co.,	Indiana,	22	20	24	10	.....	.....	10	13	24	25	18	15	181
Bowman Coal Mining Co.,	Indiana,	26	23	26	9	.....	.....	6	20	18	26	22	26	202
Edri Coal Co.,	Indiana,	.....	.....	.....	.....	.....	.....	.....	16	17	21	22	23	99
Johnstown Coal Co.,	Indiana,	24	20	23	26	25	24	22	25	20	23	20	21	273
Latrobe-Connellsville Coal and Coke Co.,	Westmoreland,	.....	.....	.....	.....	.....	.....	.....	.....	26	27	25	26	104
Peters Paper Co.,	Westmoreland,	.....	.....	.....	.....	.....	.....	.....	26	26	25	25	26	128
Totals,	.....	22.9	20	21	21	21.9	20.8	21.8	22.6	22.7	24.8	21.8	23.4	256.6

TABLE IV—List of fatal accidents that occurred in and about the mines of the Second Bituminous District for the year ending December 31, 1902.

Date of accident.		Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan.	11	Paul Kruspir, ...	Slavonic, ...	Miner, ...	30	S.	....	....	Jamison No. 3, ...	Westmoreland,	Injured by fall of coal; died Jan. 14.
	22	Daniel Hamilton, ...	Scotch, ...	Miner boy, ...	14	S.	....	....	Madison, ...	Westmoreland,	Instantly killed by a fall of coal.
Feb.	1	Norgles Yeronius, ..	Lithuanian,	Machine runner,	28	S.	....	....	Export, ...	Westmoreland,	Caught in mining machine; died February 6.
	10	Bartol Ausets, ...	Austrian, ..	Miner, ...	35	M.	1	5	Denmark, ...	Westmoreland,	Injured by fall of slate; died Feb. 12.
	12	Mike Pepsu, ...	Slavonic, ...	Miner, ...	34	M.	1	1	Jamison No. 3, ...	Westmoreland,	Injured by fall of coal; died Feb. 14.
Mar.	10	Edward McIntyre, .	American, .	Miner, ...	21	S.	....	....	Greensburg No. 2, .	Westmoreland,	Instantly killed by a fall of roof coal.
	24	Ignats Jimbo, ...	Polish, ...	Miner, ...	42	M.	1	3	Jamison No. 3, ...	Westmoreland,	Injured by fall of slate; died April 4.
April	7	Joseph Sassi, ...	Italian, ...	Miner, ...	42	M.	1	3	Ocean No. 1, ...	Westmoreland,	Instantly killed by a fall of slate.
	16	Frank Wolff, ...	Austrian, ..	Miner, ...	24	S.	....	....	Alexandria, ...	Westmoreland,	Instantly killed by a fall of slate.
May	8	Henry A. Dunn, ...	Welsh, ...	Miner, ...	46	M.	1	2	Penn Gas No. 2, ...	Westmoreland,	Instantly killed by a fall of slate.
	8	Daniel Kreek, ...	Polish, ...	Miner, ...	40	M.	1	6	Denmark, ...	Westmoreland,	Injured by fall of slate; died June 15.
	12	Frank Nowalk, ...	Polish, ...	Miner, ...	40	M.	1	2	Alexandria, ...	Westmoreland,	Instantly killed by a fall of slate.
	22	Martin Nokovich, ..	Slavonic, ...	Miner, ...	34	M.	1	3	Superior No. 1, ...	Westmoreland,	Caught between car and roof; died following day.
	27	Joe Rushnack, ...	Slavonic, ...	Miner, ...	35	M.	1	2	Jamison No. 3, ...	Westmoreland,	Instantly killed by a fall of slate.
	31	Chas. Crupell, ...	Slavonic, ...	All other employes.	47	M.	1	....	Jamison No. 3, ...	Westmoreland,	Instantly killed by falling from cage in shaft.
June	3	Bartolo Domenegatto	Italian, ...	Machine loader,	23	S.	....	....	Westmoreland shaft,	Westmoreland,	Instantly killed by a fall of slate.
	14	Andrew Metrick, ...	Slavonic, ...	Machine loader,	33	M.	1	....	Jamison No. 3, ...	Westmoreland,	Fatally injured by a fall of slate.
	16	Nicol Guiseppe, ...	Italian, ...	Miner, ...	29	S.	....	....	Millwood, ...	Westmoreland,	Fatally injured by a fall of slate.
	19	Peter Posetti, ...	Italian, ...	Miner, ...	26	S.	....	....	Isabella, ...	Westmoreland,	Crushed by fall of slate; died June 30.
	23	Benjamin Guase, ...	Slavonic, ...	Miner boy, ...	13	S.	....	....	Baltimore No. 1, ...	Westmoreland,	Injured by fall of slate; died June 25.
	30	Daniel Devey, ...	English, ...	Miner, ...	44	M.	1	6	Greensburg No. 2, ..	Westmoreland,	Fatally injured by a fall of slate.
July	18	Frank Weiss, ...	Austrian, ..	Miner, ...	20	S.	....	....	Penn Gas No. 5, ...	Westmoreland,	Injured by a fall of coal; died Aug. 4.
Aug.	7	Nickel Jim, ...	Italian, ...	Miner, ...	46	M.	1	3	Jamison No. 2, ...	Westmoreland,	Injured by a fall of coal; died Aug. 9.
	8	Michael Barno, ...	Austrian, ..	Miner, ...	22	S.	....	....	Graceton No. 1, ...	Indiana, ...	Instantly killed by a fall of roof.
	11	Frank Stepneck, ...	German, ...	Miner, ...	56	M.	1	1	Claridge, ...	Westmoreland,	Instantly killed by a fall of coal.
	13	Musi Angelo, ...	Italian, ...	Miner, ...	36	M.	1	1	Millwood, ...	Westmoreland,	Instantly killed by a fall of roof.
	23	George Uhas, ...	Slavonic, ...	Miner, ...	36	M.	1	4	Puritan, ...	Westmoreland,	Instantly killed by a fall of roof.
	28	Edward Higgins, ..	American, .	Miner, ...	40	M	1	3	Greensburg No. 3, .	Westmoreland,	Injured by a fall of roof; died Sept. 9.
	30	John Bitner, ...	Slavonic, ...	Coke employe, .	28	M	1	2	Graceton No. 2, ...	Indiana, ...	Instantly killed by being caught by a revolving shaft at coke crusher.

TABLE IV—Continued.

Date of accident.		Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Sept.	4	Thomas Smith, ...	American, .	All other employes.	19	S.	....	....	Jamison No. 4, ...	Westmoreland,	Instantly killed by being struck on back of head by descending cage at top of landing.
	4	Jacob Mininger, ...	German, ...	Miner, ...	42	M.	1	3	Greensburg No. 3, .	Westmoreland,	Injured by a fall of coal; died Sept. 6.
	10	Andrew Kroul, ...	Polish, ...	Miner, ...	26	S.	....	....	Lyons Run, ...	Westmoreland,	Fatally injured by a fall of slate.
Oct.	9	Frank Licar, ...	Austrian, ..	Miner, ...	27	S.	....	....	Lyons Run, ...	Westmoreland,	Instantly killed by a fall of coal.
	9	Ross Lee, ...	American, .	All other employes.	35	S.	....	....	Penn Gas No. 2, ...	Westmoreland,	Suffocated by dynamite fumes in new air shaft.
	10	Anthony Siaraule,	Italian, ...	Miner, ...	55	M.	1	4	Jamison No. 1, ...	Westmoreland,	Instantly killed by a fall of slate.
	11	Frank Weaver, ...	Bohemian, .	Miner, ...	53	M.	1	....	Penn Gas No. 2, ...	Westmoreland,	Instantly killed by a fall of slate.
	24	A. F. Anderson, ...	American, .	Driver, ...	20	S.	....	....	Baltimore No. 1, ...	Westmoreland,	Instantly killed; run over by a car.
Nov.	7	Michael Fox, ...	English, ...	Miner, ...	38	M.	1	7	Loyalhanna No. 1, .	Westmoreland,	Instantly killed by a fall of roof.
	12	Frank Allegrimsi, ..	Italian, ...	Miner, ...	37	M.	1	4	Loyalhanna No. 1, .	Westmoreland,	Instantly killed by a fall of slate.
	22	Andrew Morris, ...	Russian, ...	Miner, ...	32	M.	1	4	Penn Gas No. 5, ...	Westmoreland,	Injured by a fall of coal and slate; died November 26.
Dec.	4	Peter Viskoski, ...	Russian, ...	Miner, ...	39	M.	1	1	Penn Manor, ...	Westmoreland,	Injured by a fall of slate; died December 21.
	5	Mike Kushinskey, ...	Polish, ...	Miner, ...	35	M.	1	3	Monastery, ...	Westmoreland,	Fatally injured by a fall of roof.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Second Bituminous District for the year ending December 31, 1902.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 4	Frank Leonard, ...	American, .	Driver, ...	34	M.	Madison, ...	Westmoreland,	Back injured by a fall of coal.
7	Stanney Bablisko, ..	Polish, ...	Miner, ...	38	S.	M. Saxman, ...	Westmoreland,	Leg broken and back injured by a fall of roof.
16	Edward Favorite, ..	American, .	Driver, ...	28	S.	Denmark, ...	Westmoreland,	Arm broken; thrown from car.
21	Alexander McKay, .	American, .	Miner boy, ...	14	S.	Alexandria, ...	Westmoreland,	Leg broken; caught between cars.
25	John Virdergue, ...	Austrian, ..	Miner, ...	45	M.	Baltimore No. 1, ...	Westmoreland,	Leg broken by a fall of coal.
29	George Hayden, ...	American, .	Miner, ...	55	M.	Carbon, ...	Westmoreland,	Back broken by a fall of slate.
30	Joseph Burkey, ...	Austrian, ..	Driver, ...	27	M.	Millwood, ...	Westmoreland,	Injured; fell from mine car.
Feb. 8	Thomas Grant, ...	Scotch, ...	Miner, ...	47	M.	Baltimore No. 1, ...	Westmoreland,	Severely injured by a fall of slate.
13	John Anderson, ...	Swedish, ...	All other employes,	21	S.	Alexandria, ...	Westmoreland,	Leg broken; caught between mine cars.
14	Mealic Palletin, ...	Slavonic, ...	Driver, ...	21	S.	Larimer, ...	Westmoreland,	Leg crushed; run over by cars.
17	James Habhack, ...	Bohemian, .	Miner, ...	30	M.	Penn Gas No. 2, ...	Westmoreland,	Leg broken by a fall of coal.
18	Joseph Thompson, .	English, ...	Miner, ...	26	S.	Madison, ...	Westmoreland,	Hand injured by a fall of coal.
Mar. 25	John Stowesky, ...	Polish, ...	Miner, ...	30	M.	Alexandria, ...	Westmoreland,	Leg broken by a fall of slate.
April 7	Jacob Brim, ...	Irish, ...	Miner, ...	58	M.	Larimer, ...	Westmoreland,	Ankle dislocated by fall of slate.
8	George Hunter, ...	American, .	Miner, ...	29	M.	Derry shaft, ...	Westmoreland,	Leg crushed by fall of roof.
14	James McCabe, ...	Irish, ...	Miner, ...	39	S.	Hempfield, ...	Westmoreland,	Both legs broken by a fall of coal.
16	George Dragon, ...	Slavonic, ...	Miner, ...	42	M.	Derry shaft, ...	Westmoreland,	Leg broken by a fall of slate.
18	Mike Seketa, ...	Austrian, ..	Miner, ...	24	S.	Lyons Run, ...	Westmoreland,	Leg broken by a fall of slate.
21	Archangel Bonasdi, .	Italian, ...	Miner, ...	52	M.	Denmark, ...	Westmoreland,	Leg fractured by a fall of slate.
23	Thomas Prescott, ...	American, .	Driver, ...	22	S.	Dorothy, ...	Westmoreland,	Foot injured by a fall of slate.
May 1	Jos. Pechman, ...	Bohemian, .	Miner, ...	34	M.	Denmark, ...	Westmoreland,	Leg fractured by a fall of coal.
9	Andrew Chaminski,	Austrian, ..	Miner, ...	25	M.	Latrobe, ...	Westmoreland,	Leg broken between car and pillar.
15	Andrew Yavolsky, ..	Slavonic, ...	Miner, ...	25	S.	Ocean No. 1, ...	Westmoreland,	Hip injured by a fall of slate.
16	Edward I. Kallap, ..	American, .	Driver, ...	21	M.	Whitney	Westmoreland,	Shoulder broken; caught between cars.
20	Henry Adamson, ...	American, .	Driver, ...	20	S.	Alexandria, ...	Westmoreland,	Leg broken; caught by car.
31	Steve Vayneck, ...	Polish, ...	Miner, ...	29	S.	Salem, ...	Westmoreland,	Back broken by a fall of slate.
31	John Osicovish, ...	Polish, ...	Miner, ...	25	S.	Salem, ...	Westmoreland,	Back and breast crushed by a fall of slate.
31	Peter Reese, ...	German, ...	All other employes,	40	M.	Ocean No. 1, ...	Westmoreland,	Face and hands burned by blown out shot.
31	Frank Webb, ...	American, .	Driver, ...	17	S.	Ocean No. 1, ...	Westmoreland,	Bruised about body by blown out shot.
31	Frank Hoonus, ...	Polish, ...	Miner, ...	30	M.	Ocean No. 1, ...	Westmoreland,	Arm broken by blown out shot.
June 9	Dominick Ferendo, .	Italian, ...	Miner, ...	22	M.	Jamison No. 1, ...	Westmoreland,	Injured by a fall of slate.
20	Joseph Chatula, ...	Slavonic, ...	Miner, ...	43	M.	St. Clair, ...	Westmoreland,	Jaw fractured by a fall of slate.

TABLE V—Continued.

Date of accident.	Name of Person.	Nativity of birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
20	John Neeman, ...	Hungarian,	Miner, ...	43	M.	Penn Gas No. 2, ...	Westmoreland,	Leg broken by a fall of coal and slate.
July 11	Chas. Robinson, ...	American, .	Driver, ...	19	S.	Lockport, ...	Westmoreland,	Leg bruised by car.
12	Joe Pontania, ...	Italian, ...	All other employes,	42	M.	Pandora, ...	Westmoreland,	Both legs broken; caught under cage.
19	Joseph Clark, ...	Irish, ...	Miner, ...	41	M.	Atlantic No. 2, ...	Westmoreland,	Leg broken by fall of slate.
23	Martin Mulirldy, ..	Italian, ...	Miner, ...	40	M.	Loyalhanna Nos. 1 & 2	Westmoreland,	Leg broken; struck by post.
23	David Harris, ...	American, .	Miner, ...	45	M.	Loyalhanna Nos. 1 & 2	Westmoreland,	Injured between cage and shaft timbers.
28	Alex Krauetz, ...	Hungarian,	Machine loader, ...	41	M.	Ocean No. 2, ...	Westmoreland,	Leg crushed by a fall of slate.
Aug. 11	Steve Humbusky, ..	Slavonic, ...	Driver, ...	18	S.	Hostetter, ...	Westmoreland,	Leg fractured; caught between cars.
11	Charles Weyburg, ..	Swedish, ...	Miner, ...	30	S.	Carbon, ...	Westmoreland,	Leg broken; caught between car and post.
27	Bias Bearoff, ...	Russian, ...	Miner, ...	27	S.	Westmoreland shaft, .	Westmoreland,	Leg broken; caught between mining machine and coal pillar.
29	Willis Sowers, ...	Scotch, ...	Driver, ...	24	S.	Mitchell, ...	Indiana,.....	Injured; caught between car and coal pillar.
30	Joseph Oberly, ...	Slavonic, ...	All other employes,	45	M.	Mitchell, ...	Indiana,.....	Rib fractured; caught between car and coal pillar.
Sept. 5	Antonia Domiani, ..	Italian, ...	Miner, ...	46	M.	Jamison No. 2, ...	Westmoreland,	Leg broken by a fall of coal.
18	John Edge, ...	English, ...	Miner, ...	36	M.	Ocean No. 1, ...	Westmoreland,	Leg broken by a fall of slate.
24	Carmel Circelo, ...	Italian, ...	Miner, ...	38	M.	Baltimore No. 1, ...	Westmoreland,	Leg broken by a fall of slate.
30	Harry Crawford, ...	American, .	All other employes,	30	M.	Donohoe, ...	Westmoreland,	Back sprained; caught between cars.
Oct. 1	Edward Fisher, ...	German, ...	Miner, ...	30	S.	Greensburg No. 3, ...	Westmoreland,	Leg broken by a fall of slate.
2	Loney Debowne, ...	Italian, ...	Miner, ...	35	S.	Jamison No. 1, ...	Westmoreland,	Bruised by flying coal from dynamite blast while tamping.
2	Frank Mash, ...	Italian, ...	Miner, ...	23	S.	Jamison No. 1, ...	Westmoreland,	Bruised by flying coal from dynamite blast while tamping.
8	Enoch McClemar, ..	Slavonic, ...	Miner, ...	25	S.	Jamison No. 1, ...	Westmoreland,	Leg crushed by breaking of rail, necessitating amputation.
9	Alex Hill, ...	American, .	Miner, ...	52	M.	Atlantic No. 2, ...	Westmoreland,	Back injured by a fall of coal.
24	Frank Kusinski, ...	Slavonic, ...	All other employes,	16	S.	Latrobe, ...	Westmoreland,	Shoulder broken; caught between car and coal pillar.
27	Mike Rameski, ...	Russian, ...	Miner, ...	45	M.	Larimer, ...	Westmoreland,	Leg broken by a fall of slate.
29	Harry L. Hill, ...	English, ...	Miner, ...	45	M.	Madison, ...	Westmoreland,	Injured by a fall of slate.
31	John Wasegar, ...	Slavonic, ...	All other employes,	18	S.	Denmark, ...	Westmoreland,	Arm fractured; struck by crane crank.
Nov. 5	Clark Robb, ...	American, .	Driver, ...	22	M.	Superior No. 1, ...	Westmoreland,	Severely injured; run over by cars.
5	John Reiter, ...	German, ...	Miner, ...	57	M.	Penn Gas No. 1, ...	Westmoreland,	Leg broken by a fall of slate.
11	John Powell, ...	English, ...	Miner, ...	46	M.	Ocean No. 1, ...	Westmoreland,	Foot crushed by fall of slate, necessitating amputation.

	28	Charles Jamery, ...	Italian, ...	Miner, ...	38	M.	Donohoe, ...	Westmoreland,	Leg crushed and arm broken by a fall of coal.
Dec.	1	Robert Laney, ...	Scotch, ...	Miner, ...	35	M.	Penn Gas No. 5, ...	Westmoreland,	Leg broken by a fall of slate.
	2	Charles McCain, ...	Scotch, ...	Miner, ...	28	S.	Sewickley, ...	Westmoreland,	Leg broken by a fall of coal.
	8	Joseph Hastock, ...	Hungarian,	Miner, ...	34	M.	Donohoe, ...	Westmoreland,	Injured by a fall of slate.
	9	Felix Pastore, ...	Italian, ...	Miner, ...	42	M.	Jamison No. 1, ...	Westmoreland,	Leg broken and otherwise injured; struck by haulage rope.
	12	Joseph Straka, ...	Slavonic, ...	Driver, ...	24	M.	Graceton No. 2, ...	Indiana,.....	Hip dislocated; caught between car and coal pillar.
	22	Sampson Rodin, ...	English, ...	All other employes,	45	M.	Mitchell, ...	Indiana,.....	Both legs broken; struck by runaway car.

Third Bituminous District.

ALLEGHENY, ARMSTRONG, BUTLER, BEAVER, CLARION, LAWRENCE, JEFFERSON, MERCER AND WESTMORELAND COUNTIES.

Mercer, Pa., February 25, 1903.

Hon. James W. Latta, Secretary of Internal Affairs:

Sir: As required by the Bituminous Mining Act, approved May 15, 1893, I herewith transmit my annual report of the Third Bituminous District for the year ending December 31, 1902.

There has been an increase of eight in the number of fatal accidents in this district during the year, but a reduction of four in the number of serious non-fatal ones. At least seven of the fifteen fatal accidents reported were due to the unfortunate persons not having used ordinary precautions to insure safety, such as posting their working places properly, and the greater number of the serious non-fatal ones were also due to similar neglect.

During the year the coal production of this district increased 927,118 tons over that of 1901, and the number of employes in and about the mines increased 1,342.

Twenty-two additional mines have been added to the list of mines of this district.

As a whole the operators and miners of this district have shared in the general prosperity of the coal business during the year, but they would have experienced it in a more marked degree had the supply of railroad cars been equal to the demand, but it was this year the same as it was in the year 1901, very inadequate, thereby causing much broken time and annoyance at many of the mines. At the mines along the West Penn Railroad there was a strike, which lasted three months at some of them. Otherwise harmony between the operators and the miners has prevailed in all the other parts of the district.

A brief description of the new and the old mines of the district, with the usual statistical matter, etc., in connection therewith, will be found in another part of the report.

Respectfully submitted,

THOMAS K. ADAMS,
Inspector.

Summary of Statistics for 1902.

Number of mines in district,	122
Number of mines in operation during 1902,	122
Number of tons of coal produced,	6,531,197
Number of tons shipped to market,	6,068,804
Number of tons sold at mines to local trade,	143,828
Number of tons consumed at mines in generating steam and heat,	318,565
Number of coke ovens in the district,	418
Number of coke ovens in operation during 1902,	418
Number of tons of coke produced,	168,898
Number of tons of coal used in manufacture of coke, approximately,	287,126
Number of tons produced by pick mining,	5,266,241
Number of tons produced by compressed air machines,	1,068,452
Number of tons produced by electrical machines,	196,504
Number of persons employed inside the mines,	8,916
Number of persons employed outside, including coke	
Number of persons employed per fatal accident outside,	1,237
Number of persons employed at manufacture of coke,	145
Number of fatal accidents inside the mines,	14
Number of tons produced for each fatal accident inside,	466,514
Number of persons employed per fatal accident inside,	637
Number of fatal accidents outside,	1
Number of persons employed per fatal accident outside,	1,237
Number of wives made widows by fatal accidents,	6
Number of children orphaned by fatal accidents,	16
Number of non-fatal accidents inside of mines,	35
Number of persons employed per non-fatal accident inside,	254
Number of non-fatal accidents outside,	2
Number of persons employed per non-fatal acicdent outside,	618
Number of steam locomotives used inside,	4
Number of electric motors used inside,	12
Number of fans used for ventilation,	61
Number of furnaces used for ventilation,	52
Number of gaseous mines in operation during 1902,	3
Number of non-gaseous mines in operation during 1902,	119
Number of new mines opened in 1902,	22

A. Production of Coal during the Year 1902.

Names of Companies.	Tons.
Acme Coal Mining Company,	45,278
Avondale Mining and Manufacturing Company,	30,954
Jos. G. Beale & Co.,	87,193
Avonmore Coal and Coke Company,	57,293
Allegheny Coal and Coke Company,	39,432
Anderson Run Coal Company,	65,000
Butts Cannel Coal Company,	43,800
Brackenridge Coal Company,	40,620
Beaver Coal and Coke Company,	90,201
Sharon Coal and Limestone Company,	59,150
Braeburn Steel Company,	19,680
Keystone Mining Company,	94,376
Lewis Coal Company,	52,972
Bagdad Coal and Coke Company,	35,283
Logansport Coal Company,	13,398
Peale, Peacock & Kerr, Incorporated,	53,352
Carrier Brothers,	45,010
Erie Coal Mining Company,	10,549
Pittsburg Plate Glass Company,	77,072
Cowansville Mining Company,	52,834
Chicora Coal and Coke Company,	17,425
Cherry Run Coal Mining Company,	31,591
W. F. Clayton,	10,529
Cornwall Coal Company,	81,340
Carver Coal Company,	53,132
Hamilton Coal Mining Company,	45,898
Catfish Run Coal Company,	26,755
The Allegheny Coal Company,	37,468
Westerman, Filer & Co., formerly Filer, Suliff & Co.,	213,825
The Hedstrom Coal Mining Company,	29,569
James W. Ganoe,	27,649
Addison Davidson,	3,927
P. D. Sherwin,	52,198
Eagle Coal Co., Inc., formerly Jos. & M. A. Lehmer,	44,148
Wampum Run Coal Company,	44,220
Grove Coal Company,	68,115
Fairmount Coal Company,	320,504
Gilpin Coal Company,	57,050
Pittsburg Coal Company,	68,937
F. A. Mizener,	110,932
Leechburg Coal and Coke Company,	50,193
McFetridge Brothers,	81,802

Hill Coal Company, Limited,	59,600
Frank Williams & Co.,	16,470
Haddon Coal Company,	37,140
Jefferson, Clearfield Coal and Iron Company,	1,673,932
Pittsburg and Buffalo Company,	121,300
Pardoe Coal Company,	138,235
American Sheet Steel Company,	23,773
Kittanning Plate Glass Company,	10,182
Turner Coal, Coke and Mining Company,	70,120
Kerr Coal Company,	66,700
Lucesco Coal Company,	18,909
Ben Franklin Coal Company,	30,050
Monterey Coal Company,	28,837
Pittsburg Plate Glass Company,	87,823
Mark Packard,	15,129
Nellie Coal Company,	18,206
Pennsylvania Salt Manufacturing Company,	179,978
C. P. McCafferty,	48,902
Oak Ridge Mining Company,	212,303
Ellis Blum Company,	1,500
Pine Run Coal and Coke Company,	47,311
The Pollock Coal and Lime Company,	4,045
New York and Cleveland Gas Coal Company,	427,444
Royle Coal Company,	16,625
George E. Tener,	27,915
Riverview Coal and Mining Company, Limited,	69,291
Roaring Run Coal and Coke Company,	22,736
George G. Stage,	18,151
Mercer Iron and Coal Company,	97,622
Sterling Mining Company or W. H. Warner,	12,900
Standard Coal Mining Company,	32,000
Campbell, Lowther Coal Company,	14,823
Sligo Coal Mining Company, formerly Sligo Coal Co.,	25,591
State Line Coal Company,	90,692
Shenango Coal Company,	7,563
Thompson Run Coal Company,	84,225
Underwood Mining Company,	1,100
Valley Coal Company,	20,782
West Penn Mining Company,	27,674
The Wahlville Coal Company,	40,615
William K. Hamilton,	6,100
Brier Hill Block Coal Company,	5,100
Butler Coal and Coke Company,	401
Hickory Coal Co., Limited,	28,004
Sterling Coal Company,	44,734

Evans City Coal Co.,	1,100
Darlington Brick and Mining Co.,	7,000
Total,	6,531,197

Production of Coal for the Counties Comprising this District During the Year 1902.

Names of Counties.	Tons.
Armstrong,	1,270,526
Allegheny,	1,034,093
Butler,	482,922
Beaver,	234,273
Clarion,	453,292
Lawrence,	191,811
Jefferson,	1,837,294
Mercer,	690,871
Westmoreland,	336,115
Total,	6,531,197

B. Showing the number of fatal and non-fatal accidents inside and outside the mines; number of tons of coal produced per fatal and non-fatal accident inside the mines; number of persons employed inside and outside; and the number employed inside and outside for every fatal and non-fatal accident for each company during 1902.

Names of Companies.	Number of lives lost inside.	Number of lives lost outside.	Total number of lives lost.	Number severely injured inside.	Number severely injured outside.	Total number severely injured.	Tons of coal produced per each life lost inside.	Tons of coal produced per each serious injury inside.	Number employes inside of mines.	Number employes outside of mines.	Total number employed.	Number of employes inside for each life lost.	Number of employes inside for each severe injury.	Number of employes outside for each life lost.	Number of employes outside for each severe injury.
Jefferson-Clearfield Coal and Iron Co.	1	1	2	14	.....	14	836,966	119,567	1,626	284	1,910	813	116	142	20
Eagle Coal Co., Inc.,	.....	.....	.....	1	.....	1	.....	44,148	70	14	84	.....	70	.....	14
Sharon Coal and Limestone Co.,	1	.....	1	1	.....	1	59,150	59,150	238	30	268	238	30	.....	.....
C. P. McCafferty,	.....	.....	.....	1	.....	1	.....	48,902	69	12	81	.....	69	.....	12
Filer, Sutliff & Co.,	1	.....	1	.....	.....	.....	213,825	.....	286	32	318	283	.....	32	.....
Pardoe Coal Co.,	1	.....	1	1	.....	1	138,235	138,235	178	10	188	178	178	10	10
Carrier Brothers,	.....	.....	.....	1	.....	1	.....	45,010	78	21	99	.....	78	.....	21
Ben Franklin Coal Co.,	.....	.....	.....	1	.....	1	.....	30,050	33	4	37	.....	33	.....	4
F. A. Mizener,	2	.....	2	2	.....	2	55,466	55,466	143	9	152	71	71	5	5
Pine Run Coal and Coke Co.,	.....	.....	.....	.....	1	1	.....	.....	67	7	74	.....	67	.....	7
Pittsburg and Buffalo Company,	1	.....	1	.....	.....	.....	121,300	.....	242	29	271	242	.....	29	.....
Joseph G. Beale & Co.,	1	.....	1	.....	.....	.....	87,193	.....	152	16	168	152	.....	16	.....
Sligo Coal Co.,	.....	.....	.....	1	.....	1	.....	25,591	53	4	57	.....	53	.....	4
Monterey Coal Co.,	.....	.....	.....	1	.....	1	.....	28,837	37	6	43	.....	37	.....	6
The Hedstrom Coal Mining Co.,	.....	.....	.....	1	.....	1	.....	29,569	83	19	102	.....	83	.....	19
Fairmount Coal Co.,	1	.....	1	.....	.....	.....	320,020	.....	494	60	554	494	.....	60	.....
Logansport Coal Co.,	.....	.....	.....	1	.....	1	.....	13,398	33	13	46	.....	33	.....	13
McFetridge Brothers,	.....	.....	.....	1	.....	1	.....	81,803	111	16	127	.....	111	.....	16
Allegheny Coal Co.,	1	.....	1	1	.....	1	37,468	37,468	99	29	128	99	99	29	29
Pittsburg Plate Glass Co.,	1	.....	1	1	.....	1	164,845	164,845	182	34	216	182	182	34	34
Keystone Coal Mining Co.,	.....	.....	.....	1	.....	1	.....	94,376	113	16	129	.....	113	.....	16
Thompson Run Coal Co.,	.....	.....	.....	1	.....	1	.....	84,225	101	12	113	.....	101	.....	12
Kittanning Plate Glass Co.,	1	.....	1	.....	.....	.....	10,182	.....	9	1	10	9	.....	1	.....
Oak Ridge Mining Co.,	.....	.....	.....	1	.....	1	.....	212,305	245	33	278	.....	245	.....	33
Butts Cannel Coal Co.,	.....	.....	.....	1	.....	1	.....	43,800	153	4	157	.....	153	.....	4
New York and Cleveland Gas Coal Co.,	2	.....	2	3	.....	3	213,722	142,481	485	47	532	242	162	23	16
Totals and averages,	14	1	15	36	1	37	466,514	109,463	8,916	1,237	10,153	636	248	1,237	1,237

C. Classification of Fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling Into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
	Coal.	Slate.	Roof.						Shafts.	Slopes	Manways, breasts, etc.												
January,			1													1							1
April,		1														1							1
May,		1	2													3							3
June,			2													2							2
July,		1														1							1
September,		1	1													2							2
October,			3													3							3
November,																					1	1	1
December,			1													1							1
Totals,		4	10													14					1	1	15

D. Classification of Non-fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						
	By Falls of								By Falling Into														
	Coal.	Slate.	Roof.	By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	Shafts.	Slopes.	Manways, breasts, etc.	Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
January,	2	1	1	5	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	10	.....	.....	.....	.....	.....	.....	10
February,	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
March,	2	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	1	1	4
April,	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
May,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
June,	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
July,	.....	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
September,	3	.....	1	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	6
October,	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	2	.....	.....	.....	.....	.....	.....	2
November,	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
December,	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
Totals,	8	8	7	9	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	1	36	.....	.....	.....	.....	1	1	37

E. Occupations of Employes Killed or Fatally Injured Inside and Outside the Mines of the Third Bituminous District During 1902.

Months.	Inside.														Outside.										Grand total.
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door-boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
January,				1								1											1
April,				1								1											1
May,				3		1						4											4
June,				2								2											2
July,				1								1											1
September,				2								2											2
October,				3								3							1	1			3
November,																		1		1			1
December,				1								1											1
Totals,				13		1						14							1	1			15

F. Occupations of Employes Severely Injured Inside and Outside the Mines of the Third Bituminous District During 1902.

Months.	Inside.												Outside.									Grand total.
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door-boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
January,	.....	.....	.....	5	.....	1	.....	2	.....	2	.....	10	.....	.....	.....	.....	.....	.....	.....	.....	10
February,	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	2
March,	.....	.....	.....	3	.....	.....	.....	1	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	4
April,	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	2
May,	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
June,	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	2
July,	.....	.....	.....	1	.....	.....	1	.....	.....	1	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	3
September,	.....	.....	.....	5	.....	.....	.....	.....	.....	1	.....	6	.....	.....	.....	.....	.....	.....	.....	.....	6
October,	.....	.....	.....	1	.....	.....	1	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	2
November,	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	2
December,	.....	.....	.....	2	.....	1	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	3
Totals,	.....	.....	.....	22	.....	2	2	4	.....	5	.....	37	.....	.....	.....	.....	.....	.....	.....	.....	37

G. Nationality of Employes Killed or Fatally Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Scotch.	Irish.	Italians.	Russians.
January,	.....	.....	.....	.....	1	.....
April,	.....	.....	.....	.....	1	.....
May,	1	1	1	.....	.....	.....
June,	.....	.....	.....	.....	2	.....
July,	.....	.....	.....	.....	1	.....
September,	1	.....	.....	.....	1	.....
October,	2	.....	.....	.....	.....	1
November,	.....	.....	.....	.....	1	.....
December,	.....	.....	.....	1	.....	.....
Totals,	4	1	1	1	7	1

H. Nationality of Employes Severely Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Scotch.	Germans.	Poles.	Hungarians.	Italians.	Slavonians.	Tyroleans.
January,	7	1	1	.....	.....	.....	.....	.....	1
February,	2	.....	.....	.....	.....	.....	.....	.....	.....
March,	1	.....	.....	.....	.....	.....	1	.....	2
April,	1	.....	.....	.....	.....	.....	1	.....	.....
May,	1	.....	.....	.....	.....	.....	.....	.....	.....
June,	2	.....	.....	.....	.....	.....	.....	.....	.....
July,	2	.....	.....	.....	.....	.....	1	.....	.....
September,	1	.....	.....	.....	3	.....	1	1	.....
October,	.....	.....	.....	1	.....	.....	.....	1	.....
November,	1	.....	.....	.....	.....	.....	.....	1	.....
December,	.....	1	.....	.....	.....	1	1	.....	.....
Totals,	18	2	1	1	3	1	5	3	3

I. Giving names of operators and mines, kind of openings, type and size of fans; size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each employe per minute in Third Bituminous District for the year 1902.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Acme Coal Mining Co.													
Acme,	Drift, ...	Non-gas.	Furnace,.....	.....	.....	.....	24	1	8,000	8,000	10,000	75	106
Avondale Mining & Mfg. Co.													
Avondale,	Drift, ...	Non-gas.	Furnace,.....	.....	.....	.....	24	1	7,000	7,000	7,000	16	437
Jos. G. Beale & Co.													
Aladdin,	Drift, ...	Non-gas.	Furnace,.....	.....	.....	.....	24	1	12,000	12,000	12,250	40	302
Avonmore Coal & Coke Co.													
Avonmore,	Drift, ...	Non-gas.	Fan,.....	16 x 5	Scottdale, ...	Steam,.....	.....	2	47,000	47,000	47,000	57	821
Allegheny Coal and Coke Co.													
Avenue,	Drift, ...	Non-gas.	Fan,.....	.....	.....	Electricity,..	.....	1	10,000	10,000	10,000	42	238
Anderson Run Coal Co.													
Anderson Run,	Drift, ...	Non-gas.	Fan,.....	6 x 15	Clark, ...	Steam,.....	.....	2	13,700	13,000	13,000	56	218
Butts Cannel Coal Co.													
Annandale No. 1,	Drift, ...	Non-gas.	Furnace,.....	.....	.....	.....	24	2	7,500	7,500	10,200	77	109
Annandale No. 2,	Drift, ...	Non-gas.	Furnace,.....	.....	.....	.....	24	1	7,500	7,500	7,500	27	277
Butts,	Shaft, ...	Non-gas.	Fan,.....	8 x 3	Brazil, ...	Steam,.....	.....	1	8,000	8,000	8,100	20	402
Jos. G. Beale & Co.													
Beale,	Drift, ...	Non-gas.	Fan,.....	12 x 4	Brazil, ...	Steam,.....	.....	2	17,150	17,150	17,200	32	536
Brackenridge Coal Co.													
Brackenridge,	Drift, ...	Non-gas.	Furnace,.....	.....	.....	.....	24	1	9,000	9,000	9,000	45	200

Beaver Coal & Coke Co.													
Beaver No. 1,	Drift, ...	Non-gas	Fan,	8 x 3	Champion, ..	Steam,	.....	2	14,000	14,000	14,100	90	156
Beaver No. 2,	Drift, ...	Non-gas.	Fan,	8 x 3	Champion, ..	Steam,	.....	2	14,000	14,000	15,400	50	294
Sharon Coal & Limestone Co.													
Buhl No. 1,	Shaft, ...	Non-gas.	Fan,	10 x 3.6	Brazil, ...	Steam,	.....	2	12,000	12,000	12,200	30	403
Buhl No. 2,	Shaft, ...	Non-gas.	Fan,	10 x 3.6	Brazil, ...	Steam,	.....	1	8,400	8,400	8,400	.....	110
Buhl No. 3,	Drift, ...	Non-gas.	Furnace,	.....	.....	.....	20	2	8,000	8,000	8,400	25	328
Buhl No. 4,	Drift, ...	Non-gas.	Furnace,	.....	.....	.....	20	2	7,500	7,500	7,500	17	441
Braeburn Steel Co.													
Braeburn,	Drift, ...	Non-gas.	Fan,	4 x 2.5	Capell, ...	Electricity, ..	.....	1	14,000	14,000	14,500	22	648
Keystone Mining Co.													
Brady's Bend,	Drift, ...	Non-gas.	Furnace,	.....	.....	.....	21	2	14,000	14,000	14,900	69	209
Keystone,	Drift, ...	Non-gas.	Furnace,	.....	.....	.....	20	1	6,000	6,000	6,000	23	261
Lewis Coal Co.													
Blackstone,	Drift, ...	Non-gas.	Fan,	12 x 4	Brazil, ...	Steam,	.....	2	22,000	22,000	22,500	66	337
Bagdad Coal & Coke Co.													
Bagdad,	Drift, ...	Non-gas.	Furnace,	.....	.....	.....	17.5	1	8,000	8,000	9,000	49	173
Logansport Coal Co.													
Bethel,	Drift, ...	Non-gas.	Furnace,	.....	.....	.....	24	1	20,000	20,000	20,400	36	561
Peale, Peacock & Kerr, Inc.													
Bloomington No. 9,	Drift, ...	Non-gas.	Fan,	10 x 18	.....	Steam,	.....	2	22,000	22,000	22,000	40	550
Carrier Brothers.													
Carrier,	Drift, ...	Non-gas.	Fan,	4 x 3	.....	Steam,	.....	1	12,000	12,000	12,200	50	242
Erie Coal Mining Co.													
Claytonia,	Drift, ...	Non-gas.	Furnace,	.....	.....	.....	20	1	1,500	1,500	1,500	15	100
Pittsburg Plate Glass Co.													
Creighton,	Drift, ...	Non-gas.	Fan,	20 x 6¼	Guibal, ...	Electricity, ..	.....	2	40,000	40,000	48,000	95	463
Cowansville Mining Co.													
Cowansville,	Drift, ...	Non-gas.	Furnace,	.....	.....	.....	32	1	6,500	6,500	6,500	41	158
Chicora Coal and Coke Co.													
Chicora,	Drift, ...	Non-gas.	Furnace,	.....	.....	.....	20	1	6,600	6,600	6,600	30	220
Cherry Run Coal Mining Co.													
Cherry Run,	Drift, ...	Non-gas.	Furnace,	.....	.....	.....	15	2	15,000	15,000	15,500	34	448
W. F. Clayton.													
Clayton,	Drift, ...	Non-gas.	Furnace,	.....	.....	.....	15	1	3,000	3,000	4,000	10	350
Cornell Coal Co.													
Cornell,	Slope, ...	Gaseous,	Fan,	12 x 4	Brazil, ...	Steam,	.....	2	20,000	20,000	23,000	96	224
Carver Coal Co.													
Carver,	Shaft, ...	Non-gas.	Fan,	10 x 3.5	Brazil, ...	Steam,	.....	2	12,000	12,000	12,000	60	200

TABLE I—Continued.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Hamilton Coal Mining Co.													
Crag Dell,	Drift, ...	Non-gas.	Fan,	7 x 18	Stiem,	Steam,	.....	1	16,000	16,000	18,000	35	486
Catfish Run Coal Co.													
Catfish Run,	Drift, ...	Non-gas.	Furnace,				24	1	6,000	6,000	8,000	37	189
The Allegheny Coal Co.													
Harwick,	Shaft, ...	Gaseous,	Fan,	12 x 8	Capell,	Steam,	.....	2	22,000	22,000	22,000	50	440
Westerman, Filer & Co.													
Diamond No. 1,	Shaft, ...	Non-gas.	Fan,	10 x 3.5	Brazil,	Steam,	.....	2	12,200	12,200	15,000	110	124
Diamond No. 2,	Shaft, ...	Non-gas.	Fan,	10 x 3.5	Brazil,	Steam,	.....	2	9,000	9,000	9,000	85	106
The Hedstrom Coal Mining Co.													
Dutch Hill,	Drift, ...	Non-gas.	Furnace,				20	1	3,500	3,500	3,500	35	100
James W. Ganoe.													
Diamond,	Drift, ...	Non-gas.	Furnace,				24	1	6,500	6,500	6,760	40	166
Darlington Brick & Mining Co.													
Darlington,	Drift, ...	Non-gas.	Furnace,				12	1	2,800	2,800	2,800	17	165
Addison Davidson.													
Davidson,	Drift, ...	Non-gas.	Furnace,				24	1	4,000	4,000	4,000	10	400
P. D. Sherwin.													
Enterprise,	Drift, ...	Non-gas.	Shaft & stack,				.....	2	3,000	3,000	3,000	15	200
Sherwin,	Slope, ...	Non-gas.	Fan,	10 x 3.5	Brazil,	Steam,	.....	1	8,000	8,000	8,740	25	335
Eagle Coal Co., Inc.													
Eagle,	Drift, ...	Non-gas.	Furnace,				24	2	7,200	7,200	10,500	45	197

Wampum Run Coal Co.													
Excelsior No. 4,	Drift, ...	Non-gas.	Fan,	10 x 3.5	Brazil,	Gasoline,		1	9,000	9,000	10,200	65	147
Grove Coal Co.													
Enterprise,	Shaft, ...	Non-gas.	Fan,	6 x 15	Clark,			1	9,000	9,000	9,000	76	118
Fairmount Coal Co.													
Fairmount No. 1,	Drift, ...	Non-gas.	Fans (2),	8 x 15	Clark,	Steam,		2	22,000	22,000	22,000	130	169
Fairmount No. 2,	Drift, ...	Non-gas.	Fan,	6 x 15	Clark,	Steam,		1	8,500	8,500	9,000	60	146
Fairmount No. 4,	Drift, ...	Non-gas.	Fan,	6 x 15	Clark,	Steam,		2	13,000	13,000	13,200	58	226
Evans City Coal Co.													
	Shaft, ...												
Gilpin Coal Co.													
Gilpin,	Drift, ...	Non-gas.	Furnace,				35	2	20,000	20,000	25,000	83	271
Pittsburg Coal Co.													
Glenshaw,	Slope, ...	Non-gas.	Fan,	12 x 4	Vulcan,	Steam,		2	10,500	10,500	11,000	80	134
F. A. Mizener.													
Grant,	Drift, ...	Non-gas.	Fan,	12 x 4	Brazil,	Steam,		2	10,000	10,000	11,000	70	150
Mizener,	Drift, ...	Non-gas.	Furnace,				24		12,000	12,000	13,860	40	646
Leechburg Coal & Coke Co.													
Hill,	Drift, ...	Non-gas.	Furnace,				24	1	10,000	10,000	10,000	47	213
River View,	Drift, ...	Non-gas.	Furnace,				35	2	18,000	18,000	18,700	45	408
McFetridge Brothers.													
Hites,	Drift, ...	Gaseous,	Fan,	12 x 4	Vulcan,	Steam,		2	25,000	25,000	29,700	84	325
Hill Coal Co., Limited.													
Hill,	Drift, ...	Non-gas.	Fan,	10 x 3.5	Brazil,	Steam,		1	15,000	15,000	16,000	70	221
Frank Williams & Co.													
Hillville,	Drift, ...	Non-gas	Furnace,				24	1	6,000	6,000	6,000	30	200
Haddon Coal Co.													
Haddon,	Drift, ...	Non-gas.	Furnace,				22	1	10,000	10,000	12,000	42	262
Hickory Coal Co., Limited.													
Hickory,	Shaft, ...	Non-gas.	Fan,	10 x 3.5	Brazil,	Steam,		1	8,800	8,800	9,000	32	278
Jefferson, Clearfield C. & I. Co.													
Hamilton,	Drift, ...	Non-gas.	Fans (2),	6 x 15	Clark,	Com. air,		4	33,000	33,000	33,000	155	213
Soldier Run No. 1,	Drift, ...	Non-gas.	Fan,	24 x 8	Guibal,	Steam,		5	50,000	50,000	50,000	315	158
Soldier Run No. 2,	Drift, ...	Non-gas.	Fan,	6 x 15	Clark,	Com. air,		2	12,000	12,000	12,000	120	100
Maplewood,	Drift, ...	Non-gas.	Fan,	6 x 15	Clark,	Com. air,		2	18,000	18,000	18,000	97	186
Rathmel,	Drift, ...	Non-gas.	Fan,	6 x 15	Clark,	Com. air,		2	15,750	15,750	16,000	125	127
Sherwood,	Drift, ...	Non-gas.	Fan,	6 x 15	Clark,	Com. air,		1	12,800	12,800	13,000	30	430
Trout Run,	Drift, ...	Non-gas.	Fans (2),	6 x 15	Clark,	Com. air,		4	27,700	27,700	28,000	80	348
Virginia,	Drift, ...	Non-gas.	Fan,	6 x 15	Clark,	Com. air,		3	18,000	18,000	18,000	93	193

TABLE I—Continued.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Pittsburg and Buffalo Co.													
Johnetta No. 1,	Drift,	Non-gas.	Fan,	4 x 3	Capell,	Electricity,		3	20,000	20,000	20,000	90	222
Johnetta No. 2,	Shaft,	Non-gas.											
Pardoe Coal Co.													
"K,"	Drift,	Non-gas.	Fan,	10 x 3.5	Brazil,	Steam,		2	11,000	11,000	11,150	65	170
Pardoe,	Drift,	Non-gas.	Fan,	10 x 3.5	Brazil,	Steam,		3	20,000	20,000	22,000	113	185
American Sheet Steel Co.													
Kirkpatrick,	Drift,	Non-gas.	Furnace,				20	1	12,000	12,000	12,900	20	622
Kittanning Plate Glass Co.													
Kittanning,	Drift,	Non-gas.	Furnace,				15	1	4,500	4,500	5,000	18	264
Turner Coal, Coke & Mining Co.													
Keystone No. 1,	Drift,	Non-gas.	Fan,	8 x 3	Brazil,	Steam,		1	5,500	5,500	5,500	73	75
Keystone No. 2,	Drift,	Non-gas.	Furnace,				24	1	4,500	4,500	4,500	7	643
Kerr Coal Co.													
Kerr No. 1,	Drift,	Non-gas.	Furnace,				14	1	8,000	8,000	8,750	16	523
Kerr No. 8,	Drift,	Non-gas.	Furnace,				30	2	18,000	18,000	19,600	68	276
Lucesco Coal Co.													
Lucesco,	Drift,	Non-gas.	Fan,	6 x 15	Stiem,	Steam,		1					
Ben Franklin Coal Co.													
Metcalf,	Drift,	Non-gas.	Furnace,				21		8,000	8,000	8,400	40	205
Monterey Coal Co.													
Monterey,	Drift,	Non-gas.	Furnace,				24		10,000	10,000	11,150	35	302
Pittsburg Plate Glass Co.													
Mosgrove,	Drift,	Non-gas.	Furnace,				24	2	17,500	17,500	18,000	60	296

Mark Packard.													
Mahoning,	Drift,	Non-gas.	Furnace,				12	1	4,500	4,500	5,000	16	297
Nellie Coal Co.													
Nellie,	Slope,	Non-gas.	Fan,	10 x 3.5	Brazil,	Steam,		1	15,000	15,000	15,000	60	506
Penn'a Salt Mfg. Co.													
Natrona No. 1,	Drift,	Non-gas.	Fan,	16 x 4	Brazil,	Steam,		3	28,000	28,000	28,000	145	193
Natrona No. 2,	Drift,	Non-gas.	Fan,	12 x 3	Brazil,	Electricity,		1	20,000	20,000	20,000	25	800
C. P. McCafferty.													
Monarch,	Drift,	Non-gas.	Fan,	8 x 3	Brazil,	Steam,		1	9,500	9,500	10,000	55	177
Oak Ridge Mining Co.													
Oak Ridge No. 3,	Drift,	Non-gas.	Fan,	6 x 15	Clark,	Steam,		2	20,000	20,000	21,000	140	146
Oak Ridge No. 5,	Drift,	Non-gas.	Fan,	6 x 15	Clark,	Steam,		2	12,000	12,000	12,000	36	333
Ellis, Blum Co.													
Oceanica,	Drift,	Non-gas.	Fan,										
Pine Run Coal & Coke Co.													
Pine Run No. 1,	Drift,	Non-gas.	Furnace,				35	2	19,000	19,000	19,500	35	550
Pine Run No. 2,	Drift,	Non-gas.	Furnace,				12	1	6,000	6,000	6,000	22	273
The Pollock Coal and Lime Co.													
Pollock,	Drift,	Non-gas.	*										
N. Y. & Cleveland Gas Coal Co.													
Plum Creek,	Drift,	Non-gas.	Furnace,				60	5	40,000	40,000	40,000	175	228
Sandy Creek,	Drift,	Non-gas.	Furnace,				36	4	23,500	23,500	23,600	170	138
Royle Coal Co.													
Royle,	Drift,	Non-gas.	Furnace,				24	1	11,000	11,000	11,850	21	544
George E. Tener.													
Rock Point,	Drift,	Non-gas.	Furnace,				24	2	6,000	6,000	7,200	40	165
Riverview Coal Mining Co., Ltd.													
Riverview,	Drift,	Non-gas.	Fan,	16 x 5	Scottdale,	Steam,		2	20,000	20,000	21,600	127	164
Roaring Run Coal & Coke Co.													
Roaring Run,	Drift,	Non-gas.	Furnace,				24	1	8,000	8,000	8,150	40	202
George G. Stage.													
Stage,	Drift,	Non-gas.	Furnace,				20	2	9,000	9,000	9,500	25	370
Mercer Iron and Coal Co.													
Stoneboro No. 3,	Slope,	Non-gas.	Fan,	10 x 3.5	Brazil,	Steam,		2	10,000	10,000	12,000	110	100
Sterling Mining Co.													
Sterling,	Drift,	Non-gas.	Fan,	10 x 3.5	Brazil,	Steam,		1	12,000	12,000	12,000	27	444

*Power not installed.

TABLE I—Continued.

Names of Operators and Mines.	Kind of openin,	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Standard Coal Mining Co. Standard,	Drift,	Non-gas.	Furnace,				20	2	9,500	9,500	9,600	37	258
Campbell, Lowther Coal Co. Standard,	Drift,	Non-gas.	Furnace,				15	1	4,000	4,000	4,500	35	121
Sterling Coal Co. Sterling,	Drift,	Non-gas.	Furnace,				17.5	1	5,000	5,000	7,830	42	152
Sligo Coal Mining Co. Sligo,	Drift,	Non-gas.	Furnace,				24	1	6,000	6,000	8,000	25	280
State Line Coal Co. State Line,	Drift,	Non-gas.	Fan,	12 x 4	Brazil,	Steam,		2	36,000	36,000	36,000	104	346
Shenango Coal Co. Shenango,	Shaft,	Non-gas.	Exhaust steam,					2	5,000	5,000	5,000	46	108
Thompson Run Coal Co. Thompson Run,	Drift,	Non-gas.	Fan,	6 x 15	Clark,	Gasoline,		2	10,000	10,000	10,800	80	130
Underwood Mining Co. Underwood,	Drift,	Non-gas.											
Valley Coal Co. Valley,	Drift,	Non-gas.	Fan,	10 x 3.5	Brazil,	Steam,		3	12,000	12,000	12,000	34	353
West Penn Mining Co. West Penn,	Drift,	Non-gas.	Furnace,				28	2	16,000	16,000	20,000	43	419

The Wahlville Coal Co.															
Wahlville No. 1,	Shaft,	Non-gas.	Fan,	10 x 3.5	Brazil,	Steam,		2	15,000	15,000	16,000	68	229
Wahlville No. 2,	Drift,	Non-gas.	Fan,	10 x 3.5	Brazil,	Steam,		1	16,000	16,000	18,000	11	1,645
Wm. K. Hamilton.													
Wildwood,	Drift,	Non-gas.	Furnace,				12		1,200	1,200	1,200	9	133
Brier Hill Block Coal Co.													
Brier Hill Block Coal,	Shaft,	Non-gas.	Exhaust steam.					2	4,200	4,200	4,200		210

J. Names of mines using coal cutting machines, names of machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines during 1902.

	Kind of opening.	Gaseous or non-gaseous.	Name and number of machines in use.								Total machines used.	Power used by machines.	Geological and local name of seam.	Average thickness in inches.	Height of seam in Inches.		Approximate number of tons produced by machines.
			Ingersol.	Sullivan.	Harrison.	Jeffrey.	Morgan-Gardner.	Goodman.	Brown.	Link Belt.					Thickest.	Thinnest.	
Acme,	Drift,	Non-gaseous	....	4	....	....	....	....	....	....	4	Compressed air,	Lower Kittanning, Bed B,	47	54	40	9,284
Beale,	Drift,	Non-gaseous	1	6	2	....	....	....	....	....	9	Compressed air,	Upper Freeport, Bed E,	41	42	40	30,806
Beaver Nos. 1 and 2,	Drift,	Non-gaseous	11	....	....	....	....	....	....	....	11	Compressed air,	Upper Kittanning or Darlington,	36	36	36	23,260
Buhl Nos. 1 and 2,	Shafts,	Non-gaseous	....	....	10	....	....	....	....	....	10	Compressed air,	Brookville, Bed A,	43	50	36	49,150
Brady's Bend,	Drift,	Non-gaseous	....	....	....	3	....	....	....	....	3	Electricity,	Lower Kittanning, Bed B,	38	42	34	40,000
Bloomington No. 9,	Drift,	Non-gaseous	2	....	....	....	....	....	....	....	2	Compressed air,	Lower Freeport, Bed D,	66	66	66	22,000
Carrier,	Drift,	Non-gaseous	....	1	5	....	....	....	....	....	6	Compressed air,	Brookville, Bed A,	43	48	38	42,000
Creighton,	Drift,	Non-gaseous	....	....	....	2	....	....	....	....	2	Electricity,	Upper Freeport, Bed E,	72	84	60	47,564
Cherry Run,	Drift,	Non-gaseous	....	....	6	....	....	....	....	....	6	Compressed air,	Lower Kittanning, Bed B,	40	42	38	10,000
Crag Dell,	Drift,	Non-gaseous	....	6	....	....	....	....	....	....	6	Compressed air,	Upper Freeport, Bed E,	42	42	42	16,000
Dutch Hill,	Drift,	Non-gaseous	....	10	....	....	....	....	....	....	10	Compressed air,	Lower Kittanning, Bed B,	35	36	34	29,569
Sherwin,	Slope,	Non-gaseous	....	....	....	2	....	....	....	....	2	Electricity,	Upper Kittanning, Bed C,	35	36	34	8,000
Eagle,	Drift,	Non-gaseous	....	4	1	....	....	....	....	....	5	Compressed air,	Lower Kittanning, Bed B,	37	38	36	41,749
Fairmount Nos. 1, 2 and 4,	Drift,	Non-gaseous	....	10	27	....	....	....	....	....	37	Compressed air,	Upper Freeport, Bed E,	42	44	40	144,009
Fairmount No. 2,	Drift,	Non-gaseous	....	....	....	....	....	....	....	....	....	Compressed air,	Lower Freeport, Bed D,	54	60	48	.....
Grant,	Drift,	Non-gaseous	....	5	....	....	....	....	....	....	5	Compressed air,	Upper Kittanning, Bed C,	37	38	36	10,125
Johnetta No. 1,	Drift,	Non-gaseous	....	8	....	4	....	1	....	....	13	Elec. & com. air	Upper Freeport, Bed E,	33	36	30	88,000
Johnetta No. 2,	Shaft,	Non-gaseous	....	2	....	....	....	....	....	....	2	Compressed air,	Lower Kittanning, Bed C,	35	36	34	3,700
Mosgrove,	Drift,	Non-gaseous	....	....	....	4	....	....	....	....	4	Electricity,	Upper Freeport, Bed E,	44	48	40	21,000
Natrona Nos. 1 and 2,	Drift,	Non-gaseous	....	19	....	....	....	....	....	....	19	Compressed air,	Upper Freeport, Bed. E,	36	36	36	179,978
Monarch,	Drift,	Non-gaseous	....	6	....	....	....	....	....	....	6	Compressed air,	Lower Kittanning, Bed B,	41	42	40	48,902
Oak Ridge Nos. 3 and 5,	Drift,	Non-gaseous	1	12	1	....	....	....	....	....	14	Compressed air,	Upper Freeport, Bed E,	43	44	42	102,400
Oceanica,	Drift,	Non-gaseous	....	....	2	....	....	....	....	....	2	Compressed air,	Brookville, Bed A,	41	42	40	1,400
Royle,	Drift,	Non-gaseous	....	....	3	....	....	....	....	....	3	Compressed air,	Brookville, Bed A,	38	40	36	1,500
Riverview,	Drift,	Non-gaseous	....	5	....	....	....	....	....	....	5	Compressed air,	Lower Kittanning, Bed B,	43	48	38	38,727
Sligo,	Drift,	Non-gaseous	....	3	....	....	....	....	....	....	3	Compressed air,	Lower Kittanning, Bed B,	42	48	36	15,000
Harwick, formerly Cheswick,	Shaft,	Gaseous,	....	10	....	....	....	....	....	....	10	Compressed air,	Upper Freeport, Bed E,	78	78	78	37,468
Hamilton,	Drift,	Non-gaseous	....	1	19	....	....	....	....	....	20	Compressed air,	Lower Freeport, Bed D,	69	72	66	750,724
Soldier Nos. 1 and 2,	Drift,	Non-gaseous	2	2	50	....	....	....	....	....	54	Compressed air,	Lower Freeport, Bed D,	69	72	66	.....

Maplewood,	Drift,	Non-gaseous	2	4	5	....	....	....	11	Compressed air,	Lower Freeport, Bed D,	69	72	66	135,800
	Drift,	Non-gaseous	2	....	7	....	....	....	9	Compressed air,	Lower Freeport, Bed D,	64	78	50	100,100
Rathmel,	Drift,	Non-gaseous	....	....	2	....	....	....	2	Compressed air,	Lower Freeport, Bed D,	64	78	50	24,453
Sherwood,	Drift,	Non-gaseous	....	4	10	....	....	....	14	Compressed air,	Lower Freeport, Bed D,	57	60	54	34,730
Trout Run,	Drift,	Non-gaseous	....	9	2	....	....	....	11	Compressed air,	Lower Freeport, Bed D,	60	60	60	125,954
Virginia,	Drift,	Non-gaseous	....	....	....	1	....	....	1						
Totals,			20	131	152	1	....	....	320						1,264,956

The names of persons granted mine foremen's certificates of competency of the second grade in the year 1902, are as follows:

Thomas Mathieson, Rees Davies, Seth B. Keefer, John B. Foringer, William Bowden, William Summers, James Rigby, John Hause, Mike McCullough, Wm. T. Magee and Angus L. Walker.

Description of New Mines Opened During the Year 1902 in this District.

Annandale No. 2 is a drift opening situated two and one-half miles from Annandale, Butler Co., and is operated by the Butts Cannel Coal Co. The company began to ship coal from this mine on the 24th of October, 1902. The coal seam is from 5.5 feet to 6 feet thick and is known as the Brookville and Clarion double bed. An air shaft has been sunk and a ventilating furnace built, and a second opening nearly completed. I measured about 7,500 cubic feet of air in circulation and found the mine in very fair condition.

Wildwood is a drift opening situated near Annandale and operated by W. K. Hamilton. The mine is opened on Brookville and Clarion double coal bed and it is about 4.5 feet thick. It is ventilated by a small furnace, which is not producing much air.

Bethel is a drift mine opening situated near Logansport, Armstrong Co., and operated by the Logansport Coal Co. The first coal was shipped in June. The Upper Freeport coal bed, three and one-fourth feet thick, is being mined here. The tipple (built of steel and equipped with a Phillips dump) is connected with the mine by a 300 foot inclined plane, and the mine cars are lowered to it by a cable which is run over two horizontal sheaves, with a break attachment. A ventilating furnace has been built, an air shaft sunk, and a second opening provided. I measured about 20,000 cubic feet of air in circulation in the mine which was well distributed throughout the workings. The mine is to be worked on the double entry plan. A mining machine plant has been installed, which consists of a 100 horse power tube boiler, an Ingersoll-Sergeant compressor and three Ingersoll mining machines.

Shenango Mine.—This shaft is 56 feet in depth, which has been sunk to the Brookville coal bed. The mine is situated on the Bessemer and Lake Erie R. R., about three miles from Grove City, Mercer Co., and is operated by the Shenango Coal Co. The first shipment of coal was made in May. A slope has been sunk to the coal seam for the purpose of a second opening. I measured 5,000 cubic feet of air in circulation, which was sufficient for the number of persons employed.

Beaver No. 2 mine is opened on the Dartington coal bed, which is three feet thick This drift opening is situated near Wampum, Law-

rence Co., and is operated by the Beaver Coal and Coke Co. It is ventilated by a fan which is producing 12,000 cubic feet of air. The company began shipping coal about June 1st. The ventilation was good, but the drainage was poor.

Pollock mine is the old Underwood mine, situated near Parker, Clarion Co., but it is now owned by the "Pollock Lime and Coal Co."

Underwood mine is a drift opening, situated near Sligo, Clarion Co., and is operated by the Underwood Mining Co. The company began to ship coal during December. The Lower Kittanning seam is being mined. The ventilating furnace was not built at the time of my visit to the mine, hence the ventilation was not good.

Chicora Mine.—This drift opening is situated near Chicora, Butler Co., and is operated by the Chicora Coal and Coke Co. The mine is opened on the Upper Freeport Coal bed which is three feet eight inches thick. A ventilating furnace has been built, and an air shaft sunk. I measured 6,600 cubic feet of air in circulation. The ventilation and drainage were reasonably good.

Hill mine is situated on the West Pennsylvania Railroad in Westmoreland Co., and is operated by the Leechburg Coal and Coke Co. The coal bed being mined is the Upper Freeport and the company began to ship from this mine in March. A ventilating furnace has been built and an air shaft sunk and a second opening provided. This ventilating furnace was producing 10,000 cubic feet of air per minute.

Hedstrom or Dutch Hill mine is merely the old Brinker mine, but now operated by The Hedstrom Coal Mining Co. The mine was in very fair condition generally at my last visit.

The Claytonia mine is a small operation situated near Claytonia, Butler Co., and operated by the Erie Coal Mining Co. It was not in very good condition at the time of my visit to it.

Johnetta No. 2 is a shaft opening which was sunk to a depth of 102 feet to the Lower Kittanning coal bed, and is operated by the Pittsburgh and Buffalo Co., and situated at White Rock, Armstrong Co. The coal bed is 2′ x 11″ thick and is being mined by mining machines. At my visit the workings were still near the bottom of the shaft. The ventilating fan had not yet been installed, so the means for ventilation was by utilizing the compressed air from the mining machines.

The Mahoning mine has been re-opened and is now operated by Mark Packard. The ventilation and drainage were reasonably good.

The Kittanning Plate Glass mine is a drift opening, situated near Kittanning, Armstrong Co., and is operated by the Kittanning Plate Glass Co. All of the product of this mine is used at the company's glass works at Kittanning. The ventilation was fair, but the drainage poor.

The Trout Run mine is a drift opening situated about three miles from Reynoldsville, Jefferson Co., and is operated by the Jefferson-

Clearfield Coal and Iron Co. The Lower Freeport Coal bed is being worked, which is about 5 feet thick. Four parallel entries are being driven into the body of a 2,000 acre coal property, and double entries will be driven from these, and each division of work will be ventilated separately by a split of air. Several overcasts have been built to accomplish this purpose. Very large pillars of coal are being left between the entries, this being rendered necessary owing to much of the overlying strata being sand rock. Two fans of the Clark type are at present producing the ventilation of the mine, but the manager contemplates erecting a large sized Capell fan in the near future. The coal is being mined by Ingersoll mining machines and an Ingersoll compressor furnishes the power to operate them. An electric plant has been installed here also. Two eight ton electric motors are to be used to gather the coal to the sidings in the mine, and a fifteen ton motor will haul the coal cars from thence to the tipple outside. Six (100 H. P. each) boilers furnish the steam power for the different plants. For creating the draft for the boilers, a single iron stack with a small force fan at the bottom of it has been provided. For the expeditious handling of the coal at the tipple a Philips dump has been provided.

Oceanica Mine.—This is a drift opening situated near Hilliard, Butler Co., and operated by the Ellis, Blum Co. The company has but recently begun to ship coal.

The Butler mine is a drift opening, situated near Jamisonville, Butler Co., and operated by the Butler Coal and Coke Co. The company began to ship coal from this mine last November. The mine was in very fair condition generally.

Evans City mine is a shaft mine 112 feet deep, situated at Evans City, Butler Co., and operated by the Evans City Coal Co. The company began to ship coal from this mine in November. At the date of my visit I could not get down the shaft to examine the workings, owing to operations having been suspended for a week for the purpose of giving time to put in the cages and guides in the shaft.

The Fairmount Nos. 3, 5 and 8 are drift openings operated by the Fairmount Coal Co., and are situated in Armstrong county, but as they were only opened near the close of the year they were not visited by me.

The Brier Hill Block Coal Co.'s mine is a shaft opening forty-five feet deep. It has been sunk to the Sharon block coal. It will be a small operation. The mine is ventilated by exhaust steam, and is situated in Hickory township, Mercer county.

Description of Old Mines.

Mines Located Along the West Penn R. R.

There are twenty-four mines being operated along this railroad, and are producing coal from the Upper Freeport coal bed, except at the Avonmore mine, which is opened on the Pittsburg seam. Some of these mines are worked on the double entry system, but a majority of them are still worked on the single entry and air course plan. Eleven of these mines are ventilated by fans and thirteen of them by furnaces. All have a lawful volume of air in circulation in the workings, and the drainage at all of them, as a rule, is very good. The production of coal in this region was very much reduced during the year owing to there being a strike, lasting from three weeks at a few of the mines to as long as three and four months at others. To add to this, very inadequate shipping facilities were provided by the railroad company during the year. In fact some of the mines would be idle for days for want of cars.

Mines Situated Along the Buffalo and Allegheny Valley Railroad.

There are twenty-two mines situated along this railroad. The coals are being taken from the Pittsburg, Upper Freeport and the Lower Kittanning coal beds. This region was entirely free from labor troubles during the year and all of the mines would have been operated at full time had there been sufficient means of transportation provided by the railroad company. Therefore much broken time was experienced at the mines. At fifteen of them furnaces are used as the ventilating powers, and at seven fans are used for the same purpose. On the whole the mines here were all supplied with a lawful quantity of air, with possibly two exceptions, but at some of them the method used in conveying the air currents to the face of the workings was faulty. The drainage at nearly all of these mines was reasonably good.

Mines Located in the Reynoldsville Region and Along the Low Grade Division of the B. and A. V. R. R.

There are twenty-four mines situated in this division of the district and the coals being produced here are taken from the Upper Freeport, Lower Freeport and the Lower Kittanning coal beds, and all are drift openings, except the two Soldier Run mines. There has been no strike among the workingmen in this region during the year and the only idle time experienced has been due to the lack of railroad cars. Sixteen of these mines are ventilated by fans and seven

by furnaces, and one had no ventilating power. This latter mine has just been opened and the company has not had time to complete the ventilating arrangements.

All of these mines have a sufficient quantity of air, but the method of conducting it to the active workings in a few of them is defective. The drainage at a few of the mines was defective but taken as a whole they are in very good condition.

Mines Situated in Butler County, Etc.

There are twenty-four mines (which includes the Glenshaw mine of Allegheny county and the Cowansville mine of Armstrong county). in this part of the district. There has been no trouble between the employers and their employes in this region during the year, hence the mines have been operated reasonably well. Fourteen are ventilated by furnaces, eight by fans and at two of them the ventilating power has not yet been provided. Only at three of the mines did I find an insufficient quantity of air circulating at the inner workings. The coal beds being worked in this division are the Upper Freeport, Upper Kittanning and the Brookville-Clarion double seams. These coal seams are reached by twenty drift openings, three slopes and one shaft.

Mines in Beaver, Lawrence and Mercer Counties.

There are twenty-three mines in this portion of this district. They are opened on the Brookville, Upper Freeport and Upper Kittanning coal beds. There are thirteen drift openings, nine shafts and one slope in this region. Seventeen of these mines are ventilated by fans, five by furnaces and one by exhaust steam from the pumps. I found at four of them that the volume of air was not sufficient at the face of the workings and at seven the roads, at certain points in them, were wet and muddy. At the State Line and Sterling mines there was a strike among the workingmen which lasted four to five months during the year, but the mines as a whole have been operated very steadily.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Third Bituminous District for the year 1902.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Acme Coal Mining Co.						
Acme,	Clarion,	H. C. Burket,	Greensburg,	J. P. Woodmansee,	Rimersburg,	Sligo Branch of L. G. Div. of B. & A. V.
Avondale Mining & Mfg. Co.						
Avondale,	Clarion,	H. C. Burket,	Greensburg,	J. P. Woodmansee,	Rimersburg,	L. G. Div. of B. & A. V.
Joseph G. Beale & Co.						
Aladdin,	Armstrong,	Jos. G. Beale,	Leechburg,	E. H. Beale,	Leechburg,	Buffalo and Allegheny Valley.
Avonmore Coal and Coke Co.						
Avonmore,	Armstrong,			L. W. Hicks,	Leechburg,	West Penn.
Allegheny Coal & Coke Co.						
Avenue,	Allegheny,			N. S. Hicks,	Leeehburg,	West Penn.
Anderson Run Coal Co.						
Anderson Run,	Jefferson,	F. L. Verstine,	Brookville,	D. F. Hibbard,	Brookville,	L. G. Div. of B. & A. V.
Butts Cannel Coal Co.						
Butts,	Beaver,			George Gould,	Boyer,	Pitts., Ft. Wayne and Chicago.
Annandale No. 1,	Butler,			George Gould,	Boyer,	Hilliard Branch of Bessemer & Lake Erie.
Annandale No. 2,	Butler,			George Gould,	Boyer,	Hilliard Branch of Bessemer & Lake Erie.
Joseph G. Beale & Co.						
Beale,	Armstrong,	Jos. G. Beale,	Leechburg,	Harry W. Beale,	Leeehburg,	West Penn.
Brackenridge Coal Co.						
Brackenridge,	Allegheny,	N. S. Hicks,	Leeehburg,	N. S. Hicks,	Leeehburg,	West Penn.
Logansport Coal Co.						
Bethel,	Armstrong,	Robert C. McLean,	Logansport,	Robt. C. McLean,	Logansport,	Buffalo and Allegheny Valley.
Peale, Peacock & Kerr, Inc.						
Bloomington No. 9,	Jefferson,	Alex Dunsmore,	Glen Richey,	Geo. Snedden,	Rathmel,	Falls Creek and Reynoldsville Branch of B., R. and P.
Beaver Coal and Coke Co.						
Beaver Nos. 1 and 2,	Lawrence,			H. K. Hartsuff, Jr.	Wampum,	Erie and Pittsburg.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Sharon Coal and Limestone Co.						
Buhl No. 1,	Mercer,	T. B. DeArmit,	Grove City,	John Marshall,	R. F. D. No. 2, Volant.	Pa. Branch of W. N. Y. & Pa.
Buhl No. 2,	Lawrence,	T. B. DeArmit,	Grove City,	C. H. Oakes,	R. F. D. No. 2, Volant.	Pa. Branch of W. N. Y. & Pa.
Buhl No. 3,	Butler,	T. B. DeArmit,	Grove City,	M. W. Jenkins,	Slippery Rock,	Pa. Branch of W. N. Y. & Pa.
Buhl No. 4,	Butler,	T. B. DeArmit,	Grove City,	M. W. Jenkins,	Slippery Rock,	Pa. Branch of W. N. Y. & Pa.
Keystone Mining Co.						
Brady's Bend,	Armstrong,	George E. Henry,	East Brady,	John Henry,	East Brady,	Buffalo and Allegheny Valley.
Keystone,	Clarion,	George E. Henry,	East Brady,	John Henry,	East Brady,	Sligo Branch of B. & A. V.
Lewis Coal Co.						
Blackstone,	Westmoreland,	Alfred Hicks,	Leechburg,	N. S. Hicks,	Leechburg,	West Penn.
Bagdad Coal and Coke Co.						
Bagdad,	Armstrong,	Alfred Hicks,	Leechburg,	N. S. Hicks,	Leechburg,	West Penn.
Braeburn Steel Co.						
Braeburn,	Westmoreland,	Wm. Beane,	Braeburn,	Wm. Beane,	Braeburn,	Buffalo and Allegheny Valley.
Butler Coal and Coke Co.						
Butler,	Butler,	M. R. Shaner,	Butler,	J. P. Fleeger,	R. F. D. No. 1, Butler.	Bessemer and Lake Erie.
Carrier Brothers.						
Carrier,	Jefferson,			C. E. Carrier,	Summerville,	L. G. Div. of B. & A. V.
Erie Coal Mining Co.						
Claytonia,	Butler,			Mason Mizener,	Hilliard,	Bessemer and Lake Erie.
Pittsburg Plate Glass Co.						
Creighton,	Allegheny,	J. K. Johnston,	Charlerol,	Chas. O. Emerson,	Creighton,	West Penn.
Cowansville Mining Co.						
Cowansville,	Armstrong,	H. M. Gibb,	Cowansville,	H. M. Gibb,	Cowansville,	B., R. and P.
Chicora Coal and Coke Co.						
Chicora,	Butler,			P. A. Jordan,	Chicora,	P. and W. Branch of B. & O.
Cherry Run Coal Mining Co.						
Cherry Run,	Clarion,	Chas. Andrews,	561 E. Church st., Elmira, N. Y.	E. N. Miller,	Huey,	Sligo Branch of B. and A. V.

W. F. Clayton.						
Clayton,	Beaver,			W. F. Clayton,	Beaver Falls,	Pitts., Ft. Wayne and Chicago.
Cornell Coal Co.						
Cornell,	Allegheny,			W. A. Iseman,	Freeport,	West Penn.
Carver Coal Co.						
Carver,	Mercer,	Robt. P. Cann,	Stoneboro,	George Young,	Stoneboro,	Branch of L. S. and M. S.
Hamilton Coal Mining Co.						
Crag Dell,	Westmoreland,			H. W. Boyd,	Tarentum,	Buffalo and Allegheny Valley.
Catfish Run Coal Co.						
Catfish Run,	Clarion,			C. J. Tighe,	Catfish,	Buffalo and Allegheny Valley.
Allegheny Coal Co.						
Harwick,	Allegheny,	Geo. H. Scheetz,	Cheswick,	Wilfred Sowden,	Cheswick,	West Penn.
Westerman, Filer & Co.						
Diamond No. 1,	Mercer,	Enoch Filer,	Sharon,	F. P. Filer,	Mercer,	Bessemer and Lake Erie.
Diamond No. 2,	Mercer,	Enoch Filer,	Sharon,	F. P. Filer,	Mercer,	Bessemer and Lake Erie.
The Hedstrom Coal Mining Co.						
Dutch Hill,	Clarion,	E. C. Roberts,	304 Ellicott Sq., Buffalo, N. Y.	Adam Murray,	Dutch Hill,	Buffalo and Allegheny Valley.
James W. Ganoe.						
Diamond,	Clarion,			James W. Ganoe,	Phillipston,	Buffalo and Allegheny Valley.
Darlington Brick & Mining Co						
Darlington,	Beaver,			H. S. Miller,	Darlington,	Pitts., Marion and Chicago Ry.
Addison Davidson.						
Davidson,	Beaver,			Addison Davidson,	Beaver Falls,	Pitts., Ft. Wayne and Chicago.
P. D. Sherwin.						
Enterprise,	Butler,			P. D. Sherwin,	Karns,	P. and W. Branch of B. and O.
Sherwin,	Butler,			P. D. Sherwin,	Karns,	P. and W. Branch of B. and O.
Eagle Coal Co. Inc.						
Eagle,	Clarion,			M. A. Lehner,	West Monterey,	Buffalo and Allegheny Valley.
Wampum Run Coal Co.						
Excelsior No. 4,	Lawrence,	Matthew Gunton,	Wampum,	C. M. Harvey,	Wampum,	Erie and Pittsburg.
Fairmount Coal Co.						
Fairmount No. 1,	Armstrong,	E. C. Roberts,	Buffalo, N. Y.,	E. H. Lace,	New Bethlehem,	L. G. Div. of B. & A. V.
Fairmount No. 2,	Armstrong,	E. C. Roberts,	Buffalo, N. Y.,	E. H. Lace,	New Bethlehem,	L. G. Div. of B. & A. V.
Fairmount No. 3,	Armstrong,	E. C. Roberts,	Buffalo, N. Y.,	E. H. Lace,	New Bethlehem,	L. G. Div. of B. & A. V.
Fairmount No. 4,	Armstrong,	E. C. Roberts,	Buffalo, N. Y.,	E. H. Lace,	New Bethlehem,	L. G. Div. of B. & A. V.
Fairmount No. 5,	Armstrong,	E. C. Roberts,	Buffalo, N. Y.,	E. H. Lace,	New Bethlehem,	L. G. Div. of B. & A. V.
Fairmount No. 8,	Armstrong,	E. C. Roberts,	Buffalo, N. Y.,	E. H. Lace,	New Bethlehem,	L. G. Div. of B. & A. V.
Evans City Coal Co.						
Evans City shaft,	Butler,			Andrew Wahl,	Evans City,	P. & W. Branch of B. & O.

TABLE I—Continued.

Names of Operators and Collieries.	County	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Grove Coal Co.						
Enterprise,	Mercer,	I. V. Morris,	Cleveland, O.,	D. D. Morris,	Grove City,	Bessemer and Lake Erie.
Gilpin Coal Co.						
Gilpin,	Armstrong,			L. W. Hicks,	Leechburg,	West Penn.
Pittsburg Coal Co.						
Glenshaw,	Allegheny,	G. W. Schlueder-berg.	Pittsburg,			P. & W. Branch of B. & O.
F. A. Mizener.						
Grant,	Butler,			Mason Mizener,	Hilliard,	Bessemer and Lake Erie.
Mizener,	Butler,			Alex Skiner,	Hilliard,	Hilliard Branch of B. & L. E.
American Sheet Steel Co.						
Kirkpatrick,	Armstrong,			Oscar Lendquest,	Leechburg,	West Penn.
Kittanning Plate Glass Co.						
Kittanning,	Armstrong,			J. T. Keller,	Kittanning,	Buffalo and Allegheny Valley.
Turner, Coal, Coke and Mining Co.						
Keystone Nos. 1 and 2,	Butler,	J. L. Turner,	Ferris,	J. L. Turner,	Ferris,	Hilliard Branch of B. & L. E.
Kerr Coal Co.						
Kerr No. 1,	Armstrong,	R. A. Stiem,	Kittanning,	R. A. Stiem,	Kittanning,	West Penn.
Kerr No. 8,	Butler,	R. A. Stiem,	Kittanning,	R. A. Stiem,	Kittanning,	West Penn.
Lucesco Coal Co.						
Lucesco,	Westmoreland,	J. Howard Patton,	Greensburg,	J. Howard Patton,	Greensburg,	Buffalo and Allegheny Valley.
Ben Franklin Coal Co.						
Metcalf,	Westmoreland,	R. A. Stiem,	Kittanning,	R. A. Stiem,	Kittanning,	Buffalo and Allegheny Valley.
Monterey Coal Co.						
Monterey,	Clarion,	Alfred Hicks,	Pittsburg,	A. J. Walton,	West Monterey,	Buffalo and Allegheny Valley.
Pittsburg Plate Glass Co.						
Mosgrove,	Armstrong,	Jesse K. Johnston,	Charlerol,	Wm. L. Affelder,	Mosgrove,	Buffalo and Allegheny Valley.
Mark Packard.						
Mahoning,	Armstrong,			E. Marshall,	Mahoning,	Buffalo and Allegheny Valley.

Nellie Coal Co.						
Nellie,	Butler,	C. B. McFarlin,	Argentine,	Chas. Whitlatch,	Argentine,	Hilliard Branch of B. & A. V.
Penn'a Salt Mfg. Co.						
Natrona Nos. 1 and 2,	Allegheny,	E. E. Armstrong,	Natrona,	James Boustead,	Natrona,	West Penn.
C. P. McCafferty.						
Monarch,	Clarion,			C. P. McCafferty,	East Brady,	Buffalo and Allegheny Valley.
Oak Ridge Mining Co.						
Oak Ridge Nos. 3 and 5,	Armstrong,			Henry Williams,	Oak Ridge,	L. G. Div. of B. & A. V.
Jefferson-Clearfield Coal and Iron Co.						
Hamilton,	Jefferson,	L. W. Robinson,	Punxsutawney,	John Reed,	Reynoldsville,	Falls Creek and Reynoldsville Branch of B., R. & P.
Maplewood,	Jefferson,	L. W. Robinson,	Punxsutawney,	John Reed,	Reynoldsville,	Falls Creek and Reynoldsville Branch of B., R. & P.
Rathmel,	Jefferson,	L. W. Robinson,	Punxsutawney,	John Reed,	Reynoldsville,	Falls Creek and Reynoldsville Branch of B., R. & P.
Soldier Run Nos. 1 and 2,	Jefferson,	L. W. Robinson,	Punxsutawney,	John Reed,	Reynoldsville,	Falls Creek and Reynoldsville Branch of B., R. & P.
Sherwood,	Jefferson,	L. W. Robinson,	Punxsutawney,	John Reed,	Reynoldsville,	Falls Creek and Reynoldsville Branch of B., R. & P.
Trout Run,	Jefferson,	L. W. Robinson,	Punxsutawney,	John Reed,	Reynoldsville,	Falls Creek and Reynoldsville Branch of B., R. & P.
Virginia,	Jefferson,	L. W. Robinson,	Punxsutawney,	John Reed,	Reynoldsville,	Falls Creek and Reynoldsville Branch of B., R. & P.
Leechburg Coal and Coke Co.						
Hill,	Westmoreland,	Alfred Hicks,	Leechburg,	N. S. Hicks,	Leechburg,	West Penn.
Riverview,	Westmoreland,	Alfred Hicks,	Leechburg,	N. S. Hicks,	Leechburg,	West Penn.
Haddon Coal Co.						
Haddon,	Armstrong,	Alfred Hicks,	Leechburg,	N. S. Hicks,	Leechburg,	West Penn.
Frank Williams & Co.						
Hillville,	Clarion,			Henry Williams,	Oak Ridge,	Buffalo and Allegheny Valley.
McFetridge Brothers.						
Hites,	Allegheny,	G. H. McFetridge,	Hites,	G. H. McFetridge,	Hites,	West Penn.
Hickory Coal Co., Limited.						
Hickory,	Mercer,	Joseph Davis,	Youngstown, O.	Joseph Davis,	Youngstown, O.,	W. N. Y. & Pa.
Hill Coal Co., Limited.						
Hill,	Mercer,			William Jenkins,	Jackson Centre,	W. N. Y. & Pa.
Pittsburg and Buffalo Co.						
Johnetta Nos. 1 and 2,	Armstrong,	Harry P. Jones,	Cannonsburg,	Jas. B. Hayward,	Johnetta,	Buffalo and Allegheny Valley.
Pardoe Coal Co.						
"K"	Mercer,			E. L. Filer,	Pardoe,	Bessemer and Lake Erie.
Pardoe,	Mercer,			E. L. Filer,	Pardoe,	Bessemer and Lake Erie.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Ellis, Blum Co. Oceanica,	Butler,			Geo. W. Bird,	Hilliard,	Hilliard Branch of B. & L. E.
Pine Run Coal and Coke Co. Pine Run Nos. 1 and 2,	Westmoreland,			L. W. Hicks,	Leechburg,	West Penn.
N. Y. & C. Gas Coal Co. Plum Creek,	Allegheny,	Geo. Z. Hosack,	820 Penn ave., Pittsburg.	Hugh Demming,	Unity,	Plum Creek Bch. of B. & A. V.
Sandy Creek,	Allegheny,	Geo. Z. Hosack,		Wm. Fisher,	White Ash,	Sandy Creek Bch. of B. & A. V.
The Pollock Coal & Lime Co. Pollock,	Clarion,			H. W. Slaughenhoups.	Pollock,	Buffalo and Allegheny Valley.
Royle Coal Co. Royle,	Butler,			R. E. Royle,	Hilliard,	Hilliard Branch of B. & L. E.
Geo. E. Tener. Rock Point,	Lawrence,			Wm. Brown,	Wampum,	P. & W. Branch of B. & O.
Riverview Coal Mining Co. Riverview,	Armstrong,	W. J. Dunham,	Buffalo, N. Y.,			Buffalo and Allegheny Valley.
Roaring Run Coal & Coke Co. Roaring Run,	Westmoreland,			John McKeever,	Apollo,	West Penn.
Geo. G. Stage. Stage,	Butler,			Geo. G. Stage,	Greenville,	Bessemer and Lake Erie.
Mercer Iron & Coal Co. Stoneboro No. 3,	Mercer,	Robt. P. Cann,	Stoneboro,	B. F. Esgar,	Stoneboro,	Branch of L. S. & M. S.
Sterling Mining Co. Sterling,	Beaver,	John Hileman,	Cleveland, O.,	Jacob Ashman,	East Palestine, O.	Pitts., Marion & Chicago.
Standard Coal Mining Co. Standard,	Butler,			Harry Hamilton,	Hilliard,	Hilliard Branch of B. & L. E.
Standard Coal Mining Co. Standard,	Clarion,	T. S. Lowther,	Rimersburg,	J. D. Lowther,	Rimersburg,	Sligo Branch of B. & A. V.
Sterling Coal Co. Sterling,	Clarion,	Geo. E. Henry,	East Brady,	Peter Henry,	Lawsonham,	Sligo Branch of B. & A. V.

Sligo Coal and Mining Co. Sligo,	Clarion,			H. F. Miller,	Huey,	Sligo Branch of B. & A. V.
State Line Coal Co. State Line,	Beaver,	W. J. Mullins,	Wooster, O.,	Hugh Laughlin,	East Palestine, O.	Pitts., Ft. Wayne & Chicago.
Shenango Coal Co. Shenango,	Mercer,	Edwin Cook,	Grove City,	Edwin Cook,	Grove City,	Bessemer and Lake Erie.
Underwood Mining Co. Underwood,	Clarion,			H. A. Underwood,	Sligo,	Sligo Branch of B. & A. V.
Thompson Run Coal Co. Thompson Run,	Beaver,			F. H. Douthitt,	Kimberly,	Ellwood Branch of P. & L. E.
Valley Coal Co. Valley,	Westmoreland,	Jos. G. Beale,	Leechburg,	Harry W. Beale,	Leechburg,	West Penn.
West Penn Mining Co. West Penn,	Westmoreland,			L. W. Hicks,	Leechburg,	West Penn.
The Wahlville Coal Co. Wahlville Nos. 1 and 2,	Butler,			A. R. Wahl,	Evans City,	B., R. & P.
Wm. K. Hamilton. Wildwood,	Butler,			Wm. K. Hamilton.	Boyer,	Hilliard Branch of B. & L. E.
Brier Hill Block Coal Co. Brier Hill,	Mercer,			Eugene Bailey,	Sharpsville,	Sharpsville Branch of B. & O.

TABLE II—Gives the total number of tons of coal mined and tons of coke produced in each colliery, number of days worked, number of employes, number of employes killed and injured, number of kegs of powder, etc., used in the Third Bituminous District for the year ending December 31, 1902.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Acme Coal Mining Co.														
Acme,	Clarion,	45,009	175	94	45,278	.....	.....	*186.	103	.....	.....	375	.....	9
Avondale Mining and Mfg. Co.														
Avondale,	Clarion,	30,954	.....	.....	30,954	.....	.....	264.4	41	.....	.....	225	.....	3
Jos. G. Beale & Co.														
Aladdin,	Armstrong,	38,485	50	100	38,635	.....	.....	263	78	1	.....	300	.....	4
Avonmore Coal and Coke Co.														
Avonmore,	Armstrong,	57,143	150	.....	57,293	.....	.....	179	88	.....	.....	.....	.....	10
Allegheny Coal and Coke Co.														
Avenue,	Allegheny,	11,308	28,124	.....	39,432	.....	.....	312	40	.....	.....	725	50	3
Anderson Run Coal Co.														
Anderson Run,	Jefferson,	40,000	10,000	15,000	65,000	.....	.....	225	75	.....	.....	225	.....	7
Butts Cannel Coal Co.														
Annandale No. 1,	Butler,	14,000	.....	.....	14,000	.....	.....	134	82	.....	1	.....	.....	4
Annandale No. 2,	Butler,	4,800	.....	.....	4,800	.....	.....	47	37	.....	.....	30	.....	2
Butts,	Beaver,	25,000	.....	.....	25,000	.....	.....	240	50	.....	.....	120	.....	2
Totals,	.....	43,800	.....	.....	43,800	.....	.....	140.	169	.....	1	150	.....	8
Joseph G. Beale & Co.														
Beale,	Armstrong,	47,577	981	.....	48,558	.....	.....	239	90	.....	.....	800	.....	4

Brackenridge Coal Co.														
Brackenridge,	Allegheny,	40,620	.....	.....	40,620	.....	.....	260	48	.....	.....	678	.....	4
Beaver Coal and Coke Co.														
Beaver No. 1,	Lawrence,	64,728	2,237	.....	66,965	.....	.....	280	89	.....	.....	.....	.....	10
Beaver No. 2,	Lawrence,	23,236	.....	.....	23,236	.....	.....	153	105	.....	.....	.....	.....	5
Totals,	.....	87,964	2,237	.....	90,201	.....	.....	216.	194	.....	.....	.....	.....	15
Sharon Coal and Limestone Co.														
Buhl No. 1,	Mercer,	16,000	3,200	475	19,675	.....	.....	160	52	1	1	100	1,000	5
Buhl No. 2,	Lawrence,	25,000	4,000	475	29,475	.....	.....	160	80	.....	.....	100	1,000	6
Buhl No. 3,	Butler,	10,000	.....	.....	10,000	.....	.....	20	65	.....	.....	20	200	5
Buhl No. 4,	Butler,				.....	.....	.....	20	71	.....	.....	.....	.....	5
Totals,	.....	51,000	7,200	950	59,150	.....	.....	90	268	1	1	220	2,200	21
Braeburn Steel Co.														
Braeburn,	Westmoreland,	.....	19,680	.....	19,680	.....	.....	309	26	.....	.....	.....	.....	2
Keystone Mining Co.														
Brady's Bend,	Armstrong,	61,030	500	.....	61,530	.....	.....	226	102	.....	1	.....	.....	8
Keystone,	Clarion,	32,846	.....	.....	32,846	.....	.....	206	27	.....	.....	.....	.....	1
Totals,	.....	93,876	500	.....	94,376	.....	.....	216	129	.....	1	.....	.....	9
Lewis Coal Co.														
Blackstone,	Westmoreland,	52,672	200	100	52,972	.....	.....	237	87	.....	.....	500	.....	6
Bagdad Coal and Coke Co.														
Bagdad,	Armstrong,	35,133	150	.....	35,283	.....	.....	216	57	.....	.....	350	.....	4
Logansport Coal Co.														
Bethel,	Armstrong,	13,288	110	.....	13,398	.....	.....	163	46	.....	1	275	100	5
Peale, Peacock & Kerr, Inc.														
Bloomington No. 9,	Jefferson,	52,224	1,070	58	53,352	.....	.....	174	74	.....	.....	462	25	10
Carrier Brothers.														
Carrier,	Jefferson,	43,690	1,200	120	45,010	.....	.....	251	99	.....	1	500	500	10
Erie Coal Mining Co.														
Claytonia,	Butler,	10,488	25	36	10,549	.....	.....	260	15	.....	.....	.....	.....	2
Pittsburg Plate Glass Co.														
Creighton,	Allegheny,	75,493	50	1,529	77,072	.....	.....	273	81	.....	1	.....	.....	6
Cowansville Mining Co.														
Cowansville,	Armstrong,	52,184	150	500	52,834	.....	.....	247	60	.....	.....	840	100	3
Chicora Coal and Coke Co.														
Chicora,	Butler,	16,003	.....	1,422	17,425	.....	.....	259	36	.....	.....	.....	.....	2

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Cherry Run Coal Mining Co.														
Cherry Run,	Clarion,	27,591	2,000	2,000	31,591	.....	.....	203*	59	.....	.....	125	75	2
W. F. Clayton.														
Clayton,	Beaver,	.....	70	10,459	10,529	.....	.....	301	29	.....	.....	30	.....	3
Cornell Coal Co.														
Cornell,	Allegheny,	51,600	2,040	27,700	81,340	.....	.....	284	144	.....	.....	660	.....	7
Carver Coal Co.														
Carver,	Mercer,	48,024	4,805	303	53,132	.....	.....	271	74	.....	.....	225	.....	6
Hamilton Coal Mining Co.														
Crag Dell,	Westmoreland,	45,410	343	145	45,898	.....	.....	240	63	.....	.....	625	.....	5
Catfish Run Coal Co.														
Catfish Run,	Clarion,	26,580	100	75	26,755	.....	.....	259	46	.....	.....	100	50	6
The Allegheny Coal Co.														
Harwick,	Allegheny,	33,318	3,600	550	37,468	.....	.....	116	128	1	1	.....	.....	8
Westerman, Filer & Co.														
Diamond No. 1,	Mercer,	117,057	4,300	1,400	122,757	.....	.....	278	186	1	.....	983	.....	8
Diamond No. 2,	Mercer,	86,593	2,700	1,475	91,068	.....	.....	276.6	132	.....	.....	700	.....	5
Totals,	.....	203,950	7,000	2,875	213,825	.....	.....	277.3	318	1	.....	1,683	.....	13
The Hedstrom Coal Mining Co.														
Dutch Hill,	Clarion,	28,879	685	5	29,569	.....	.....	125	103	.....	1	54	50	7
James W. Ganoe.														
Diamond,	Clarion,	27,537	.....	112	27,649	.....	.....	174	52	.....	.....	.....	.....	3

Darlington Brick and Mining Co.														
Darlington,	Beaver,	.....	6,800	200	7,000	.....	.....	273	16	.....	.....	.....	.....	2
Addison Davidson.														
Davidson,	Beaver,	.....	.....	3,927	3,927	.....	.....	307	10	.....	.....	.....	.....	1
Eagle Coal Co., Inc.														
Enterprise,	Butler,	12,620	.....	9,700	22,320	.....	.....	288	30	.....	.....	305	500	2
Sherwin,	Butler,	21,505	413	7,960	29,878	.....	.....	278	61	.....	.....	.....	1,800	3
Totals,	.....	34,125	413	17,660	52,198	.....	.....	283	91	.....	.....	305	2,300	5
P. D. Sherwin.														
Eagle,	Clarion,	41,698	2,400	50	44,148	.....	.....	200	84	.....	1	500	100	5
Wampum Run Coal Co.														
Excelsior No. 4,	Lawrence,	43,920	.....	300	44,220	.....	.....	287	94	.....	.....	500	200	12
Grove Coal Co.														
Enterprise,	Mercer,	60,893	6,540	682	68,115	.....	.....	270	112	.....	.....	.....	.....	9
Fairmount Coal Co.														
Fairmount No. 1,	Armstrong,	170,277	.....	199	170,476	.....	.....	280	254	1	.....	2,200	.....	21
Fairmount No. 2,	Armstrong,	56,806	4,138	.....	60,944	.....	.....	278.5	128	.....	.....	800	.....	10
Fairmount No. 4,	Armstrong,	86,096	2,988	.....	89,084	.....	.....	282.5	172	.....	.....	1,000	.....	19
Totals,	.....	313,179	7,126	199	320,504	.....	.....	280.3	554	1	.....	4,000	.....	50
Evans City Coal Co.														
Evans City shaft,	Butler,	1,000	.....	100	1,100	.....	.....	40	24	.....	.....	.....	.....	1
Gilpin Coal Co.														
Gilpin,	Armstrong,	57,050	.....	.....	57,050	.....	.....	223	89	.....	.....	.....	.....	5
Pittsburg Coal Co.														
Glenshaw,	Allegheny,	67,201	1,187	549	68,937	.....	.....	275	98	.....	.....	792	450	12
F. A. Mizener.														
Grant,	Butler,	39,048	785	192	40,025	.....	.....	271	69	2	1	.....	1,500	7
Mizener,	Butler,	70,205	95	607	70,907	.....	.....	279	83	.....	1	650	.....	3
Totals,	.....	109,253	880	799	110,932	.....	.....	275	152	2	2	650	1,500	10
Leechburg Coal and Coke Co.														
Hill,	Westmoreland,	21,765	150	.....	21,915	.....	.....	304	39	.....	.....	250	.....	3
Riverview,	Westmoreland,	27,988	200	.....	28,188	.....	.....	179	63	.....	.....	300	.....	5
Totals,	.....	49,753	350	.....	50,103	.....	.....	241.5	102	.....	.....	550	.....	8
McFetridge Brothers.														
Hites,	Allegheny,	77,450	2,129	2,223	81,802	.....	.....	195	127	.....	1	975	50	12
Hill Coal Co. Ltd.														
Hill,	Mercer,	57,800	800	1,000	59,600	.....	.....	241.5	97	.....	.....	100	100	5

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Frank Williams & Co.														
Hillville,	Clarion,	16,470	.....	.....	16,470	.....	.....	181.5	38	.....	.....	.....	.....	.....
Haddon Coal Co.														
Haddon,	Armstrong,	36,965	175	.....	37,140	.....	.....	237	57	.....	.....	375	.....	5
Hickory Coal Co., Limited.														
Hickory,	Mercer,	27,108	750	146	28,004	.....	.....	220.5	59	.....	.....	.....	.....	5
Jefferson-Clearfield Coal and Iron Co.														
Hamilton,	Jefferson,	1,072,449	.....	.....	1,072,449	178,048	393	266	.....	.....	5	.....	.....	.....
Soldier Run No. 1,	Jefferson,							266	987	.....	4	.....	.....	65
Soldier Run No. 2,	Jefferson,							266	.....	.....	2	.....	.....	.....
Maplewood,	Jefferson,	194,000	.....	.....	194,000	.....	.....	251.5	163	.....	.....	.....	.....	9
Rathmel,	Jefferson,	143,000	.....	.....	143,000	.....	.....	247.5	201	1	3	.....	.....	10
Sherwood,	Jefferson,	34,933	.....	.....	34,933	.....	.....	248	33	.....	.....	.....	.....	2
Trout Run,	Jefferson,	49,615	.....	.....	49,615	.....	.....	67	316	1	.....	.....	.....	.....
Virginia,	Jefferson,	179,935	.....	.....	179,935	.....	.....	248	212	.....	.....	.....	.....	9
Totals,	.....	1,673,932	.....	.....	1,673,932	178,048	393	232.5	1,912	2	14	.....	.....	95
Pittsburg and Buffalo Co.														
Johnetta No. 1,	Armstrong,	97,660	2,900	17,640	117,600	8,850	25	294	213	1	.....	588	2,000	5
Johnetta No. 2,	Armstrong,	3,700	.....	.....	3,700	.....	.....	74	58	.....	.....	.....	1,000	.....
Totals,	.....	100,760	2,900	17,640	121,300	8,850	.....	184	271	1	.....	588	3,000	5
Pardoe Coal Co.														
"K,"	Mercer,	36,215	720	.....	36,935	.....	.....	269	66	.....	.....	.....	.....	6
Pardoe,	Mercer,	99,880	720	700	101,300	.....	.....	269	122	1	1	.....	.....	13
Totals,	.....	136,095	1,440	700	138,235	.....	.....	269	188	1	1	.....	.....	19

American Sheet Steel Co.														
Kirkpatrick,	Armstrong,	.....	.....	23,773	23,773	.....	.....	285	21	.....	.....	230	.....	2
Kittanning Plate Glass Co.														
Kittanning,	Armstrong,	10,078	104	.....	10,182	.....	.....	268	10	1	.....	90	.....	1
Turner Coal, Coke and Mining Co.														
Keystone No. 1,	Butler,	60,200	400	215	60,815	.....	.....	258.4	84	.....	.....	600	.....	8
Keystone No. 2,	Butler,	9,095	150	60	9,305	.....	.....	254.6	13	.....	.....	40	.....	1
Totals,	.....	69,295	550	275	70,120	.....	.....	256.5	97	1	.....	640	.....	9
Kerr Coal Co.														
Kerr No. 1,	Armstrong,	8,250	50	200	8,500	.....	.....	260	13	.....	.....	.....	.....	1
Kerr No. 8,	Butler,	58,100	100	.....	58,200	.....	.....	269	81	.....	.....	600	100	6
Totals,	.....	66,350	150	200	66,700	.....	.....	264.5	94	.....	.....	600	100	7
Lucesco Coal Co.														
Lucesco,	Westmoreland,	18,818	91	.....	18,909	.....	.....	262	53	.....	.....	.....	.....	4
Ben Franklin Coal Co.														
Metcalf,	Westmoreland,	30,000	50	.....	30,050	.....	.....	252	38	.....	1	.....	.....	3
Monterey Coal Co.														
Monterey,	Clarion,	28,837	.....	.....	28,837	.....	.....	259	43	.....	1	72	.....	6
Pittsburg Plate Glass Co.														
Mosgrove,	Armstrong,	86,750	1,073	.....	87,823	.....	.....	263.9	134	1	.....	800	750	7
Mark Packard.														
Mahoning,	Armstrong,	15,129	.....	.....	15,129	.....	.....	208	32	.....	.....	.....	.....	4
Nellie Coal Co.														
Nellie,	Butler,	17,238	743	225	18,206	.....	.....	239.3	34	.....	.....	.....	.....	2
Penn'a Salt Mfg. Co.														
Natrona No. 1,	Allegheny,	.....	.....	.....	.....	.....	.....	310	171	.....	.....	843	.....	10
Natrona No. 2,	Allegheny,	.....	.....	.....	.....	.....	.....	146	47	.....	.....	.....	.....	4
Totals,	.....	2,005	176,397	1,576	179,978	.....	.....	228	218	.....	.....	843	.....	14
C. P. McCafferty.														
Monarch,	Clarion,	47,602	1,300	.....	48,902	.....	.....	206	81	.....	1	.....	.....	8
Oak Ridge Mining Co.														
Oak Ridge Nos. 3 and 5,	Armstrong,	209,993	2,164	146	212,303	.....	.....	242.8	278	.....	1	975	160	22
Ellis, Blum Co.														
Occanica,	Butler,	1,500	.....	.....	1,500	.....	.....	54	25	.....	.....	.....	.....	2
Pine Run Coal and Coke Co.														
Pine Run Nos. 1 and 2,	Westmoreland,	47,241	70	.. ....	47,311	.....	.....	257	74	.....	1	.....	.....	5

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
The Pollock Coal and Lime Co.														
Pollock,	Clarion,	4,020	.....	25	4,045	.....	.....	186	35	.....	.....	5	50	2
N. Y. & C. Gas Coal Co.														
Plum Creek,	Allegheny,	230,436	1,792	1,439	233,667	.....	.....	275.5	278	.....	.....	.....	.....	14
Sandy Creek,	Allegheny,	190,912	1,426	1,439	193,777	.....	.....	276	254	2	3	.....	.....	34
Totals,	.....	421,348	3,218	2,878	427,444	.....	.....	275.7	532	2	3	.....	.....	48
Royle Coal Co.														
Royle,	Butler,	16,500	25	100	16,625	.....	.....	226	50	.....	.....	200	500	4
George E. Tener.														
Rock Point,	Lawrence,	27,885	30	.....	27,915	.....	.....	260	54	.....	.....	20	10	6
Riverview Coal and Mining Co., Ltd.														
Riverview,	Armstrong,	67,667	1,624	.....	69,291	.....	.....	169.6	127	.....	.....	300	.....	13
Roaring Run Coal and Coke Co.														
Roaring Run,	Westmoreland,	22,736	.....	.....	22,736	.....	.....	236	39	.....	.....	.....	.....	4
George G. Stage.														
Stage,	Butler,	18,151	.....	.....	18,151	.....	.....	213.5	39	.....	.....	15	2,500	3
Mercer Iron and Coal Co.														
Stoneboro No. 3,	Mercer,	95,039	1,799	784	97,622	.....	.....	288	152	.....	.....	422	85	16
Sterling Mining Co.														
Sterling,	Beaver,	12,500	400	.....	12,900	.....	.....	158	37	.....	.....	130	.....	2
Standard Coal Mining Co.														
Standard,	Butler,	31,760	.....	240	32,000	.....	.....	265	60	.....	.....	270	300	6

Campbell Lowther Coal Co. Standard,	Clarion,	14,760	.....	63	14,823	.....	.....	169	37	.....	.....	.....	.....	.....
Sterling Coal Co. Sterling,	Clarion,	44,734	.....	.....	44,734	.....	.....	199	72	.....	.....	.....	.....	4
Sligo Coal Mining Co. Sligo,	Clarion,	25,071	320	200	25,591	.....	.....	210	57	.....	1	123	60	3
State Line Coal Co. State Line,	Beaver,	89,192	1,500	.....	90,692	.....	.....	277	116	.....	.....	1,337	.....	5
Shenango Coal Co. Shenango,	Mercer,	7,488	50	25	7,563	.....	.....	246.5	62	.....	.....	360	1,000	2
Thompson Run Coal Co. Thompson Run,	Beaver,	84,015	.....	210	84,225	.....	.....	299	113	.....	1	1,000	200	8
Underwood Mining Co. Underwood,	Clarion,	1,000	.....	100	1,100	.....	.....	35	22	.....	.....	.....	.....	2
Valley Coal Co. Valley,	Westmoreland,	20,747	35	.....	20,782	.....	.....	202	32	.....	.....	200	.....	1
West Penn Mining Co. West Penn,	Westmoreland,	27,674	.....	.....	27,674	.....	.....	224	52	.....	.....	.....	.....	3
The Wahlville Coal Co. Wahlville No. 1,	Butler,	37,828	287	2,500	40,615	.....	.....	286	59	.....	.....	1,000	50	6
Wahlville No. 2,	Butler,				.....	.....	.....	216	13	.....	.....	.....	.....	1
Totals,	.....	37,828	287	2,500	40,615	.....	.....	251	72	.....	.....	1,000	50	7
Wm. K. Hamilton. Wildwood,	Butler,	6,000	.....	100	6,100	.....	.....	186	23	.....	.....	.....	.....	2
Brier Hill Block Coal Co. Brier Hill Block Coal,	Mercer,	5,000	.....	100	5,100	.....	.....	102	26	.....	.....	.....	.....	2
Butler Coal and Coke Co. Butler,	Butler,	401	.....	.....	407	.....	.....	177	17	.....	.....	5	1,000	2
Grand totals,	.....	6,068,804	318,565	143,828	6,531,197 †287,126	186,898	418	225+	10,173	15	37	28,091	26,615	719
					6,818,323									

†Used in the manufacture of coke.

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Number of Boilers.				Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cyllndrical.	Horse power.	Tubular.	Horse power.		Steam.	Air.	Electric.							
Acme Coal Mining Co.,	Clarion,	.....	.....	2	150	150	.....	.....	.....	.....	.....	1	133	125	.....	1
Avondale Mining and Manufacturing Co.,	Clarion,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jos. G. Beale & Co.,	Armstrong,	.....	.....	2	95	95	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Avonmore Coal and Coke Co.,	Armstrong,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Allegheny Coal and Coke Co.,	Allegheny,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Anderson Run Coal Co.,	Jefferson,	.....	.....	.....	.....	.....	1	.....	.....	1	15	.....	.....	.....	.....	.....
Butts Cannel Coal Co.,	But. & Beaver,	.....	.....	1	75	75	.....	.....	.....	1	40	1	160	80	.....	.....
Joseph G. Beale & Co.,	Armstrong,	.....	.....	2	160	160	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Brackenridge Coal Co.,	Allegheny,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Beaver Coal and Coke Co.,	Lawrence,	.....	.....	3	210	210	.....	.....	.....	4	78	1	587	500	.....	2
Sharon Coal and Limestone Co.,	M., Law. & But.	.....	.....	5	625	625	.....	.....	.....	2	625	3	1,624	1,624	.....	2
Bracburn Steel Co.,	Westmoreland,	2	100	.....	.....	100	.....	.....	.....	1	50	.....	.....	.....	1	.....
Keystone Mining Co.,	Arm. & Clarion,	2	100	.....	.....	100	.....	.....	.....	1	50	.....	.....	.....	1	.....
Lewis Coal Co.,	Westmoreland,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bagdad Coal and Coke Co.,	Armstrong,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Logansport Coal Co.,	Armstrong,	.....	.....	2	160	160	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Peale, Peacock & Kerr, Inc.,	Jefferson,	.....	.....	3	300	300	.....	.....	.....	2	250	1	75	50	.....	1
Carrier Brothers,	Jefferson,	.....	.....	2	105	105	.....	.....	.....	.....	.....	1	25	10	.....	1
Erie Coal Mining Co.,	Butler,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pittsburg Plate Glass Co.,	Allegheny,	.....	.....	1	50	50	.....	.....	1	.....	.....	.....	.....	.....	1	.....
Cowansville Mining Co.,	Armstrong,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chicora Coal and Coke Co.,	Butler,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cherry Run Coal Mining Co.,	Clarion,	.....	.....	2	115	115	.....	.....	.....	1	20	2	20	10	.....	1
W. F. Clayton,	Beaver,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cornell Coal Co.,	Allegheny,	1	150	.....	.....	150	.....	.....	.....	1	100	1	100	20	.....	.....
Carver Coal Co.,	Mercer,	4	120	2	200	320	.....	.....	.....	1	100	3	1,830	650	.....	.....
Hamilton Coal Mining Co.,	Westmoreland,	.....	.....	1	125	125	.....	.....	.....	2	60	.....	.....	.....	.....	1
Catfish Run Coal Co.,	Clarion,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
The Allegheny Coal Co.,	Allegheny,	.....	.....	4	400	400	.....	.....	.....	3	450	1	130	10	.....	1
Westerman, Filer & Co.,	Mercer,	8	640	4	475	1,115	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The Hedstrom Coal Mining Co.,	Clarion,			2	130	130	1			3	147	3	250	100		1
James W. Ganoe,	Clarion,															
Darlington Brick and Mining Co.,	Beaver,															
Addison Davidson,	Beaver,															
P. D. Sherwin,	Butler,			1	150	150	1		1						1	
Eagle Coal Co., Inc.,	Clarion,	3	160			160				1	60					1
Wampum Run Coal Co.,	Lawrence,									1	15	1	75	50		
Grove Coal Co.,	Mercer,			3	160	160				1	50	2	900	600		
Fairmount Coal Co.,	Armstrong,			6	710	710				7	285					5
Evans City Coal Co.,	Butler,			1	100	100				1	35	1	400	300		
Gilpin Coal Co.,	Armstrong,															
Pittsburg Coal Co.,	Allegheny,	2	100			100				2	50	2	913	400		
F. A. Mizener,	Butler,			1	150	150				1	15	1	200	4		1
Leechburg Coal and Coke Co.,	Westmoreland,			1	100	100				1	50					
McFetridge Brothers,	Allegheny,	2	90	2	50	140				3	115	2	250	250		1
Hill Coal Co., Limited,	Mercer,			2	85	85				4	75	1	1,000	700		
Frank Williams & Co.,	Clarion,															
Haddon Coal Co.,	Armstrong,															
Hickory Coal Co., Limited,	Mercer,			1	150	150				2	140	2	600	600		
Jefferson-Clearfield Coal and Iron Co.,	Jefferson,			30	3,750	3,750			6	7	930					11
Pittsburg and Buffalo Co.,	Armstrong,			5	1,500	1,500			2	1	670	4	500	340	1	1
Pardoe Coal Co.,	Mercer,			2	80	80	1			3	90					
American Sheet Steel Co.,	Armstrong,															
Kittanning Plate Glass Co.,	Armstrong,															
Turner Coal, Coke and Mining Co.,	Butler,			1	20	20				1	20	2	190	190		
Kerr Coal Co.,	Arm. & Butler,															
Lucesco Coal Co.,	Westmoreland,			1	35	35										
Ben Franklin Coal Co.,	Westmoreland,															
Monterey Coal Co.,	Clarion,															
Pittsburg Plate Glass Co.,	Armstrong,			2	300	300	1		1	2	175	3			1	
Mark Packard,	Armstrong,															
Nellie Coal Co.,	Butler,			1	60	60				1	50	1	330	330		
Penn'a Salt Manufacturing Co.,	Allegheny,	4	300			300				5	275				1	1
C. P. McCafferty,	Clarion,	2	150	1	125	275			1	2	225	2	100	100	1	1
Oak Ridge Mining Co.,	Armstrong,			6	245	245										
Ellis, Blum Co.,	Butler,			1	100	100				1	50					1
Pine Run Coal and Coke Co.,	Westmoreland,			1	80	80						2	100	100		
The Pollock Coal and Lime Co.,	Clarion,															
N. Y. & C. Gas Coal Co.,	Allegheny,	1	20			20	3			3	140					
Royle Coal Co.,	Butler,			1	60	60										1
George E. Tener,	Lawrence,															
Riverview Coal and Mining Co., Ltd.,	Armstrong,	2	70	1	50	120				3	100	3	500	400		2
Roaring Run Coal and Coke Co.,	Westmoreland,															
George G. Stage,	Butler,															
Mercen Iron and Coal Co.,	Mercer,			3	130	130				4	90	2	1,100	475		
Sterling Mining Co.,	Beaver,			1	80	80				1	40	2	75	50		
Standard Coal Mining Co.,	Butler,									1	10	1	80	80		
Campbell Lowther Coal Co.,	Clarion,															
Sterling Coal Co.,	Clarion,															
Sligo Coal Mining Co.,	Clarion,			2	120	120				1	25					1
State Line Coal Co.,	Beaver,			3	150	150	1			4	300					
Shenango Coal Co.,	Mercer,	1	150	1	150	300				2	300					

TABLE II—Continued.

Names of Operators and Collieries.	County.	Number of Boilers.				Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.	Horse power.		Steam.	Air.	Electric.							
Thompson Run Coal Co.,	Beaver,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	20	20	.....	.....
Underwood Mining Co.,	Clarion,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Valley Coal Co.,	Westmoreland,	1	50	.....	.....	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
West Penn Mining Co.,	Westmoreland,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
The Wahlville Coal Co.,	Butler,	.....	.....	1	50	50	.....	.....	.....	1	50	1	50	50	.....	.....
Wm. K. Hamilton,	Butler,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brier Hill Block Coal Co.,	Mercer,	2	100	1	50	150	.....	.....	.....	1	45	1	400	300	.....	.....
Butler Coal and Coke Co.,	Butler,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand totals, ...	.....	35	22,000	121	12,165	14,365	9	.....	12	96	6,670	60	15,723	11,524	7	40

TABLE III—Showing the number of each class of employes at each colliery in the Third Bituminous District during the year 1902.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door-boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
Acme Coal Mining Co.																						
Acme,	Clarion,	1	....	....	46	4	29	4	7	1	3	.....	95	1	....	2	1	.....	1	3	8	103
Avondale Mining & Mfg. Co.																						
Avondale,	Clarion,	1	....	....	32	.....	.....	.....	2	.....	1	.....	36	1	....	1	....	.....	.....	3	5	41
Jos. G. Beale & Co.																						
Aladdin,	Armstrong,	1	....	....	65	.....	.....	.....	4	.....	.....	1	71	1	....	1	....	.....	.....	5	7	78
Avonmore Coal and Coke Co.																						
Avonmore,	Armstrong,	1	....	....	65	.....	.....	.....	8	1	2	.....	77	1	....	1	1	.....	1	7	11	88
Allegheny Coal and Coke Co.																						
Avenue,	Allegheny,	1	....	....	28	.....	.....	.....	3	.....	5	.....	37	1	....	....	....	.....	.....	2	3	40
Anderson Run Coal Co.																						
Anderson Run,	Jefferson,	1	....	....	50	.....	.....	.....	.....	2	3	.....	56	....	....	1	2	.....	3	13	19	75
Butts Cannel Coal Co.																						
Annandale No. 1,	Butler,	1	....	....	70	.....	.....	.....	4	.....	1	.....	76	....	....	1	....	.....	.....	5	6	82
Annandale No. 2,	Butler,	1	....	....	30	.....	.....	.....	2	.....	1	.....	34	....	....	1	....	.....	.....	2	3	37
Butts,	Beaver,	1	....	....	40	.....	.....	.....	2	.....	1	.....	44	....	....	1	1	.....	.....	4	6	50
Totals,		3	....	....	140	.....	.....	.....	8	.....	3	.....	154	....	....	3	1	.....	.....	11	15	169

TABLE III.—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door-boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
Jos. G. Beale & Co.																						
Beale,	Armstrong,	1	....	....	20	9	35	9	4	1	.....	2	81	1	....	2	2	.....	.....	4	9	90
Brackenridge Coal Co.																						
Brackenridge,	Allegheny,	1	....	....	40	.....	.....	.....	4	.....	1	.....	46	....	....	....	....	.....	.....	2	2	48
Beaver Coal and Coke Co.																						
Beaver No. 1,	Lawrence,	1	....	....	33	7	18	1	9	.....	.....	6	75	1	....	2	3	.....	1	7	14	89
Beaver No. 2,	Lawrence,	1	....	....	87	2	2	.....	4	.....	.....	4	100	....	....	1	....	.....	.....	4	5	105
Totals,	.....	2	....	....	120	9	20	1	13	.....	.....	10	175	1	....	3	3	.....	1	11	19	194
Sharon Coal and Limestone Co.																						
Buhl No. 1,	Mercer,	1	1	....	6	3	20	3	5	.....	4	.....	43	1	....	1	3	.....	.....	4	9	52
Buhl No. 2,	Lawrence,	1	1	....	.....	7	40	7	6	1	6	.....	69	1	....	1	4	.....	1	4	11	80
Buhl No. 3,	Butler,	1	1	....	50	.....	.....	.....	5	.....	6	.....	63	1	....	1	....	.....	.....	.....	2	65
Buhl No. 4,	Butler,	1	1	....	50	.....	.....	.....	5	.....	6	.....	63	1	....	1	....	.....	1	5	8	71
Totals,	.....	4	4	....	106	10	60	10	21	1	22	.....	238	4	....	4	7	.....	2	13	30	268
Braeburn Steel Co.																						
Braeburn,	Westmoreland,	1	....	....	21	.....	.....	.....	2	.....	2	.....	26	....	....	....	....	.....	.....	.....	.....	26
Keystone Mining Co.																						
Brady's Bend,	Armstrong,	1	....	....	40	3	35	3	5	1	2	.....	90	1	....	1	1	.....	1	8	12	102

Keystone,	Clarion,	1	....	....	20	.....	.....	.....	1	.....	1	.....	23	1	....	....	....	.....	1	2	4	27
Totals,		2	....	....	60	2	35	3	6	1	3	.....	113	2	....	1	1	.....	2	10	16	129
Lewis Coal Co. Blackstone,	Westmoreland,	1	....	....	69	.....	.....	.....	6	1	2	.....	79	1	....	1	....	.....	1	5	8	87
Bagdad Coal and Coke Co. Bagdad,	Armstrong,	1	....	....	46	.....	.....	.....	4	.....	.....	1	52	1	....	....	....	.....	1	3	5	57
Logansport Coal Co. Bethel,	Armstrong,	1	....	....	26	.....	.....	.....	4	.....	2	.....	33	1	....	2	1	.....	1	8	13	46
Peale, Peacock & Kerr, Inc. Bloomfield No. 9,	Jefferson,	1	....	....	40	3	9	3	4	.....	3	3	66	1	....	1	1	.....	1	4	8	74
Carrier Brothers. Carrier,	Jefferson,	1	1	....	.....	8	50	8	8	2	.....	.....	78	1	1	3	4	.....	2	10	21	99
Erie Coal Mining Co. Claytonia,	Butler,	1	....	....	10	.....	.....	.....	2	.....	.....	1	14	....	....	....	....	.....	.....	1	1	15
Pittsburg Plate Glass Co. Creighton,	Allegheny,	1	1	....	5	2	45	2	6	3	3	.....	68	1	1	2	1	.....	2	6	13	81
Cowansville Mining Co. Cowansville,	Armstrong,	1	....	....	41	.....	.....	.....	3	1	8	.....	54	1	....	2	....	.....	1	2	6	60
Chicora Coal and Coke Co. Chicora,	Butler,	1	....	....	26	.....	.....	.....	2	1	1	.....	31	1	....	1	....	.....	1	2	5	36
Cherry Run Coal Mining Co. Cherry Hill,	Clarion,	1	....	....	15	3	25	3	3	2	1	.....	53	1	1	1	2	.....	1	.....	6	59
W. F. Clayton. Clayton,	Beaver,	1	....	....	19	.....	.....	.....	1	.....	4	.....	25	1	....	....	....	.....	.....	3	4	29
Corneli Coal Co. Corneli,	Allegheny,	1	....	1	110	.....	.....	.....	8	3	5	.....	128	1	1	1	4	.....	2	7	16	144
Carver Coal oC. Carver,	Mercer,	1	....	....	47	.....	.....	.....	6	4	5	.....	63	....	....	1	4	.....	1	5	11	71
Hamilton Coal Mining Co. Crag Deli,	Westmoreland,	1	1	....	30	2	8	4	3	2	1	1	53	1	....	1	2	.....	1	5	10	63
Catfish Run Coal Co. Catfish Run,	Clarion,	1	....	....	33	.....	.....	.....	5	.....	.....	1	40	1	....	1	....	.....	1	3	6	46
The Allegheny Coal Co. Harwick,	Allegheny,	1	....	1	.....	10	50	10	6	2	7	12	99	1	....	7	4	.....	1	16	29	128

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door-boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Bookkeepers and clerks.	All other employes.	Total outside.	
Westerman, Filer & Co.																						
Diamond No. 1,	Mercer,	1	....	....	140	.....	.....	.....	12	2	6	5	166	1	....	2	4	.....	2	11	20	186
Diamond No. 2,	Mercer,	1	....	....	100	.....	.....	.....	9	2	5	3	120	....	....	1	3	.....	1	7	12	132
Totals,		2	....	....	240	.....	.....	.....	21	4	11	8	286	1	....	3	7	.....	3	18	32	318
The Hedstrom Coal Mining Co.																						
Dutch Hill,	Clarion,	1	....	....	.....	8	55	8	6	3	3	.....	84	1	....	4	3	.....	1	10	19	103
James W. Ganoe.																						
Diamond,	Clarion,	1	....	....	40	.....	.....	.....	3	.....	1	.....	45	....	....	1	....	.....	1	5	7	52
Darlington Brick and Mining Co.																						
Darlington,	Beaver,	1	....	....	12	.....	.....	.....	1	.....	.....	.....	14	1	....	....	....	.....	.....	1	2	16
Addison Davidson.																						
Davidson,	Beaver,	1	....	....	7	.....	.....	.....	1	.....	.....	.....	9	1	....	....	....	.....	.....	.....	1	10
P. D. Sherwin.																						
Enterprise,	Butler,	1	....	....	20	.....	.....	.....	2	.....	1	.....	24	....	....	1	1	.....	1	3	6	30
Sherwin,	Butler,	1	....	....	28	2	18	2	3	.....	.....	1	55	....	....	1	1	.....	1	3	6	61
Totals,		2	....	....	48	2	18	2	5	.....	1	1	79	....	....	2	2	.....	2	6	12	91
Eagle Coal Co., Inc.																						
Eagle,	Clarion,	1	..	...	6	5	44	5	5	1	2	1	70	1	1	1	2	.....	1	8	14	84

Wampum Run Coal Co.																					
Excelsior No. 4,	Lawrence,	1	....	....	70	.....	.....	.....	8	1	4	.....	84	1	....	2	....	.....	1	6	10	94
Grove Coal Co.																					
Enterprise,	Mercer,	1	1	....	80	.....	.....	.....	8	.....	12	.....	102	....	1	1	3	.....	.....	5	10	112
Fairmount Coal Co.																					
Fairmount No. 1,	Armstrong,	1	1	....	110	9	65	9	21	5	.....	10	231	....	....	1	2	.....	.....	20	23	254
Fairmount No. 2,	Armstrong,	1	....	....	70	2	16	2	9	3	.....	4	107	1	....	6	3	.....	3	8	21	128
Fairmount No. 4,	Armstrong,	1	1	....	95	3	24	3	19	3	.....	7	156	....	....	2	4	.....	.....	10	16	172
Totals,	.....	3	2	....	275	14	105	14	49	11	.....	21	494	1	....	9	9	.....	3	38	60	554
Evans City Coal Co.																					
Evans City shaft,	Butler,	1	....	....	15	.....	.....	.....	1	.....	1	.....	18	1	....	1	1	.....	1	2	6	24
Gilpin Coal Co.																					
Gilpin,	Armstrong,	1	....	....	75	.....	.....	.....	5	1	1	.....	83	1	....	1	....	.....	1	3	6	89
Pittsburg Coal Co.																					
Glenshaw,	Allegheny,	1	....	....	72	.....	.....	.....	6	.....	3	4	86	....	....	2	2	.....	1	7	12	98
F. A. Mizener.																					
Grant,	Butler,	1	....	....	35	3	15	3	5	.....	1	.....	63	....	....	1	2	.....	1	2	6	69
Mizener,	Butler,	1	....	....	75	.....	.....	.....	3	.....	1	.....	80	....	....	1	....	.....	1	1	3	83
Totals,	.....	2	....	....	110	3	15	3	8	.....	2	.....	143	....	....	2	2	.....	2	3	9	152
Leechburg Coal and Coke Co.																					
Hill,	Westmoreland,	1	....	....	27	.....	.....	.....	3	1	.....	2	34	1	....	....	....	.....	2	2	5	39
Riverview,	Westmoreland,	1	....	....	48	.....	.....	.....	5	1	.....	1	56	1	....	1	1	.....	2	2	7	63
Totals,	.....	2	....	....	75	.....	.....	.....	8	2	.....	3	90	2	....	1	1	.....	4	4	12	102
McFetridge Brothers.																					
Hites,	Allegheny,	1	1	1	85	.....	.....	.....	7	3	3	.....	111	1	1	2	3	.....	2	7	16	127
Hill Coal Co., Limited.																					
Hill,	Mercer,	1	....	....	75	.....	.....	.....	5	.....	5	.....	86	....	....	2	3	.....	1	5	11	97
Frank Williams & Co.																					
Hillville,	Clarion,	1	....	....	25	.....	.....	.....	3	.....	.....	3	32	1	....	1	....	.....	.....	4	6	38
Haddon Coal Co.																					
Haddon,	Armstrong,	1	....	....	46	.....	.....	.....	4	.....	.....	1	52	1	....	....	....	.....	1	3	5	57
Hickory Coal Co., Limited.																					
Hickory,	Mercer,	1	....	....	39	.....	.....	.....	5	2	3	.....	50	1	....	1	2	.....	1	4	9	59
Jefferson-Clearfield C. & I. Co.																					
Hamilton,	Jefferson,																				
Soldier Run No. 1,	Jefferson,	3	....	....	100	86	424	86	60	8	30	10	807	1	....	6	10	135	4	21	180	987
Soldier Run No. 2,	Jefferson,																					
Maplewood,	Jefferson,	1	....	....	19	15	90	15	9	2	4	.....	155	....	....	1	3	.....	.....	4	8	163
Rathmel,	Jefferson,	1	....	....	20	15	110	15	9	3	8	10	191	....	....	1	3	.....	.....	6	10	201

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door-boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
Sherwood,	Jefferson,	1	...	....	5	2	16	2	2	.....	1	.....	29	....	....	1	2	.....	.....	1	4	33
Trout Run,	Jefferson,	1	...	....	31	25	150	25	.....	.....	10	.....	242	....	....	3	6	.....	.....	65	74	316
Virginia,	Jefferson,	1	...	....	12	15	130	15	9	2	5	15	204	....	....	1	3	.....	.....	4	8	212
Totals,	.....	8	...	....	187	158	920	158	89	15	58	35	1,628	....	....	13	27	135	4	104	284	1,912
Pittsburg and Buffalo Co.																						
Johnetta No. 1,	Armstrong,	1	1	....	100	7	60	7	7	.....	5	.....	188	1	1	3	1	10	3	6	25	213
Johnetta No. 2,	Armstrong,	1	1	....	25	2	20	2	.....	.....	3	.....	54	....	....	1	2	.....	.....	1	4	58
Totals,	.....	2	2	....	125	9	80	9	7	.....	8	.....	242	1	1	4	3	10	3	7	29	271
Pardoe Coal Co.																						
"K,"	Mercer,	1	...	....	50	.....	.....	.....	6	1	.....	3	61	1	....	1	3	.....	.....	.....	5	66
Pardoe,	Mercer,	1	...	....	100	.....	.....	.....	12	1	.....	3	117	1	....	2	2	.....	.....	.....	5	122
Totals,	.....	2	...	....	150	.....	.....	.....	18	2	.....	6	178	2	....	3	5	.....	.....	.....	10	188
American Sheet Steel Co.																						
Kirkpatrick,	Armstrong,	1	...	....	18	.....	.....	.....	2	.....	.....	.....	21	....	....	....	....	.....	.....	.....	.....	21
Kittanning Plate Glass Co.																						
Kittanning,	Armstrong,	1	...	....	7	.....	.....	.....	1	.....	.....	.....	9	....	....	....	....	.....	.....	1	1	10
Turner Coal, Coke & Mining Co.																						
Keystone No. 1,	Butler,	1	...	....	65	.....	.....	.....	7	.....	3	.....	76	1	1	1	1	.....	2	2	8	84

Keystone No. 2,	Butler,	1			10				1				12							1	1	13
Totals,		2			75				8		3		88	1	1	1	1		2	3	9	97
Kerr Coal Co.																						
Kerr No. 1,	Armstrong,	1			10				1				12	1							1	13
Kerr No. 8,	Butler,	1			70				2			1	74	1		1			1	4	7	81
Totals,		2			80				3			1	86	2		1			1	4	8	94
Lucesco Coal Co.																						
Lucesco,	Westmoreland,	1			40				3		3		47	1		1	1			3	6	53
Ben Franklin Coal Co.																						
Metcalf,	Westmoreland,	1			30				2		1		34	1		1				2	4	38
Monterey Coal Co.																						
Monterey,	Clarion,	1			30				5		1		37	1		2				3	6	43
Pittsburg Plate Glass Co.																						
Mosgrove,	Armstrong,	1			20	6	70	6	6	2	3		114	1		2	4		1	12	20	134
Mark Packard.																						
Mahoning,	Armstrong,	1			20				1	1		1	24	1		1				6	8	32
Nellie Coal Co.																						
Nellie,	Butler,	1			25				2		2		30				2			2	4	34
Penn'a Salt Mfg. Co.																						
Natrona No. 1,	Allegheny,	1	1			17	92	17	10	3	3	8	152	1		2	6			10	19	171
Natrona No. 2,	Allegheny,	1				5	20	5	4	2	2	3	42			1	1			3	5	47
Totals,		2	1			22	112	22	14	5	5	11	194	1		3	7			13	24	218
C. P. McCafferty.																						
Monarch,	Clarion,	1				7	46	7	4	2	2		69	1	1	2	2		1	5	12	81
Oak Ridge Mining Co.																						
Oak Ridge Nos. 3 and 5,	Armstrong,	1	1		103	20	67	6	25	6	10	6	245	1	1	3	6		2	20	33	278
Ellis, Blum Co.																						
Oceanica,	Butler,	1			4	2	10	2	2				21			1	2			1	4	25
Pine Run Coal & Coke Co.																						
Pine Run Nos. 1 and 2,	Westmoreland,	1			60				5		1		67	1		1	1		1	3	7	74
The Pollock Coal and Lime Co.																						
Pollock,	Clarion,	1			25				2		5		33	1		1					2	35
N. Y. & C. Gas Coal Co.																						
Plum Creek,	Allegheny,	1	1		220				11	11		15	259	1		2	2		1	13	19	278
Sandy Creek,	Allegheny,	1	1		190				17	8	9		226	1	1	4	4		1	17	28	251
Totals,		2	2		410				28	19	9	15	485	2	1	6	6		2	30	47	532

TABLE III.—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door-boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
Royle Coal Co. Royle,	Butler,	1	....	....	29	2	6	2	4	.....	2	.....	46	1	....	1	1	....	....	1	4	50
George E. Tener. Rock Point,	Lawrence,	1	....	....	42	.....	.....	.....	4	.....	1	.....	48	1	....	1	....	.....	1	3	6	54
Riverview Coal & Mining Co., Ltd Riverview,	Armstrong,	1	....	....	48	5	30	5	12	2	4	.....	107	1	1	3	4	.....	1	10	20	127
Roaring Run Coal & Coke Co. Roaring Run,	Westmoreland,	1	....	....	28	.....	.....	.....	3	.....	1	.....	33	1	....	1	....	.....	.....	4	6	39
George G. Stage. Stage,	Butler,	1	....	....	30	.....	.....	.....	3	.....	3	.....	37	....	....	1	....	.....	.....	1	2	39
Mercer Iron & Coal Co. Stoneboro No. 3,	Mercer,	1	....	....	99	.....	.....	.....	10	3	16	5	134	....	....	2	4	.....	2	10	18	152
Sterling Mining Co. Sterling,	Beaver,	1	....	....	28	.....	.....	.....	2	.....	2	.....	33	....	....	1	1	.....	.....	2	4	37
Standard Coal Mining Co. Standard,	Clarion,	1	....	....	45	.....	.....	.....	4	.....	2	.....	52	1	....	1	1	.....	2	3	8	60
Campbell, Lowther Coal Co. Standard,	Clarion,	1	....	....	23	.....	.....	.....	4	1	3	.....	32	1	....	1	....	.....	1	2	5	37

Sterling Coal Co.																						
Sterling,	Clarion,	1	....	....	60	.....	.....	.....	3	1	1	.....	66	1	....	1	....	.....	1	3	6	72
Sligo Coal and Mining Co.																						
Sligo,	Clarion,	1	....	....	10	3	30	3	3	1	1	.....	53	1	....	1	2	.....	.....	.....	4	57
State Line Coal Co.																						
State Line,	Beaver,	1	....	....	90	.....	.....	.....	5	1	3	1	101	1	....	3	3	.....	.....	8	15	116
Shenango Coal Co.																						
Shenango,	Mercer,	1	....	....	45	.....	.....	.....	2	.....	6	1	55	1	....	3	2	.....	1	.....	7	62
Thompson Run Coal Co.																						
Thompson Run,	Beaver,	1	....	....	84	.....	.....	.....	7	3	2	4	101	1	....	2	2	.....	1	6	12	113
Underwood Mining Co.																						
Underwood,	Clarion,	1	....	....	15	.....	.....	.....	2	.....	1	.....	19	1	....	1	....	.....	.....	1	3	22
Valley Coal Co.																						
Valley,	Westmoreland,	1	....	....	25	.....	.....	.....	1	.....	.....	1	28	1	....	1	....	.....	.....	2	4	32
West Penn Mining Co.																						
West Penn,	Westmoreland,	1	....	....	40	.....	.....	.....	3	.....	1	.....	45	1	....	1	....	.....	1	4	7	52
The Wahlville Coal Co.																						
Wahlville No. 1,	Butler,	1	....	....	40	.....	.....	.....	4	1	2	2	50	1	....	1	1	.....	1	5	9	59
Wahlville No. 2,	Butler,	1	....	....	10	.....	.....	.....	1	.....	.....	.....	12	....	....	....	....	.....	.....	1	1	13
Totals,	.....	2	....	....	50	.....	.....	.....	5	1	2	2	62	1	....	1	1	.....	1	6	10	72
Wm. K. Hamilton.																						
Wildwood,	Butler,	1	....	....	50	.....	.....	.....	2	.....	1	.....	19	1	....	1	....	.....	.....	2	4	23
Brier Hill Block Coal Co.																						
Brier Hill Block Coal,	Mercer,	1	....	....	19	.....	.....	.....	2	.....	.....	.....	22	....	....	1	1	.....	.....	2	4	26
Butler Coal and Coke Co.																						
Butler,	Butler,	1	....	....	9	.....	.....	.....	1	.....	.....	1	12	1	....	2	....	.....	.....	2	5	17
Grand totals,	.....	117	17	3	4,958	329	1,974	309	621	121	303	164	8,916	78	13	135	170	145	82	594	1,237	10,153

TABLE III—Continued.

Names of Operators and Collieries.	County.	Number of Days Worked in Each Month.												
		January.	February.	March.	April.	May.	June	July.	August.	September.	October.	November.	December.	Total.
Acme Coal Mining Co.,	Clarion,	11.6	6.6	10.9	20.1	12	20.1	21.9	17.4	17.4	16.9	17	14.6	186.5
Avondale Mining and Mfg. Co.,	Clarion,	20.9	18.6	20.9	22.3	22.6	23.6	21.9	19.5	24.8	23	21.8	24.9	264.8
Jos. G. Beale & Co.,	Armstrong,	21	23	22	14	22	26	17	17	25	25	25	26	263
Avonmore Coal and Coke Co.,	Armstrong,	25	22	24	8	.....	.....	.....	14	20	23	20	23	179
Allegheny Coal and Coke Co.,	Allegheny,	27	24	26	26	26	25	27	27	26	27	25	26	312
Anderson Run Coal Co.,	Jefferson,	25	25	25	22	23	25	10	10	12	13	10	25	225
Butts Cannel Coal Co.,	Butler and Beaver,	25	18	22	5	10.5	14.5	17.5	18.5	21	23.5	23	23.6	140.3
Jos. G. Beale & Co.,	Armstrong,	25	24	20	11	.....	25	24	25	17	20	23	25	239
Brackenridge Coal Co.,	Allegheny,	27	24	26	16	.....	11	26	26	26	27	25	26	260
Beaver Coal and Coke Co.,	Lawrence,	24	23	21	25	24	20.5	24.5	22.5	21	25	22.5	22	216 5
Sharon Coal and Limestone Co.,	Mercer, Law. & Butler,	.....	.....	.....	.....	20	20	20	20	20	20	20	20	160
Braeburn Steel Co.,	Westmoreland,	26	24	27	26	26	25	26	26	26	27	24	26	309
Keystone Mining Co.,	Armstrong and Clarion,	23	10.5	21.5	22.5	13.5	20	21	15	17	18	16	18	216
Lewis Coal Co.,	Westmoreland,	25	22	19	16	.....	24	23	20	20	24	21	23	237
Bagdad Coal and Coke Co.,	Armstrong,	24	23	9	6	2	24	25	21	15	25	21	21	216
Logansport Coal Co.,	Armstrong,	.....	.....	.....	.....	.....	22	23	26	23	24	21	24	163
Peale, Peacock & Kerr, Inc.,	Jefferson,	16	6	11	20	14	19	12	15	12	23	17	9	174
Carrier Brothers,	Jefferson,	22	20	22	20	20	22	20	22	20	22	20	21	251
Erie Coal Mining Co.,	Butler,	22	20	23	22	21	23	19	24	22	23	21	20	260
Pittsburg Plate Glass Co.,	Allegheny,	27	24	20	13	9	25	26	26	26	27	24	26	273
Cowansville Mining Co.,	Armstrong,	20	19	22.5	23	21	22	16	22	21	22.5	20	18	247
Chicora Coal and Coke Co.,	Butler,	24	22	25	10	7	18	22	25	23	26	23	25	259
Cherry Run Coal Mining Co.,	Clarion,	13	11	15	18	11	20	24	20	21	14	13	23	203
W. F. Clayton,	Beaver,	27	24	26	26	22	24	24	26	25	27	24	26	301
Cornell Coal Co.,	Allegheny,	24	22	25	13	.....	.....	.....	20	25	26	26	23	204
Carver Coal Co.,	Mercer,	22	22	22.5	24.5	22	22.5	24.5	23.5	23.25	20.5	21.5	22.25	271
Hamilton Coal Mining Co.,	Westmoreland,	24	22	22	12	8	12	21	26	26	25	18	24	240
Catfish Run Coal Co.,	Clarion,	22	20	22	20	20	23	20	20	21	23	24	24	259
The Allegheny Coal Co.,	Allegheny,	.....	.....	.....	.....	.....	.....	.....	20	23	27	23	23	116
Westerman, Filer & Co.,	Mercer,	24.1	23.6	23.7	16.8	23 1	23.6	23.4	23.3	24.1	25	23.1	23.5	277.3
The Hedstrom Coal Mining Co.,	Clarion,	.....	.....	.....	.....	.....	5	21	19	23	23	20	14	125
James W. Ganoe,	Clarion,	10	4	9	12	14	20	21	16	19	15	15	19	174
Darlington Brick and Mining Co.,	Beaver,	22	21	24	25	22	23	25	23	22	20	21	25	273

Addison Davidson,	Beaver,	27	23	27	26	25	25	26	26	23	27	26	26	307
P. D. Sherwin,	Butler,	23	20.5	24.5	22	23.5	23	23.5	25	25	25.5	24	22	283
Eagle Coal Co., Inc.,	Clarion,	18	13	18	17	17	21	17	13	15	20	16	15	200
Wampum Run Coal Co.,	Lawrence,	27	21	26	24	21	22	23	24	25	25	24	25	287
Grove Coal Co.,	Mercer,	23	22	20.5	21.5	24.5	23	23	24	22	22	21	23.5	270
Fairmount Coal Co.,	Armstrong,	24.6	18.5	24.6	25.4	21.2	20.7	23.6	22.7	23.6	26.5	20.8	25	280.3
Evans City Coal Co.,	Butler,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15	25	40
Gilpin Coal Co.,	Armstrong,	25	22	22	7	.....	8	26	27	18	21	21	26	223
Pittsburg Coal Co.,	Allegheny,	24.5	23	24.5	24	21	23	23	24	22	22	21	23	275
F. A. Mizener,	Butler,	25.7	21	24	24	25	21.2	22.	22.5	24	23.3	21	21.2	275
Leechburg Coal and Coke Co.,	Westmoreland,	25	22.5	24	18	26	25	25	18.5	23	25.5	22.5	24.5	241.5
McFetridge Brothers,	Allegheny,	23.5	22	19	10	2	5	9.5	19	22.5	23	20.5	19	195
Hill Coal Co., Limited,	Mercer,	22.5	17	22.5	10.5	23.5	22.5	20	18.5	20.5	23	20.5	20.5	241.5
Frank Williams & Co.,	Clarion,	22	12.5	21	20	12	14	15	14	13	13	13	12	181.5
Haddon Coal Co.,	Armstrong,	24	22	22	12	.....	23	25	22	19	23	20	25	237
Hickory Coal Co., Limited,	Mercer,	22	14.5	19.5	20.5	16.2	19	19.3	17	19.5	16	18	19	220.5
Jefferson-Clearfield Coal and Iron Co.,	Jefferson,	23	12.7	21.3	11	22.5	22.4	24.3	25	21.9	24.4	22.5	21.7	232.5
Pittsburg and Buffalo Co.,	Armstrong,	24	23	25	24	26	24	25	25	24	25	24	25	184
Pardoe Coal Co.,	Mercer,	23	23	25	23	18	20	20	23	23	23	24	24	269
American Sheet Steel Co.,	Armstrong,	23	24	26	26	27	24	16	26	26	26	25	16	285
Kittanning Plate Glass Co.,	Armstrong,	.....	12	26	26	25	25	25	25	26	27	25	26	268
Turner Coal, Coke and Mining Co.,	Butler,	21.2	21	22.5	23.5	20.2	22.5	21.3	21.5	21.3	22.4	21.1	19	256.5
Kerr Coal Co.,	Armstrong and Butler,	23	20	24	23	23	21	20	21.5	21.5	23.5	24	20	264.5
Lucesco Coal Co.,	Westmoreland,	27	24	26	20	.....	9	27	26	25	27	25	26	262
Ben Franklin Coal Co.,	Westmoreland,	22	20	21	22	20	20	20	20	20	23	24	20	252
Monterey Coal Co.,	Clarion,	23	20	22	21	18	19	20	22	25	23	24	22	259
Pittsburg Plate Glass Co.,	Armstrong,	24.4	20.9	23.4	22.5	19.4	22.4	18.9	18.7	24.9	23.4	21.5	23.5	263.9
Mark Packard,	Armstrong,	.....	.....	18	22	24	23	22	20	21	20	21	17	208
Nellie Coal Co.,	Butler,	22.5	21.5	15.2	14	20	21.2	13	23	22	24.2	20.7	22	239.3
Penn'a Salt Manufacturing Co.,	Allegheny,	26	24	27	26	17	26	25	27	26	26	18	25	228
C. P. McCafferty,	Clarion,	20	14	20	18	11	14	19	14	18	19	18	21	206
Oak Ridge Mining Co.,	Armstrong,	22.5	12.5	20.2	20.5	20.2	22	22.7	18.5	19.7	22.5	18.5	23	242 8
Ellis, Blum Co.,	Butler,	.....	.....	.....	.....	.....	.....	.....	.....	.....	12	20	22	54
Pine Run Coal and Coke Co.,	Westmoreland,	27	24	23	14	.....	22	25	26	20	27	23	26	257
The Pollock Coal and Lime Co.,	Clarion,	.....	.....	.....	.....	14	28	23	22	22	27	25	25	186
N. Y. & C. Gas Coal Co.,	Allegheny,	23.9	21.6	23.9	23.7	24.4	23.6	22.9	21.2	22.3	24	20.2	23.7	275.7
Royle Coal Co.,	Butler,	15	21	24	24	17	20	19	13	20	18	16	19	226
George E. Tener,	Lawrence,	27	23	10	11	21	23	25	22	23	27	23	35	260
Riverview Coal and Mining Co., Ltd.,	Armstrong,	11.6	8.6	17	8.4	17	21	17	6.6	14	20	15	13.4	169.6
Roaring Run Coal and Coke Co.,	Westmoreland,	21	17	17	16	25	23	21	18	19	17	20	22	236
George G. Stage,	Butler,	20	18.5	19	21	16.5	19	17.5	13.5	21.5	13	14	20	213.5
Mercer Iron and Coal Co.,	Mercer,	25	23.5	21.7	25.5	23.8	23.5	24.7	24.5	24.5	22	23	23.3	288
Sterling Mining Co.,	Beaver,	.....	.....	.....	.....	15	23	21	19	20	20	18	22	178
Standard Coal Mining Co.,	Clarion,	24	22	23	24	23	23	18	19	23	25	20	21	265
Campbell, Lowther Coal Co.,	Clarion,	14	8.5	17	15	14.5	16	14	17	12	13	16	12	169
Sterling Coal Co.,	Clarion,	12	6	12	16	14	22	21	15	21	17	20	23	199
Sligo Coal and Mining Co.,	Clarion,	14	5	11	18	19	22	17	19	21	21	22	21	210
State Line Coal Co.,	Beaver,	24	20	23	24	24	22	24	23	21	25	23	24	277
Shenango Coal Co.,	Mercer,	10	23	23	26	3	25	24	25	21.5	26	19	21	246.5
Thompson Run Coal Co.,	Beaver,	24	26	25	25	24	24	26	26	25	26	26	22	299
Underwood Mining Co.,	Clarion,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	25	37
Valley Coal Co.,	Westmoreland,	.....	22	19	7	7	23	24	25	19	15	20	21	202
West Penn Mining Co.,	Westmoreland,	25	20	24	12	.....	9	25	15	22	25	25	22	224

TABLE III—Continued.

Names of Operators and Collieries.	County.	Number of Days Worked in Each Month.												
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
The Wahlville Coal Co.,	Butler,	26	24	22	25	27	23	24	24.5	25.5	24	18	24	251
Wm. K. Hamilton,	Butler,	.....	.....	.....	.....	23	24	25	24	23	20	22	25	186
Brier Hill Block Coal Co.,	Mercer,	.....	.....	.....	.....	.....	.....	.....	.....	26	25	25	26	102
Butler Coal and Coke Co.,	Butler,	.....	.....	.....	.....	18	20	23	24	24	25	21	22	177
Average,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	225

TABLE IV—List of fatal accidents that occurred in and about the mines of the Third Bituminous District for the year ending December 31, 1902.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 20	Giovanni Dalesandron,	Italian, ...	Miner, ...	50	M.	1	4	Diamond No. 1, ...	Mercer,.....	Was killed instantly while working in his room by a fall of roof slate; he no doubt accidentally knocked out one of the posts and slate fell upon him with fatal results.
April 24	Frank Montanzon, ...	Italian, ...	Miner, ...	33	M.	1	4	Sandy Creek, ...	Allegheny, ...	Was killed by a fall of slate; was working in his room; he had neglected to support the roof properly with timber.
May 24	William Tonks, ...	English, ...	Miner, ...	39	M.	1	3	Pardoe, ...	Mercer,.....	Was killed by a fall of roof slate on the roadway in the mine while on his way to work in the morning; the roof was secured by timbers at the point where it fell, but the results proved that the timber work was not of a very substantial character.
26	Milo Stellings, ...	American, .	Miner, ...	14	S.	....	....	Buhl No. 1, ...	Mercer,.....	Was killed by a fall of "draw slate" in a room in the mine while he was watching his brother-in-law pulling it down.
26	James Spence, ...	Scotch, ...	Machine loader,	16	S.	....	....	Johnetta, ...	Armstrong, ..	Was killed by a fall of roof slate while he was loading a car in his room; the conditions of the working place where this accident occurred were all favorable to safety.
June 2	Louis Pastoria, ...	Italian, ...	Miner, ...	18	S.	....	....	Aladdin, ...	Armstrong, ..	Was killed by a fall of roof slate while extracting an entry pillar in the mine; he had fired a shot in the mined coal and had wedged some of it down and was loading it into a car, when a large stone fell upon him.

TABLE IV—Continued.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
25	Domenico Perroglio, .	Italian, ...	Miner, ...	26	M.	1	1	Grant, ...	Butler, ...	Was killed by a fall of roof slate while loading a car in his room; he failed to examine the roof after he had taken down the coal from beneath it.
July 11	Domenic Oddis, ...	Italian, ...	Miner, ...	25	S.	....	....	Sandy Creek, ...	Allegheny, ...	Was killed by a fall of "draw slate" while he was taking down some coal in his room.
Sept. 11	George Nulph, ...	American, .	Miner, ...	19	S.	....	....	Fairmount No. 1, ..	Armstrong, ..	Was killed by a fall of roof slate while he was working; the men were securing the roof with posts, when it caved in upon them, resulting in the death of Nulph.
25	John Hogoline, ...	Italian, ...	Miner, ...	41	W.	....	2	Cheswick, ...	Allegheny, ...	Was killed instantly by a fall of roof shale while working at the bottom of the shaft with four other men; Hogoline was loading rock into a mine car, when a large mass of roof fell upon him.
Oct. 9	Chas. Fink, ...	American, .	Miner, ...	19	S.	....	....	Mosgrove, ...	Armstrong, ..	Was fatally injured by a fall of roof slate while he was extracting an entry pillar in the mine; he lived two days after he was injured.
15	Peter Sennue, ...	Russian, ...	Miner, ...	30	M.	1	2	Rathmel, ...	Jefferson, ...	Was fatally injured by a fall of slate while he was loading a car with coal in his room in the mine.
31	Thomas Polliard, ...	American, .	Miner, ...	57	W.	....	....	Kittanning Plate Glass.	Armstrong, ..	Was instantly killed by a fall of roof slate while he was loading a car with coal in the entry he was driving.

Nov. 10	Fred Marico, ...	Italian, ...	Company man,	26	M.	1	2	Trout Run, ...	Jefferson, ...	He was killed by being run over by an electric motor outside of the mine; he was a spragger employed for this purpose outside of the mine, and when the motor, with its trip of cars, came outside of the mine he jumped on front end of it and fell off and was run over; he had no business to be on the motor.
Dec. 23	Gilbert Duff, ...	Irish, ...	Miner, ...	56	S.	....	....	Grant, ...	Butler, ...	Was instantly killed by a fall of roof shale while he was extracting a room pillar in the mine; he had failed to secure the roof properly.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Third Bituminous District for the year ending December 31, 1902.

Date of accident.		Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan.	4	Wm. Coleson, ...	American, .	Company man,	21	S.	Rathmel, ...	Jefferson, ...	Leg broken, head injured and a pick run into his arm; caused by a fall of roof rock while he was cutting a notch in it for a cross bar in the mine; the accident was unavoidable.
	6	James Shannon, ...	American, .	Driver, ...	30	S.	Soldier Run No. 1, ...	Jefferson, ...	Two ribs broken by being squeezed between mine cars in the mine; the accident was due to the carelessness of the victim.
	7	John McNeal, ...	Scotch, ...	Company man,	56	M.	Soldier Run No. 2, ...	Jefferson, ...	Right foot injured by a fall of coal.
	8	Burt Steel, ...	American, .	Miner, ...	25	M.	Eagle, ...	Clarion, ...	Rib broken and hand cut by mine cars.
	13	James Stewart, ...	American, .	M. loader, ...	53	S.	Buhl No. 1, ...	Mercer, ...	Leg broken by a fall of "draw slate" in the mine.
	14	Walter Proswate, ...	English, ...	Driver, ...	22	S.	Soldier Run No. 1, ...	Jefferson, ...	Hand injured by cars in the mine.
	14	Savilio Vagilio, ...	Tyrolean, ..	Miner, ...	56	M.	Hamilton, ...	Jefferson, ...	Leg broken by a fall of coal in the mine.
	15	John Dunn, ...	American, .	Miner, ...	53	S.	Monarch, ...	Clarion, ...	Injured by coal from a shot in the mines.
	21	Alfred Reiser, ...	American, .	Miner, ...	16	S.	Pardoe, ...	Mercer, ...	Leg broken by mine cars outside of mine.
	11	George Powell, ...	American, .	Miner, ...	48	M.	Carrier, ...	Jefferson, ...	Fingers injured by cars in mine.
Feb.	3	John Ierra, ...	American, .	Miner, ...	35	S.	Metcalf, ...	Westmoreland,	Ribs broken by a fall of slate.
	12	George Crouch, ...	American, .	Miner, ...	41	M.	Grant, ...	Butler, ...	Injured by a fall of rock.
Mar.	2	Smith McKee, ...	American, .	Driver, ...	24	M.	Hamilton, ...	Jefferson, ...	Injured by cars in mine.
	3	Clemento Vagilio, ...	Tyrolean, ..	Miner, ...	27	S.	Hamilton, ...	Jefferson, ...	Injured by a fall of coal.
	3	Vernon Antonia, ...	Tyrolean, ..	Miner, ...	25	S.	Hamilton, ...	Jefferson, ...	Thigh fractured by a fall of coal.
	26	Antonia Cuffiao, ...	Italian, ...	Miner, ...	30	M.	Pine Run No. 1, ...	Westmoreland,	Ankle broken by railroad cars.
April	19	Frank Polidore, ...	Italian, ...	Miner, ...	35	M.	Sandy Creek, ...	Allegheny, ...	Leg broken by a fall of slate.
	1	Thomas Bone, ...	American, .	Driver, ...	25	M.	Soldier Run No. 1, ...	Jefferson, ...	Injured by a fall of slate.
May	13	James Laverick, ...	American, .	Company man,	17	S.	Soldier Run No. 1, ...	Jefferson, ...	Finger crushed by cars in the mine.
June	10	Edward Myers, ...	American, .	Miner, ...	38	M	Sligo, ...	Clarion, ...	Injured by a fall of roof slate.
	12	Jacob Keefer, ...	American, .	Miner, ...	30	M.	Monterey, ...	Clarion, ...	Leg broken by a fall of "draw slate."
July	14	Wm. Matterson, ...	American, .	M. scrapper, ..	46	M.	Hedstrom, ...	Clarion, ...	Injured by a fall of "draw slate."
	28	William Carney, ...	American, .	Company man,	23	M.	Soldier Run No. 2, ...	Jefferson, ...	Leg broken by cars in the mine.
	29	Charles Comodore, ...	Italian, ...	Miner, ...	36	M.	Mizener, ...	Butler, ...	Leg broken and head injured by a fall of slate.
Sept.	12	George Hill, Jr., ...	American, .	Company man,	30	M	Sandy Creek, ...	Allegheny, ...	Leg broken by cars in the mine.

	13	Joseph Burtor, ...	Slavonian, .	Miner, ...	28	S.	Bethel, ...	Armstrong, ...	Burned by premature explosion of powder.
	15	Ksawery Halecz, ...	Pole, ...	Miner, ...	26	M.	Hites, ...	Allegheny, ...	Injured by a fall of coal.
	25	Louis Lounce, ...	Italian, ...	Miner, ...	56	S.	Cheswick, ...	Allegheny, ...	Injured by a fall of rock.
	30	John Boresi, ...	Pole, ...	Miner, ...	45	M.	Rathmel, ...	Jefferson, ...	Leg broken by a fall of coal.
	30	Peter Haunchok, ...	Pole, ...	Miner, ...	21	S.	Rathmel, ...	Jefferson, ...	Arm injured by a fall of coal.
Oct.	21	John Hoieska, ...	Slavonian, .	Miner, ...	42	M.	Creighton, ...	Allegheny, ...	Slightly burned by a premature explosion of powder.
	23	Henry Huntsburger, ..	German, ...	M. scraper, ...	25	S.	Brady's Bend, ...	Armstrong, ...	Injured by a mining machine.
Nov.	24	Michael Novock, ...	Slavonian, .	Miner, ...	41	S.	Thompson Run, ...	Beaver, ...	Leg broken by a fall of slate.
	29	Ed. Swefler, ...	American, .	Miner, ...	16	S.	Oak Ridge No. 5, ...	Armstrong, ...	Injured internally by a fall of slate.
Dec.	11	Brun Leon, ...	Italian, ...	M. loader, ...	62	M.	Hamilton, ...	Jefferson, ...	Leg fractured by a fall of coal in the mine.
	12	Wm. Marlow, Jr., ...	English, ...	Miner, ...	36	M.	Sandy Creek, ...	Allegheny, ...	Foot badly injured by a fall of "draw slate."
	30	Mike Tiasch, ...	Hungarian,	Miner, ...	30	S.	Annandale No. 2, ...	Butler, ...	Leg broken by a fall of slate.

Fourth Bituminous District.

ELK, JEFFERSON, CLEARFIELD, CENTRE, TIOGA, CLINTON, LYCOMING, BRADFORD AND McKEAN COUNTIES.

Du Bois, Pa., February 28, 1903.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.

Dear Sir: In accordance with the act of Assembly, approved May 15th, 1893, I have the honor of herewith submitting my annual report as Inspector of Mines for the Fourth Bituminous District for the year ending December 31, 1902.

The past year has been one of unusual activity; several new mines were opened in the district, and preparations were being made at the close of the year to open several more. The demand for coal was active and prices were unusually high, which kept the mines in operation very steadily with some exceptions, where railroad cars for shipment, and local strikes reduced the average number of days worked, and curtailed the total tonnage to a considerable extent. The greatly increased demand for coal induced every person in possession of a tract of coal land to develop it, and place the product on the market, but the production from such mines is not included in this report, as the majority of them did not employ a sufficient number of persons to come under the provisions of the law. The production of coal as reported to this office, amounts to 6,418,810 short tons, which is 616,031 tons more than was produced in the district during the previous year, of this 6,058,593 tons were shipped by rail, 89,680 tons were used at the mines, and 59,250 tons was sold to local trade, while 211,287 tons was manufactured into 133,121 tons of coke, which found a ready market, and owing to the increased demand for such fuel for foundry, furnace and domestic purposes, quite a number of coke ovens have been built, and others that have not been in operation for many years, are being repaired and made ready for use.

The number of accidents in and about the mines of the district during the year, compared with the preceeding year, have decreased by two fatal and six non-fatal; there having been eleven of the

former and thirty-eight of the latter. In consequence of these fatalities, six wives were made widows and thirteen children left fatherless.

Several important changes in the ownership of mines in the district have taken place during the year, as will be seen in the body of the report; the most important of which was the purchase of the Berwind-White Coal Mining interests, consisting of the Berwind-White shaft colliery, and several hundred acres of coal land adjacent thereto, by the Buffalo and Susquehanna Coal and Coke Co. This company also assumed control of their Tyler plant which had been leased to Frank Williams & Co., and have purchased several thousand acres of coal land in Clearfield and Jefferson counties, which will be developed in the near future. The mines of the district have been visited as often as my other duties would permit. The reports of such visits, stating the conditions in which the mines were found, have been sent to the Bureau of Mines from time to time. I am gratified to state that, where suggestions have been made, looking to the betterment of ventilation, and general conditions of the mines, in most instances, an effort has been made to comply.

The report contains the usual statistical tables, together with a description of the old and new mines, also a description of the most important improvements made during the year in the district, and such other data as will be of interest.

Respectfully submitted,

ELIAS PHILLIPS,
Inspector.

Summary of Statistics for 1902.

The figures denoting production, shipment, etc., are for short tons.

Number of mines in district,	85
Number of mines in operation during 1902,	83
Number of tons of coal produced,	6,418,810
Number of tons shipped to market,	6,058,593
Number of tons sold at mines to local trade,	59,250
Number of tons consumed at mines in generating steam and heat,	89,680
Number of coke ovens in the district,	552
Number of coke ovens in operation during 1902,	352
Number of tons of coke produced,	133,121
Number of tons of coal used in manufacture of coke,	211,287
Number of tons produced by pick mining, approximately,	5,161,213
Number of tons produced by compressed air machines, approximately,	906,705

Number of tons produced by electrical machines, approximately,	350,892
Number of persons employed inside the mines,	8,490
Number of persons employed outside, including coke workers,	1,184
Number of persons employed at manufacture of coke,	75
Number of fatal accidents inside the mines,	10
Number of tons produced for each fatal accident inside,	641,881
Number of persons employed per fatal accident inside,	849
Number of fatal accidents outside,	1
Number of persons employed per fatal accident outside,	1,184
Number of wives made widows by fatal accidents,	6
Number of children orphaned by fatal accidents,	13
Number of non-fatal accidents inside of mines,	35
Number of persons employed per non-fatal accident inside,	242.6
Number of non-fatal accidents outside,	3
Number of persons employed per non-fatal accident outside,	394.7
Number of steam locomotives used inside,	2
Number of electric motors used inside,	26
Number of fans used for ventilation,	23
Number of furnaces used for ventilation,	56
Number of gaseous mines in operation during 1902,	2
Number of non-gaseous mines in operation during 1902,	31
Number of new mines opened in 1902,	7
Number of old mines abandoned during 1902,	4

A. Production of Coal and Coke During the Year 1902.

Names of Companies.	Coal.	Coke.
Northwestern Mining and Exchange Co.,	818,366	.....
Clearfield Bituminous Coal Corporation,	695,182	59,688
Jefferson-Clearfield Coal and Iron Co.,	676,617	.....
Blossburg Coal Co.,	491,868	.....
Shawmut Mining Co.,	460,506	1,699
Lehigh Valley Coal Co.,	440,874	.....
Buffalo and Susquehanna Coal and Coke Co.,	439,121	29,218
Kersey Coal and Coke Co.,	387,473	23,754
Kettle Creek Coal Mining Co.,	265,732	.....
Morris Run Coal Mining Co.,	363,618	.....
Jefferson Coal Co.,	275,600	.....
Rochester and Pittsburg Coal and Iron Co.,	226,468	18,762
Magee & Ellsworth,	207,739	.....
Kelly Brothers,	112,409	.....
Red Run Coal Co.,	112,320	.....
Iroquois Coal Co.,	112,264	.....
Clearfield and Grampian Coal Co.,	51,934	.....
Atherton & Barnes,	22,151	.....
St. Marys' Sewer Pipe Co.,	20,840	.....
Harbison Walker Co.,	20,290	.....
Mathew Shadeck,	19,328	.....
A. G. Spears,	18,923	.....
Hall & Kaul,	14,181	.....
Priscilla Coal Mining Co.,	12,759	.....
Isaac Stage,	12,691	.....
Kelly & Nugent,	11,113	.....
Charles Schultz,	10,758	.....
J. F. Keating,	7,245	.....
George Rees & Co.,	6,000	.....
Clinton Coal Co.,	4,500	.....
Totals,	6,418,810	133,121

Production by Counties.

Names of Companies.	Coal.	Coke.
Clearfield,	1,768,857	107,668
Elk,	1,421,855	25,453
Jefferson,	1,127,241	.....
Tioga,	1,073,923	.....
Centre,	534,137	.....
Clinton,	370,232	.....
Lycoming,	112,320	.....
McKean,	7,245	.....
Totals,	6,418,810	133,121

B. Showing the number of fatal and non-fatal accidents inside and outside the mines; number of tons of coal produced per fatal and non-fatal accident inside the mines; number of persons employed inside and outside; and the number employed inside and outside for every fatal and non-fatal accident for each company during 1902.

Names of Companies.	Number of lives lost outside.	Number of lives lost inside.	Total number of lives lost.	Number severely injured inside.	Number severely injured outside.	Total number severely injured.	Tons of coal produced per each life lost.	Tons of coal produced per serious injury inside.	Number employes inside of mines.	Number employes outside of mines.	Total number employed.	Number of employes inside for each life lost.	Number of employes inside for each severe injury.	Number of employes outside for each life lost.	Number of employes outside for each severe injury.
Northwestern Mining and Exchange Co.,	1	.....	1	4	.....	4	818,366	204,592	999	145	1,144	999	250	.....	.....
Clearfield Bituminous Coal Corporation,	[illegible]	.....	[illegible]	[illegible]	.....	[illegible]	347,591	347,591	845	75	920	423	423	.....	.....
Jefferson-Clearfield Coal and Iron Co.,	3	.....	3	1	.....	1	225,539	676,617	620	109	729	243	729	.....	.....
Blossburg Coal Co.,	.....	.....	.....	1	.....	1	.....	491,808	886	95	981	.....	886	.....	.....
Shawmut Mining Co.,	1	.....	1	3	.....	3	460,506	153,502	466	89	555	466	155	.....	.....
Lehigh Valley Coal Co.,	.....	.....	.....	1	.....	1	.....	440,874	413	33	446	.....	413	.....	.....
Buffalo and Susquehanna Coal and Coke Co.,	.....	.....	.....	8	1	9	.....	54,890	526	88	614	.....	66	.....	88
Kersey Coal and Coke Co.,	.....	.....	.....	3	.....	3	.....	129,158	732	125	857	.....	244	.....	.....
Kettle Creek Coal Mining Co.,	.....	.....	.....	[illegible]	.....	[illegible]	.....	182,866	352	47	399	.....	176	.....	.....
Rochester and Pittsburg Coal and Iron Co.,	2	1	3	7	.....	7	113,234	32,352	219	46	265	110	31	46	.....
Magee & Ellsworth,	.....	.....	.....	.....	2	2	.....	.....	310	84	394	.....	.....	.....	42
Kelly Brothers,	1	.....	1	2	.....	[illegible]	112,409	562,045	206	14	220	206	103	.....	.....
Clearfield and Grampian Coal Co.,	.....	.....	.....	1	.....	1	.....	.....	93	2	95	.....	93	.....	.....
Morris Run Coal Mining Co.,	.....	.....	.....	.....	.....	.....	.....	.....	739	63	802	.....	.....	.....	.....
Jefferson Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	301	31	332	.....	.....	.....	.....
Red Run Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	175	40	215	.....	.....	.....	.....
Iroquois Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	191	15	206	.....	.....	.....	.....
Atherton & Barnes,	.....	.....	.....	.....	.....	.....	.....	.....	57	3	60	.....	.....	.....	.....
St. Marys' Sewer Pipe Co.,	.....	.....	.....	.....	.....	.....	.....	.....	55	8	63	.....	.....	.....	.....
Harbison Walker Co.,	.....	.....	.....	.....	.....	.....	.....	.....	23	3	26	.....	.....	.....	.....
Mathew Shadeck,	.....	.....	.....	.....	.....	.....	.....	.....	34	5	39	.....	.....	.....	.....
A. G. Spears,	.....	.....	.....	.....	.....	.....	.....	.....	33	2	35	.....	.....	.....	.....
Hall & Kaul,	.....	.....	.....	.....	.....	.....	.....	.....	25	3	28	.....	.....	.....	.....
Priscilla Coal Mining Co.,	.....	.....	.....	.....	.....	.....	.....	.....	29	3	32	.....	.....	.....	.....
Isaac Stage,	.....	.....	.....	.....	.....	.....	.....	.....	18	9	27	.....	.....	.....	.....

TABLE B—Continued.

Names of Companies.	Number of lives lost inside.	Number of lives lost outside.	Total number of lives lost.	Number severely injured outside.	Number severely injured inside.	Total number severely injured.	Tons of coal produced per each life lost inside.	Tons of coal produced per serious injury inside.	Number employes inside of mines.	Number employes outside of mines.	Total number employed.	Number of employes inside for each life lost.	Number of employes inside for each severe injury.	Number of employes outside for each life lost.	Number of employes outside for each severe injury.
Kelly & Nugent	.....	.....	.....	.....	.....	.....	.....	.....	23	[illegible]	25	.....	.....	.....	.....
Charles Schultz	.....	.....	.....	.....	.....	.....	.....	.....	21	[illegible]	24	.....	.....	.....	.....
J. F. Keatnz	.....	.....	.....	.....	.....	.....	.....	.....	16	[illegible]	18	.....	.....	.....	.....
George Rees & Co.	.....	.....	.....	.....	.....	.....	.....	.....	32	[illegible]	34	.....	.....	.....	.....
Hutton Coal Co.	.....	.....	.....	.....	.....	.....	.....	.....	51	38	89	.....	.....	.....	.....
Totals and averages.	10	1	11	35	3	38	641,881	183,495	8,490	1,184	9,674	849	243	1,184	395

Average production per employe, 663.51.

C. Classification of Fatal Accidents for the Year 1902.

	Inside of Mines.																	Outside of Mines.					
	By Falls of								By Falling into														
	Coal.	Slate.	Roof.	By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	Shafts.	Slopes.	Manways, breasts, etc.	Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
February,	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
May,	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	1	2
June,	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
August,	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
September,	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
October,	.....	.....	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
November,	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
Totals,	.....	4	2	1	2	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	10	.....	.....	.....	.....	1	1	11

D. Classification of Non-fatal Accidents for the Year 1902.

	Inside of Mines.																		Outside of Mines.					
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
January,	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	1	2
February,	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	1	.....	.....	.....	.....	1	3
March,	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
April,	1	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
May,	.....	1	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	4
June,	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	1	2
July,	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
August,	.....	1	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
September,	1	.....	.....	.....	5	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	7
October,	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	4	.....	.....	.....	.....	.....	.....	4
December,	.....	1	2	2	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	7	.....	.....	.....	.....	.....	.....	7
Totals,	3	5	8	9	5	.....	1	1	.....	.....	.....	.....	.....	.....	3	35	2	.....	.....	.....	1	3	38

E. Occupations of Employes Killed or Fatally Injured Inside and Outside the Mines of the Fourth Bituminous District During 1902.

Months.	Inside.													Outside.										Grand total.
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Rock-keepers and clerks.	All other employes.	Total outside.	
February,				1								1							1	1	1
May,				1						1		1									1
June,				1								1									1
August,				2								2									2
September,				3								3									3
October,				1								1									1
November,																					
Totals,				9						1		10							1	1	11

F. Occupations of Employes Severely Injured Inside and Outside the Mines of the Fourth Bituminous District During 1902.

Months.	Inside.												Outside.								Grand total.
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
January,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	2	.....	.....	.....	.....	.....	.....	.....	.....	2
February,	.....	.....	.....	2	.....	.....	.....	1	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	3
March,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	2	.....	.....	.....	.....	.....	.....	.....	.....	2
April,	1	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	3
May,	.....	.....	.....	2	.....	.....	.....	1	1	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	4
June,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	1	2
July,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
August,	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	3
September,	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	.....	.....	7
October,	.....	.....	.....	1	.....	.....	.....	.....	1	.....	2	4	.....	.....	.....	.....	.....	.....	.....	.....	4
December,	.....	.....	.....	6	.....	.....	.....	1	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	.....	.....	7
Totals,	1	.....	.....	27	.....	.....	.....	3	2	.....	4	37	.....	.....	.....	.....	.....	.....	1	1	38

G. Nationality of Employes Killed or Fatally Injured Inside and Outside the Mines During 1902.

	Americans.	Irish.	Poles.	Italians.	Slavs.	Lithuanians.	Swedes.	Total.
February,	.....	.....	.....	1	.....	.....	.....	.....
May,	1	.....	.....	.....	.....	.....	1	.....
June,	.....	.....	.....	.....	1	.....	.....	.....
August,	.....	.....	.....	1	.....	.....	.....	.....
September,	.....	1	1	.....	.....	.....	.....	.....
October,	.....	.....	.....	.....	1	2	.....	.....
November,	1	.....	.....	.....	.....	.....	.....	.....
Totals,	2	1	1	2	2	2	1	11

H. Nationality of Employes Severely Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Scotch.	Irish.	Poles.	Italians.	Slavs.	Austrians.	Swedes.	Finns.	Total.
January,	.....	.....	1	.....	.....	.....	.....	.....	1	.....	.....
February,	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March,	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
April,	1	.....	.....	.....	1	.....	.....	1	.....	.....	.....
May,	2	.....	.....	.....	.....	.....	1	.....	.....	1	.....
June,	.....	.....	.....	.....	1	.....	1	.....	.....	.....	.....
July,	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
August,	.....	.....	.....	.....	2	.....	.....	1	.....	.....	.....
September,	1	.....	.....	3	2	1	.....	.....	.....	.....	.....
October,	2	1	.....	.....	.....	1	.....	.....	.....	.....	.....
December,	2	.....	.....	1	1	3	.....	.....	.....	.....	.....
Totals,	12	2	1	4	7	5	2	3	1	1	38

I. Giving names of operators and mines, kind of openings, type and size of fans; size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each employe per minute in Fourth Bituminous District for the year 1902.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at Inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Buffalo and Susquehanna Coal and Coke Co.														
DuBois shaft No. 1,	Shaft,	Gaseous,	Fan,	25 x 6.5	1.2	Gulbal,	Steam,		3	106,050	86,650	108,200	297	357
Williamsport No. 2,	Drift,	Non-gas.	Fan,	8 x 3½	.5	Murphy,	Steam,		1	40,200	40,200	50,400	229	300
Williamsport No. 6,	Drift,	Non-gas.	Fan,	6		Clark,	Steam,		1	28,800	28,800	29,400		
Jefferson-Clearfield Coal and Iron Co.														
Rochester,	Drift,	Non-gas.	Fan,	20 x 4.5	.8	Gulbal,	Steam,		1	51,000	51,000	54,200	186	275
London,	Drift,	Non-gas.	Fan,	12.5 x 7	1.2	Capell,	Steam,		3	102,000	95,550	102,600	434	235
Rochester and Pittsburg Coal and Iron Co.														
Helvetia,	Slope,	Gaseous,	Fan,	25 x 6	1.8	Gulbal,	Steam,		2	62,400	59,000	64,200	219	280
Northwestern Mining and Exchange Co.														
Clarion No. 27,	Drift,	Non-gas.	Furnace,					40	2	29,920	29,920	32,400	225	190
Clarion No. 29,	Drift,	Non-gas.	Furnace,					48	1	12,500	12,500	21,000		
West Clarion No. 1,	Drift,	Non-gas.	Furnace,					54	2	19,000	19,000	24,000		
West Clarion No. 3,	Drift,	Non-gas.	Fan,	6	.4	Champion,	Electricity,		2	29,700	29,700	30,100	197	273
West Clarion No. 6,	Drift,	Non-gas.	Furnace,					40	2	24,940	24,940	25,000		
Dagus No. 1,	Slope,	Non-gas.	Fan,	12.5 x 7	.4	Capell,	Steam,		2	52,680	43,980	54,000		
Dagus No. 3,	Drift,	Non-gas.	Fan,	8		Murphy,	Steam,		1	18,900	18,900	20,900	469	203
Eureka slope,	Slope,	Non-gas.	Furnace,					30	1	23,400	23,400	25,000		
Rattlesnake Run,	Drift,	Non-gas.	Furnace,					35	2	31,500	31,500	32,200	108	295
Shawmut Mining Co.														
Shawmut No. 1,	Drift,	Non-gas.	Furnace,					54	1	15,750	15,750	15,840	29	543

Shawmut No. 5,	Drift,	...	Non-gas.	Fan,	18 x 4.5	5	Brazill,	Steam,		3	56,000	48,600	57,900	79	708
Shawmut No. 6,	Slope,	...	Non-gas.	Fan,	18 x 4.5	.8	Brazill,	Steam,		2	66,600	66,600	66,720	84	793
Shawmut No. 8,	Drift,	...	Non-gas.	Fan,	16 x 4	1.5	Kinney,	Steam,		4	54,000	53,700	54,840	195	505
Shawmut No. 9,	Drift,	...	Non-gas.	Furnace,					32	1	18,000	18,000	18,480		
Shawmut No. 10,	Drift,	...	Non-gas.	Furnace,					48	4	19,200	15,640	21,600		
Mead Run No. 4,	Drift,	...	Non-gas.	Furnace,					48	2	25,400	25,400	26,000	79	321
Blossburg Coal Co.															
Arnot No. 1,	Drift,	...	Non-gas.	Furnace,					36	2	17,220	17,220	18,000	120	144
Arnot No. 2,	Drift,	...	Non-gas.	Furnace,					32	1	23,850	23,850	24,040	161	148
Arnot Nos. 3 and 5,	Drift,	...	Non-gas.	Fan,	18 x 6	2.	Murphy,	Steam,		3	71,300	71,300	80,000	290	245
Arnot No. 7,	Drift,	...	Non-gas.	Furnace,					40	1	16,800	16,800	17,500	146	115
Bear Run,	Drift,	...	Non-gas.	Fan,	14 x 4	1.4	Guibal,	Steam,		2	48,640	48,640	48,920	169	285
Maple Hill,	Drift,	...	Non-gas.	Furnace,					32	1					
Clearfield Bit. Coal Corporation.															
Moravian,	Drift,	...	Non-gas.	Furnace,					54	3	38,550	38,550	39,700	172	224
Pleasant Hill,	Drift,	...	Non-gas.	Furnace,					54	3	44,600	39,400	49,200	216	206
Grass Flat No. 9,	Drift,	...	Non-gas.	Furnace,					54	1	38,400	38,400	34,680	255	480
Grass Flat No. 10,	Drift,	...	Non-gas.	Fan,	16 x 4	1.	Guibal,	Steam,		2	49,740	44,200	48,680		
Grass Flat No. 11,	Drift,	...	Non-gas.	Furnace,					54	2	34,000	34,000	38,800	202	203
Knox Run No. 1,	Drift,	...	Non-gas.	Furnace,					54	1	20,000	20,000	20,680		
Knox Run No. 2,	Drift,	...	Non-gas.	Furnace,					54	2	21,000	19,480	22,400		
Lehigh Valley Coal Co.															
Sugar Camp Nos. 2 and 4,	Drift,	...	Non-gas.	Furnace,					64	1	24,000	24,000	32,400	301	227
Sugar Camp Nos. 7 and 12,	Drift,	...	Non-gas.	Furnace,					64	1	25,200	25,200	34,600		
Sugar Camp Nos. 5 and 8,	Drift,	...	Non-gas.	Furnace,					90	2	19,200	17,820	22,400		
Sugar Camp No. 13,	Drift,	...	Non-gas.	Furnace,					28	1	16,200	16,200	21,500	25	648
Sugar Camp No. 9,	Drift,	...	Non-gas.	Furnace,					48	1	27,500	27,500	27,820	87	902
Sugar Camp No. 10,	Drift,	...	Non-gas.	Furnace,					48	1	24,000	24,000	24,200		
Sugar Camp No. 11,	Drift,	...	Non-gas.	Furnace,					48	1	27,000	27,000	27,400		
Morris Run Coal Mining Co.															
Jones No. 1,	Slope,	...	Non-gas.	Fan,	20 x 4.5	2.	Guibal,	Steam,		2	63,600	61,600	64,200	600	106
New Mine No. 2,	Drift,	...	Non-gas.	Furnace,					32		15,000	15,000	17,500	139	107
Magee & Ellsworth.															
Antrim No. 1,	Drift,	...	Non-gas.	Fan,	8 x 3	.8	Murphy,	Steam,		1	31,400	31,400	34,600	52	601
Antrim No. 5,	Slope,	...	Non-gas.	Fan,	20 x 4.5	1.2	Guibal,	Steam,		1	29,600	29,600	32,400	152	194
Anna "S,"	Drift,	...	Non-gas.	Fan,	16 x 3	.5	Guibal,	Steam,		3	31,400	28,400	31,680	106	360
Red Run Coal Co.															
Red Run No. 2,	Drift,	...	Non-gas.	Fan,	6		Stine,	Electricity,		1	20,000	20,000	20,400	175	411
Red Run No. 7,	Drift,	...	Non-gas.	Fan,	6		Stine,	Electricity,		1	30,000	30,000	30,240		
Red Run No. 8,	Drift,	...	Non-gas.	Fan,	6		Stine,	Electricity,		1	22,500	22,500	24,500		
Kettle Creek Coal Mining Co.															
Kettle Creek No. 1,	Drift,	...	Non-gas.	Furnace,					40	1	29,400	29,400	36,000	237	300
Kettle Creek Nos. 2 and 3,	Drift,	...	Non-gas.	Fan,	6		Stine,	Steam,		1	42,600	42,600	54,000		
West Side mine,	Drift,	...	Non-gas.	Furnace,					40	1	30,000	30,000	31,500	115	260
Clinton Coal Co.															
Clinton mine,	Drift,	...	Non-gas.	Fan,	7		Stine,	Steam,							

TABLE I—Continued

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Kersey Coal and Coke Co.														
Byrne No. 21,	Drift, ...	Non-gas.	Furnace,..	.....	.....	.....	.....	90	3	48,400	48,400	50,600	275	177
Elk No. 31,	Drift, ...	Non-gas.	Furnace,..	.....	.....	.....	.....	48	2	31,400	30,200	31,800	148	212
Cardiff No. 41,	Drift, ...	Non-gas.	Furnace,..	.....	.....	.....	.....	64	4	56,400	51,820	56,820	309	182
Iroquois Coal Co.														
Brock,	Drift, ...	Non-gas.	Furnaces, 2	.....	.....	.....	.....	64	3	52,400	52,200	54,000	191	274
Jefferson Coal Co.														
Coal Glen No. 1,	Drift, ...	Non-gas.	Fan,.....	5	.....	Clark, ...	Steam and Com. air.	.....	2	31,000	31,000	31,400	278	246
Coal Glen No. 2,	Drift, ...	Non-gas.	Fan,.....	8	.....	Clark, ...	Gasoline,....	.....	1	37,500	37,500	34,800		
Beechtree No. 2,	Drift, ...	Non-gas.	Furnace,..	.....	.....	.....	.....	15	1	9,400	9,400	10,000	23	408
Kelly Brothers.														
Snow Shoe No. 4,	Drift, ...	Non-gas.	Furnace,..	.....	.....	.....	.....	32	1	22,000	18,400	23,600	161	343
Snow Shoe No. 5,	Drift, ...	Non-gas.	Furnace,..	.....	.....	.....	.....	32	1	33,250	23,250	38,400		
Cataract,	Drift, ...	Non-gas.	Furnace,..	.....	.....	.....	.....	70	2	27,400	23,680	28,100	45	600
St. Mary's Sewer Pipe Co.														
Kaul Mine,	Drift, ...	Non-gas.	Furnace,..	.....	.....	.....	.....	32	1	14,400	14,400	15,000	55	262
J. F. Keating.														
Lyman,	Drift, ...	Non-gas.	Furnace,..	.....	.....	.....	.....	24	1	4,600	4,600	4,840	16	287
Kelly & Nugent.														
Cato,	Drift, ...	Non-gas.	Natural,..	.....	.....	.....	.....	.....	.....	3,600	3,600	3,200	23	136
Isaac Stage.														
Clearfield No. 10,	Drift, ...	Non-gas.	Furnace,..	.....	.....	.....	.....	12	1	4,100	4,100	4,600	18	230

Clearfield & Grampian Coal Co.														
Raybold No. 2,	Drift, ...	Non-gas.	Furnace,	.. ..	.....	....	.....	28	1	17,450	17,450	18,000	41	423
Penn No. 1,	Drift, ...	Non-gas.	Furnace,	.....	.....	.....	.....	28	1	19,200	19,200	20,000	52	365
Priscilla Coal Mining Co.														
Priscilla No. 2,	Drift, ...	Non-gas.	Furnace,..	.....	.....	.....	.....	28	1	13,500	13,500	16,000	29	466
Atherton & Barnes.														
Belfast,	Drift, ...	Non-gas.	Furnace,..	.....	.....	.....	... .	16	1	16,600	16,600	18,000	57	291
Harbison Walker Co.														
Fairmount No. 1,	Drift, ...	Non-gas.	Furnace,..	.....	.....	.....	.....	24	1	6,240	6,240	6,500	23	271
Matt Schadeck.														
Mosquito Creek,	Drift, ...	Non-gas.	Furnace,..	.....	.....	.....	.....	24	1	6,000	6,000	9,400	34	176
A. G. Spears.														
Meyer Run,	Drift, ...	Non-gas.	Furnace,..	.....	.....	.....	.....	28	2	25,560	25,560	24,840	33	773
W. F. Holt.														
Cherry Run,	Drift, ...	Non-gas.	Furnace,..	.....	.....	.....	.....	32	1	6,000	6,000	6,200	.....	.....
Charles Schultz.														
Schultz mine,	Drift, ...	Non-gas.	Furnace,..	.....	.....	.....	.....	12	1	4,100	4,100	4,320	21	200
George Rees & Co.														
Brittanic mine,	Drift, ...	Non-gas.	Furnace,..	.....	.....	.....	.....	24	1	5,800	5,800	6,100	32	189
Hall & Kaul.														
Hazel Dell,	Drift, ...	Non-gas.	Furnace,..	.....	.....	.....	.....	32	1	5,840	5,840	6,400	25	233

J. Names of mines using coal cutting machines, names of machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines during 1902.

	Kind of opening.	Gaseous or non-gaseous.	Name and Number of Machines in Use.				Total machines used.	Power used by machines.	Geological and local name of seam.	Average thickness in inches.	Height of Seam in Inches.		Approximate number of tons produced by machines.
			Ingersol.	Sullivan.	Harrison.	Jeffrey.					Thickest.	Thinnest.	
Dubois shaft No. 1,	Shaft,	Gaseous,	.....	10	4	.....	14	Compressed air,	Lower Freeport, D,	60	72	48	225,268
Helvetia,	Slope,	Gaseous,	1	18	.....	.....	19	Compressed air,	Lower Freeport, D,	72	84,	60	225,800
Rochester,	Drift,	Non-gas.	17	5	2	.....	24	Compressed air,	Lower Freeport, D,	74	84	64	128,250
London,	Drift,	Non-gas.	12	6	15	.....	33	Compressed air,	Lower Freeport, D,	74	84	64	280,720
Coal Glen,	Drift,	Non-gas.	.....	.....	2	.....	2	Compressed air,	.....	48	54	42	5,120
Antrim No. 5,	Slope,	Non-gas.	.....	.....	3	.....	3	Compressed air,	"B," Blossburg,	48	54	42	41,547
Anna "S,"	Drift,	Non-gas.	.....	.....	7	.....	7	Compressed air,	"B," Blossburg,	36	48	30	
West Clarion,	Drift,	Non-gas.	.....	.....	.....	7	7	Electricity,	Lower Freeport, D,	45	54	36	120,000
Clarion No. 27,	Drift,	Non-gas.	.....	.....	.....	4	4	Electricity,	Lower Freeport, D,	35	40	30	47,052
Shawmut No. 5,	Drift,	Non-gas.	.....	.....	.....	9	9	Electricity,	Upper Kittanning, C,	35	40	30	52,107
Shawmut No. 6,	Slope,	Non-gas.	.....	.....	.....	13	13	Electricity,	Lower Kittanning, B,	35	40	30	48,886
Shawmut No. 8,	Drift,	Non-gas.	.....	1	9	16	26	Elec. & com. air,	Lower Kittanning, B,	35	40	30	82,847
Totals,	.....	.....	30	40	42	49	161	.....	.....	.....	.....	.....	1,257,597

Examination of Mine Foremen and Fire Bosses.

The annual examination of persons applying for certificates of competency of mine foremen and fire bosses, was held at Du Bois, on January 21, 22 and 23d, 1902. There were thirty-six applicants present, and the following were awarded certificates of second grade:

George Harris, Reynoldsville; Joseph Reed, DuBois; H. M. Stewart, Westville; Robert E. Stewart, Peale; James Patterson, Sykesville; A. N. Ruddock, Enenora; Alexander Stewart, Dagus Mines; Mathew L. Smith, Antrim; Robert Martin, David Heron, Edward McCabe, Arnot; John Stratton, James McCloskey, Brockwayville; Neil Shaw, Charles E. Potter, Potterdale.

The board of examiners was composed of George L. Miller, operator; John Aikman, miner, and Elias Phillips, Mine Inspector.

A Description of Improvements for 1902.

In the year 1899, the Kersey Coal and Coke Co. secured 15,000 acres of coal lands on the Bennetts Branch of the Sinnemahoning Creek, in Elk and Clearfield counties. After prospecting and finding coal, a railroad was constructed about fourteen miles in length, and during the same year three mines were opened, which are now producing a large daily tonnage, and this coal is being shipped to northern markets, where it is giving excellent satisfaction. The No. 21 mine has been equipped with three Ingersoll air compressors, which are furnishing motive power for twenty-nine Ingersoll mining machines of the Puncher type. There has also been a 300 horse power haulage plant (tail rope system) added to the equipment for the purpose of transporting coal through the main heading to its mouth, from whence a locomotive delivers it to the tipple. There is also under construction a 16-foot diameter Capell fan. Mine No. 31 is adjacent to mine No. 21 and in the same field. This mine is equipped with a "Phillips Automatic Dump," which has a capacity of 2,000 tons of coal per day. Ingersoll mining machines are being installed. The main headings of the mine are laid with 35 pound steel rails and a 12 pound T rail is used in the rooms, and cars of one ton capacity are used. The mine village known as Brynedale, is located near the two above named mines, which consists of 205 dwellings, each containing seven rooms. A large store is located at this place to furnish the employes with supplies, which is of the best required for a camp of this magnitude. The village is supplied with pure mountain water, conveyed through six inch pipe. The company has also provided a fire system, and has on hand hose carts and reels to transport the fire apparatus to and from the hose-house by the office force, which is organized for the protection of property. At the village known as

Cardiff where mine N. 41 is located, 128 seven-room houses have been built, together with a large store building.

Mine No. 41 is also equipped with a "Phillips Automatic Dump" of 2,000 tons capacity, which is located 1,200 feet from the drifts; the coal is hauled from the drifts to the tipple by a 12 ton locomotive.

Near the mines Nos. 21 and 31, 80 coke ovens of the Bee-hive type have been built, and the intention is to build 200 more in the near future. The designing and construction of these plants are under the management of Mr. George S. Ramsey.

The North Western Mining and Exchange Company, completed the rebuilding of its plant at the Dagus No. 1 slope, which was destroyed by fire during the month of December, 1901, and work was resumed in early part of April. The tipple was made considerably larger than the original one, and the general arrangements for handling coal improved in many ways. The power house, a brick structure, is located some distance from the tipple, and contains a battery of four 150 H. P. return tubular boilers, made by the Phoenix Iron Works, Meadville, Pa. The hoisting engines for the tail rope haulage are 150 H. P., built by the Robinson Machine Co., Monongahela, Pa. There was also another hoisting engine of 150 H. P. with single drum installed to hoist the coal to the surface. The fan shaft was enlarged and the airways leading to same improved during the year. The Dagus No. 3 mine was equipped with two 100 H. P. return tubular boilers, and a pair of 150 H. P. haulage engines, also a new iron fan to replace the old one.

The following improvements were under construction at the London mine of the Jefferson and Clearfield Coal and Iron Co. A battery of four boilers of 150 horse power each, built by the Phoenix Iron Works Co. Two 24 x 22 inches McEwen engines, direct connected to two 250 K. W. Thompson Ryan Generators. There are also on the ground seven 10-ton General Electric Motors.

Accidents for 1902.

By referring to Tables C and D of this report, it will be seen that six persons lost their lives and sixteen were injured, some quite seriously by falls of coal and roof slate. One person lost his life and eleven others were injured by mine cars. Two were killed and five others quite severely burned by an explosion of gas, and one met his death by a blast, and one was killed, and six others were injured from miscellaneous causes inside and outside the mines. I shall endeavor to give in a brief manner a description of the fatal accidents, the cause and responsibility in each case being determined after a careful investigation of each accident as it occurred.

By Falls of Coal and Slate.

The first victim from this cause was Paul Turine who, with his partner, was driving a room in crop coal, where the roof was dangerous from clay slips. They had fired a shot in the coal and after returning Turine started to shovel the coal back, when a large stone fell upon him. The props were eight feet from the face of the room, which was twenty-one feet wide, and I concluded that the men had erred in not having more timber set up, and in not examining the roof carefully after firing the shot and before commencing to work. They had not worked as miners very long, and no doubt were somewhat ignorant of the dangers of the occupation.

On May 24th, C. J. Gustofson, a Swede trackman, and his helper were ordered by the mine foreman to replace a door on the eighth right heading which had become worthless from long use, and after removing the door from the hinges he commenced to knock out the old frame, using a hammer for the purpose, and when the frame fell, the roof above it also fell on Gustofson, killing him almost instantly, and injuring the door-boy quite seriously. The victim had been warned by the foreman regarding the dangerous condition of the roof, and he displayed poor judgment in not securing the roof above him before knocking out the only support it had. There is an object lesson in this accident, and one that should not be lost sight of, namely, that door frames should not be subjected to the weight of the roof, as it is not only dangerous, but also destroys them for the purpose for which they are intended.

Mike Loss, a Slav miner, was instantly killed in the Pleasant Hill mine. He with two of his countrymen was working in a room in which the roof was dangerous, being on the outcrop line of the seam. The roof began falling in the room, and they retreated to a place of safety, but Loss remembering that he had left something in the room, which he considered valuable, attempted to re-enter the place while it was still falling, when he was caught by the fall with the result as stated. This is what I should call foolhardiness.

On August 8th, Thomas Canterine was instantly killed in the Clarion No. 29 drift. He with others was removing heading stumps and the roof was unusually dangerous by being crushed and broken by the weight of the overlying strata, so that the accident was unavoidable.

On October 14th an accident occurred in the Rochester mine, in which two persons were instantly killed. The victims of the accident were removing pillars with the use of the mining machine and on the morning of the accident had gone to work early, and, against orders were undercutting a triangular stump of coal, leaving no support, and when it fell, considerable roof slate came with it, re-

sulting as above stated. The noise of the machine no doubt prevented them from hearing any warning, but they certainly erred in not leaving some support, or in using sprags under the stump.

Accidents by Mine Cars.

John Kanyuk, a Slav miner, was instantly killed by a trip of loaded cars while walking on the haulage road in the London mine. The victim was employed on the night turn, and was on his way to work, but preferred traveling on the rope road, and running the chances rather than walking on the manway, which is provided for the purpose. Much has been done to prevent persons from taking such risks, but until men see the folly of such practices, just so long will accidents occur from this cause.

Accidents from Gas Explosions.

On September 23d, at about 10.30 A. M., an explosion of gas occurred in the Helvetia mine, in which Mike Fender and Fergus Bonner were fatally burned and five others were more or less severely scorched by the flames.

The victims were taken to the Adrien Hospital at Punxsutawney where they were cared for, and all survived except Fender and Bonner.

Upon learning of the accident, I left for the mine and upon my arrival, I entered the workings accompanied by Mr. Hampson, Inspector 12th district, and the mine officials. When we arrived at the scene of the explosion which occurred in the 5th west heading, in rooms Nos. 1 to 5, where pillars were being removed, the rooms having been driven to the property line, there was no evidence found that a violent explosion had taken place, but some indications of flame having charred the fine dust upon the props and pillars, but it did not extend far out the rooms, showing conclusively that but a small body of gas had been present, otherwise the loss of life would have been greater. After carefully examining all the workings in this portion of the mine, and questioning the mine officials and employes who could furnish any light upon the cause of the accident, we came to the following conclusion. 1st. That the fire boss had examined the workings on the morning of the accident, and found them clear of gas. 2d. That the gas had either accumulated at a point that could not be reached by the fire boss, or had collected when the first fall occurred after the fire boss had made his rounds, which liberated some feeders of gas from the strata overlying the coal, which when the second fall took place, forced the gas down upon the workmen's lights, causing the explosion. This ex-

plosion with others of like character in this and other regions, demonstrates without a doubt, that where coal seams are being mined at a considerable depth, too much care cannot be taken to prevent, as far as possible, accidents of this kind.

Explosion of Blasts.

A blown out shot caused the death of James McGority, in the Snow Shoe No. 5 mine, on November 28th. The victim was driving a cross-cut from his room to another, and had reached a point where he expected to cut through to the other room, but discovered that the thinnest point was in the right hand corner of the crosscut, where he bored a hole over the solid expecting to blow it through. He charged the hole, and ignited the squib and retreated to a place of safety. The shot failed to explode, and when he returned, it was thought he had found the squib partially burned and extinguished, and he again ignited it, when it exploded before he had time to escape, blowing the tamping out, striking him in the face, killing him instantly. Blasting from the solid is a dangerous practice unless great care is exercised in placing the holes, and requires some judgment in charging, but the use of shortened squibs makes the work still more hazardous.

Other Fatalities.

The handling of mine mules is very often a cause of great danger to those who do not use ordinary care in working about them. I have the unpleasant duty of recording one fatal accident from this cause during the year. The victim was a driver who had finished his day's work, and had brought his animal to the mouth of the manway, and in attempting to get on the mule's back, the animal started to run and he fell off, his foot being caught in the trace chain, in which position he was dragged for several hundred feet; he was so seriously injured that he died in a very short time after. No doubt the accident was due to the lack of care on the part of the boy.

Description of Mines for 1902.

Mines in Clearfield County.

Rochester mine was found in a reasonably good condition throughout the year. Owing to the principal headings having been cut off by a sand rock fault, the number of persons employed inside have been reduced about one-half, and the work is confined entirely to the drawing of pillars, which, with care, can be continued for some time to come.

The DuBois shaft No. 1 (formerly known as the Berwind-White shaft) is now owned and operated by the Buffalo and Susquehanna Coal and Coke Co., having been bought by the latter company during the early part of the year. The condition of the mine has been good during the entire year. The air currents were being conveyed to the face of workings in sufficient volume to keep them safe, and in a healthful condition. The distance by which mule power was used in hauling the coal to the side track was reduced about 1,000 feet, by extending the rope haulage during the year.

The Williamsport Nos. 2 and 6 mines have been operated by the owners (Buffalo and Susquehanna Coal and Coke Co.) nearly the entire year. They were formerly leased to Frank Williams & Co. The condition of the No. 2 mine for ventilation has been improved somewhat during the year but some of the headings still require more air, but unless more ventilating power is provided, no permanent improvement can be expected.

The No. 6 mine has been in a fairly good condition, the velocity of the air current in the workings had been increased which was more effectual in keeping the places clear of smoke. The company is opening a new drift a short distance east of the present openings, and into the same vein of coal.

The Helvetia slope mine has been in a very fair condition. The mine is ventilated by a 25-foot diameter Guibal fan, which produces a volume of 62,400 cubic fet of air per minute, against a water gauge of 1.8 inches, and considering the distance that the air must be conveyed to the face of the inner workings, volumes of 4,800, 7,200, 12,000, 14,000 and 25,200 cubic feet have been measured at the face of the different headings. Explosive gas is being generated in the dip workings, and much care is necessary to prevent accidents therefrom. I am informed that the company intends sinking a shaft at or near the face of the inner workings, as a ventilating and hoisting shaft, which will be a decided improvement.

The Fairmount No. 1 mine has been in a reasonably good condition. An opening was made to the surface, at the face of the inner workings for the purpose of ventilation, and great improvement was found therefrom.

Mosquito Creek.—The condition of this mine has not been satisfactory, but promises have been made to improve the ventilation and drainage, which I hope to see on my next visit.

The Meyer Run mine was in good condition. Three seams of coal are opened here, but the B seam is the only one being mined to any extent.

The Cataract mines were disposed of by the Berwind-White Coal Mining Co. during the year, having been purchased by Kelly Brothers and others. On my last visit I found the mines idle, and they had

not been operated much for some time. The conditions generally were fair.

Brittanic Mine.—This mine was in a reasonably good condition.

Mt. Carmel mine was not operated during the year, but on my last visit I found preparations being made to resume work.

Karthaus mine is a new drift opening made during the year into the B seam. Two parallel openings were being driven into the seam, but had not progressed very far on my last visit. The coal will be lowered down an incline plane several hundred feet long, to the tipple.

Black Diamond mine has not been in operation during the entire year.

Penfield.—This is a new opening made into the B vein. It is located in Houston township, near the town of Penfield, and will be operated by the Penfield Coal Co. It is a drift opening, and only recently opened, and on the date of my visit, the tipple had not been built, and no other permanent work had been completed.

Clearfield No. 10.—During the greater part of the year, there were not a sufficient number of persons employed to bring it under the law. Condition of the mine for ventilation and drainage was only fair.

Belfast is a new operation, being a drift opening into the D or Lower Freeport vein. It is located in Penn township, near the town of Grampian, and is operated by Atherton & Barnes of Philipsburg. The mine is opened on the double entry plan and is ventilated by a small furnace. The roof over the seam is not good, and there was considerable trouble from clay veins or spars. The condition of the mine for ventilation and drainage was reasonably good. T. W. Gatehouse is the foreman in charge.

Raybold No. 2.—A shallow shaft which is located near the face of the workings was cleaned out and is being used for ventilation, which improved the conditions, to some extent, otherwise no improvement can be reported.

Priscilla No. 2.—This mine was formerly known as Grampion No. 1, but was purchased by the Priscilla Coal Mining Co. The mine is kept in good condition, the ventilation being sufficient for the number of persons employed, and the workings were reasonably well drained.

Penn No. 1.—The Clearfield and Grampian Coal Co. opened this mine during the year. It is a drift opening into the D or Lower Freeport vein, and ventilated by a small furnace, which was producing a volume of 12,500 cubic feet of air per minute. There is trouble from a bad roof and clay veins.

Moravian, Pleasant Hill, Grassflat and Knox Run mines are all operated by the Clearfield and Bituminous Coal Corporation and were all in good condition. In the Pleasant Hill mine, a new haulage

road was being made to obtain a lighter and more uniform grade, also to shorten the distance by about 1,600 feet. This new road runs along the 5th west heading 1,000 feet, then continuing North as far as No. 11, cutting off all the west headings. A 35 pound steel T rail was being laid preparatory to using electric motors in the near future. An opening was made at the face of the inner workings of the Knox Run No. 2 mine, which will be used as a second way of egress.

Mines in Centre County.

Sugar Camp Mines.—These mines are all operated by the Lehigh Valley Coal Co., and have been working very regularly during the entire year with a large force of miners, and the production of coal has been large. The openings known as Nos. 2, 4, 7 and 12 are fast becoming worked out, and a considerable amount of coal is being mined from pillars. There are a number of coke ovens, of the Bee Hive pattern, located at these openings, which have not been in use for several years, and in consequence were not in a condition for the manufacture of coke. I understand that the company had during the latter part of the year commenced to rebuild them, with a view of making coke in the near future. The condition of the openings for ventilation and drainage was good. The drifts Nos. 9, 10 and 11 were found in a reasonably good condition for ventilation, and the workings were well drained. Two seams of coal are being mined here and a good quality of coal is produced of both veins. No. 8 drift was worked out and abandoned during the year, and the No. 5 opening was also nearly finished on my last visit, there being only a few persons at work in removing the main heading pillars. A new opening was made during the year, known as No. 13. It is a drift mine, in the B seam and into a small piece of the territory that could not be reached by the other openings. A furnace was built which provided sufficient air for the number of persons employed.

Cato is a very small mine and employs only about eighteen persons all told. Its condition was not satisfactory.

Cherry Run.—There is nothing new to report, concerning this mine, except that it was in a somewhat improved condition, and is a very difficult mine to operate.

Snow Shoe Nos. 4 and 5.—An opening to the surface was made from the face of workings in the No. 5 mine for ventilation, which serves the purpose well, but some of the headings were still smoky and the drainage was defective. The velocity of the air current in No. 4 mine was not strong enough to carry the smoke away, and the drainage was not good.

Mines in Clinton County.

There are now two companies operating in this county, namely, the Kettle Creek Coal Mining Co., and the Clinton Coal Co. The latter company began operations in the county during the year 1901, by opening a drift mine in the B seam of coal, about one and one-half miles east of the Kettle Creek operations. Coal shipments however were not commenced until about the middle of the year 1902. The product of the mine is lowered down a long incline plane to the chutes, where a siding from the P. & E. R. R. about one mile in length runs in near the town of Westport. On my visit to the mine, I found that only a few persons were employed in driving headings. The workings were laid out on the double entry system, and an air shaft had been sunk, where a 7-foot diameter Stine fan was to be put in operation just as soon as steam could be provided for motive power. There was also one 18x26 Norwalk Air Compressor on the premises to furnish power for mining machines, which the company expect to use in mining, about the early part of 1903.

Kettle Creek Mines.—Have been kept in operation very steadily during the entire year, and have on each of my visits been found in their usual good condition. The company opened a drift mine (known as the West Side mine) in the B seam, a short distance west of their Kettle Creek mines. The mine is opened on the double entry system and a good sized furnace is in use for ventilation, which was providing a volume of 31,500 cubic feet per minute, which was being well distributed throughout the workings. The product of the mine is lowered down a long incline plane to the chutes, which is equipped with a Phillips Automatic Dump, a sproket chain hoist to raise the empty cars up a short incline, which is operated by electricity, which is also used to light the chute and other buildings. Preparations were also being made to introduce the Puncher type of machine for mining.

Dagus No. 1.—Owing to a fire that occurred in December, 1901, which destroyed the tipple, engine and boiler rooms, the mine was idle some months during the early part of the year, but the structures were re-built more substantially than before, the engine and boiler rooms being constructed of brick, making them practically fire-proof, and the arrangements for handling coal were much improved. The condition of the mine was not changed much, and it was reasonably well ventilated and drained. A new heading was being driven through a fault lying between the Eureka slope and No. 1 for the purpose of mining out a block of coal that lies back of the fault. Much bad roof is encountered in driving this heading, but it was progressing very well.

Dagus No. 3.—A tail rope system of haulage was installed in this

mine during the year, thereby dispensing with considerable mule power. The working force was increased during the time the No. 1 mine was idle, and in consequence, some parts of the mine were not as well ventilated as the circumstances required. I am, however, informed that a larger fan will soon be installed.

Eureka Slope.—This mine was reasonably well ventilated and drained, and was well looked after generally.

Clarion No. 4.—The No. 27 drift was found in good condition. The ventilation was sufficient to keep the workings healthful. The No. 29 drift was also in a good condition generally.

Shawmut No. 1.—But a few persons were employed in this mine, and they are removing the main heading pillars, which will soon be completed. Sufficient air was provided.

Shawmut No. 5.—The condition of this mine is steadily being improved. A new drift opening that was commenced in the early part of the year will soon be connected to the old part of the mine, which will cut off the low haulage road now in use, and will serve as a shorter and more direct route for air to the solid part of the field.

Shawmut No. 6 is being well looked after; the ventilation is being well conveyed to the inner workings, which are also very well drained. Electric motors have been in use nearly the entire year, in hauling coal to the foot of the slope.

Shawmut No. 8.—The main headings were stopped for several months, with a view of leaving that portion of the field to be mined from the No. 6 mine, but this idea was abandoned, and they are again being driven. The mine is in its usual good condition generally.

Shawmut No. 9.—This mine continues to be operated with only a few persons inside, and is well supplied with ventilation.

Shawmut No. 10.—Was in very fair condition for ventilation and drainage.

Mead Run No. 2.—Was not in operation and I understand has been abandoned.

Mead Run No. 4.—The solid coal in this mine has about all been developed, and the greater portion of the production is being taken from pillars. Its condition for ventilation and drainage is fair.

Hazel Dell.—Only about twenty persons are employed, but the mine is kept in good condition.

Kaul mine is a new opening made during the year, by the St. Mary's Sewer Pipe Co. Coal and fire clay are both mined, and a sufficient number of persons are employed at mining coal to bring it under the provisions of the law. A furnace is used to ventilate, and I found the mine in good condition.

Byrne No. 21.—This mine has got to be quite an extensive one, with a large daily production. The main No. 1 headings have been

driven through to the Caledonia side of the field, where another new drift has been opened, and headings are being driven to connect with the Elk No. 31 mine. At this point there is also a boiler plant, together with an air compressing plant, that will provide power for mining machines of the Puncher type. The ventilation is by furnaces, but the ventilation is not sufficient to meet the requirements, and I am opposed to the use of machines for mining unless a greater volume of air is provided. I have notified the officials of my opinion on this subject, and I am informed that a large Capell fan has been ordered, and will be installed as soon as received.

Elk No. 31.—The workings of this mine cover a large area, and the furnace in use does not provide the volume of air at face of workings that is necessary to keep them in a good condition. When this mine is connected with the Bryne mine, they intend ventilating both openings with one fan.

Cardiff No. 41.—The furnaces at these openings do not provide sufficient air, but I am informed that a fan has been ordered. The mine is well looked after, and the conditions generally are very good, and it only requires more ventilating power.

Mines in Jefferson County.

London.—Much work has been done during the year, preparing for electric haulage, from the several headings to the side track inside the mine, from which point the coal will be brought to the surface by rope haulage. This is a very large mine, and has been operated very steadily with a large daily production, during the entire year. Its condition for ventilation and drainage is reasonably good.

Pancoast was worked out and abandoned in the early part of the year.

West Clarion Mines.—Some local defects were found in ventilation in the No. 1 drift. A tunnel was driven in the 4th left heading from the upper to the lower vein, which was developed to some extent, but its condition at this point is not very promising. The No. 3 drift was in good condition. The main headings in No. 6 opening was driven through the hill, which serves as a second opening, and a drainage point for the entire mine. There is a good volume of air provided, and the openings generally are well looked after.

Brock.—This mine is now owned and operated by the Iroquois Coal Co., having been bought from Joseph H. Reilly & Co. in the month of October. The mine is in a reasonably good condition.

Rattlesnake Run.—The No. 2 drift has been driven through the hill, and an opening continued into the adjoining hill, to mine out this part of the field. The No. 1 opening is fast becoming worked

out, the work being confined to pillar drawing. No complaints can be made as to the condition of the mine.

Coal Glen Mines.—These openings are all ventilated by fans of the Clark type, and the motive power used is gasoline and compressed air, both of which seem to give the officials considerable annoyance and trouble in endeavoring to keep the fans in constant operation while the workmen are in the mine, and unless air currents are kept traveling continuously through the workings they fail to be effective in keeping the mine clear of smoke. The condition of the mines generally is very fair, except the opening known as Klondyke, which is insufficiently ventilated, but some changes were being made on my last visit, which I hope will improve the ventilation.

Beechtree No. 2.—This mine continues to be operated with but a few men and is supplied with sufficient air.

Mines in Lycoming County.

Red Run Mines...These mines have been in operation almost the entire year. Another drift has been opened during the year known as No. 8, and the headings have been pushed forward rapidly, and on my last visit I found a good many persons were employed therein. The No. 2 opening is being worked out fast, but the No. 7 drift has considerable coal yet to be developed. All the openings are reasonably well ventilated and drained.

Mines in McKean County.

The Lyman mine is the only one in this county, that comes under the provisions of the law, and it is only a small operation, employing very few persons. Its condition for ventilation and drainage has been good at each visit. A second opening was made to comply with the law during the year.

Mines in Tioga County.

The Blossburg Coal Co. operate six mines in this county, namely, the Nos. 1, 2, 3, 5, 7, and Bear Run, also Maple Hill. They have all been kept in operation very steadily during the entire year. The furnace shaft in the No. 1 mine was enlarged and a new stack built, which has improved the ventilation very much, but the shaft is too shallow to insure good results. In the No. 2 mine an air shaft about 60 feet deep was sunk at the face of the 5th left heading, and a furnace built at the bottom of same, which is a decided improvement

in the ventilation. The condition of the Nos. 3 and 5 mine has been found good on each visit. The vein in the No. 7 drift is low, and contains much refuse, requiring much powder in blasting, which necessitates a large volume of air to keep the workings clear of smoke. The mine, however, is in a very fair condition. In the Bear Run mine an air shaft was sunk, at the face of the main heading, which serves as an inlet to that portion of the mine. The mine now is in good condition generally. The Maple Hill mine has been idle all the year.

The Morris Run Coal Mining Co. operates two mines in the county, the Jones No. 1 and New mine No. 2. In the Jones mine, electric motors have been in use for several months, in that portion of the mine, known as the Campbelltown heading. Some changes in the ventilation are being made which when completed will be a decided improvement. In the No. 2 mine an air shaft is being sunk to the face of the No. 12 east heading, on the North Side, where a furnace will be located to ventilate the mine. The old or present furnace is too far from the present workings and does not give good results.

Schultz mine is a drift opening into the Blossburg seam of coal, and is operated by Charles Schultz. A sufficient number of persons were employed to bring it under the law. The mine is ventilated by a small furnace, and the condition of the mine was reasonably good.

Magee & Ellsworth operates three mines in this county. The Antrim Nos. 1 and 2, also Anna "S" mine. In the No. 1 mine the work is confined almost wholly to pillar drawing, and the gob portion of the mine gives off considerable gas and the fan acting as an exhaust brought this gas into the workings. The direction of the air current, however, was changed, with the effect of compressing this gas back into the gob, leaving the atmosphere of the mine in a much more healthful condition. The No. 5 mine was in fair condition; it has been in operation many years, and is difficult to ventilate. The Anna "S" mine was re-opened during the year 1901, and has been operated very steadily ever since. The mine is ventilated by a fan which is producing a good volume of air, which was being conveyed in several splits to the several headings, but the velocity of the current in some entries was too sluggish to be effective. Much of the coal in this mine, is mined by machines of the Puncher type.

Mines in Bradford County.

Long Valley No. 3 has been abandoned since the beginning of the year.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Fourth Bituminous District for the year 1902.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
North West Mining and Exchange Co.						
Dagus No. 1,	Elk,	Joseph Bailey,	Brockwayville,	Joseph Bailey,	Brockwayville,	Erie R. R.
Dagus No. 3,	Elk,	Joseph Bailey,	Brockwayville,	Joseph Bailey,	Brockwayville,	Erie R. R.
Eureka slope,	Elk,	Joseph Bailey,	Brockwayville,	Joseph Bailey,	Brockwayville,	Erie R. R.
Clarion Nos. 27 and 29,	Elk,	Joseph Bailey,	Brockwayville,	Joseph Bailey,	Brockwayville,	Erie R. R.
West Clarion Nos. 1, 3 and 6,	Jefferson,	Joseph Bailey,	Brockwayville,	Joseph Bailey,	Brockwayville,	Erie R. R.
Rattlesnake Run,	Jefferson,	Joseph Bailey,	Brockwayville,	Joseph Bailey,	Brockwayville,	R. & C. Branch, P. R. R.
Jefferson-Clearfield Coal and Iron Co.						
Rochester,	Clearfield,	L. W. Robinson,	Punxsutawney,	John Reed,	Reynoldsville,	R. & F. C. Branch, B.,R. & P.
London,	Jefferson,	L. W. Robinson,	Punxsutawney,	John Reed,	Reynoldsville,	R. & F. C. Branch, B.,R. & P.
Clearfield Bituminous Coal Corporation.						
Grass Flat,	Clearfield,	R. A. Shillingford,	Clearfield,	James Adamson,	Peale,	N. Y. C. & H. R. R. R.
Knox Run,	Clearfield,	R. A. Shillingford,	Clearfield,	Andrew Frendberg,	Peale,	N. Y. C. & H. R. R. R.
Pleasant Hill,	Clearfield,	R. A. Shillingford,	Clearfield,	S. R. Green,	Peale,	N. Y. C. & H. R. R. R.
Moravian,	Clearfield,	R. A. Shillingford,	Clearfield,	William Fleming,	Peale,	N. Y. C. & H. R. R. R.
Shawmut Mining Co.						
Shawmut No. 1,	Elk,	George S. Ramsey,	St. Marys,	Arthur White,	Shawmut,	Pittsb'g, Shawmut & Northern
Shawmut No. 5,						
Shawmut No. 6,						
Shawmut No. 8,						
Shawmut No. 9,						
Shawmut No. 10,						
Mead Run No. 4,						
Lehigh Valley Coal Co.						
Sugar Camp No. 2,	Centre,	S. D. Warriner,	Wilkes-Barre,	W. C. Snyder,	Snow Shoe,	Pennsylvania R. R.
Sugar Camp No. 4,						
Sugar Camp No. 5,						
Sugar Camp No. 7,						
Sugar Camp No. 8,						
Sugar Camp No. 9,						
Sugar Camp No. 10,						
Sugar Camp No. 11,						
Sugar Camp No. 12,						
Sugar Camp No. 13,						

Blossburg Coal Co.						
Arnot No. 1, ...						
Arnot No. 2, ...						
Arnot Nos. 3 and 5, ...	Tioga, ...	Joseph Bailey, ...	Arnot, ...	Joseph Bailey, ...	Arnot, ...	Tioga Div., Erie R. R.
Arnot No. 7, ...						
Bear Run, ...						
Maple Hill, ...						
Buffalo and Susquehanna Coal and Coke Co.						
Du Bois shaft No. 1, ...	Clearfield, ...	F. B. Lincoln, ...	DuBois, ...	Chas. P. Munch, ..	DuBois, ...	
Williamsport No. 2, ...	Clearfield, ...	F. B. Lincoln, ...	DuBois, ...	Jas. B. Dunsmore,	Tyler, ...	Low Grade Div., Buffalo and Allegheny Valley.
Williamsport No. 6, ...	Clearfield, ...	F. B. Lincoln, ...	DuBois, ...	.....	.....	
Morris Run Coal Mining Co.						
Jones No. 1, ...	Tioga, ...	W. S. Nearing, ...	Morris Run, ...	W. S. Nearing, ...	Morris Run, ...	N. Y. C. & H. R. R. R.
New Mine No. 2, ...						
Magee & Ellsworth.						
Antrim No. 1, ...						
Antrim No. 5, ...	Tioga, ...	William Howell, ..	Corning, N. Y.,..	James Pollock, ...	Antrim, ...	N. Y. C. & H. R. R. R.
Anna "S,"						
Kettle Creek Coal Mining Co.						
Kettle Creek No. 1, ...	Clinton, ...	George L. Miller,..	Bitumin, ...	James Ward, ...	Bitumin, ...	S. & B. R. R.
Kettle Creek Nos. 2 and 3,.....	Clinton, ...	George L. Miller,..	Bitumin, ...	James Ward, ...	Bitumin, ...	S. & B. R. R.
West Side, ...	Clinton, ...	George L. Miller,..	Bitumin, ...	James T. Ward,...	Bitumin, ...	S. & B. R. R.
Red Run Coal Co.						
Red Run No. 2,.....						
Red Run No. 7, ...	Lycoming, ...	D. B. Allison, ...	Roaring Branch,.	D. B. Allison, ...	Roaring Branch,.	Northern Central R. R.
Red Run No. 8, ...						
Iroquois Coal Co.						
Brock, ...	Jefferson, ...	.....	.....	Joel Tompkins,.....	Brockwayville, ..	Pennsylvania R. R.
R. and P. Coal and Iron Co.						
Helvetia No. 2, ...	Clearfield, ...	L. W. Robinson,...	Punxsutawney, ..	T. S. Lowther, ...	Helvetia, ...	Buffalo, Roch. & Pittsburg.
Kersey Coal and Coke Co.						
Byrne No. 21, ...						
Elk No. 31, ...	Elk, ...	George S. Ramsey,	St. Marys, ...	J. B. Hanford,....	Byrnedale, ...	Pittsb'g, Shawmut & Northern.
Cardiff No. 41, ...						
Hall & Kaul.						
Hazel Dell, ...	Elk, ...	Andrew Kaul, ...	St. Marys, ...	.....	.....	Pittsb'g, Shawmut & Northern.
Harbison Walker Co.						
Fairmount No. 1, ...	Clearfield, ...	H. H. Erritt, ...	Woodland, ...	John M. Baker, ...	Woodland, ...	Pennsylvania R. R.
Mathew Shadeck.						
Mosquito Creek, ...	Clearfield, ...	.....	.....	Mathew Shadeck,.	Karthaus, ...	West Branch Valley Div., N. Y. C. & H. R. R. R.
Jefferson Coal Co.						
Coal Glen Nos. 1 and 2,.....	Jefferson, ...	Austin Blakslee, ..	Coal Glen, ...	Austin Blakslee, ..	Coal Glen, ...	B. R. & P. R. R.
Beechtree No. 2, ...						

TABLE I—Continued

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Clearfield and Grampian Coal Co.						
Raybold No. 2,	Clearfield,	M. Burns,	Brisben,	Chas. E. Potter,	Grampian,	Pennsylvania R. R.
Penn No. 1,	Clearfield,	M. Burns,	Brisben,	E. M. Wilson,	Grampian,	Pennsylvania R. R.
W. F. Holt.						
Cherry Run,	Centre,	W. F. Holt,	Phillipsburg,	W. F. Holt,	Phillipsburg,	Pennsylvania R. R.
Kelly Brothers.						
Snow Shoe No. 4,	Centre,	M. D. Kelly,	Snow Shoe,	H. P. Kelly,	Snow Shoe,	Pennsylvania R. R.
Snow Shoe No. 5,	Centre,	M. D. Kelly,	Snow Shoe,	H. P. Kelly,		Pennsylvania R. R.
Cataract,	Clearfield,	Lawrence Redding,	Snow Shoe,			West Branch Valley Division, N. Y. C. & H. R. R. R.
Kelly & Nugent.						
Cato,	Centre,			L. Nugent,	Snow Shoe,	N. Y. C. & H. R. R. R.
Atherton & Barnes.						
Belfast,	Clearfield,			T. W. Gatehouse,	Grampian,	Pennsylvania R. R.
Priscilla Coal Mining Co.						
Priscilla No. 2,	Clearfield,	D. W. Luke,	South Fork,	R. W. Luke,	Grampian,	Pennsylvania R. R.
Clinton Coal Co.						
Clinton mine,	Clinton	A. N. Blandin,	Bath, N. H.,	C. F. Schippen,	Westport,	Pennsylvania R. R., P. & E. Div.
St. Mary's Sewer Pipe Co.						
Kaul mine,	Elk,	D. B. Anderson,	St. Marys,	Martin Dippold,	St. Mary's,	P. S. & N. R. R.
J. F. Keating.						
Lyman mine,	McKean,	J. F. Keating,	Clermont,	James Maloney,	Clermont,	W. N. Y. & P. R. R.
Isaac Stage.						
Clearfield No. 10,	Clearfield,			Isaac Stage,	Clearfield,	
Charles Schultz						
Schultz mine,	Tioga,			Chas. Schultz,	Blossburg,	
A. G. Spears.						
Meyer Run,	Clearfield,			H. G. Spears,	Karthaus,	West Branch Valley Division, N. Y. C. & H. R. R. R.
George Rees & Co.						
Brittanic mine,	Clearfield,			George Rees,	Karthaus,	West Branch Valley Division, N. Y. C. & H. R. R. R.

TABLE II—Gives the total number of tons of coal mined and tons of coke produced in each colliery, number of days worked, number of employes, number of employes killed and injured, number of kegs of powder, etc., used in the Fourth Bituminous District for the year ending December 31, 1902.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Northwestern Mining & Ex. Co.														
Dagus No. 1,	Elk,							*						
Dagus No. 3,	Elk,	346,926	4,685	2,026	353,637	.....	.....	253.5	554	.....	3	2,008	3,050	45
Eureka slope,	Elk,													
Clarion No. 27,	Elk,													
Clarion No. 29,	Elk,	186,395	348	1,475	188,218	.....	.....	249.1	257	1	.....	1,700	140	38
West Clarion No. 1,	Jefferson,													
West Clarion No. 3,	Jefferson,													
West Clarion No. 6,	Jefferson,	182,443	1,192	273	183,908	.....	.....	257.5	217	.....	1	1,349	810	25
Rattlesnake Run,	Jefferson,	92,563	1	39	92,603	.....	.....	251.3	116	.....	.....	660	240	5
Totals,		808,327	6,226	3,813	818,366	.....	.....	252.8	1,144	1	4	5,717	4,240	113
Clearfield Bituminous Coal Corporation.														
Grassflat,	Clearfield,	111,421	913	742	205,557	57,338	150	286	285	.....	.....	2,010	1,000	25
Knox Run,	Clearfield,	157,906	.....	161	159,057	614		283	223	1	2	2,700	950	18
Pleasant Hill,	Clearfield,	179,166	.....	1,534	181,714	628		280	229	1	.....	1,600	200	18
Moravian,	Clearfield,	147,004	.....	63	148,854	1,108		283	183	.....	.....	2,150	1,000	14
Totals,		595,497	913	2,500	695,182	59,688	150	283	920	2	2	8,460	3,150	75
Jefferson and Clearfield Coal and Iron Co.														
Rochester,	Clearfield,	213,751	.....	.....	213,751	.....	.....	257.5	253	2	.....	.....	.....	15

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
London,	Jefferson,	462,866	.....	.....	462,866	.....	.....	263	476	1	1	.....	.....	44
Totals,		676,617	.....	.....	676,617	.....	.....	260.3	729	3	1	.....	.....	59
Kettle Creek Coal Mining Co.														
Kettle Creek No. 1,	Clinton,	365,732	.....	.....	365,732	.....	.....	330.2	274	.....	2	3,714	.....	40
West Side No. 2,	Clinton,					.....	.....	178	125	.....	.....	.....	.....	.....
Totals,		365,732	.....	.....	365,732	.....	.....	254.1	399	.....	2	3,714	.....	40
Blossburg Coal Co.														
Arnot No. 1,	Tioga,	59,603	135	931	60,669	.....	.....	207.3	144	.....	.....	.....	.....	8
Arnot No. 2,	Tioga,	74,658	162	871	75,691	.....	.....	207	161	.....	.....	.....	.....	12
Arnot No. 3,	Tioga,	80,854	633	320	81,807	.....	.....	207.8	130	.....	.....	.....	.....	14
Arnot No. 5,	Tioga,	82,263	623	321	83,207	.....	.....	207.3	202	.....	.....	.....	.....	12
Arnot No. 7,	Tioga,	83,987	605	.....	84,592	.....	.....	206.1	146	.....	.....	.....	.....	11
Bear Run,	Tioga,	104,396	1,795	251	106,442	.....	.....	207.7	198	.....	1	.....	.....	.....
Totals,		485,161	3,953	2,694	491,808	.....	.....	207.2	981	.....	1	.....	.....	.....
Magee & Ellsworth.														
Antrim No. 1,	Tioga,	206,252	.....	1,487	207,739	.....	.....	243	70	.....	.....	.....	.....	1
Antrim No. 5,	Tioga,					.....	.....	285.9	193	.....	1	.....	.....	.....
Anna "S,"	Tioga,					.....	.....	286.7	131	.....	1	.....	.....	.....
Totals,		206,252	.....	1,487	207,739	.....	.....	271.9	394	.....	2	.....	.....	.....

*Totals in this column are averages.

								*						
Shawmut Mining Co.														
Shawmut No. 1,	Elk,	28,865	17	3,676	32,558	.....	.....	236.3	33	.....	.....	230	.....	4
Shawmut No. 5,	Elk,	92,285	2,964	570	95,819	.....	.....	253.5	102	.....	2	350	128	.....
Shawmut No. 6,	Elk,	86,033	3,130	.....	89,163	.....	.....	235.6	100	.....	1	360	.....	.....
Shawmut No. 8,	Elk,	168,223	4,947	897	174,067	.....	12	253	231	.....	.....	500	.....	.....
Mead Run No. 4,	Elk,	68,607	201	91	68,899	1,699	.....	242.1	89	1	.....	260	.....	17
Totals,		444,013	11,259	5,231	460,506	1,699	12	244.1	555	1	3	1,700	128	21
Kelly Brothers.														
Snow Shoe Nos. 4 and 5,	Centre,	80,000	150	2,000	82,150	.....	.....	282	169	1	2	950	600	8
Cataract,	Clearfield,	30,069	115	75	30,259	.....	.....	179	51	.....	.....	381	50	7
Totals,		110,069	265	2,075	112,409	.....	.....	230.5	220	1	2	1,331	650	15
Morris Run Coal Mining Co.														
Jones Mine No. 1,	Tioga,	356,660	2,500	4,458	363,618	.....	.....	282.1	658	.....	.....	.....	.....	96
New Mine No. 2,	Tioga,					.....	.....	284.3	144	.....	.....	.....	.....	.....
Totals,		356,660	2,500	4,458	363,618	.....	.....	283.2	802	.....	.....	.....	.....	96
Jefferson Coal Co.														
Coal Glen No. 1,	Jefferson,	273,000	1,200	1,400	275,600	.....	.....	258	332	.....	.....	2,400	1,000	28
Coal Glen No. 2,	Jefferson,													
Beechtree No. 2,	Jefferson,													
Rochester and Pittsburg Coal and Iron Co.														
Helvetia,	Clearfield,	185,457	13,600	1,144	226,468	18,762	40	259	265	3	7	1,110	3,290	37
Iroquois Coal Co.														
Brock,	Jefferson,	110,356	1,379	529	112,264	.....	.....	250.3	206	.....	.....	900	560	3
Lehigh Valley Coal Co.														
Sugar Camp No. 2,	Centre,	302,274	730	1,254	304,258	.....	200	246.9	324	.....	1	32	1,300	26
Sugar Camp No. 3,	Centre,	120,341	157	96	120,594	.....	.....	131.2	95	.....	.....	3	200	6
Sugar Camp No. 13,	Centre,	15,967	55	.....	16,022	.....	.....	156.6	27	.....	.....	5	300	3
Totals,		438,582	942	1,350	440,874	.....	200	178.2	446	.....	1	40	1,800	35
Buffalo and Susquehanna Coal and Coke Co.														
DuBois shaft No. 1,	Clearfield,	260,263	20,000	962	281,585	.....	.....	294	327	.....	8	1,740	6,000	20
Williamsport Nos. 2 and 6,	Clearfield,	98,397	2,873	1,073	157,536	29,218	100	269.5	287	.....	1	875	1,600	21
Totals,		358,660	22,873	2,035	439,121	29,218	100	281.7	614	.....	9	2,615	7,600	41
Kersey Coal and Coke Co.														
Byrne No. 21,	Elk,	125,424	1,587	1,211	161,477	23,754	50	275.3	354	.....	2	2,030	1,100	22

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Elk No. 31,	Elk,	73,824	115	231	74,170	.....	.....	*255.5	158	.....	.....	1,294	1,000	18
Cardiff No. 41,	Elk,	150,909	474	353	151,826	.....	.....	272.7	345	.....	1	1,579	771	22
Totals,		350,247	2,176	1,795	387,473	23,754	50	267.8	857	.....	3	4,813	2,871	72
Red Run Coal Co.														
Red Run Nos. 2, 7 and 8,	Lycoming,	109,840	1,320	1,160	112,320	.....	.....	264.7	215	.....	.....	4,280	500	4
Clearfield and Grampian Coal Co.														
Raybold No. 2,	Clearfield,	32,384	.....	.....	32,384	.....	.....	269	42	.....	1	600	.....	4
Penn No. 3,	Clearfield,	19,550	.....	.....	19,550	.....	.....	152	53	.....	.....	300	.....	3
Totals,		51,934	.....	.....	51,934	.....	.....	210.5	95	.....	1	900	.....	7
Atherton & Barnes.														
Belfast,	Clearfield,	2,2151	.....	.....	22,151	.....	.....	182	60	.....	.....	300	.....	4
Priscilla Coal Mining Co.														
Priscilla No. 2,	Clearfield,	12,609	.....	150	12,759	.....	.....	186	32	.....	.....	125	30	1
Harbison Walker Co.														
Fairmount No. 1,	Clearfield,	20,250	40	.....	20,290	.....	.....	254	26	.....	.....	162	.....	3
Clinton Coal Co.														
Clinton mine,	Clinton,	4,375	50	75	4,500	.....	.....	85	89	.....	.....	.....	.....	10
Mathew Shadeck.														
Mosquito Creek,	Clearfield,	19,200	104	24	19,328	.....	.....	264	39	.....	.....	240	50	2

*Totals in this column are averages.

St. Marys' Sewer Pipe Co. Kaul Mine,	Elk,	.....	20,840	.....	20,840	.....	.....	299*	63	.....	.....	460	.....	4
J. F. Keating. Lyman,	McKean,	6,694	.....	551	7,245	.....	.....	273	18	.....	.....	25	750	2
Kelly & Nugent. Cato,	Centre,	11,013	.....	100	11,113	.....	.....	271	25	.....	.....	112	.....	3
Isaac Stage. Clearfield No. 10,	Clearfield,	400	.....	12,291	12,691	.....	.....	290	27	.....	.....	250	.....	2
Charles Schultz. Schultz mine,	Tioga,	10,574	.....	184	10,758	.....	.....	263	24	.....	.....	196	100	2
A. G. Spears. Meyer Run,	Clearfield,	18,923	.....	.....	18,923	.....	.....	232	35	.....	.....	100	.....	5
Hall & Kaul. Hazel Dell,	Elk,	.....	40	14,141	14,181	.....	.....	264	28	.....	.....	.....	.....	3
George Rees & Co. Brittanie,	Clearfield,	6,000	.....	.....	6,000	.....	.....	119	34	.....	.....	.....	.....	3
Totals,	.....	6,058,593	89,680	59,190	6,418,810	133,121	552	241.3	9,674	11	38	34,335	26,719	786

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Number of Boilers.				Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.	Horse power.		Steam.	Air.	Electric.							
Northwestern Mining and Ex. Co.,	Elk. and Jeff.	4	70	8	900	970	2	.....	.....	10	835	.....	.....	.....	2	.....
Clearfield Bituminous Coal Corporation,	Clearfield,	.....	.....	3	160	180	.....	.....	.....	2	125	.....	.....	.....	.....	.....
Jefferson-Clearfield Coal and Iron Co.,	Clearfield & Jeff.	.....	.....	23	2,330	2,330	.....	.....	.....	2	400	4	14,000	.....	.....	.....
Kettle Creek Coal Mining Co.,	Clinton,	.....	.....	1	30	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Blossburg Coal Co.,	Tioga,	.....	.....	5	250	600	3	.....	4	7	600	.....	.....	.....	3	.....
Magee & Ellsworth,	Tioga,	6	310	.....	.....	310	.....	.....	.....	7	250	.....	.....	.....	.....	2
Shawmut Mining Co.,	Elk,	.....	.....	10	1,350	1,350	1	.....	12	11	1,380	6	4,700	2,350	5	1
Kelly Brothers,	Centre & Clear.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Morris Run Coal Mining Co.,	Tioga,	.....	.....	6	550	550	.....	.....	3	9	780	.....	.....	.....	2	1
Jefferson Coal Co.,	Jefferson,	.....	.....	1	200	200	3	1	.....	3	75	6	.....	.....	1	1
Rochester and Pittsburg Coal and Iron Co.,	Clearfield,	.....	.....	12	1,400	1,400	.....	.....	.....	4	330	4	6,218	3,838	.....	3
Iroquois Coal Co.,	Jefferson,	.....	.....	2	200	200	.....	.....	2	1	113	.....	.....	.....	1	.....
Lehigh Valley Coal Co.,	Centre,	1	40	1	80	120	2	.....	.....	4	180	1	.....	.....	.....	.....
Buffalo and Susquehanna Coal and Coke Co.	Clearfield,	.....	.....	16	1,738	1,738	2	.....	2	13	1,679	3	8,000	3,000	1	2
Red Run Coal Co.,	Lycoming,	.....	.....	4	260	260	.....	.....	3	2	325	.....	.....	.....	2	.....
Clearfield and Grampian Coal Co.,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Atherton & Barnes,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Priscilla Coal Mining Co.,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Harbison Walker Co.,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clinton Coal Co.,	Clinton,	.....	.....	.....	.....	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....
Mathew Shadeck,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Marys' Sewer Pipe Co.,	Elk,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
J. F. Keating,	McKean,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kersey Coal and Coke Co.,	Elk,	.....	.....	5	680	680	2	.....	.....	1	250	.....	.....	.....	.....	2
Kelly & Nugent,	Centre,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Isaac Stage,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Charles Schultz,	Tioga,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
A. G. Spears,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hall & Kaul,	Elk,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
George Rees & Co.,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals,		11	420	96	10,128	10,918	16	1	26	77	7,322	24	32,918	9,188	17	12

TABLE III—Showing the number of each class of employes at each colliery in the Fourth Bituminous District during the year 1902.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door-boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
North Western Mining and Exchange Co.																						
Dagus Nos. 1 and 3, and Eureka	Elk,	3	2	....	414	.....	.....	.....	27	2	.....	21	469	1	1	17	7	.....	5	54	85	554
Clarion No. 4,	Elk,	1	1	....	163	3	27	3	23	.....	.....	4	225	....	1	5	2	.....	3	21	32	257
West Clarion Nos. 1, 3 and 6,	Jefferson,	1	1	....	55	7	95	7	19	.....	.....	12	197	....	1	4	1	.....	2	12	20	217
Rattlesnake Run,	Jefferson,	1	....	....	98	.....	.....	.....	6	.....	.....	3	108	....	....	1	.....	.....	2	5	8	116
Totals,		6	4	....	730	10	122	10	75	2	.....	40	999	1	3	27	10	.....	12	92	145	1,144
Clearfield Bituminous Coal Corp.																						
Grass Flat,	Clearfield,	1	....	....	220	.....	.....	.....	14	5	8	7	255	....	1	3	3	.....	1	22	30	285
Knox Run,	Clearfield,	1	....	....	175	.....	.....	.....	7	5	8	6	202	....	....	2	.....	.....	.....	19	21	223
Pleasant Hill,	Clearfield,	1	....	....	190	.....	.....	.....	12	4	8	1	216	....	....	2	.....	.....	1	10	13	229
Moravian,	Clearfield,	1	....	....	150	.....	.....	.....	9	5	6	1	172	....	....	2	.....	.....	1	8	11	183
Totals,		4	....	....	735	.....	.....	.....	42	19	30	15	845	....	1	9	3	.....	3	59	75	920
Jefferson-Clearfield Coal and Iron Co.																						
Rochester,	Clearfield,	1	....	....	147	.....	.....	.....	10	2	6	20	186	1	....	3	9	.....	.....	54	67	253
London,	Jefferson,	1	....	....	364	.....	.....	.....	30	6	12	21	434	....	....	3	9	.....	.....	30	42	476
Totals,		2	....	....	511	.....	.....	.....	40	8	18	41	620	1	....	6	18	.....	.....	84	109	729
Kettle Creek Coal Mining Co.																						
Kettle Creek No. 1,	Clinton,	1	....	....	200	.....	.....	.....	18	8	10	.....	237	1	1	3	1	.....	1	30	37	274
West Side No. 2,	Clinton,	1	....	....	105	.....	.....	.....	5	1	3	.....	115	....	....	1	.....	.....	.....	9	10	125
Totals,		2	....	....	305	.....	.....	.....	23	9	13	.....	352	1	1	4	1	.....	1	39	47	399

TABLE III—Continued.

Names or Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door-boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
Blossburg Coal Co.																						
Arnot No. 1,	Tioga,	1	....	....	103	.....	.....	.....	6	4	.....	6	120	....	1	2	2	.....	.....	19	24	144
Arnot No. 2,	Tioga,	1	....	....	127	.....	.....	.....	16	9	.....	8	161	....	....	.....	.....	.....	.....	.....	.....	161
Arnot No. 3,	Tioga,	1	....	....	113	.....	.....	.....	10	2	.....	4	130	....	....	.....	.....	.....	.....	.....	.....	130
Arnot No. 5,	Tioga,	1	1	....	132	.....	.....	.....	13	7	.....	6	160	....	1	6	6	.....	.....	29	42	202
Arnot No. 7,	Tioga,	1	....	....	129	.....	.....	.....	6	5	.....	5	146	....	....	.....	.....	.....	.....	.....	.....	146
Bear Run,	Tioga,	1	1	....	155	.....	.....	.....	.....	2	.....	10	169	1	....	2	5	.....	4	17	29	198
Totals,		6	2	....	759	.....	.....	.....	51	29	.....	39	886	1	2	10	13	.....	4	65	95	981
Magee & Ellsworth.																						
Antrim No. 1,	Tioga,	1	....	....	46	.....	.....	.....	3	1	.....	1	52	....	1	2	2	.....	1	12	18	70
Antrim No. 2,	Tioga,	1	....	....	87	6	32	6	10	3	1	6	152	....	1	4	3	.....	1	32	41	193
Anna "S,"	Tioga,	1	....	....	67	4	18	4	6	1	2	3	106	....	1	3	2	.....	1	18	25	131
Totals,		3	....	....	200	10	50	10	19	5	3	10	310	....	3	9	7	.....	3	62	84	394
Shawmut Mining Co.																						
Shawmut No. 1,	Elk,	1	....	....	25	.....	.....	.....	2	.....	1	.....	29	....	....	1	.....	.....	.....	3	4	33
Shawmut No. 5,	Elk,	1	....	....	33	4	30	4	.....	2	.....	3	79	....	....	2	2	.....	.....	19	23	102
Shawmut No. 6,	Elk,	1	....	....	25	4	45	4	.....	1	1	3	84	....	....	2	3	.....	.....	11	16	100
Shawmut No. 8,	Elk,	1	....	....	90	6	80	6	.....	1	.....	11	195	....	....	3	4	.....	.....	29	36	231
Mead Run No. 4,	Elk,	1	....	....	65	.....	.....	.....	9	1	.....	3	179	....	....	1	2	.....	.....	7	10	89
Totals,		5	...	....	240	14	155	14	11	5	2	20	466	....	....	9	11	.....	.....	69	89	555
Kersey Coal and Coke Co.																						
Byrne No. 21,	Elk,	1	1	...	125	12	80	12	20	4	20	.....	275	1	1	5	7	32	3	30	79	354

Elk No. 31,	Elk,	1	....	....	130	.....	.....	.....	11	.....	6	.....	148	1	....	2	.....	.....	.....	7	10	158
Cardiff No. 41,	Elk,	1	1	....	275	.....	.....	.....	19	3	10	.....	309	1	....	3	2	.....	.....	30	36	345
Totals,		3	2	....	530	12	80	12	50	7	36	.....	732	3	1	10	9	32	3	67	125	857
Buffalo and Sunsquehanna Coal and Coke Co.																								
Du Bois shaft No. 1,	Clearfield, ..	1	....	2	20	20	195	20	12	9	14	4	297	1	1	4	8	.....	2	14	30	327
Williamsport No. 2 and 6,	Clearfield, ..	1	1	....	200	.....	.....	.....	15	6	5	1	229	1	....	4	7	30	1	15	58	287
Totals,		2	1	2	220	20	195	20	27	15	19	5	526	2	1	8	15	30	3	29	88	614
Kelly Brothers.																								
Snow Shoe Nos. 4 and 5,	Centre,	2	....	....	140	.....	.....	.....	7	1	3	8	161	1	1	1	.....	.....	3	2	8	169
Cataract,	Clearfield, ..	1	....	....	39	.....	.....	.....	3	.....	2	.....	45	1	....	1	.....	.....	2	2	6	51
Totals,		3	....	....	179	.....	.....	.....	10	1	5	8	206	2	1	2	.....	.....	5	4	14	220
Red Run Coal Co.																								
Red Run Nos. 2, 7 and 8,	Lycoming,..	1	1	....	161	.....	.....	.....	4	2	.....	6	175	1	....	4	2	.....	2	31	40	215
Morris Run Coal Mining Co.																								
Jones No. 1,	Tioga,	2	....	....	500	.....	.....	.....	44	29	.....	25	600	1	1	10	6	.....	5	35	58	658
New Mine No. 2,	Tioga,	1	....	....	100	.....	.....	.....	16	7	.....	15	139	....	....	3	2	.....	.....	.....	5	144
Totals,		3	....	....	600	.....	.....	.....	60	36	.....	40	739	1	1	13	8	.....	5	35	63	802
Jefferson Coal Co.																								
Coal Glen No. 1,	Jefferson,..	2	....	....	275	.....	.....	.....	13	.....	11	.....	301	1	1	3	3	.....	1	22	31	332
Coal Glen No. 2,	Jefferson,..																							
Beechtree No. 2,	Jefferson,..																							
Totals,		2	....	....	275	.....	.....	.....	13	.....	11	.....	301	1	1	3	3	.....	1	22	31	332
Rochester and Pittsburg Coal and Iron Co.																								
Helvetia,	Clearfield, ..	1	....	1	89	9	74	9	18	8	10	.....	219	1	1	5	10	13	1	15	46	265
Iroquois Coal Co.																								
Brock,	Jefferson, ...	1	1	....	178	.....	.....	.....	3	1	3	4	191	1	....	4	1	.....	1	8	15	206
Lehigh Valley Coal Co.																								
Sugar Camp No. 2,	Centre,	1	....	....	262	.....	.....	.....	14	17	.....	7	301	1	2	2	3	.....	2	13	23	324
Sugar Camp No. 3,	Centre,	1	....	....	76	.....	.....	.....	3	5	.....	2	87	....	1	2	2	.....	.....	3	8	95
Sugar Camp No. 13,	Centre,	1	....	....	21	.....	.....	.....	1	.....	.....	2	25	....	1	.....	.....	.....	.....	1	2	27
Totals,		3	....	....	359	.....	.....	.....	18	22	.....	11	413	1	4	4	5	.....	2	17	33	446
Clearfield and Gramplan Coal Co.																								
Raybold No. 2,	Clearfield, ..	1	....	....	35	.....	.....	.....	2	.....	3	.....	41	....	....	1	.....	.....	.....	.....	1	42
Penn No. 3,	Clearfield, ..	1	....	....	44	.....	.....	.....	2	2	3	.....	52	....	....	1	.....	.....	.....	.....	1	53
Totals,		2	....	....	79	.....	.....	.....	4	2	6	.....	93	....	....	2	.....	.....	.....	.....	2	95

TABLE III—Continued.

Names or Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door-boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
Atherton & Barnes.																						
Belfast,	Clearfield,	1	....	....	50	.....	.....	.....	1	1	4	.....	57	....	1	1	.....	.....	1	.....	3	60
Priscilla Coal Mining Co.																						
Priscilla No. 2,	Clearfield,	1	....	....	25	.....	.....	.....	2	1	.....	.....	29	1	....	1	.....	.....	1	.....	3	32
Harbison Walker Co.																						
Fairmount No. 1,	Clearfield,	1	....	....	20	.....	.....	.....	2	.....	.....	.....	23	1	....	.....	.....	.....	.....	2	3	26
Clinton Coal Co.																						
Clinton mine,	Clinton,	1	....	....	35	.....	.....	.....	3	2	10	.....	51	1	1	3	1	.....	2	30	38	89
Mathew Shadeck.																						
Mosquito Creek,	Clearfield,	1	....	....	30	.....	.....	.....	2	1	.....	.....	34	1	....	1	.....	.....	1	2	5	39
St. Marys Sewer Pipe Co.																						
Kaul mine,	Elk,	1	....	....	45	.....	.....	.....	4	.....	.....	5	55	1	....	3	.....	.....	2	2	8	63
J. F. Keating.																						
Lyman,	McKean,	1	....	....	13	.....	.....	.....	2	.....	.....	.....	16	1	....	1	.....	.....	.....	.....	2	18
Kelly & Nugent.																						
Cato,	Centre,	1	....	....	20	.....	.....	.....	2	.....	.....	.....	23	1	....	.....	.....	.....	1	.....	2	25
Isaac Stage.																						
Clearfield No. 10,	Clearfield,	1	....	....	13	.....	.....	.....	2	.....	2	.....	18	1	....	.....	.....	.....	1	7	9	27

Charles Schultz.																									
Schultz mine,	Tioga,	1	....	....	18	.....	.....	.....	2	.....	.....	.....	21	1	....	.....	.....	.....	2	3	24
A. G. Spears.																					
Meyer Run,	Clearfield,	1	....	....	30	.....	.....	.....	2	.....	.....	.....	33	....	.....	.....	.....	.....	2	2	35
Hall & Kaul.																					
Hazel Dell,	Elk,	1	....	....	19	.....	.....	.....	3	.....	.....	.....	25	....	....	.....	.....	1	1	3	23
George Rees & Co.																					
Brittanie,	Clearfield,	1	....	....	25	.....	.....	.....	3	.....	.....	1	2	32	....	.....	.....	.....	2	2	34
Grand totals,		62	11	3	6,493	75	676	75	498	176	173	248	8,490	26	22	140	117	75	56	748	1,184	9,674

TABLE III—Continued.

Names of Operators and Collieries.	County.	Number of Days Worked in Each Month.												
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
North Western Mining and Exchange Co., ...	Elk & Jefferson,..	23	16.5	22.7	21.9	20.6	23.1	22.7	23.6	22.8	26	13.1	16.7	252.8
Clearfield Bituminous Coal Corporation,.....	Clearfield,.....	24	23	24.5	25.5	22	21.7	25	24.7	22	23	24	21	283
Jefferson-Clearfield Coal and Iron Co., ...	Clearfield & Jeff.,	24	11.7	22.5	11	21	23	25	25	24	26	23.5	23.5	260.2
Kettle Creek Coal Mining Co., ...	Clinton,.....	28.8	25.5	24.5	26.4	28.6	26.2	26.3	27	25.9	28.5	26.5	26.1	254.1
Blossburg Coal Co., ...	Tioga,.....	13.8	.....	12	10.9	19.5	24	23	22	20	26.3	18	17.7	207.2
Magee & Ellsworth, ...	Tioga,.....	22	24	26	23.8	24.7	23.1	23.7	23.9	23.2	25.9	23.4	23.7	271.9
Shawmut Mining Co., ...	Elk,.....	23	13	19	22.9	20.1	23.4	20.4	21.9	20.8	22.9	19.1	19.6	244.1
Kersey Coal and Coke Co., ...	Elk,.....	25	21.9	22	22.2	21.6	24.1	16.1	22.1	23	27	20.9	22	267.8
Buffalo and Susquehanna Coal and Coke Co.,	Clearfield,.....	25.7	23	24	22.5	22.5	24	24.5	24	23.5	25.5	21	21.5	281.7
Kelly Brothers, ...	Centre & Clearfield	22.7	21	21.5	20	19	19	17	17.2	24	25	24.2	24.5	230.5
Red Run Coal Co., ...	Lycoming,.....	26	24	24	24.3	23	24	24	22	24	26	23	.4	264.7
Morris Run Coal Mining Co., ...	Tioga,.....	25.5	23	24.9	26	23.6	24.5	21	23.2	23.6	20	22.5	25.5	283 2
Jefferson Coal Co., ...	Jefferson, ...	26	24	26	26	19	22	21	23	22	21	12	16	258
Rochester and Pittsburg Coal and Iron Co.,..	Clearfield,.....	27	18	23	11	21	19	21	26	20	27	22	24	259
Iroquois Coal Co., ...	Jefferson, ...	23.5	13.8	22.4	23.5	22.5	21.1	23.7	20.1	23.4	20.6	12.2	23.5	250.3
Lehigh Valley Coal Co., ...	Centre,.....	17.5	16.6	13.2	14.2	13.7	17.1	19.7	17.6	18.6	19.8	17.6	17.5	178.2
Clearfield and Gramplan Coal Co., ...	Clearfield,.....	25	23	20	24	19	18	21.5	21	21.5	25	24	24	210.5
Atherton & Barnes, ...	Clearfield,.....	.....	.....	.....	8	22	23	22	25	23	21	16	22	182
Priscilla Coal Mining Co., ...	Clearfield,.....	.....	.....	.....	20	25	15	20	20	25	21	20	20	186
Harbison Walker Co., ...	Clearfield,.....	23	24	21	20	22	23	20	19	20	18	20	24	254
Clinton Coal Co., ...	Clinton,.....	.....	.....	.....	.....	.....	.....	.....	.....	8	27	24	26	85
Mathew Shadeck, ...	Clearfield,.....	22	22	22	22	22	22	22	22	22	22	22	22	264
St. Marys Sewer Pipe Co., ...	Elk,.....	25	24	25	26	25	25	25	24	26	26	23	25	299
J. F. Keating, ...	McKean,.....	24	23	19	22	17	24	24	25	22	26	24	23	273
Kelly & Nugent, ...	Centre,.....	13	23	23	24	24	25	22	24	23	23	24	23	271
Isaac Stage, ...	Clearfield,.....	27	24	23	25	25	22	19	22	26	27	24	26	290
Charles Schultz, ...	Tioga,.....	25	22	23	20	23	23	25	22	23	21	15	21	263
A. G. Spears, ...	Clearfield,.....	22	21	25	23	22	20	20	20	12	13	14	20	232
Hall & Kaul, ...	Elk,.....	25	22.2	23	23.3	23.5	21	18.7	16	24.8	24.7	20.8	21	264
George Rees & Co., ...	Clearfield,.....	.....	.....	.....	.....	.....	.....	3	21	23	25	24	23	119
Average, ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	241.3

TABLE IV—List of fatal accidents that occurred in and about the mines of the Fourth Bituminous District for the year ending December 31, 1902.

Date of accident.		Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Feb.	1	Paul Turine, ...	Italian, ...	Miner, ...	40	M.	1	4	Mead Run, ...	Elk,.....	Was instantly killed in his working place by a fall of slate.
May	19	Gains Fisher, ...	American, .	Driver, ...	17	S.	....	....	Helvetia, ...	Clearfield,.....	Was fatally injured by a mule.
	24	C. J. Gustofson, ...	Swede, ...	Company man,	27	S.	....	....	Knox Run, ...	Clearfield,.....	Was instantly killed by a fall of slate.
June	10	Mike Loss, ...	Slavonian, .	Miner, ...	29	S.	....	....	Pleasant Hill, ...	Clearfield,.....	Was instantly killed in his working place by a fall of slate.
Aug.	8	Thos. Cauterini, ...	Italian, ...	Miner, ...	35	M.	1	....	Clarion No. 4, ...	Elk, ...	Was so seriously injured by fall of slate that he died in six hours after.
Sept.	23	Mike Fender, ...	Pole, ...	Miner, ...	38	M.	1	5	Helvetia, ...	Clearfield,.....	Fatally burned by an explosion of fire damp.
	23	Fergus Bonner, ...	Irish, ...	Miner, ...	36	M.	1	1	Helvetia, ...	Clearfield,.....	Fatally burned by an explosion of fire damp.
Oct.	14	William Kanshus, ..	Lithuanian,	Miner, ...	32	S.	....	....	Rochester, ...	Clearfield,.....]	Were both instantly killed by fall of slate.
	14	Mike Masonios, ...	Lithuanian,	Miner, ...	24	S.	....	....	Rochester, ...	Clearfield,.....]	
	17	John Kauyuk, ...	Slavonian, .	Miner, ...	28	M.	1	....	London	Jefferson, ...	Was instantly killed by cars.
Nov.	28	James McGority, ...	American, .	Miner, ...	33	M.	1	3	Snow Shoe No. 5, .	Centre,.....	Was instantly killed by a blast.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Fourth Bituminous District for the year ending December 31, 1902.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 2	John Anderson, ...	Swede, ...	Company man,	33	S.	DuBois shaft No. 1, ...	Clearfield,...	Severely injured by fall of top coal.
28	Robert Young, ...	Scotch, ...	Miner, ...	38	M.	Anna "S,"	Tioga,.....	Seriously injured by falling from a bucket while riding on aerial wire rope tramway.
Feb. 4	William Wise, ...	American, .	Miner, ...	30	S.	Snow Shoe No.. 5, ...	Centre,.....	Collar bone broken by fall of bone coal.
17	John VanOrder, ...	American, .	Miner, ...	50	M.	Antrim No. 5, ...	Tioga,.....	Hand cut and body severely bruised by cars outside the mine.
19	George Hoffman, ...	American, .	Driver, ...	32	M.	Knox Run, ...	Clearfield,...	Foot severely injured by cars.
Mar. 4	William Ledger, Jr., ..	English, ...	Runner, ...	15	S.	DuBois shaft No. 1, ...	Clearfield,...	Leg severely injured by cars.
5	Philip Zindle, ...	American, .	Miner, ...	26	M.	Snow Shoe No. 4, ...	Centre,.....	Leg severely injured by fall of coal.
April 21	Bartolo Bilge, ...	Austrian, ..	Miner, ...	32	M.	Shawmut No. 5, ...	Elk,.....	Severely injured by fall of coal.
18	A. L. Christian, ...	American, .	Mine foreman,	35	M.	Helvetia, ...	Clearfield,...	Injured by being squeezed between mine cars and pillar.
24	Joseph Nowora, ...	Pole, ...	Miner, ...	27	M.	Kettle Creek, ...	Clinton,.....	Leg fractured by fall of slate.
May 16	Joseph Graham, ...	American, .	Driver, ...	18	S.	Helvetia, ...	Clearfield,...	Squeezed between mine car and pillar.
24	Lawrence Holt, ...	American, .	Door boy, ...	14	S.	Knox Run, ...	Clearfield,...	Head cut and otherwise injured by fall of slate.
28	Matta Stein, ...	Finlander, .	Miner, ...	38	M.	Kettle Creek, ...	Clinton, ...	Back broken by fall of slate.
31	George Copis, ...	Slavonian, .	Miner, ...	63	M.	London, ...	Jefferson, ..	Arm and leg fractured; struck by trip of cars.
June 7	Phelix Iskirwits, ...	Pole, ...	Trip runner, ...	16	S.	Williamsport No. 2, ..	Clearfield,...	Both arms broken by being run over by mine cars.
23	Marty Morris, ...	Slavonian, .	Miner, ...	46	M.	Raybold No. 2, ...	Clearfield,...	Leg fractured by fall of coal and slate.
July 2	G. Natora.	Austrian, ..	Miner, ...	37	S.	Dagus No. 1, ...	Elk,.....	Injured by fall of roof slate.
Aug. 2	Jacob Jimbaw, ...	Austrian, ..	Miner, ...	42	M.	Bear Run, ...	Tioga,.....	Back injured by fall of roof slate.
22	Andrew Voytick, ...	Pole, ...	Miner, ...	20	S.	Sugar Camp No. 10, ...	Centre,.....	Thigh broken by being caught between cars.
25	Charles Burkavich, ...	Pole, ...	Miner, ...	40	M.	DuBois shaft No. 1, ...	Clearfield,...	Arm crushed by being run over by cars.
Sept. 2	Santo Shala, ...	Italian, ...	Miner, ...	27	S.	Byrne No. 21, ...	Elk,.....	Seriously burned by powder explosion, while making up cartridge.
5	J. H. King, ...	American, .	Miner, ...	38	M.	DuBois shaft No. 1, ...	Clearfield,...	Shoulder and collar bone broken by fall of coal.
23	Dennis McGee, ...	Irish, ...	Miner, ...	35	S.	Helvetia, ...	Clearfield,...	Seriously burned by explosion of fire damp.

	23	John McGlynn,	Irish,	Miner,	29	S.	Helvetia,	Clearfield ..	Severely burned by explosion of gas.
	23	Owen McGlynn,	Irish,	Miner,	27	S.	Helvetia,	Clearfield,...	Severely burned by explosion of gas.
	23	John Chipker,	Pole,	Miner,	36	S.	Helvetia,	Clearfield,...	Severely burned by explosion of gas.
	23	Andrew Bosack,	Pole,	Miner,	32	M.	Helvetia,	Clearfield,...	Slightly burned by explosion of gas.
Oct.	1	Thomas Lesneskie,	American,	Door boy,	14	S.	Byrne No. 21,	Elk,	Leg fractured by fall of slate.
	4	George Chuhran,	Italian,	Miner,	28	M.	Clarion No. 27,	Elk,	Seriously injured by fall of slate.
	4	George C. Harvey,	English,	Cager,	19	S.	DuBois shaft No. 1,	Clearfield,...	Scalp injured by being struck by piece of coal falling down shaft.
	13	Bud King,	American,	Cager,	16	S.	DuBois shaft No. 1,	Clearfield,...	Hand crushed by being struck by coal falling down shaft.
Dec.	5	Joseph Ambrosia,	Italian,	Driver,	22	M.	Cardiff No. 41,	Elk,	Leg fractured; caught between cars.
	8	William Marshall, Jr.,	American,	Miner,	22	S.	Dagus No. 1,	Elk,	Leg fractured by fall of slate.
	8	Charles Cuneo,	American,	Miner,	38	M	Dagus No. 1,	Elk,	Seriously injured by fall of roof slate.
	15	Toney Muscatell,	Italian,	Miner,	25	S.	Shawmut No. 6,	Elk,	Back and arm broken by fall of roof slate.
	19	Sauto Serafine,	Italian,	Miner,	38	S.	Shawmut No. 5,	Elk,	Leg fractured; caught between mining machine and pillar.
	26	Joseph Supenus,	Pole,	Miner,	18	S.	DuBois shaft No. 1,	Clearfield,...	Leg severely injured by mine cars in the mine.
	30	Jerry Sullivan,	Irish,	Miner,	54	S.	DuBois shaft No. 1,	Clearfield,...	Severely injured by blast fired in the coal.

Fifth Bituminous District

FAYETTE COUNTY

Uniontown, Pa., March, 1903.

Hon. Jas. W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.

Sir: In compliance with act of Assembly relating to Bituminous mines, approved May 15, 1893, I have the pleasure of herewith submitting my annual report of the Fifth District for the year ending December 31, 1902.

The report contains the usual statistics.

The total production of coal as shown by Table 2 was 9,548,896 tons, an increase of 2,344,873 tons over the preceding year.

The average number of days worked was 265.71.

The number of persons employed was 12,794, an increase of 1,792 over year 1901. The increase of persons employed was largely due to new construction work and improvements made in and about the operations, along with the greater production.

The number of fatal accidents was 34, 7 less than the previous year. The non-fatal ones numbered 68, 20 more than last year.

The number of wives made widows was 13, and the number of children orphaned, 33.

The reduction in number of fatal accidents is gratifying, considering the increased production.

With but few exceptions, the ventilation was good; the average number of cubic feet of air per minute circulating for each employe was taken at the various air splits.

It has been necessary to prosecute some laborers who violated the law. In some cases they opened their safety lamps, while in others they carried matches, pipes and tobacco into the mine.

The report shows 73 mines in the district. I have been relieved of thirteen of them by the appointment of additional inspectors, but there are now in course of preparation in this district 15 new mines.

The names of successful candidates for mine foreman are shown in report.

In all cases where it has been necessary to call the attention of operators to defects, they have been most courteous, and at all times willing to co-operate and make such changes and improvements as I have suggested.

Yours truly,

I. G. ROBY,
Inspector.

Summary of Statistics for 1902.

Number of mines in district,	73
Number of mines in operation during 1902,	68
Number of tons of coal produced,	9,548,896
Number of tons shipped to market,	2,833,450
Number of tons sold at mines to local trade,	74,279
Number of tons consumed at mines in generating steam and heat,	211,172
Number of coke ovens in the district,	10,009
Number of coke ovens in operation during 1902,	9,927
Number of tons of coke produced,	4,255,453
Number of tons of coal used in manufacture of coke,	6,430,065
Number of tons produced by pick mining,	7,910,901
Number of tons produced by compressed air machines,	240,944
Number of tons produced by electrical machines,	1,397,051
Number of persons employed inside the mines,	8,082
Number of persons employed outside, including coke workers,	4,712
Number of persons employed at manufacture of coke,	3,084
Number of fatal accidents inside the mines,	33
Number of tons produced for each fatal accident inside,	280,850
Number of persons employed per fatal accident inside,	245
Number of fatal accidents outside,	1
Number of persons employed per fatal accident outside,	4,712
Number of wives made widows by fatal accidents,	13
Number of children orphaned by fatal accidents,	33
Number of non-fatal accidents inside of mines,	66
Number of persons employed per non-fatal accident inside,	119
Number of non-fatal accidents outside,	2
Number of persons employed per non-fatal accident outside,	2,356
Number of electric motors used inside,	7
Number of fans used for ventilation,	49
Number of furnaces used for ventilation,	13
Number of gaseous mines in operation during 1902,	34

Number of non-gaseous mines in operation during 1902,	39
Number of new mines opened in 1902,	6
Number of old mines abandoned during 1902,	1

A. Production of Coal During the Year 1902.

Names of Companies.	Tons.
H. C. Frick Coke Co.,	2,038,955
South West Connellsville Coke Co.,	1,016,628
American Coke Co.,	629,747
Continental Coke Co.,	662,376
Monongahela River Consolidated Coal and Coke Co.,	1,616,532
Pittsburg Coal Co.,	224,065
Oliver and Snider Steel Co.,	621,979
W. J. Rainey,	583,400
Bessemer Coke Co.,	264,115
A. L. Keister & Co.,	179,470
Peoples' Coal Co.,	412,603
Atlas Coke Co.,	179,554
Stewart Iron Co., Limited,	105,670
Fayette Coke Co.,	103,161
Riverview Coal and Coke Co.,	155,680
Joseph Wharton,	65,914
Colonial Coke Co.,	62,000
E. A. Humphries & Co.,	45,000
Lake Erie Gas Coal and Coke Co.,	83,013
Hero Coal and Coke Co.,	64,000
Puritan Coal and Coke Co.,	68,779
Isaac Taylor & Co.,	75,058
Bute Run Coal and Coke Co.,	2,475
Percy Mining Company,	31,705
Cheat Haven Coal Co.,	52,000
Eleanor Coal and Coke Co.,	15,133
H. S. Sackett & Co.,	25,500
Sharon Coke Co.,	29,929
Penn Coke Co.,	49,300
Uniontown Coke Co.,	23,050
Leckrone Coke Co.,	2,400
Jno. Snider & Co.,	9,672
Connellsville Coke Co.,	49,183
Labell Iron Works,	850
Total,	9,548,896

B. Showing the number of fatal and non-fatal accidents inside and outside the mines; number of tons of coal produced per fatal and non-fatal accident inside the mines; number of persons employed inside and outside; and the number employed inside and outside for every fatal and non-fatal accident for each company during 1902.

Names of Companies.	Number of lives lost inside.	Number of lives lost outside.	Total number of lives lost.	Number severely injured inside.	Number severely injured outside.	Total number severely injured.	Tons of coal produced per each life lost inside.	Tons of coal produced per serious injury inside.	Number employes inside of mines.	Number employes outside of mines.	Total number employed.	Number of employes inside for each life lost.	Number of employes inside for each severe injury.	Number of eployes outside for each life lost.	Number of employes outside for each severe injury.
H. C. Frick Coke Co.,	11	.....	11	7	.....	7	185,359.54	291,279.23	1,511	1,144	2,655	137.36	215.85	1,144	1,144
Continental Coke Co.,	3	.....	3	1	.....	1	220,792	662.376	560	334	894	186.66	560	334	334
South West Connellsville Coke Co.,	.....	.....	.....	11	1	12	1,016,628	92,420.72	914	599	1,513	914	83.09	599	599
American Coke Co.,	5	.....	5	7	.....	7	125,949.4	89,963.85	911	396	1,307	182.20	130.14	396	396
Oliver & Snider Steel Co.,	1	.....	1	.....	.....	.....	621,979	621,979	466	302	768	466	466	302	302
M. R. C. C. and Coke Co.,	2	.....	2	12	.....	12	808,266	135,130.17	1,220	131	1,351	610	101.7	131	131
Pittsburg Coal Co.,	3	.....	3	6	.....	6	74,688.33	37,344.66	231	49	280	77	38.5	49	49
W. J. Rainey,	4	.....	4	4	.....	4	145,850	145,850	368	499	867	92	92	499	499
Bessemer Coke Co.,	.....	.....	.....	2	.....	2	264,115	132,057.5	223	338	561	223	111.5	338	338
A. L. Keister & Co.,	.....	1	1	.....	1	1	179,470	179,470	176	103	279	176	176	103	103
Peoples' Coal Co.,	3	.....	3	3	.....	3	137,534.33	137,534.33	350	25	375	116.66	116.66	25	25
Atlas Coke Co.,	.....	.....	.....	.....	.....	.....	179,554	179,554	116	97	213	115	115	97	97
Stewart Iron Co., Ltd.,	.....	.....	.....	1	.....	1	105,670	105,670	9	86	175	89	89	86	86
Fayette Coke Co.,	.....	.....	.....	2	.....	2	103,161	51,580.5	75	71	146	75	37.50	71	71
Riverview Coal and Coke Co.,	.....	.....	.....	2	.....	2	155,680	77,840	105	122	227	105	57.50	122	122
Joseph Wharton,	.....	.....	.....	.....	.....	.....	65,914	65,914	48	43	91	48	48	43	43
Colonial Coal Co.,	.....	.....	.....	1	.....	1	62,000	62,000	53	37	90	53	53	37	37
E. A. Humphries & Co.,	.....	.....	.....	.....	.....	.....	45,000	45,000	40	34	74	40	40	34	34
Lake Erie Gas Coal and Coke Co.,	.....	.....	.....	4	.....	4	83,013	20,753.25	104	12	116	104	26	12	12
Hero Coal and Coke Co.,	.....	.....	.....	.....	.....	.....	64,000	64,000	53	18	71	53	53	18	18
Puritan Coke Co.,	1	.....	1	2	.....	2	68,779	34,389.5	35	21	56	35	17.50	21	21
Isaac Taylor & Co.,	.....	.....	.....	.....	.....	.....	75,058	75,058	52	27	79	52	52	27	27
Bute Run Coal and Coke Co.,	.....	.....	.....	.....	.....	.....	2,475	2,475	15	11	26	15	15	11	11
Percy Mining Co.,	.....	.....	.....	1	.....	1	31,705	31,705	28	27	55	28	28	27	27
Cheat Haven Coal Co.,	.....	.....	.....	.....	.....	.....	52,000	52,000	65	10	75	65	65	10	10
Eleanor Coal and Coke Co.,	.....	.....	.....	.....	.....	.....	15,133	15,133	16	15	31	16	16	15	15
H. S. Sackett & Co.,	.....	.....	.....	.....	.....	.....	25,500	25,500	28	17	45	28	28	17	17
Sharon Coke Co.,	.....	.....	.....	.....	.....	.....	29,929	29,929	83	19	102	83	83	19	19

Penn Coke Co.,	......	......	......	......	......	......	49,300	49,300	49	34	83	49	49	34	34
Uniontown Coke Co.,	......	......	......	......	......	......	23,050	23,050	21	16	37	21	21	16	16
Leckrone Coke Co.,	......	......	......	......	......	......	2,400	2,400	11	14	25	11	11	14	14
John Snider & Co.,	......	......	......	......	......	......	9,672	9,672	8	2	10	8	8	2	2
Connellsville Coke Co.,	......	......	......	......	......	......	49,183	49,183	49	42	91	49	49	42	42
Labell Iron Works,	......	......	......	......	......	......	850	850	9	17	26	9	9	17	17
Totals and averages,	33	1	34	66	2	68	280,850	144,680	8,082	4,712	12,794	245	122	4,712	2,356

C. Classification of Fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						
	By Falls of								By Falling into														
	Coal.	Slate.	Roof.	By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	Shafts.	Slopes.	Manways, breasts, etc.	Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
January,	.....	1	1	1	.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	5
February,	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
March,	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
April,	.....	.....	1	2	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	4
May,	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
June,	.....	1	.....	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	5	.....	.....	.....	.....	.....	.....	5
July,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
August,	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
September,	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
October,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
November,	.....	2	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	1	.....	.....	.....	1	5
December,	.....	2	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
Totals,	2	11	3	11	1	.....	.....	.....	1	3	.....	.....	.....	.....	1	33	.....	1	.....	.....	.....	1	34

D. Classification of Non-fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
January,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	.....	.....	.....	.....	.....	.....	2
February,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March,	.....	3	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	6
April,	1	2	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	2	.....	.....	.....	.....	2	10
May,	1	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	5	.....	.....	.....	.....	.....	.....	5
June,	1	1	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	5	.....	.....	.....	.....	.....	.....	5
July,	.....	5	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11	.....	.....	.....	.....	.....	.....	11
August,	4	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
September,	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	5
October,	1	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	4
November,	1	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	4	.....	.....	.....	.....	.....	.....	4
December,	.....	.....	.....	2	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	.....	8	.....	.....	.....	.....	.....	.....	8
Totals,	10	20	1	23	1	.....	.....	7	.....	.....	.....	.....	.....	.....	4	66	2	.....	.....	.....	.....	2	68

E. Occupations of Employes Killed or Fatally Injured Inside and Outside the Mines of the Fifth Bituminous District During 1902.

Months.	Inside.												Outside.								Grand total.
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
January,	.....	.....	.....	2	.....	.....	.....	1	.....	.....	2	5	.....	.....	.....	.....	.....	.....	.....	.....	5
February,	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	2
March,	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	2
April,	.....	.....	.....	2	.....	.....	.....	1	.....	.....	1	4	.....	.....	.....	.....	.....	.....	.....	.....	4
May,	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
June,	1	.....	1	1	.....	.....	.....	1	.....	1	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	5
July,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
August,	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	3
September,	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	2
October,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	1
November,	.....	.....	.....	1	.....	.....	.....	3	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	1	1	5
December,	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	3
Totals,	1	.....	1	17	.....	1	.....	8	.....	1	4	33	.....	.....	.....	.....	.....	.....	1	1	34

F. Occupations of Employes Severely Injured Inside and Outside the Mines of the Fifth Bituminous District During 1902.

Months.	Inside.													Outside.									Grand total.
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
January,	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	2
February,	.....	.....	.....	1	.....	.....	.....	1	.....	1	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	3
March,	.....	.....	.....	3	.....	.....	.....	1	.....	1	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	5
April,	.....	.....	.....	4	.....	.....	.....	2	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	.....	.....	6
May,	.....	.....	.....	3	.....	.....	.....	4	.....	2	.....	8	.....	.....	.....	.....	.....	.....	2	2	10
June,	.....	.....	.....	3	.....	.....	.....	1	.....	1	1	5	.....	.....	.....	.....	.....	.....	.....	.....	5
July,	.....	.....	.....	3	1	.....	.....	1	.....	.....	1	5	.....	.....	.....	.....	.....	.....	.....	.....	5
August,	.....	.....	.....	3	.....	.....	.....	1	.....	1	2	11	.....	.....	.....	.....	.....	.....	.....	.....	11
September,	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	2
October,	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	1	5	.....	.....	.....	.....	.....	.....	.....	.....	5
November,	.....	.....	.....	3	.....	1	.....	1	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	4
December,	.....	.....	.....	3	.....	.....	.....	1	1	.....	3	8	.....	.....	.....	.....	.....	.....	.....	.....	8
Totals,	.....	.....	.....	35	2	1	.....	13	1	6	8	66	.....	.....	.....	.....	.....	.....	2	2	68

G. Nationality of Employes Killed or Fatally Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Poles.	Hungarians.	Slavs.	Austrians.	Swedes.	Total.
January,	2	.....	.....	.....	1	2	.....	5
February,	1	.....	1	.....	.....	.....	.....	2
March,	.....	.....	.....	.....	1	1	.....	2
April,	.....	.....	.....	2	1	1	.....	4
May,	.....	.....	.....	.....	1	.....	.....	1
June,	2	1	.....	.....	1	.....	1	5
July,	.....	.....	.....	.....	.....	1	.....	1
August,	.....	.....	.....	.....	3	.....	.....	3
September,	.....	.....	.....	.....	2	.....	.....	2
October,	.....	.....	.....	.....	1	.....	.....	1
November,	3	.....	.....	1	1	.....	.....	5
December,	.....	.....	.....	.....	3	.....	.....	3
Totals,	8	1	1	3	15	5	1	34

H. Nationality of Employes Severely Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Welsh.	Irish.	Polish.	Hungarians.	Italians.	Slavs.	Lithuanians.	Austrians.	Bohemians.	Finns.	Total.
January,	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	2
February,	.....	.....	1	.....	.....	.....	.....	1	.....	1	.....	.....	2
March,	3	.....	.....	.....	2	.....	.....	1	.....	1	.....	.....	7
April,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	3
May,	5	.....	.....	1	.....	.....	1	2	.....	.....	1	.....	10
June,	3	1	.....	.....	1	.....	.....	1	.....	.....	.....	.....	6
July,	3	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	5
August,	1	.....	2	.....	.....	1	2	3	.....	2	.....	.....	11
September,	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	.....	2
October,	.....	.....	.....	1	1	1	.....	2	.....	.....	.....	.....	5
November,	1	1	.....	.....	.....	1	.....	.....	1	.....	.....	.....	4
December,	3	.....	.....	.....	.....	1	.....	1	.....	.....	.....	.....	5
Totals,	22	2	3	3	4	5	3	17	1	5	1	2	68

I. Giving names of operators and mines, kind of openings, type and size of fans; size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each employe per minute in Fifth Bituminous District for the year 1902.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
H. C. Frick Coke Co.														
Leisenring No. 2,	Shaft,	Gaseous.	Fan,	10 x 20	1.7	Capell,	Steam,		5	209,500	209,500	214,600	287	730
Youngstown,	Slope,	Gaseous.	Fan,	6½ x 20	.75	Guibal,	Steam,		2	120,000	98,000	126,000	130	754
Lemont No. 1,	Slope,	Gaseous.	Fan,	10 x 12	1.8	Capell,	Steam,		5	160,000	168,200	168,200	136	1,237
Lemont No. 2,	Slope,	Gaseous.	Fan,	6½ x 20	1.6	Guibal,	Steam,		4	116,000	116,000	122,500	190	611
Lemont No. 3,	Slope,	Non-gas.	Fan,						1	40,000	32,400	62,460		
Leith,	Shaft,	Gaseous.	Fan,	8 x 16	1.25	Capell,	Steam,		5	162,000	148,000	172,000	181	817
Redstone No. 1,	Slope,	Gaseous.	Fan,	6 x 20	.7	Guibal,	Steam,		2	81,800	76,000	78,000	193	717
Redstone No. 2,	Slope,	Gaseous.	Fan,						2	76,000	62,400	76,000		
Oliphant,	Slope,	Gaseous.	Fan,	4½ x 16	.5	Brazil,	Steam,		2	92,400	74,600	97,500	138	540
Whynn,	Slope,	Gaseous.	Fan,	4 x 12	.7	Brazil,	Steam,		1	27,850	27,850	28,000	76	366
Kyle,	Slope & drift,	Non-gas.	Fan,	4 x 12	.3	Brazil,	Steam,		3	88,200	66,400	98,000	180	368
Southwest Connellsville Coke Co.														
Leckrone No. 1,	Drift,	Non-gas.	Fan,	7 x 13½	.4	Capell,	Steam,		4	156,700	156,700	225,000	288	800
Leckrone No. 2,	Drift,	Non-gas.	Fan,	3½ x 8	.3	Capell,	Electricity		2	73,400	73,400	78,600		
Footdale,	Drift & slope,	Gaseous.	Fan,	7 x 13½	.6	Capell,	Steam,		7	247,000	206,840	251,000	241	858
Buffington,	Shaft,	Gaseous.	Fan,	10 x 14	1.1	Capell,	Steam,		4	212,000	212,000	235,600	385	550
Connellsville Coke Co.														
Continental No. 1,	Shaft,	Gaseous.	Fan,	8 x 16	.5	Capell,	Steam,		3	140,000	130,400	134,200	211	618
Continental No. 2,	Shaft,	Gaseous.	Fan,	8 x 16	.7	Capell,	Steam,		2	97,500	97,500	110,800	172	567
Continental No. 3,	Slope,	Non-gas.	Fan,	4 x 16	.3	Brazil,	Steam,		2	96,000	82,400	81,450	177	607
Continental No. 4,	Drift,	Non-gas.	Fan,	3½ x 14	.2	Brazil,	Steam,		2	28,000	25,000	31,600		
American Coke Co.														
Lamb rt,	Shaft,	Gaseous.	Fan,	25 x 8	1.3	Guibal,	Steam,		4	151,400	151,200	151,200	415	364

TABLE I—Continued.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Edenborn,	Shaft,	Gaseous,	Fan,	20 x 8	1.4	Guibal,	Steam,	.....	4	168,000	168,000	172,400	194	866
Gates, 1,	Shaft,	Gaseous,	Fan,	13 x 5	.8	Capell,	Steam,	.....	5	146,400	123,400	174,400	302	620
Gates, 2,	Shaft,	Gaseous,	Fan,	13 x 5	.7	Capell,	Steam,	.....	4	105,000	64,000	96,000	.....	
Oliver & Snider Steel Co.														
Oliver No. 1,	Shaft,	Gaseous,	Fan,	20 x 7½	.6	Guibal,	Steam,	.....	4	169,600	87,400	172,000	219	400
Oliver No. 2,	Shaft,	Gaseous,		.....	.....	.....	.....	.....	4	116,000	93,240	169,400	217	380
Bessemer Coke Co.														
Griffin No. 1,	Drift,	Non-gas.	Furnace,	.....	.....	.....	.....	150	2	48,000	45,760	64,200	223	358
Griffin No. 2	Drift,	Non-gas.	Furnace,	.....	.....	.....	.....	175	1	18,760	18,760	22,000	.....	
Griffin No. 3,	Drift,	Non-gas.	Natural,	.....	.....	.....	.....	.....	1	15,200	15,200	16,800	.....	
W. J. Rainey.														
Revere No. 1,	Slope,	Non-gas.	Fan,	16 x 8	.7	Capell,	Steam,	.....	2	83,200	60,000	76,000	101	598
Revere No. 2,	Drift,	Non-gas.	Furnace,	.....	.....	.....	.....	98	2	21,600	21,600	26,000	116	187
Mt. Braddock,	Slope,	Gaseous,	Fan,	20 x 6	.6	Guibal,	Steam,	.....	3	58,600	61,200	67,200	151	405
A. L. Kelster & Co.														
Lincoln,	Slope,	Gaseous,	Fan,	20 x 7½	.5	Gulbal,	Steam,	.....	4	80,000	74,320	91,600	176	422
Stewart Iron Co., Ltd.														
Stewart,	Slope,	Gaseous,	Fan,	20 x 8	.5	Gulbal,	Steam,	.....	2	68,000	68,000	72,000	89	764
Fayette Coke Co.														
Shamrock,	Slope,	Non-gas.	Fan,	9 x 5½	.4	Capell,	Steam,	.....	1	41,500	31,500	55,000	75	420
M. R. C. C. & Coke Co.														
Washington,	Drift,	Gaseous,	Fan,	16 x 6	.6	Pollock,	Steam,	.....	3	34,600	33,800	37,800	136	248
Little Alps,	Drift,	Non-gas.	Fan,†	.....	.....	.....	.....	.....	2	20,700	20,700	20,400	37	560
Alice,	Drift,	Gaseous,	Fan,	25 x 9	.7	Pollock,	Steam,	.....	4	78,600	64,320	84,000	221	291
Snow Hill,	Drift,	Non-gas.	Fan,	20 x 7	1	Pollock,	Steam,	.....	5	90,000	78,400	96,240	149	527

Anchor,	Drift,	Non-gas.	Fan,	14 x 3½	4.	Pollock,	Steam,		2	28,960	24,440	33,620	49	500
Stony Hill,	Drift,	Non-gas.	Furnace,						1	18,000	18,000	24,000	82	220
Chamonni,	Slope,	Gaseous,	Fan,	20 x 6	.3	Guibal,	Steam,		5	88,460	69,340	94,200	256	271
Albany,	Slope,	Gaseous,	Fan,	14 x 3¾	1.3	Guibal,	Steam,		3	33,250	32,000	60,000	186	172
Crowthers,	Drift,	Gaseous,	Fan,	20 x 7	.3	Pollock,	Steam,		2	20,000	12,000	23,200	104	115
Pittsburg Coke Co.														
Hanna,	Drift,	Non-gas.	Furnace,					60	1	12,600	12,600	14,400	36	350
Grindstone,	Shaft,	Gaseous,	Fan,	18 x 6					2	163,600	168,500	168,500	77	2,187
Eleanor,	Drift,	Non-gas.	Fan,	12 x 4	.2	Brazil,	Steam,		2	26,660	22,000	37,800	60	366
Smock,	Drift,	Non-gas.	Fan,	7 x 8	.2	Clark,	Steam,		2	34,200	20,000	36,000	58	345
Riverview Coal and Coke Co.														
Donald No. 1,	Slope,	Gaseous,	Furnace,					48	1	29,000	18,800	32,000	74	254
Donald No. 2,	Drift,	Non-gas.	Furnace,					22	1	12,800	9,000	14,400	31	290
Atlas Coke Co.														
Crossland,	Slope,	Non-gas.	Fan,	20 x 6	.2	Guibal,	Steam,		2	60,500	52,000	62,600	53	981
Lafayette,	Slope & dri.t.	Non-gas.	Fan,	12 x 5	.2	Brazil,	Steam,		3	54,060	46,400	63,000	63	736
Isaac Taylor & Co.														
Mt. Hope,	Drift,	Gaseous,	Steam,				Steam,		3	21,400	22,400	46,800	52	430
A. E. Humphries & Co.														
Chester,	Slope,	Non-gas.	Steam,				Steam,		1	19,000	19,000	23,600	40	475
Colonial Coke Co.														
Colonial,	Slope,	Non-gas.	Fan,	10 x 3	.2	Brazil,	Steam,		1	12,000	12,000	20,000	53	226
Connellsville Coke Co.														
Connellsville No. 1,	Drift,	Non-gas.	Fan,	16 x 6	.2	Brazil,	Steam,		2	28,000	15,400	30,000	49	314
Joseph Wharton.														
Borne,	Drift,	Non-gas.	Furnace,					138	2	14,000	16,310	16,310	48	340
Uniontown Coke Co.														
Smithfield,	Drift,	Non-gas.	Natural,						1	5,000	5,000	6,060	21	240
Puritan Coke Co.														
Parshall No. 1,	Drift,	Non-gas.	Furnace,					48	1	21,600	21,600	28,000	35	617
Parshall No. 2,‡	Slope,	Gaseous,	Steam,											
Sharon Coke Co.														
Ronco,	Shaft,	Gaseous,	Fan,	16 x 8	.3	Robinson,	Steam,		2	31,628	28,760	33,460	83	346
Bute Run Coal and Coke Co.														
Florence,	Drift,	Non-gas.	Natural,						1	11,600	11,600	12,400	15	773
Penn Coke Co.														
Acme,	Drift,	Non-gas.	Natural,						1	16,000	16,000	17,160	49	400
Penn,	Drift,	Non-gas.	Natural,						1	4,200	3,600	4,800		
Hero Coal and Coke Co.														
Hero.§	Drift,	Non-gas.	Furnace,					24	1	22,400	22,400	25,600	53	423

*Ventilated by fan at No. 1 †Ventilated by Washington §Slope workings.

TABLE 1—Continued.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed in inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Percy Mining Co. Percy,	Slope,	Non-gas.	Fan,	12 x 4	.2	Guibal,	Steam,		1	40,000	40,000	44,800	28	1,430
Lake Erie Gas Coal and Coke Co. Sumner,	Shaft & slope,	Gaseous.	Fan,	20 x 7	.5	Guibal,	Steam,		3	119,400	102,600	121,800	104	986
Peoples' Coal Co. Pike,	Drift,	Gaseous	Fan,	20 x 7	.4	Robinson,	Steam,		3	88,600	82,460	91,600	350	235
Cheat Haven Coal Co. Eagle,	Drift,	Non-gas	Furnace,					96	2	21,600	15,340	18,640	65	236
Eleanor Coal Co. Eleanor,	Drift,	Non-gas.	Furnace,					80	1	15,400	15,400	16,200	16	962
Sackett Coal and Coke Co. Sackett,	Drift,	Non-gas	Furnace,					40	1	11,880	10,800	14,640	28	386
Leckrone Coke Co. Annlemyra,	Drift,	Non-gas	Furnace,					24	1	5,200	5,200	6,150	11	473
John Snider & Co. Snider,	Drift,	Non-gas.	Natural,						1	4,600	2,880	4,860	8	360
Labell Iron Works. Labell,‡	Drift,	Non-gas.	Natural,										9	

‡New opening.

J. Names of mines using coal cutting machines, names of machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines during 1902.

Names of Mines.	Kind of opening.	Gaseous or non-gaseous.	Name and Number of Machines in Use.					Total machines used.	Power used by machines.	Geological and local name of seam.	Average thickness in inches.	Height of seam in inches.		Approximate number of tons produced by machines.
			Ingersol.	Sullivan.	Harrison.	Jeffrey.	Morgan-Gardner.					Thickest.	Thinnest.	
Leckrone No. 1,	Drift,	Non-gas.	.....	.....	.....	3	.....	3	Electricity, ...	Pittsburg,	91	102	79	54,055
Leckrone No. 2,	Drift,	Non-gas.	.....	.....	.....	2	.....	2	Electricity, ...	Pittsburg,	91	102	79	.....
Footdale,	Drift and slope,	Gaseous,	.....	.....	.....	3	1	4	Electricity, ...	Pittsburg,	98	108	88	52,824
Buffington,	Shaft,	Gaseous,	.....	7	.....	.....	.....	7	Compressed air, ..	Pittsburg,	92	108	84	6,128
Edenborn,	Shaft,	Gaseous,	6	3	1	6	.....	16	Compressed air, ..	Pittsburg,	96	108	84	166,228
Gates No. 1,	Shaft,	Gaseous,	6	2	.....	.....	.....	8	Compressed air, ..	Pittsburg,	93	96	90	2,800
Revere No. 1,	Slope,	Non-gas.	.....	.....	3	.....	.....	3	Compressed air, ..	Pittsburg,	84	84	84	8,000
Lincoln,	Slope,	Gaseous,	3	1	.....	.....	.....	4	Compressed air, ..	Pittsburg,	108	120	84	15,000
Donald No. 1,	Slope,	Gaseous,	.....	.....	.....	2	.....	2	Electricity, ...	Pittsburg,	96	96	96	31,862
Roncoe,	Shaft,	Gaseous,	.....	1	.....	2	.....	3	Compressed air, ..	Pittsburg,	108	114	102	17,958
Washington,	Drift,	Gaseous,	.....	.....	.....	.....	5	5	Electricity, ...	Pittsburg,	96	108	88	193,534
Alice,	Drift,	Gaseous,	.....	.....	.....	8	.....	8	Electricity, ...	Pittsburg,	96	98	94	340,080
Anchor,	Drift,	Non-gas.	4	.....	.....	.....	.....	4	Compressed air, ..	Pittsburg,	88	92	84	30,958
Albany,	Slope,	Non-gas.	.....	6	.....	.....	.....	6	Electricity, ...	Pittsburg,	90	92	88	165,654
Crowthers,	Drift,	Gase us,	.....	.....	.....	.....	5	5	Electricity, ...	Pittsburg,	76	82	70	113,892
Pike,	Drift,	Gaseous,	.....	.....	.....	9	.....	9	Electricity, ...	Pittsburg,	90	89	84	309,152
Totals,	.....	.....	19	20	4	35	11	89	.....	.....	.....	.....	.....	1,508,125

FATAL AND NON-FATAL ACCIDENTS.

Accidents to Drivers, Runners and Others, by Mine Cars.

The number of accidents resulting from this cause was 37 in all, 14 of which caused death. The remaining 23 were injured. Eight of those killed were employed as drivers and 6 were miners and company men. Of the 23 injured 13 were drivers and 10 men employed in various ways in the mines. Some were killed while riding on trips; others were crushed against ribs or under cars on slopes, while some slipped and fell in front of moving cars. To prevent this class of accidents, it is clear that experienced men should be employed; also strict rules prohibiting workmen from traveling on slopes, roads or haulage ways should be enforced, when their work does not require them to do so. Wider haulage roads are also recommended.

Accidents Due to Falls of Roof and Slate.

There were 16 fatal and 31 non-fatal accidents due to falls of roof coal and slate, making a total of 47. In other words 47 per cent. of the fatal and 47.2 per cent. of non-fatal accidents were due to this cause. By a careful investigation of the fatal accidents the evidence was such as to warrant an opinion that 8 or 50 per cent. might have been averted by using judgment. The remaining 8 were of such a nature that even experienced men might have failed to observe the dangers and they should be classed as unavoidable accidents. We must note then that 50 per cent. of the fatalities were not due so much to the unfortunate victims not understanding the dangers, as the total indifference shown by them regarding their own safety, they preferring to take chances instead of carefully protecting themselves and keeping on the side of safety. The enforcement of strict rules on the part of the management, requiring a more systematic use of timber, regardless of cost, will, in my judgment, result in the saving of many lives.

Accidents from Miscellaneous Causes.

Five persons were seriously burned at the Buffington mine, South West Connellsville Coke Company, December 24, in number 7 room off number 2 flat north about 8.30 A. M. An investigation of this accident disclosed the fact that two holes had been drilled in the face of this room; two sticks of dynamite placed in one and five in the other and made ready for firing; on the arrival of the shot-firer both holes were connected with the battery. One failed to explode. A few moments afterwards the wires were again adjusted and the

other hole discharged. This had given time for the gases from the first blast to come into the face of the room. When the second shot was exploded the stemming and the five sticks of dynamite were blown out. The energy spent in raising the heat to such a high temperature possibly breaking up the chemical union of the carbonic acid, and transformed it into an explosive mixture, along with some particles of coal dust which intensified and augmented the force of the explosion to such a degree as to blow down part of a stopping made of boards 250 feet distant from shot, and to blow into the adjoining room the five persons who were sitting in a cut-through, 23 feet from the face of the room.

Another blown out shot occurred in Donald No. 1, Riverview Coal and Coke Company, in which one miner was severely burned. The concussion from the blown out shot ignited the coal dust, causing a local explosion.

By a premature blast another miner was severely burned in the Sumner mine, Lake Erie Gas Coal Coke Company. He had an open light on his cap, contrary to instructions of the mine foreman, and a spark fell from the lamp, igniting the powder of a cartridge he was preparing.

Accidents from Miscellaneous Causes.

One by falling down a shaft. Another in tearing the belt of an elevator engine was caught, and in an effort to free himself was thrown or slipped into a fly wheel running 120 revolutions per minute. Two others fell in front of moving cars on the tipple outside. Still others were caught by mining machines, etc., etc.

Such accidents as enumerated above can only be averted by the employment of more practical men, together with the enforcement of a more rigid and exacting discipline on the part of the management, and good judgment on the part of the employe himself.

Fire-damp Explosions.

An explosion of fire-damp occurred in the Grindstone mine, Pittsburg Coal Company, June 3, 1902, about 8.30 A. M., in No. 1 butt, No. 2 face, entry south. James Eaton, mine foreman, was fatally, and John Robinson, boss roadman, seriously burned. Eaton died at the Cottage Hospital at 7 P. M. the same day. On my arrival at the mine I immediately examined the mine record book. April 26 was the last record or entry of gas shown, until the morning the explosion occurred. This entry showed gas in No. 2 butt or parallel to the entry where the explosion occurred. On the morning of the explosion the fire boss reported gas in this heading, tailing back 74

feet from the face, and he notified the miners not to enter the entry. He also claimed that he made a verbal report to the mine foreman. In addition he placed a danger board about 200 feet below where gas indicated on the safety lamp. On the day previous three inexperienced men had been employed who on the fatal morning, entered the mine in company with the mine foreman for the first time with a view of commencing work. They proceeded to this part of the mine and were near when the explosion occurred. They were either blown or fell down and escaped with very slight injuries. This appears to have been a very peculiar coincidence, as the mine foreman was fatally and boss roadman so severely burned that several weeks elapsed before it could be determined whether he would survive or not. The mine foreman carried a safety lamp in his hand and an open light on his cap, and carelessly passed the danger board, igniting the gas with open light. On December 3, 1901, three engineers lost their lives in this mine through the careless use of open lights.

Mine Improvements.

Brier Hill Coke Company is a subsidary company of the Brier Hill Iron and Steel Company, of Youngstown, Ohio. The property is located in the new Klondyke field, and will be connected with the P. R. R. L. and E. by a branch leading from Brownsville, Pa. The shaft will be approximately 500 feet. The construction work will in general resemble that of the most modern in the lower Connellsville basin. The field contains about 1,100 acres. Ovens will be built as the mine is developed.

Orient Coal and Coke Company is a new development on Dunlaps Creek one half mile west of New Salem, embracing 1,150 acres of coal. One hundred ovens will be erected at once, and as the plant develops, will be increased to 500. Two shafts each 12 feet 2 inches by 26 feet and 540 feet deep, will reach the coal. A steel tipple and bins will make this a complete plant.

LaBelle Iron Works is a new operation on the Monongahela river. Two hundred coke ovens will be rected. It is a drift mine and will be equipped with improved machinery. Will ship over the P. L. and E. extension.

Connellsville Central Coke Company.—Three hundred and fifty ovens will be built as rapidly as development work in the mine will allow. A spur of the Coal Lick Run branch, connecting at New Salem, will furnish railroad facilities.

Rich Hill Coal Company is a new operation in the southern part of Fayette county. Fifty ovens are now under construction; another 100 will be added as the mine is developed. Product will be shipped over the B. and O. R. R.

Masontown Coal and Coke Company.—Development work has begun at this mine which will be a slope. The work will be modern and up-to-date in every particular. One hundred and fifty ovens will be built.

Leonard and McHugh.—This is a small operation in the Sewickley seam. Thirty ovens will be built.

Bessemer Coke Company.—Developing a new operation on Jacobs Creek, in the lower Connellsville basin. Two hundred ovens will be erected as the mine is developed. The work is being vigorously prosecuted.

Oliver and Snider Steel Company is sinking two shafts one and one-fourth miles from Oliver No. 1. A 20-foot Capell fan will be installed at the new operation, with a view of ventilating Nos. 1 and 3, as soon as connections can be made. They are working three shifts from No. 1 every 24 hours and expect to prosecute the work as vigorously from No. 3 when coal is struck. When this work is completed No. 2 will be separated from No. 1 by permanent stoppings, and be ventilated with the fan that is now in operation. The contract for the new fan calls for 400,000 cubic feet with a two-inch water gauge. Three hundred ovens of the Bee-hive type, 13 feet in diameter, which is above the average, will be erected at the new plant.

Geneva Coke Company is in the southern part of Fayette; 50 ovens will be erected at this plant.

Whyles Bros.—This is a new operation in the southern part of the field on the B. & O. R. R. Fifty ovens will be erected.

Sackett Coal and Coal Company will develop a new plant with 100 ovens on the B. & O R. R. This is also in the southern part of Fayette county.

The H. C. Frick Coke Company has now under construction a 150 oven plant in the southern part of Fayette county on the line of B. & O. R. R., between Smithfield and Leckrone.

Jacobs Creek Coal Company will develop a coal operation on the Monongahela river below New Geneva.

Hustead & Co. are opening the Sewickley coal for shipment on M. & N. S. R. R.

Wheeling Iron and Steel Company will begin operation soon on a new plant near Gates.

Condition of Mines.

H. C. Frick Coke Company.—The mines under this company, 23 in number, as a whole are in a healthful and very satisfactory condition. The improvements talked of at Kyle and Redstone have not yet materialized, although I am reliably informed that Redstone

mines will be improved during the year and will rank among the best in the district. The mines under this company in the new Klondyke field have developed very rapidly, and I have found them to be up to the standard that perhaps is unexcelled.

Monongahela River Consilidated Coal and Coke Company.—The general conditions of the mines, 11 in number, belonging to this company will compare favorably with their conditions a year ago. The ventilation in some of these mines is not good, and I have had occasion to complain. I have found the drainage and other conditions very satisfactory with but two exceptions. The drainage in these two mines has occasioned considerable complaint.

W. J. Rainey.—The conditions of these mines are similar to those of a year ago. Revere No. 1 and Mt. Braddock on all my visits have been in a healthful condition, while the Drift or Revere No. 2 is not so well ventilated. However, there will soon be a connection made between Nos 1 and 2 Revere, when the ventilation in No. 2 mine will be much improved.

Pittsburg Coal Company.—The mines under this company, four in number, have been in good condition on each of my inspections.

Oliver and Snider Steel Company—Oliver No. 1 and 2.—These mines are very carefully looked after, and while known as very gaseous mines, every effort has been made on the part of the management to meet conditions that are likely to occur. The intention of this company is to put down another drill hole to relieve the gas laden gobs. A new haulage engine has been installed in No. 2 mine.

Bessemer Coke Company—Griffin No. 1.—The condition of this mine has been healthful and drainage good at each visit. Griffin No. 2 is a small drift mine with but light covering, which enables them to drop the surface and make an opening any place desired. Griffin No. 3 is a new slope opening with a fine body of coal to develop. Preparations are being made to instal a new fan at Nos. 1 and 3. One of Guibal type will be erected at No. 3, while the Robinson fan will displace the two furnaces at No. 1.

Atlas Coke Company.—Crossland and Lafayette mines are operated by this company and are very carefully looked after.

Riverview Coal and Coke Company.—Donald Nos. 1 and 2 are ventilated by furnace, and on each visit I have found them up to requirements. A Guibal fan 20 feet in diameter will be installed to ventilate both mines, which will be connected by headings.

A. L. Keister & Co—Lincoln Mine.—On each visit to this mine I have found it in a satisfactory condition. During the year this mine was changed from an open to a closed light mine.

Stewart Iron Company.—This mine is fully up to the requirements in every particular.

Sumner.—The drainage and general condition was satisfactory on each visit. During the year the slope that connects the shaft has been equipped with an endless rope haulage and a Phillips dump. Coal is now being shipped from the new opening.

Colonial.—This mine was fully up to the requirements on each visit.

Hero.—The drainage and general condition of this mine were very satisfactory on each visit. Ventilation fair.

Florence.—This is a small drift mine with very light coverings, the openings are numerous and the drainage and general conditions are good.

Chester.—This mine is very carefully looked after, and on each visit I found it in a satisfactory condition.

Mt. Hope is a drift mine with three main openings, one of which developed some gas during the year, and has since been worked with safety lamps. The place where gas was given off was not more than 300 feet from outcrop.

Percy.—During the year this mine suffered a squeeze, which caused the loss of considerable coal.

Smithfield is a small mine with very light covering, croping on all sides, with a number of openings. It is ventilated by natural means. On each visit found it in satisfactory condition.

Penn Nos. 1 and 2 are owned by Penn Coke Company. No. 2 is a new mine and I have not yet visited it. No. 1 was not well ventilated on last visit.

Sackett.—The condition of this mine is satisfactory.

Connellsville No. 1.—The ventilation and drainage in this mine are good, with the exception of some advance places, in which the air is sluggish.

Eleanor.—Is a small drift opening. The condition was satisfactory at last visit.

Eagle.—The sanitary condition of this mine during the year was satisfactory.

Anniemyra is a drift opening on the Coal Lick Run branch of the P. R. R. The main heading had been driven from the surface about 80 feet when visited.

Bourne.—This mine is very carefully looked after and fully up to the requirements.

Parshall Nos. 1 and 2.—No. 2 is a slope opening and will develop a fine body of coal. This mine will be equipped with modern improvements. One hundred ovens are now in course of construction. The condition at No. 1 was fair at last inspection.

Shamrock.—Has been equipped with a new Capell fan. Fifty additional ovens have been built, and some important changes made in the mine. The condition was satisfactory at last visit.

Snider.—The condition of this mine was fair at each visit.

Ronco is rapidly being developed into a large mine. Its capacity is to be 1,600 tons daily, which will be sufficient to operate the 226 by-product coke ovens now in course of construction at Sharon. These ovens are 43 feet in length, 10 feet longer than the average by-product ovens. Some very bad roof has been encountered in some parts of the mine, which retards the development. The buildings around the shaft are of brick; tenement houses are of the best type. There has also been installed a 16-foot Robinson fan.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Fifth Bituminous District for the year 1902.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
H. C. Frick Coke Co.						
Leisenring No. 1,	Fayette,.	O. W. Kennedy,	Scottdale,	Chas. J. Warnick,	West Leisenring,	P., V. & C.
Youngstown,	Fayette,.	O. W. Kennedy,	Scottdale,	P. P. Glenn,	Lemont Furnace,	P. R. R.
Lemont No. 1,	Fayette,.	O. W. Kennedy,	Scottdale,	C. M. Shank,	Lemont Furnace,	P. R. R.
Lemont No. 2,	Fayette,.	O. W. Kennedy,	Scottdale,	C. M. Shank,	Lemont Furnace,	P. R. R.
Lemont No. 3,	Fayette,.	O. W. Kennedy,	Scottdale,	C. M. Shank,	Lemont Furnace,	P. R. R.
Leith,	Fayette .	O. W. Kennedy,	Scottdale,	Harry Whyle,	Uniontown,	P. R. R.
Redstone No. 1,	Fayette,.	O. W. Kennedy,	Scottdale,	J. M. Simpson,	Brownfield,	P. R. R
Redstone No. 2,	Fayette,.	O. W. Kennedy,	Scottdale,	J. M. Simpson,	Brownfield,	P. R. R.
Oliphant,	Fayette,.	O. W. Kennedy,	Scottdale,	John T. Hoover,	Oliphant Furnace	P. R. R.
Whynn,	Fayette,.	O. W. Kennedy,	Scottdale,	John T. Hoover,	Oliphant Furnace	P. R. R.
Kyle,	Fayette,.	O. W. Kennedy,	Scottdale,	George B. Irvin,	Fairchance,	P. R. R.
Continental Coke Co.						
Continental No. 1,	Fayette,.	O. W. Kennedy,	Scottdale,	C. C. Gadd,	Uniontown,	Coal Lick Run Branch of P. R. R.
Continental No. 2,	Fayette,.	O. W. Kennedy,	Scottdale,	Enoch H. Abraham	Uniontown,	Coal Lick Run Branch of P. R. R.
Continental No. 3,	Fayette,.	O. W. Kennedy,	Scottdale,	Jas. A. Shannon,	Newcomer,	Coal Lick Run Branch of P. R. R.
Continental No. 4,	Fayette,.	O. W. Kennedy,	Scottdale,	Jas. A. Shannon,	Newcomer,	Coal Lick Run Branch of P. R. R.
Southwest Connellsville Coke Co.						
Leckrone No. 1,	Fayette,.	O. W. Kennedy,	Scottdale,	John Harding,	Leckrone,	B. & O.
Leckrone No. 2,	Fayette,.	O. W. Kennedy,	Scottdale,	John Harding,	Leckrone,	B. & O.
Footdale,	Fayette,.	O. W. Kennedy,	Scottdale,	F. W. Byrne,	New Salem,	Coal Lick Run Branch of P. R. R.
Buffington,	Fayette,.	O. W. Kennedy,	Scottdale,	Benton Boyd,	New Salem,	Coal Lick Run Branch of P. R. R.
American Coke Co.						
Lambert,	Fayette,.	O. W. Kennedy,	Scottdale,	H. N. Boyd,	Lamberton,	Coal Lick Run Branch of P. R. R.
Edenborn,	Fayette,.	O. W. Kennedy,	Scottdale,	Thomas Evans,	Edenborn,	Coal Lick Run Branch of P. R. R.
Gates No. 1,	Fayette,.	O. W. Kennedy,	Scottdale,	C. M. Gates,	Adah,	Coal Lick Run Branch of P. R. R.
Gates No. 2,	Fayette,.	O. W. Kennedy,	Scottdale,	C. M. Gates,	Adah,	Coal Lick Run Branch of P. R. R.
Oliver & Snider Steel Co.						
Oliver No. 1,	Fayette,.	F. C. Keighley,	Uniontown,	F. C Keighley,	Uniontown,	B. & O. and P. R. R.
Oliver No. 2,	Fayette,.	F. C. Keighley,	Uniontown,	F. C. Keighley,	Uniontown,	B. & O. and P. R. R.
Bessemer Coke Co.						
Griffin,	Fayette,.	R. L. Martin,	Pittsburg,	John H. Bitts,	Masontown,	Coal Lick Run Branch of P. R. R.
Griffin,	Fayette,.	R. L. Martin,	Pittsburg,	John H. Bitts,	Masontown,	Coal Lick Run Branch of P. R. R.
Griffin,	Fayette,.	R. L. Martin,	Pittsburg,	John H. Bitts,	Masontown,	Coal Lick Run Branch of P. R. R.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
W. J. Rainey.						
Revere No. 1,	Fayette,	T. J. Mitchell,	Connellsville,	F. W. Cunningham	Uniontown,	Coal Lick Run Branch of P. R. R.
Revere No. 2,	Fayette,	T. J. Mitchell,	Connellsville,	F. W. Cunningham	Uniontown,	Coal Lick Run Branch of P. R. R.
Mt. Braddock,	Fayette,	T. J. Mitchell,	Connellsville,	J. H. Klock,	Mt. Braddock,	B. & O. and P. R. R.
A. L. Keister & Co.						
Lincoln,	Fayette,	E. L. Stiner,	Scottdale,	John M. White,	Waltersburg,	P., V. & C. B. of P. R. R.
Atlas Coke Co.						
Lafayette,	Fayette,	James Henderson,	Uniontown,	James Henderson,	Uniontown,	P., V. & C. B. of P. R. R.
Crossland,	Fayette,	James Henderson,	Uniontown,	James Henderson,	Uniontown,	B. & O.
Stewart Iron Co., Ltd.						
Stewart,	Fayette,	S. M. McClure,	Sharon,	Nathaniel McClure,	Uniontown,	B. & O.
Fayette Coke Co.						
Shamrock,	Fayette,	C. E. Lenhart,	New Salem,	C. E. Lenhart,	New Salem,	Coal Lick Run Branch of P. R. R.
Isaac Taylor & Co.						
Mt. Hope,	Fayette,	Isaac Taylor,	Uniontown,	Isaac Taylor,	Uniontown,	P., V. & C. B. of P. R. R.
A. E. Humphries & Co.						
Chester,	Fayette,	A. E. Humphries,	Scottdale,	R. J. Humphries,	Vance's Mills,	P., V. & C. B. of P. R. R.
Colonial Coke Co.						
Colonial,	Fayette,	W. H. Warner,	Cleveland, O.,	Joseph Baker,	Smock,	P., V. & C. B. of P. R. R.
Connellsville Coke Co.						
Connellsville No. 1,	Fayette,	Edwin N. Ohl,	New Castle,	H. M. Wilson,	Gans,	B. & O.
Joseph Wharton.						
Borne,	Fayette,	J. M. Taylor,	Uniontown,	Geo. A. Whetzel,	Smithfield,	B. & O.
Riverside Coal and Coke Co.						
Donald No. 1,	Fayette,	Isaac H. Brownfield,	Uniontown,	I. H. Brownfield,	Uniontown,	Coal Lick Run Branch of P. R. R.
Donald No. 2,	Fayette,	Isaac H. Brownfield,	Uniontown,	I. H. Brownfield,	Uniontown,	Coal Lick Run Branch of P. R. R.
Uniontown Coke Co.						
Smithfield,	Fayette,	B. B. Boyd,	Uniontown,	B. B. Boyd,	Uniontown,	B. & O.

Puritan Coke Co.						
Parshall No. 1,	Fayette,.	W. J. Parshall,	McClellandtown,	W. J. Parshall,	McClellandtown,	Coal Lick Run Branch of P. R. R.
Parshall No. 2,	Fayette,.	W. J. Parshall,	McClellandtown,	W. J. Parshall,	McClellandtown,	Coal Lick Run Branch of P. R. R.
Sharon Coke Co.						
Ronco,	Fayette,.	J. P. Brannen,	Scottdale,	William Mongall,	Ronco,	Coal Lick Run Branch of P. R. R.
Bute Run Coal and Coke Co.						
Florence,	Fayette,.	R. J. Humphries,	Vance's Mills,	R. J. Humphries,	Vance's Mills,	P., V. & C. B. of P. R. R.
Penn Coke Co.						
Acme,	Fayette,.	S. M. Hankin,	Uniontown,	S. M. Hankin,	Uniontown,	B. & O.
Penn,	Fayette,.	S. M. Hankin,	Uniontown,	S. M. Hankin,	Uniontown,	B. & O.
Hero Coal and Coke Co.						
Hero,	Fayette,.	A. D. Boyd, Jr.,	Uniontown,	A. D. Boyd, Jr.,	Uniontown,	P., V. & C. B. of P. R. R.
Percy Mining Co.						
Percy,	Fayette,.	Louis DeSaulles, Jr.,	Percy,	Louis DeSaulles, Jr.	Percy,	B. & O.
Eleanor Coal and Coke Co.						
Eleanor,	Fayette,.	J. E. Dawson,	Uniontown,	J. E. Dawson,	Cheat Haven,	B. & O.
Sackett Coal and Coke Co.						
Sackett,	Fayette,.	H. R. Sackett,	Smithfield,	H. R. Sackett,	Smithfield,	B. & O.
Leckrone Coke Co.						
Annlemyra,	Fayette,.	Henry L. Coe,	Uniontown,	Henry L. Coe,	Uniontown,	Coal Lick Run Branch of P. R. R.
Pittsburg Coal Co.						
Hanna,	Fayette,.	Geo. W. Schleuderberg,	Pittsburg,	Benjamin Holiday,	Smock,	P., V. & C. B. of P. R. R.
Grindstone,	Fayette,.	Geo. W. Schleuderberg,	Pittsburg,	Benjamin Holiday,	Smock,	P., V. & C. B. of P. R. R.
Eleanor,	Fayette,.	Geo. W. Schleuderberg,	Pittsburg,	Benjamin Holiday,	Smock,	P., V. & C. B. of P. R. R.
Smock,	Fayette,.	Geo. W. Schleuderberg,	Pittsburg,	Benjamin Holiday,	Smock,	P., V. & C. B. of P. R. R.
M. R. C. C. & Coke Co.						
Washington,	Fayette,.	O. A. Blackburn,	Pittsburg,	John Black,	Rosco,	River.
Little Alps,	Fayette,.	O. A. Blackburn,	Pittsburg,	John Black,	Rosco,	River.
Alice,	Fayette,.	O. A. Blackburn,	Pittsburg,	Henry Henderson,	Rosco,	River.
Snow Hill,	Fayette,.	O. A. Blackburn,	Pittsburg,	John Porter,	Rosco,	River.
Anchor,	Fayette,.	O. A. Blackburn,	Pittsburg,	John Porter,	Rosco,	River.
Stony Hill,	Fayette,.	O. A. Blackburn,	Pittsburg,	T. J. Crombie,	California,	River.
Chamcunl,	Fayette,.	O. A. Blackburn,	Pittsburg,	T. J. Crombie,	California	River.
Albany,	Fayette,.	O. A. Blackburn,	Pittsburg,	William Gillis,	Brownsville,	River.
Crowthers,	Fayette,.	O. A. Blackburn,	Pittsburg,	James H. Krepps,	Fredericktown,	River.
Peoples' Coal Co.						
Pike,	Fayette,.	Geo. B. Thomas,		S. B. Graham,	Brownsville,	River.
Lake Erie Gas Coal and Coke Co.						
Sumner,	Fayette,.	W. P. Bonny,	Erie, Ohio,	Robert Gillis,	Braznell,	P., V. & C. B. of P. R. R.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Cheat Haven Coal Co.						
Eagle, ...	Fayette,.	J. T. Fawcett, ...	Cheat Haven	Geo. W. Gibson, ..	Cheat Haven, ...	B. & O.
John Snider & Co.						
Snider, ...	Fayette,.	Thomas Clark, ...	Uniontown, ...	Thomas Clark, ...	Uniontown, ...	
Labell Iron Works.						
Labell, ...	Fayette,.	Geo. H. Dixon, ...	Fredericktown, .	.....	.....	River.

TABLE II—Gives the total number of tons of coal mined and tons of coke produced in each colliery, number of days worked, number of employes, number of employes killed and injured, number of kegs of powder, etc., used in the Fifth Bituminous District for the year ending December 31, 1902.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
H. C. Frick Coke Co.														
Leisenring No. 2,	Fayette,.	.....	8,072	3,688	371,310	239,000	500	289*	459	2	2	.....	1,365	67
Youngstown,	Fayette,.	3,191	5,747	953	160,112	100,000	241	276	194	....	1	.....	.....	39
Lemont No. 1,	Fayette,.	26,295	14,481	2,817	197,970	102,000	227	285	228	2	1	.....	.....	30
Lemont No. 2,	Fayette,.	.....	4,045	1,845	262,525	171,000	350	281	335	....	....	.....	.....	38
Lemont No. 3,	Fayette,.	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....
Leith,	Fayette,.	.....	9,488	2,900	225,162	141,800	308	290	339	2	1	.....	.....	44
Redstone No. 1,	Fayette,.	.....	11,722	2,713	291,044	184,000	445	284	412	....	1	.....	.....	61
Redstone No. 2,	Fayette,.	.....	.....	.....	.....	.....	.....	.....	.....	2	....	.....	.....	.....
Olyphant,	Fayette,.	.....	6,621	1,653	183,796	117,000	252	286	248	....	....	200	100	27
Whynn,	Fayette,.	.....	1,747	497	106,159	69,000	130	194	132	2	....	400	3,000	13
Kyle,	Fayette,.	.....	3,017	6,951	240,877	150,900	306	286	308	1	1	.....	.....	51
Totals,	.....	29,486	64,940	24,017	2,038,955	1,274,700	2,759	274.55	2,655	11	7	600	4,465	370
Continental Coke Co.														
Continental No. 1,	Fayette,.	.....	5,105	1,366	187,281	120,000	400	309	317	1	....	.....	.....	51
Continental No. 2,	Fayette,.	.....	5,653	1,349	233,910	151,000	300	281	285	1	....	.....	60,350	36
Continental No. 3,	Fayette,.	.....	5,560	3,838	241,185	154,000	300	284	292	1	1	.....	60,600	32
Totals,	.....	.....	16,318	6,553	662,376	425,000	1,000	291.33	894	3	1	.....	120,950	119
South West Connellsville Coke Co.														
Leckrone No. 1,	Fayette,	33,066	5,425	1,886	436,859	261,000	516	305	523	....	1	15	84,250	60
Leckrone No. 2,	Fayette,.	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....
Footdale,	Fayette,.	6,972	4,601	2,144	377,131	242,000	400	302	407	....	2	.....	90,600	50

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Buffington,	Fayette,	.....	7,255	2,323	202,638	128,000	400	311	583	....	9	.....	50,000	43
Totals,	.....	39,998	17,281	6,353	1,016,628	634,000	1,316	306	1,513	....	12	15	224,850	153
American Coke Co.														
Lambert,	Fayette,	1,725	5,499	1,497	245,554	158,000	432	309	626	....	5	.....	.....	52
Edenborn,	Fayette,	32	7,795	2,296	196,937	160,000	500	311	321	2	....	.....	45,000	52
Gates No. 1,	Fayette,	175,046	11,212	998	187,256	.....	.....	304	360	2	2	.....	6,500	52
Gates No. 2,	Fayette,					.....	.....	.....		1	....	.....	.....	.....
Totals,	.....	176,803	24,506	4,791	629,747	318,000	932	308	1,307	5	7	.....	51,500	156
Oliver and Snider Steel Co.														
Oliver No. 1,	Fayette,	.....	9,369	2,453	294,877	188,704	328	289.5	376	1	....	.....	.....	31
Oliver No. 2,	Fayette,	.....	7,340	.....	327,102	213,175	480	283	392	....	....	.....	.....	36
Totals,	.....	.....	16,709	2,453	621,979	401,879	800	286.25	768	1	....	.....	.....	67
Bessemer Coke Co.														
Griffin No. 1,	Fayette,	700	200	200	264,115	177,927	410	298	561	....	2	210	12,225	35
W. J. Rainey.														
Revere No. 1,	Fayette,	13,000	2,560	3,000	150,000	87,600	600	310	476	2	2	25	20,000	20
Revere No. 2,	Fayette,	.....	.....	.....	285,000	190,000	.....	283	116	....	1	.....	.....	.....
Mt. Braddock,	Fayette,	9,500	11,130	5,360	148,400	81,735	440	310	275	2	1	.....	450	36
Totals,	.....	22,500	13,690	8,360	583,400	259,335	1,040	303	867	4	4	25	20,450	56
A. L. Keister & Co.														
Lincoln,	Fayette,	1,854	2,931	1,351	179,470	119,645	300	302	279	1	1	.....	.....	30

Atlas Coke Co.														
Lafayette,	Fayette,.	190	823	1,023	97,146	65,361	111	312	113	....	....	20	200	12
Crossland,	Fayette,.	2,659	411	68	82,408	55,140	100	310	100	....	....	16	20	9
Totals,	.....	2,489	1,234	1,091	179,554	120,501	211	311	213	....	....	36	220	21
Stewart Iron Co., Ltd.														
Stewart,	Fayette,.	.....	4,709	534	105,670	85,152	155	287	175	....	1	.....	.....	11
Fayette Coke Co.														
Shamrock,	Fayette,.	3,620	2,219	1,440	103,161	63,282	200	278	146	....	2	1,650	5,775	8
Isaac Taylor & Co.														
Mt. Hope,	Fayette,.	.....	365	300	75,058	49,694	80	310	79	....	....	259	100	8
A. E. Humphries,														
Chester,	Fayette,.	65	975	100	45,000	33,750	54	300	74	....	....	25	200	4
Colonial Coke Co.														
Colonial,	Fayette,	.....	500	600	62,000	40,600	100	310	90	....	1	1,200	120	9
Connellsville Coke Co.														
Connellsville No. 1,	Fayette,.	.....	.....	11	49,183	37,378	100	272	91	....	....	122	15,100	5
Joseph Wharton.														
Boone,	Fayette,.	.....	.....	478	65,914	44,776	86	279	91	....	....	.....	10	6
Riverview Coal and Coke Co.														
Donald No. 1,	Fayette,.	81,655	1,700	200	155,680	43,275	78	295	167	....	2	.....	.....	17
Donald No. 2,	Fayette,.						60	256	60	....	....	.....	.....	.....
Totals,	.....	81,655	1,700	200	155,680	43,275	138	275.5	227	....	2	.....	.....	17
Uniontown Coke Co.														
Smithfield,	Fayette,.	7,850	50	150	23,050	10,000	19	310	37	....	....	.....	100	3
Puritan Coke Co.														
Parshall Nos. 1 and 2,	Fayette,.	38,000	50	75	68,779	22,071	32	306	56	1	2	.....	10,000	8
Sharon Coke Co.														
Ronco,	Fayette,.	24,839	4,860	230	29,929	.....	.....	155	102	....	....	.....	7,100	16
Bute Run Coal and Coke Co.														
Florence,	Fayette,.	900	25	50	2,475	1,200	20	300	26	....	....	.....	.....	4
Penn Coke Co.														
Acme,	Fayette,.	18,700	200	400	49,300	20,000	57	313	83	....	....	2	50	11
Hero Coal and Coke Co.														
Hero,	Fayette,.	41,000	300	200	64,000	16,000	32	305	71	....	....	400	.....	10
Percy Mining Co.														
Percy,	Fayette,.	9,100	650	1,550	31,705	15,305	49	311	55	....	1	.....	.....	6

*Totals in this column are averages.

TABLE 11—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Eleanor Coal and Coke Co.														
Eleanor,	Fayette,	1,899	.....	.....	15,133	9,329	18	292	31	....	....	90	3,600	2
Sackett Coal and Coke Co.														
Sackett,	Fayette,	1,100	100	100	25,500	16,000	30	309	45	....	....	30	100	4
Leckrone Coke Co.														
Anniemyra,	Fayette,	.....	.....	.....	2,400	1,600	32	49	25	....	....	.....	.....	3
Pittsburg Coal Co.														
Hanna,	Fayette,	28,817	46	50	28,913	.....	.....	132.5	40	1	....	240	.....	4
Grindstone,	Fayette,	56,545	2,708	733	78,906	15,055	31	245	98	2	....	400	800	8
Eleanor,	Fayette,	64,938	271	32	65,241	.....	.....	149.5	70	....	4	600	.....	6
Smock,	Fayette,	50,527	379	99	51,005	.....	.....	161.5	72	....	2	500	.....	9
Totals,	.....	200,827	3,404	914	224,065	15,050	31	172.12	280	3	6	1,740	800	27
M. R. C. C. & Co.														
Washington,	Fayette,	203,872	1,713	12	205,597	.....	.....	268	152	1	4	782	.....	14
Little Alps,	Fayette,	26,028	37	.....	26,065	.....	.....	178	44	....	....	84	.....	3
Alice,	Fayette,	389,664	4,126	.....	393,790	.....	.....	266	242	1	2	1,438	.....	22
Snow Hill,	Fayette,	158,032	1,282	.....	159,314	.....	.....	214	166	....	1	580	.....	12
Anchor,	Fayette,	77,734	2,143	.....	79,877	.....	.....	242	60	....	....	278	.....	6
Stony Hill,	Fayette,	65,044	212	.....	65,256	.....	.....	147	94	....	....	240	.....	12
Chamouni,	Fayette,	354,861	2,025	216	357,042	.....	.....	253	271	....	1	1,388	.....	22
Albany,	Fayette,	210,913	1,641	395	212,949	.....	.....	200	204	....	3	776	700	16
Crowthers,	Fayette,	115,317	1,181	144	116,642	.....	.....	179	118	....	1	436	.....	19
Totals,	.....	1,601,465	14,360	767	1,616,532	.....	.....	216.33	1,351	2	12	6,011	700	126
Peoples' Coal Co.														
Pike,	Fayette,	393,967	17,838	798	412,603	.....	.....	271	375	3	3	4,000	.....	2

Lake Erie Gas Coal and Coke Co.														
Sumner,	Fayette,	81,553	1,008	451	83,012	.....	.....	228	116	....	4	1,000	500	11
Cheat Haven Coal Co.														
Eagle,	Fayette,.	52,000	.....	.....	52,000	.....	.....	239	75	....	....	800	.....	7
John Snider & Co.														
Snider,	Fayette,.	.....	.....	9,672	9,772	.....	.....	214	10	....	....	60	.....	2
Labell Iron Works.														
Labell,	Fayette,.	780	50	20	850	.....	.....	30	26	....	....	.....	.....	.....

*Totals in this column are averages.

Recapitulation.

H. C. Frick Coke Co.,	Fayette,.	29,486	64,940	24,017	2,038,955	1,274,700	2,759	286.22	2,655	11	7	600	4,465	370
Continental Coke Co.,	Fayette,.	.....	16,318	6,553	662,376	425,000	1,000	291.33	894	3	1	.....	120,950	119
South West Connellsville Coke Co.,	Fayette,.	39,998	17,281	6,353	1,016,628	634,000	1,316	306	1,513	....	12	15	224,850	153
American Coke Co.,	Fayette,.	176,803	24,506	4,791	629,747	318,000	932	308	1,307	5	7	.....	51,500	156
Oliver and Snider Steel Co.,	Fayette,.	.....	16,709	2,453	621,979	401,879	808	286.25	768	1	.....	.....	.....	67
Bessemer Coke Co.,	Fayette,.	700	200	200	264,115	177,927	410	298	561	....	2	210	12,225	35
W. J. Rainey,	Fayette,.	22,500	13,690	8,360	583,400	259,335	1,040	303	867	4	4	25	20,450	56
A. L. Keister & Co.,	Fayette,.	1,854	2,931	1,351	179,470	119,645	300	302	279	1	1	.....	.....	30
Atlas Coke Co.,	Fayette,.	2,849	1,234	1,091	179,554	120,501	211	311	213	....	....	36	220	21
Stewart Iron Co., Limited,	Fayette,.	.....	4,709	534	105,670	85,152	155	287	175	....	1	.....	.....	11
Fayette Coke Co.,	Fayette,.	3,620	2,219	1,440	103,161	63,282	200	278	146	....	2	1,650	5,775	8
Isaac Taylor & Co.,	Fayette,.	.....	365	300	75,058	49,694	80	310	79	....	....	259	100	8
A. E. Humphries & Co.,	Fayette,.	65	975	100	45,000	33,750	54	300	74	....	....	25	200	4
Colonial Coke Co.,	Fayette,.	.....	500	600	62,000	40,600	100	310	90	....	1	1,200	120	9
Connellsville Coke Co.,	Fayette,.	.....	.....	11	49,183	37,378	100	272	91	....	....	122	15,100	5
Joseph Wharton,	Fayette,.	.....	.....	478	65,914	44,776	86	279	91	....	....	.....	10	6
Riverview Coal and Coke Co.,	Fayette,.	81,655	1,700	200	155,680	43,275	138	275.5	227	....	2	.....	.....	17
Uniontown Coke Co.,	Fayette,.	7,850	50	150	23,050	10,000	19	310	37	....	....	.....	100	3
Puritan Coke Co.,	Fayette,.	38,000	50	75	68,779	22,071	32	306	56	1	2	.....	1,000	8
Sharon Coke Co.,	Fayette,.	24,839	4,860	230	29,929	.....	.....	155	102	....	....	.....	7,100	16
Bute Run Coal and Coke Co.,	Fayette,.	900	25	50	2,475	1,200	20	300	26	....	....	.....	.....	4
Penn Coke Co.,	Fayette,.	18,700	200	400	49,300	20,000	57	313	83	....	....	2	50	11
Hero Coke Co.,	Fayette,.	41,000	300	200	64,000	16,000	32	305	71	....	....	400	.....	10
Percy Mining Co.,	Fayette,.	9,100	650	1,550	31,705	15,305	49	311	55	....	1	.....	.....	6
Eleanor Coal and Coke Co.,	Fayette,.	1,899	.....	.....	15,133	9,329	18	292	31	....	....	90	3,600	2
Sackett Coal and Coke Co.,	Fayette,.	1,100	100	100	25,500	16,000	30	309	45	....	....	30	100	4
Leckrone Coke Co.,	Fayette,.	.....	.....	.....	2,400	1,600	32	49	25	....	....	.....	.....	3
M. R. C. Coal and Coke Co.,	Fayette,.	1,601,405	14,360	767	1,616,532	.....	.....	216.11	1,351	2	12	6,011	700	126
Pittsburg Coal Co.,	Fayette,.	200,827	3,404	914	224,065	15,055	31	172.12	280	3	6	1,740	800	27
Lake Erie Gas Coal and Coke Co.,	Fayette,.	81,553	1,008	451	83,012	.....	.....	238	116	....	4	1,000	500	11
Peoples' Coal Co.,	Fayette,.	393,967	17,838	798	412,603	.....	.....	271	375	3	3	4,000	.....	20
Cheat Haven Coal Co.,	Fayette,.	52,000	.....	.....	52,000	.....	.....	239	75	....	....	800	.....	7
John Snider & Co.,	Fayette,.	.....	.....	9,672	9,672	.....	.....	214	10	....	....	60	.....	2
Labell Iron Works,	Fayette,.	750	50	20	850	.....	.....	30	26	....	....	.....	.....	.....
Totals,	.....	2,833,420	211,172	74,209	9,548,895	4,255,453	10,009	265.71	12,794	34	68	18,275	478,915	1,335

TABLE II—Continued.

Names of Operators and Collieries.	County.	Number of Boilers.				Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.	Horse power.		Steam.	Air.	Electric.							
H. C. Frick Coke Co.,	Fayette,	29	1,129	51	4,186	5,315	9	.....	.....	33	3,510	23	9,669	4,334	2	8
Continental Coke Co.,	Fayette,	.....	.....	20	1,960	1,960	.....	.....	.....	13	1,410	4	1,122	425	2	3
South West Connellsville Coke Co.,	Fayette,	.....	.....	16	2,400	2,400	.....	.....	1	13	1,560	5	1,438	515	5	1
American Coke Co.,	Fayette,	.....	.....	19	2,502	2,502	6	.....	.....	23	1,631	5	1,747	691	3	5
Oliver and Snider Steel Co.,	Fayette,	.....	.....	16	840	840	3	.....	.....	7	960	2	700	500	1	1
Bessemer Coke Co.,	Fayette,	2	20	.....	.....	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
W. J. Rainey,	Fayette,	9	800	6	750	1,550	1	.....	3	7	1,500	4	1,050	600	3	4
A. L. Keister & Co.,	Fayette,	4	225	.....	.....	225	1	.....	.....	6	650	1	570	500	.....	1
Atlas Coke Co.,	Fayette,	.....	.....	2	55	55	.....	.....	.....	2	45	.....	.....	.....	.....	.....
Stewart Iron Co., Ltd.,	Fayette,	.....	.....	6	450	450	.....	.....	.....	4	514	3	438	300	.....	1
Fayette Coke Co.,	Fayette,	.....	.....	3	180	180	.....	.....	.....	2	120	1	196	52	.....	.....
Isaac Taylor & Co.,	Fayette,	.....	.....	1	40	40	.....	.....	.....	.....	.....	1	75	50	.....	.....
A. E. Humphries & Co.,	Fayette,	3	110	.....	.....	110	.....	.....	.....	3	38	3	300	125	.....	.....
Colonial Coke Co.,	Fayette,	2	76	.....	.....	76	.....	.....	.....	1	60	.....	.....	.....	.....	.....
Connellsville Coke Co.,	Fayette,	.....	.....	3	75	75	1	.....	.....	1	60	1	75	50	.....	.....
Joseph Wharton,	Fayette,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Riverview Coal and Coke Co.,	Fayette,	1	40	2	106	146	.....	.....	.....	3	206	.....	.....	.....	1	.....
Uniontown Coke Co.,	Fayette,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Puritan Coke Co.,	Fayette,	.....	.....	.....	.....	.....	.....	.....	.....	1	6	.....	.....	.....	.....	.....
Sharon Coke Co.,	Fayette,	.....	.....	3	900	900	.....	.....	.....	3	806	3	810	600	1	1
Bute Run Coal and Coke Co.,	Fayette,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Penn Coke Co.,	Fayette,	.....	.....	1	80	80	.....	.....	.....	1	40	.....	.....	.....	.....	.....
Hero Coke Co.,	Fayette,	.....	.....	1	16	16	.....	.....	.....	.....	.....	2	40	30	.....	.....
Percy Mining Co.,	Fayette,	.....	.....	3	45	45	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eleanor Coal and Coke Co.,	Fayette,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sackett Coal and Coke Co.,	Fayette,	1	50	.....	.....	50	.....	.....	.....	.....	.....	2	80	40	.....	.....
Leckrone Coke Co.,	Fayette,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
M. R. C. C. and Coke Co.,	Fayette,	1	35	22	1,730	1,765	.....	.....	2	21	1,295	10	1,575	855	4	1
Pittsburg Coal Co.,	Fayette,	1	60	7	660	720	.....	.....	.....	9	858	2	150	100	2	.....
Lake Erie Gas Coal and Coke Co.,	Fayette,	.....	.....	2	250	250	.....	.....	.....	3	375	2	350	300	1	.....

Peoples' Coal Co.,	Fayette,	1	75	4	500	575	....	....	1	7	765	1	60	40	2	......
Cheat Haven Coal Co.,	Fayette,	....	....	....	....	....	....	....	....	....	....	....	....	....	......	......
John Snider & Co.,	Fayette,	....	....	....	....	....	....	....	....	....	....	....	....	....	......	......
Labell Iron Works,	Fayette,	....	....	....	....	....	....	....	....	....	....	....	....	....	......	......
Totals,	....	54	2,620	188	17,725	20,345	21	....	7	163	16,409	75	20,445	10,107	27	26

TABLE III—Showing the number of each class of employes at each colliery in the Fifth Bituminous District during the year 1902.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
H. C. Frick Coke Co.																						
Leisenring No. 2,	Fayette,	1	1	3	245	.....	.....	.....	30	7	.....	40	287	1	2	7	7	125	2	28	172	459
Youngstown,	Fayette,	1	....	2	90	.....	.....	.....	14	2	21	.....	130	1	....	3	6	50	1	3	64	194
Lemont No. 1,	Fayette,	2	....	2	105	.....	.....	.....	16	.....	9	2	136	1	1	3	8	68	1	10	92	228
Lemont No. 2,	Fayette,	1	....	2	147	.....	.....	.....	22	3	13	2	190	1	1	5	6	115	2	15	145	335
Lemont No. 3,	Fayette,																					
Leith,	Fayette,	1	....	3	130	.....	.....	.....	26	4	14	3	181	1	2	5	10	118	3	19	158	339
Brownfield No. 1,	Fayette,	1	1	3	142	.....	.....	.....	24	1	18	3	193	1	4	8	12	171	2	21	219	412
Brownfield No. 2,	Fayette,																					
Oliphant,	Fayette,	1	....	2	109	.....	.....	.....	12	.....	.....	14	138	1	1	3	5	69	2	29	110	248
Whynn,	Fayette,	1	....	1	57	.....	.....	.....	7	.....	.....	10	76	....	1	2	4	38	2	9	56	132
Kyle,	Fayette,	1	....	1	133	.....	.....	.....	22	3	.....	20	180	1	3	5	5	82	2	30	128	308
Totals,		10	2	19	1,118	.....	.....	.....	173	20	75	91	1,511	8	15	41	63	836	17	164	1,144	2,655
Continental Coke Co.																						
Continental No. 1,	Fayette,	1	....	2	160	.....	.....	.....	17	4	.....	27	211	1	1	6	4	65	1	28	106	317
Continental No. 2,	Fayette,	1	....	2	131	.....	.....	.....	18	4	.....	16	172	1	2	4	5	69	1	31	113	285
Continental No. 3,	Fayette,	2	....	2	132	.....	.....	.....	16	3	4	18	177	1	1	4	5	74	1	29	115	292
Continental No. 4,	Fayette,	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals,		4	....	6	423	.....	.....	.....	51	11	4	61	560	3	4	14	14	208	3	88	334	894
Southwest Connellsville Coke Co.																						
Leckrone No. 1,	Fayette,	2	....	.....	.....	3	220	3	22	.....	38	.....	288	1	2	10	4	200	3	15	235	523
Leckrone No. 2,	Fayette,																					

Footdale,	Fayette,	1	1	1	190	4	.....	4	22	4	12	2	241	1	3	4	4	100	2	52	166	407
Bullington,	Fayette,	1	....	3	300	.....	.....	.....	29	5	37	10	385	1	2	6	7	140	2	40	108	583
Totals,		4	1	4	490	7	220	7	73	9	87	12	914	3	7	20	15	440	7	107	599	1,513
American Coke Co.																						
Lambert,	Fayette,	1	1	3	308	.....	.....	.....	20	11	1	70	415	1	3	7	8	148	2	42	211	626
Edenborn,	Fayette,	1	1	2	22	9	102	9	18	4	26	.....	194	1	2	6	10	94	2	12	127	321
Gates No. 1,	Fayette,	1	1	2	200	.....	.....	.....	26	3	65	4	302	1	2	8	8	.....	2	37	58	360
Gates No. 2,	Fayette,	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....
Totals,		3	3	7	530	9	102	9	64	18	92	74	911	3	7	21	26	242	6	91	396	1,307
Oliver & Snider Steel Co.																						
Oliver No. 1,	Fayette,	1	1	3	155	.....	.....	.....	20	1	.....	38	219	1	1	9	5	135	2	5	157	376
Oliver No. 2,	Fayette,	1	1	4	170	.....	.....	.....	27	3	.....	41	247	....	1	7	4	126	3	4	145	392
Totals,		2	2	7	325	.....	.....	.....	47	4	.....	79	466	1	2	16	9	261	5	9	302	768
Bessemer Coke Co.																						
Griffin,	Fayette,	2	....	.....	175	.....	.....	.....	13	3	10	20	223	1	3	4	2	220	1	107	338	561
Griffin,	Fayette,																					
Griffin,	Fayette,																					
W. J. Rainey.																						
Revere No. 1,	Fayette,	1	....	.....	80	1	.....	1	10	.....	8	.....	101	1	....	4	4	160	6	200	375	476
Revere No. 2,	Fayette,	1	....	.....	100	.....	.....	.....	10	1	4	.....	116	....	.....	.....	.....	.....	.....	.....	.....	116
Mt. Braddock,	Fayette,	1	....	3	110	.....	.....	.....	20	2	10	5	151	1	1	5	9	100	3	5	124	275
Totals,		3	....	3	290	1	.....	1	40	3	22	5	368	2	1	9	13	260	9	205	499	867
A. L. Keister & Co.																						
Lincoln,	Fayette,	1	1	2	125	3	.....	3	15	2	5	19	176	1	3	12	4	75	3	5	103	279
Atlas Coke Co.																						
Lafayette,	Fayette,	1	....	.....	50	.....	.....	.....	6	.....	4	2	63	....	1	1	1	40	2	5	50	113
Crossland,	Fayette,	1	....	.....	45	.....	.....	.....	4	.....	2	1	53	1	1	1	1	40	1	2	47	100
Totals,		2	....	.....	95	.....	.....	.....	10	.....	6	3	116	1	2	2	2	80	3	7	97	213
Stewart Iron Co., Ltd.																						
Stewart,	Fayette,	1	....	1	65	.....	.....	.....	7	.....	11	4	89	1	1	2	3	75	1	3	86	175
Fayette Coke Co.																						
Shamrock,	Fayette,	1	....	.....	54	.....	.....	.....	8	2	10	.....	75	1	1	2	3	60	1	3	71	146
Isaac Taylor & Co.																						
Mt. Hope,	Fayette,	1	....	.....	44	.....	.....	.....	5	.....	2	.....	52	1	....	1	1	21	1	2	27	79
A. E. Humphries & Co.																						
Chester,	Fayette,	1	....	.....	33	.....	.....	.....	3	.....	2	1	40	1	1	1	4	22	2	3	31	74
Colonial Coke Co.																						
Colonial,	Fayette,	1	....	.....	46	.....	.....	.....	4	.....	2	.....	53	1	1	1	1	24	1	8	37	90

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, Inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
Labell Iron Works.																						
Labell,	Fayette,	1	....	.....	5	.....	.....	.....	1	.....	2	.....	9	1	1	1	.....	.....	1	13	17	26
Connellsville Coke Co.																						
Connellsville No. 1,	Fayette,	1	....	.....	35	.....	.....	.....	6	1	.....	6	49	1	1	2	4	31	1	2	42	91
Joseph Wharton.																						
Barne,	Fayette,	1	....	.....	40	.....	.....	.....	5	.....	2	.....	48	1	1	1	.....	36	1	3	43	91
Riverview Coal and Coke Co.																						
Donald No. 1,	Fayette,	1	....	.....	55	2	.....	2	5	1	4	4	74	1	....	2	4	40	2	44	93	167
Donald No. 2,	Fayette,	1	....	.....	24	.....	.....	.....	2	.....	4	.....	31	....	....	.....	1	20	.....	8	29	60
Totals,	.....	2	....	.....	79	2	.....	2	7	1	8	4	105	1	....	2	5	60	2	52	122	227
Uniontown Coke Co.																						
Smithfield,	Fayette,	1	....	.....	18	.....	.....	.....	2	.....	.....	.....	21	1	....	1	.....	12	1	1	16	37
Puritan Coke Co.																						
Parshall No. 1,	Fayette,	1	....	.....	28	.....	.....	.....	3	1	.....	2	35	1	1	1	1	13	.....	4	21	56
Parshall No. 2,	Fayette,																					
Sharon Coke Co.																						
Ronco,	Fayette,	1	....	2	44	6	.....	6	8	2	10	4	83	1	1	3	7	.....	2	5	19	102

Bute Run Coal and Coke Co.																						
Florence,	Fayette,	1	....	.....	12	.....	.....	.....	1	.....	.....	1	15	1	1	.....	.....	7	1	1	11	26
Penn Coke Co.																						
Acme,	Fayette,	1	....	.....	39	.....	.....	.....	5	.....	4	.....	49	1	....	1	.....	30	2	.....	34	83
Hero Coal and Coke Co.																						
Hero,	Fayette,	1	....	.....	40	.....	.....	.....	5	1	2	4	53	1	1	1	1	12	.....	2	18	71
Perey Mining Co.																						
Percy,	Fayette,	1	....	.....	18	.....	.....	.....	3	.....	6	.....	28	1	1	1	.....	17	.....	7	27	55
Eleanor Coal and Coke Co.																						
Eleanor,	Fayette,	1	....	.....	12	.....	.....	.....	2	1	.....	.....	16	1	....	1	.....	10	1	2	15	31
Sackett Coal and Coke Co.																						
Sackett,	Fayette,	1	....	.....	20	.....	.....	.....	2	.....	.....	5	28	1	1	1	.....	12	1	1	17	45
Leckrone Coke Co.																						
Anniemyra,	Fayette,	1	....	.....	9	.....	.....	.....	1	.....	.....	.....	11	1	1	.....	.....	8	.....	4	14	25
Pittsburg Coal Co.																						
Hanna,	Fayette,	1	....	.....	30	.....	.....	.....	4	.....	1	.....	36	....	....	1	.....	.....	.....	3	4	40
Grindstone,	Fayette,	1	....	1	15	4	44	4	7	1	.....	.....	77	....	1	2	5	12	1	.....	21	98
Eleanor,	Fayette,	1	....	.....	53	.....	.....	.....	4	.....	2	.....	60	....	1	2	1	.....	1	5	10	70
Smock,	Fayette,	1	....	1	40	.....	.....	.....	5	.....	1	1	58	1	1	2	3	.....	1	6	14	72
Totals,	.....	4	....	2	147	4	44	4	20	1	4	1	231	1	3	7	9	12	3	14	49	280
M. R. C. C. & Coke Co.																						
Washington,	Fayette,	1	....	2	100	6	.....	6	14	2	.....	5	136	1	....	2	3	.....	1	9	16	152
Little Alps,	Fayette,	1	....	1	30	.....	.....	.....	3	.....	.....	2	37	1	1	1	.....	.....	1	3	7	44
Alice,	Fayette,	1	....	3	165	11	.....	11	20	5	.....	5	221	1	1	4	4	.....	1	10	21	242
Snow Hill,	Fayette,	1	....	2	130	.....	.....	.....	10	2	.....	4	149	1	1	2	3	.....	1	9	17	166
Anchor,	Fayette,	1	....	1	40	.....	.....	.....	4	1	.....	2	49	1	1	1	2	.....	1	5	11	60
Stony Hill,	Fayette,	1	....	1	65	.....	.....	.....	10	2	.....	3	82	1	1	2	2	.....	1	5	12	94
Chamcunl,	Fayette,	1	....	2	225	.....	.....	.....	18	4	.....	6	256	1	1	3	3	.....	1	6	15	271
Albany,	Fayette,	1	....	2	150	6	.....	6	13	2	.....	6	186	1	....	4	3	.....	1	9	18	204
Crowthers,	Fayette,	1	....	1	80	5	.....	5	7	1	.....	4	104	1	....	2	2	.....	1	8	14	118
Totals,	.....	9	....	15	985	28	.....	28	99	19	.....	37	1,220	9	6	21	22	.....	9	64	131	1,351
Peoples' Coal Co.																						
Pike,	Fayette,	1	....	2	300	10	.....	10	20	4	3	.....	350	1	....	3	4	.....	1	16	25	375
Lake Erie Gas Coal and Coke Co.																						
Sumner,	Fayette,	1	....	1	19	4	56	4	7	2	9	1	104	1	....	2	4	.....	1	4	12	116
Cheat Haven Coal Co.																						
Eagle,	Fayette,	1	....	.....	55	.....	.....	.....	5	.....	.....	4	65	1	....	1	.....	.....	1	7	10	75
Jno. Snider & Co.																						
Snider,	Fayette,	....	....	.....	7	.....	.....	.....	1	.....	.....	.....	8	1	1	.....	.....	.....	.....	.....	2	10

Recapitulation.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
H. C. Frick Coke Co.,	Fayette,	10	2	19	1,118	.....	.....	.....	173	20	75	94	1,511	8	15	41	63	836	17	16	144	2,655
Continental Coke Co.,	Fayette,	4	...	6	423	.....	.....	.....	51	11	4	61	560	3	4	14	14	208	3	88	34	894
Southwest Connellsville Coke Co.	Fayette,	4	1	4	490	7	220	7	73	9	87	12	914	3	7	20	15	440	7	107	59	1,513
American Coke Co.,	Fayette,	3	3	7	530	9	102	9	64	18	92	74	911	3	7	21	26	242	6	91	39	1,307
Oliver & Snider Steel Co.,	Fayette,	2	2	7	325	.....	.....	.....	47	4	.....	79	466	1	2	16	9	261	5	1	302	768
W. J. Rainey,	Fayette,	3	....	3	290	1	.....	1	40	3	12	5	368	2	1	9	13	260	8	205	49	867
A. L. Keister & Co.,	Fayette,	1	1	2	125	3	.....	3	15	2	5	19	176	1	3	12	4	75	3	5	103	279
Bessemer Coke Co.,	Fayette,	2	....	.....	175	.....	.....	.....	13	3	10	20	223	1	3	4	2	220	1	107	338	561
Atlas Coke Co.,	Fayette,	2	....	.....	95	.....	.....	.....	10	.....	6	3	116	1	2	2	2	80	3	7	97	213
Stewart Iron Co.,	Fayette,	1	....	1	65	.....	.....	.....	7	.....	11	4	89	1	1	2	3	75	1	3	86	175
Fayette Coke Co.,	Fayette,	1	....	.....	54	.....	.....	.....	8	2	10	.....	75	1	1	2	3	60	1	3	71	146
Isaac Taylor & Co.,	Fayette,	1	....	.....	44	.....	.....	.....	5	.....	2	.....	52	1	....	1	1	21	1	2	27	79
A. E. Humphries & Co.,	Fayette,	1	....	.....	33	.....	.....	.....	3	.....	2	1	40	1	1	1	4	22	2	3	34	74
Colonial Coke Co.,	Fayette,	1	....	.....	46	.....	.....	.....	4	.....	2	.....	53	1	1	1	1	24	1	8	37	90
Connellsville Coke Co.,	Fayette,	1	....	.....	35	.....	.....	.....	6	1	.....	6	49	1	1	2	4	31	1	2	42	91
Joseph Wharton,	Fayette,	1	....	.....	40	.....	.....	.....	5	.....	2	.....	48	1	1	1	.....	36	1	3	43	91
Riverview Coal and Coke Co.,	Fayette,	2	....	.....	79	2	.....	2	7	1	8	4	105	1	....	2	5	60	2	52	122	227
Uniontown Coke Co.,	Fayette,	1	....	.....	18	.....	.....	.....	2	.....	.....	.....	21	1	....	1	.....	12	1	1	16	37
Puritan Coke Co.,	Fayette,	1	....	.....	28	.....	.....	.....	3	1	2	.....	35	1	1	1	1	13	.....	4	21	56
Sharon Coke Co.,	Fayette,	1	....	2	44	6	.....	6	8	2	10	4	83	1	1	3	7	.....	2	5	19	102
Bute Run Coal and Coke Co.,	Fayette,	1	....	.....	12	.....	.....	.....	1	.....	.....	1	15	1	1	.....	.....	7	1	1	11	26
Penn Coke Co.,	Fayette,	1	....	.....	39	.....	.....	.....	5	.....	.....	4	49	1	....	1	.....	30	2	.....	34	83
Hero Coal and Coke Co.,	Fayette,	1	....	.....	40	.....	.....	.....	5	1	2	4	53	1	1	1	1	12	.....	12	18	71
Percy Mining Co.,	Fayette,	1	....	.....	18	.....	.....	.....	3	.....	6	.....	28	1	....	1	1	17	.....	7	27	55
Eleanor Coal and Coke Co.,	Fayette,	1	....	.....	12	.....	.....	.....	2	1	.....	.....	16	1	....	1	.....	10	1	2	15	31
Sackett Coal and Coke Co.,	Fayette,	1	....	.....	20	.....	.....	.....	2	.....	.....	5	28	1	1	1	.....	12	1	1	17	45

Leckrone Coke Co.,	Fayette,	1	....	.....	9	.....	.....	.....	1	.....	.....	.....	11	1	1	.....	.....	8	....	4	14	25
M. R. C. C. & Coke Co.,	Fayette,	9	....	15	985	28	.....	28	99	19	.....	37	1,220	9	6	21	22	.....	9	64	131	1,351
Pittsburg Coal Co.,	Fayette,	4	....	2	147	4	44	4	20	1	4	1	231	1	3	7	9	12	3	14	49	280
Lake Erie Gas Coal and Coke Co.,	Fayette,	1	....	1	19	4	56	4	7	2	9	1	104	1	....	2	4	.....	1	4	12	116
Peoples' Coal Co.,	Fayette,	1	....	2	300	10	.....	10	20	.....	4	3	350	1	....	3	4	.....	1	16	25	375
Cheat Haven Coal Co.,	Fayette,	1	....	.....	55	.....	.....	.....	5	.....	.....	4	65	1	....	1	.....	.....	1	7	10	75
John Snider & Co.,	Fayette,	....	....	.....	7	.....	.....	.....	1	.....	.....	.....	8	1	1	.....	.....	.....	.....	.....	2	10
Labell Iron Works,	Fayette,	1	....	.....	5	.....	.....	.....	1	.....	2	.....	9	1	1	1	.....	.....	1	13	17	26
Totals,		67	9	71	5,725	74	412	74	716	101	381	442	8,082	56	67	196	218	3,084	88	1,016	1,712	12,794

TABLE III—Continued.

Names of Operators and Collieries.	County.	Number of Days Worked in Each Month.												
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
H. C. Frick Coke Co.,	Fayette,	22.11	19.55	21.22	22.22	25.66	25	27	26	25.66	26.33	22.44	23	286.22
Continental Coke Co.,	Fayette,	21	21.33	22.66	24.33	25.66	24.66	26.66	26	26	27	23.33	23.33	291.33
Southwest Connellsville Coke Co.,	Fayette,	26.66	24	26	25.66	27	25	27	25.66	26	25	23.66	23.33	306
American Coke Co.,	Fayette,	26.33	23.33	25.66	26	26.66	25	27	26	26	26.66	24.33	25.66	308.66
Oliver & Snider Steel Co.,	Fayette,	19.75	17	18.25	23.25	27	25	27	25	26	27	25	26	286.25
W. J. Rainey,	Fayette,	25.33	23	24	25	25.52	24.66	26.33	25.66	26	27	24.66	26	303
A. L. Kelster & Co.,	Fayette,	27	24	24	26	26	24	26	25	25	27	23	26	302
Bessemer Coke Co.,	Fayette,	25	24	23	24	26	25	26	26	24	26	26	23	298
Atlas Coke Co.,	Fayette,	27	23	26	26	27	25	26.5	26	26	27	25	27	311
Stewart Iron Co.,	Fayette,	23	18	22	25	26	23	26	26	24	26	22	26	287
Fayette Coke Co.,	Fayette,	22	19	15	26	24	25	26	24	25	27	23	23	278
Isaac Taylor & Co.,	Fayette,	27	23	26	26	27	25	26	26	26	27	25	26	310
A. E. Humphries & Co.,	Fayette,	25	24	25	25	25	25	24	26	25	25	26	25	300
Colonial Coke Co.,	Fayette,	26	25	26	25	26	26	26	26	25	27	26	26	310
Connellsville Coke Co.,	Fayette,	21	16	17	21	24	25	25	26	24	25	23	25	272
Joseph Wharton,	Fayette,	20	22	25	26	27	25	26	26	21	19	18	24	279
Riverview Coal and Coke Co.,	Fayette,	26	15	21	24	24.5	23.5	26	26	26	27	25	24.5	275.5
Uniontown Coke Co.,	Fayette,	26	25	26	25	25	25	26	27	26	27	26	25	310
Puritan Coke Co.,	Fayette,	26	25	26	25	26	25	26	26	25	26	25	25	366
Sharon Coke Co.,	Fayette,	.....	.....	.....	.....	.....	.....	26	26	26	27	24	26	155
Bute Run Coal and Coke Co.,	Fayette,	25	24	25	25	25	25	24	26	25	25	26	25	300
Penn Coke Co.,	Fayette,	27	24	26	26	26	26	27	26	26	27	25	27	313
Hero Coal and Coke Co.,	Fayette,	26	24	26	25	26	25	26	26	25	26	25	25	305
Percy Mining Co.,	Fayette,	27	24	27	26	26	25	27	25	26	27	25	26	311
Eleanor Coal and Coke Co.,	Fayette,	27	24	26	26	23	24	24	26	26	26	16	24	292
Sackett Coal and Coke Co.,	Fayette,	26	25	26	25	26	25	27	26	26	26	26	25	309
Leckrone Coke Co.,	Fayette,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	23	26	49
M. R. C. C. & Coke Co.,	Fayette,	19.88	5.87	20.51	19.11	19.66	21.11	22.11	24.11	19.22	21.14	17.31	20	216.11
Pittsburg Coal Co.,	Fayette,	13.12	9.75	12.5	13.75	19.12	16.87	17	12.87	19.75	13.37	12.66	11.22	172.12

Lake Erie Gas Coal and Coke Co.,	Fayette,	18	15	18	16	19	21	23	24	18	23	22	21	238
Peoples' Coal Co.,	Fayette,	26	15	25	20	19	19	26	27	25	26	21	22	271
Cheat Haven Coal Co.,	Fayette,	20	14	16	20	18	22	22	23	20	22	20	22	239
John Snider & Co.,	Fayette,	24	23	24	26	10	10	15	16	19	27	22	25	214
Labell Iron Works,	Fayette,	....	....	....	....	....	....	....	....	....	....	4	26	30
Totals,		23.91	20.61	22.93	23.83	24.14	23.64	25.08	24.94	24.33	25.44	22.47	24.16	265.71

TABLE IV—List of fatal accidents that occurred in and about the mines of the Fifth Bituminous District for the year ending December 31, 1902.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 1	Steve Hustack, ...	Austrian, ..	Greaser, ...	14	S.	....	....	Leisenring No. 2, ...	Fayette,.....	Instantly killed by falling down a shaft.
10	Andy Brinza, ...	Slav, ...	Miner, ...	33	M.	1	5	Wynn, ...	Fayette,.....	Instantly killed by roof coal and slate.
15	Edward McCormick, ...	American, .	Laborer, ...	31	S.	....	....	Grindstone, ...	Fayette,.....	Neck and back dislocated; caught between car and roof.
18	James Ramsey, ...	American,	Driver, ...	21	S.	....	....	Wynn, ...	Fayette,.....	Instantly killed; crushed between car and rib.
21	Kern Navack, ...	Austrian, ..	Miner, ...	22	S.	....	....	Leisenring No. 2, ...	Fayette,.....	Instantly killed by fall of slate.
Feb. 6	Walter West, ...	American, .	Miner, ...	26	M.	1	1	Continental No. 3, .	Fayette,.....	So seriously bruised on the 8th by a fall of slate; died on the 11th.
25	Joe Crats, ...	Pole, ...	Miner, ...	28	M.	1	1	Continental No. 4, .	Fayette,.....	Instantly killed by a fall of coal and slate.
March 7	Martin Kondridge, ...	Austrian, .. Slav, ...	Miner, ...	24	S.	....	....	Lemont No. 1, ...	Fayette,.....	Crushed to death by a fall of coal and slate.
24	Jack Oberly, ...		Miner, ...	34	M.	1	3	Oliver No. 1, ...	Fayette,.....	Killed by fall of coal and slate.
April 1	Jack Verbin, ...	Austrian, ..	Laborer, ...	52	S.	....	....	Gates, ...	Fayette,.....	Crushed between car and rib.
8	Lewis Koshnelder, ...	Hungarian,	Miner, ...	30	M.	1	....	Leith, ...	Fayette,.....	Instantly killed by a fall of slate.
18	John Spitler, ...	Hungarian,	Miner, ...	40	M.	1	3	Mt. Braddock, ...	Fayette,.....	Instantly killed; crushed between car and rib.
19	John Hornerack, ...	Slav, ...	Driver, ...	18	S.	....	....	Pike, ...	Fayette,.....	Instantly killed by car running on him.
May 27	John Benson, ...	Slav, ...	Laborer, ...	25	S.	....	....	Alice, ...	Fayette,.....	Crushed by a fall of slate; died 7 hours later.
June 3	James H. Eaton, ...	American, .	Mine foreman, .	36	M.	1	3	Grindstone, ...	Fayette,.....	Fatally burned by an explosion of fire-damp; died ten hours later.
5	Amos Carlson, ...	Swede, ...	Electrician, ...	32	M.	1	3	Pike, ...	Fayette,.....	Fatally crushed between electric motor and rib.
13	Andy Grion, ...	Slav, ...	Miner, ...	37	M.	1	6	Kyle, ...	Fayette,.....	Instantly killed by a fall of slate.
20	Eugene Bell, ...	American, .	Fire boss, ...	25	S.	....	....	Redstone No. 2, ...	Fayette,.....	Crushed between car and rib; died twelve hours later.
25	Thomas Breen, ...	English, .	Driver, ...	23	S.	....	....	Edenborn, ...	Fayette,.....	Fatally crushed between car and rib.
July 10	Mike Felix, ...	Austrian, .	Miner, ...	30	S.	....	....	Mt. Braddock, ...	Fayette,.....	Head crushed between car and rib.
Aug. 22	Mike Dustin, ...	Slav, ...	Miner, ...	33	M.	1	3	Redstone No. 2, ...	Fayette,.....	Instantly killed by fall of coal and slate.

	27	Paul Chery, ...	Slav, ...	Miner, ...	28	M.	1	1	Lemont No. 1, ...	Fayette,.....	Instantly killed by a fall of coal and slate.
	29	Ignats Podmerlck, ...	Slav, ...	Miner, ...	24	S.	....	....	Pike, ...	Fayette,.....	Fatally injured by a fall of slate; died six hours later.
Sept.	17	Mike Garnick, ...	Slav, ...	Driver, ...	18	S.	....	....	Continental No. 2, .	Fayette,.....	Fatally injured by a fall of slate; died four hours later.
	30	Samuel Sutsock, ...	Slav, ...	Driver, ...	16	S.	....	....	Parshall, ...	Fayette,.....	Instantly killed by mine car.
Oct.	8	George Tilisko, ...	Slav, ...	Laborer, ...	19	S.	....	....	Gates, ...	Fayette,.....	Fatally crushed between car and rib; died twelve hours later.
	7	Charles Brown, ...	American, .	Driver, ...	24	S.	....	....	Leith, ...	Fayette,.....	Instantly killed by a fall of slate.
Nov.	13	Nelson Oakes, ...	American, .	Driver, ...	18	S.	....	....	Gates, ...	Fayette,.....	Fatally injured between car and rib; died three days later.
	18	Charles Dean, ...	American, .	Tippleman, ...	23	S.	....	....	Lincoln, ...	Fayette,.....	Instantly killed in fly-wheel pit.
	21	Joseph Westlo, ...	Slav, ...	Driver, ...	23	S.	....	....	Edenborn, ...	Fayette,.....	Instantly killed between car and rib.
	28	Stephen KeKasy, ...	Hungarian,	Miner, ...	32	M.	1	....	Washington, ...	Fayette,.....	Instantly killed by a fall of draw slate.
Dec.	3	Emerick Ardel, ...	Slav, ...	Miner, ...	18	S.	....	....	Revere No. 1, ...	Fayette,.....	Instantly killed by a fall of coal and slate.
	9	Mike Morick, ...	Slav, ...	Miner, ...	28	M.	1	4	Revere No. 1, ...	Fayette,.....	Instantly killed between rib and slope.
	23	George Liptak, ...	Slav, ...	Miner, ...	38	M.	1	3	Hanna, ...	Fayette,.....	Instantly killed by a fall of slate.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Fifth Bituminous District for the year ending December 31, 1902.

Date of accident.		Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan.	13	Charles Hawthorne, ..	Irish, ...	Machine helper,	39	S.	Donald No. 1, ...	Fayette,.	Foot caught by machine, necessitating amputation.
	27	George Lukotz, ...	Slav, ...	Miner, ...	19	S.	Colonial, ...	Fayette,.	Knee cap dislocated; caught between car and rib.
Feb.	8	Thos. Hannaford, ...	Welsh, ...	Rope rider, ...	43	M.	Shamrock, ...	Fayette,.	Bruised; caught between car and rib.
	22	Mike Stepic, ...	Austrian, ..	Miner, ...	38	M.	Parshall, ...	Fayette,.	Bruised; caught between car and rib.
	25	Lewis Blance, ...	Slav, ...	Driver, ...	20	S.	Lambert, ...	Fayette,.	Arm broken; caught between car and rib.
March	4	John Grecsick, ...	Pole, ...	Miner, ...	36	M.	Sumner, ...	Fayette,.	Face and hand burned; was preparing cartridge with open light in his cap.
	7	John Henderson, ...	American, .	Driver, ...	22	S.	Revere No. 2, ...	Fayette,.	Leg broken; caught between car and rib.
	10	Edward Lysle, ...	American, .	Miner, ...	50	M.	Washington, ...	Fayette,.	Bruised about body by a fall of slate.
	17	Peter Nodge, ...	Austrian, ..	Miner, ...	50	S.	Parshall No. 1, ...	Fayette,.	Injured by a fall of coal and slate.
	26	William Cover, ...	American, .	Driver, ...	19	S.	Buffington, ...	Fayette,.	Bruised by mine car.
	28	John Domursic, ...	Pole, ...	Miner, ...	36	M.	Continental No. 3, .	Fayette,.	Injured between car and rib.
	29	Matro Cobish, ...	Slav, ...	Miner, ...	18	S.	Washington, ...	Fayette,.	Injured by a fall of slate.
April	3	Charles Craig, ...	American, .	Miner, ...	22	M.	Sumner, ...	Fayette,.	Injured by flying coal, due to shot blowing through rib.
	5	Gust Freudy, ...	Finlander, .	Miner, ...	22	S.	Washington, ...	Fayette,.	Ankle broken by a fall of slate.
	5	Osker Gusky, ...	Finlander, .	Miner, ...	26	S.	Washington, ...	Fayette,.	Injured by dilly trip.
	9	Lester Walters, ...	American, .	Driver, ...	24	S.	Pike, ...	Fayette,.	Injured; caught between car and rib.
	15	Solomon Meese, ...	American, .	Miner, ...	51	M.	Sumner, ...	Fayette,.	Leg fractured by a fall of slate.
	26	William Owens, ...	American, .	Driver, ...	26	M.	Griffin, ...	Fayette,.	Collar bone broken; caught between car and rib.
							Sumner, ...	Fayette,.	Hip dislocated; slipped in front of car.
May	5	Charles Craig, ...	American, .	Driver, ...	22	M.			Leg broken; fell on sprocket chain on tipple.
	9	John Hortmyer, ...	American, .	Tippleman, ...	17	S.	Footdale, ...	Fayette,.	Injured; slipped and fell between cars.
	17	Nelson Harford, ...	American, .	Tippleman, ...	20	S.	Lincoln, ...	Fayette,.	Three ribs broken by cars.
	18	Tony Williams, ...	Italian, ...	Driver, ...	23	M.	Grindstone, ...	Fayette,.	Broken arm and hip; caught between car and rib.
	19	John Shaw, ...	American, .	Driver, ...	34	M	Griffin, ...	Fayette,.	Leg broken by a fall of coal.
	20	John Michki, ...	Slav, ...	Miner, ...	45	S.	Albany, ...	Fayette,.	Seriously cut and bruised by a fall of coal and slate.
	20	Charles Haverscheck, ..	Bohemian, .	Miner, ...	20	S.	Smock, ...	Fayette,.	Leg broken by a fall of slate.
	23	Michael Costello, ...	Irish, ...	Roadman, ...	32	S.	Buffington, ...	Fayette,.	

	26	Joseph Shanabarger, ..	American, .	Roadman, ...	31	M.	Kyle, ...	Fayette,.	Leg crushed, necessitating amputation, by a piece of slate.
	30	John Stiner, ...	Slav, ...	Driver, ...	28	M.	Revere No. 1, ...	Fayette,.	Three ribs broken; caught between door frame and car.
June	3	John Robinson, ...	English, ...	Roadman, ...	50	M.	Grindstone, ...	Fayette,.	Seriously burned by an explosion of fire-damp.
	14	John Lyems, ...	Slav, ... Austrian, ..	Loader, ...	30	M.	Pike, ...	Fayette,.	Arm crushed, necessitating amputation; caught by motor.
	19	Thomas McGarrity, ...		Miner, ...	17	S.	Mt. Braddock, ...	Fayette,.	Injured by fall of roof coal and slate.
	26	John Brennen, ...	American, .	Driver, ...	28	M.	Shamrock, ...	Fayette,.	Arm broken; struck by a car.
	30	Mike Borkles, ...	Pole, ...	Miner, ...	23	S.	Albany, ...	Fayette,.	Foot crushed, necessitating amputation, by a fall of slate.
July	1	John Gray, ...	American, .	Miner, ...	42	M.	Percy, ...	Fayette,.	Hip injured by a fall of slate.
	3	John Towenacled, ...	Austrian, ..	Machine runner,	38	M.	Grindstone, ...	Fayette,.	Leg broken by chain machine jack falling on him.
	8	J. H. McGinnis, ...	American, .	Driver, ...	31	M.	Gates, ...	Fayette,.	Bruised about body between car and rib.
	28	John Koubis, ...	Slav, ...	Trapper, ...	18	S.	Lambert, ...	Fayette,.	Leg broken between car and rib.
	29	William Moore, ...	American, .	Miner, ...	48	M.	Smock, ...	Fayette,.	Leg fractured by a piece of slate.
Aug.	3	William Norris, ...	Welsh, ...	Laborer, ...	43	M.	Lambert, ...	Fayette,.	Bruised by a piece of coal falling from side of rib.
	12	John Tricor, ...	Slav, ...	Shot firer, ...	35	M.	Buffington, ...	Fayette,.	Cut and bruised by flying coal.
	12	Thomas Lustick, ...	Austrian, ..	Miner, ...	38	S.	Buffington, ...	Fayette,.	Cut and bruised by flying coal.
	13	John Jones, ...	Welsh, ...	Laborer, ...	21	S.	Gates, ...	Fayette,.	Bruised about head and body by a fall of slate.
	19	Michael Polansky, ...	Slav, ...	Miner, ...	23	M.	Youngstown, ...	Fayette,.	Leg broken by a fall of slate.
	20	Peter Pascal, ...	Austrian, ..	Miner, ...	48	M.	Snow Hill, ...	Fayette,.	Leg broken by a fall of coal.
	20	James Vansel, ...	Italian, ...	Miner, ...	29	S.	Footdale, ...	Fayette,.	Leg broken; car jumped the track.
	22	Albert Jobes, ...	American, .	Driver, ...	32	M.	Crowthers, ...	Fayette,.	Three ribs broken; caught between car and rib.
	25	Tony Markle, ...	Italian, ...	Miner, ...	22	S.	Grindstone, ...	Fayette,.	Leg broken by a fall of coal and slate.
	27	George Suckley, ...	Hungarian,	Miner, ...	27	S.	Albany, ...	Fayette,.	Arm broken and hip dislocated by a fall of coal and slate.
	29	Mike Elias, ...	Slav, ...	Miner, ...	32	S.	Redstone No. 1, ...	Fayette,.	Bruised about body by a fall of slate.
Sept.	10	John Gastsilla, ...	Slav, ...	Miner, ...	43	M.	Chamonni, ...	Fayette,.	Both legs broken; while sitting down, coal fell from side of rib.
	18	John Klotsick, ...	Hungarian,	Miner, ...	33	M.	Leckrone No. 1, ...	Fayette,.	Leg broken by a fall of slate.
Oct.	2	John Boone, ...	Slav, ...	Miner, ...	30	M.	Lemont No. 1, ...	Fayette,.	Three ribs broken by a fall of roof coal.
	18	Edward Ryan, ...	Irish, ...	Miner, ...	17	S.	Leith, ...	Fayette,.	Both legs crushed, necessitating amputation, by a fall of coal and slate.
	20	Aber Shakutzy, ...	Hungarian,	Miner, ...	29	S.	Revere No. 2, ...	Fayette,.	Leg broken by a fall of slate.
	21	Joe Bayonik, ...	Pole, ...	Loader, ...	60	M.	Pike, ...	Fayette,.	Leg broken by a fall of slate.
	30	John Benson, ...	Slav, ...	Miner, ...	45	M.	Alice, ...	Fayette,.	Leg fractured by a fall of coal and slate.
Nov.	4	John Bruer, ...	English, ...	Machine runner,	25	M.	Alice, ...	Fayette,.	Foot badly crushed by machine.
	19	Mike Gualia, ...	Italian, ...	Miner, ...	22	S.	Lambert, ...	Fayette,.	Compound fracture of arm by being caught between cars.
	22	Thomas Daugherty, ...	American, .	Miner, ...	45	S.	Leisenring No. 2, ..	Fayette,.	Leg broken by a piece of falling coal.
	28	John Gregor, ...	Austrian, ..	Driver, ...	22	S.	Leisenring No. 2, ..	Fayette,.	Compound fracture of arm; slipped and fell.
Dec.	12	Robert Dinsmore, ...	American, .	Driver, ...	20	S.	Stewart, ...	Fayette,.	Bruised about body between car and rib.
	15	Mike Bollek, ...	Hungarian,	Miner, ...	24	S.	Donald, ...	Fayette,.	Burned by a blown out shot.
	23	Paul Durando, ...	Slav, ...	Shot firer, ...	33	M.	Buffington, ...	Fayette,.	Burned by a blown out shot in No. 2 entry.
	23	Joseph Motzavna, ...	Slav, ...	Miner, ...	27	S.	Buffington, ...	Fayette,.	Hands, face and neck badly burned.
	23	John Suwesky, ...	Slav, ...	Miner, ...	40	S.	Buffington, ...	Fayette,.	Hands, face and neck badly burned.
	23	George Miner, ...	American, .	Laborer, ...	30	M.	Buffington, ...	Fayette,.	Hands, face and neck badly burned.
	23	Patrick McDonald, ...	American, .	Laborer, ...	22	S.	Buffington, ...	Fayette,.	Hands, face and neck badly burned.
	27	John Harhosky, ...	Slav, ...	Trapper, ...	16	S.	Lambert, ...	Fayette,.	Arm broken by mine car.

Sixth Bituminous District.

CAMBRIA AND SOMERSET COUNTIES.

Johnstown, Pa., March 2, 1903.

Hon. James W. Latta, Secretary Internal Affairs, Harrisburg, Pa.

Sir: I have the honor of presenting herewith my annual report as Inspector of Mines for the Sixth Bituminous District of Pennsylvania for the year ending December 31, 1902.

I regret to report an increase in the number of fatal accidents during the year just closed, which was caused by the disaster in the Rolling Mill mine at Johnstown, on July 10th. But almost as much to be deplored as the disaster itself, was the manner in which it occurred, some remarks on which will be found in another part of this report.

The production of coal last year increased from 6,848,954 tons to 8,410,861 tons, as compared with 1901, and the number of employes from 10,066 to 12,111 in the same period.

Embodied in the report will be found a number of useful tables.

A few remarks on accidents and the general condition of the mines in the district are also appended.

All of which is respectfully submitted.

J. T. EVANS,
Inspector.

Summary of Statistics for 1902.

Number of mines in district,	93
Number of mines in operation during 1902,	88
Number of tons of coal produced,	8,410,861
Number of tons shipped to market,	8,192,880
Number of tons sold at mines to local trade,	39,462
Number of tons consumed at mines in generating steam and heat,	178,519
Number of coke ovens in the district,	37

Number of coke ovens in operation during 1902,	12
Number of tons of coke produced,	300
Number of tons of coal used in manufacture of coke,	480
Number of tons produced by pick mining,	4,206,824
Number of tons produced by compressed air machines,	4,061,750
Number of tons produced by electrical machines,	142,290
Number of persons employed inside the mines,	10,862
Number of persons employed outside, including coke workers,	1,249
Number of persons employed at manufacture of coke,	3
Number of fatal accidents inside the mines,	134
Number of tons produced for each fatal accident inside,	61,343
Number of persons employed per fatal accident inside,	81
Number of wives made widows by fatal accidents,	80
Number of children orphaned by fatal accidents,	168
Number of non-fatal accidents inside of mines,	30
Number of persons employed per non-fatal accident inside,	362
Number of compressed air locomotives used inside,	4
Number of electric Motors used inside,	72
Number of fans used for ventilation,	60
Number of furnaces used for ventilation,	26
Number of gaseous mines in operation during 1902,	5
Number of non-gaseous mines in operation during 1902,	88
Number of new mines opened in 1902,	11
Number of old mines abandoned during 1902,	1

A. Production of Coal During the Year, 1902.

Names of Companies.	Tons.
Berwind-White Coal Mining Co.,	3,307,678
Webster Coal Company,	546,146
Puritan Coal Co.,	241,697
Cambria Steel Co.,	894,811
W. H. Piper & Co.,	224,109
Coulter & Huff,	278,022
A. J. Haws & Sons, Limited,	46,014
Loyalhanna Coal and Coke Co.,	238,322
Henrietta Coal Co.,	156,835
A. F. Clark & Co.,	59,078
Maderia Coal Co.,	44,083
Logan Coal Co.,	103,730
Somerset Coal Co.,	282,439

Cambria Coal Mining Co.,	91,858
C. A. Buch,	84,834
S. Hamilton Coal Co.,	23,501
D. Laughman & Leahy,	36,600
Bando Coal Co.,	12,334
Bethel Coal Co.,	25,038
Munser Coal Co.,	6,431
D. Laughman,	48,988
Ferndale Coal Co.,	17,213
Whitney, Kemmer & Holts,	55,110
Baltzell Coal Co.,	41,900
Lorain Steel Co.,	22,470
Somerset Mining Co.,	32,910
Lilly Coal Co.,	88,163
Llewellyn & Yeagley,	23,090
Moshannon Coal Co.,	34,992
Murdock Brothers,	27,111
Reading Coal and Iron Co.,	81,072
Pennsylvania Bituminous Coal Co.,	62,573
Priscilla Coal Co.,	42,821
J. W. Mentzer,	28,456
Plymouth Coal Mining Co.,	12,992
Merchants' Coal Co.,	65,040
Samuel Styer,	25,337
Stineman Coal Mine Co.,	246,475
Stineman Coal and Coke Company,	203,445
South Fork Coal Co.,	151,065
Standard Coal Co.,	50,807
Robinson & Irwin,	26,505
Shamrock Coal Co.,	20,300
Sonman Shaft Coal Co.,	93,960
Valley Coal Co.,	11,000
Wells Creek Coal Co.,	54,540
T. S. Shoemaker & Co.,	67,202
George Pierce & Sons,	50,953
Central Coal Co.,	6,324
Mountain Coal Co.,	527
W. J. Williams,	14,050
Total,	8,410,861

B. Showing the number of fatal and non-fatal accidents inside and outside the mines; number of tons of coal produced per fatal and non-fatal accident inside the mines; number of persons employed inside and outside; and the number employed inside and outside for every fatal and non-fatal accident for each company during 1902.

Name of Companies.	Number of lives lost inside.	Total number of lives lost.	Number severely injured inside.	Total number severely injured.	Tons of coal produced per each life lost inside.	Tons of coal produced per serious injury inside.	Number of employes inside of mines.	Number of employes outside of mines.	Total number employed.	Number of employes inside for each life lost.	Number of employes inside for each severe injury.
Berwind-White Coal Mine Co.,	14	14	12	12	236,262	275,639	3,754	426	4,180	268	312
Webster Coal Co.,	1	1	5	5	546,146	109,209	838	150	998	838	167
Cambria Steel Co.,	113	113	.....	.....	7,918	894,811	855	119	974	8	855
W. H. Piper & Co.,	1	1	1	1	224,109	224,109	352	12	364	352	352
Coulter & Huff,	.....	.....	1	1	.....	278,022	286	30	316	.....	286
Loyalhanna Coal and Coke Co.,	2	2	2	2	119,161	119,161	312	22	334	156	156
Henrietta Coal Co.,	.....	.....	2	2	.....	78,417	241	33	274	.....	121
Somerset Coal Co.,	.....	.....	2	2	.....	141,219	381	43	424	.....	191
C. A. Buch,	1	1	.....	.....	84,834	.....	107	9	116	107	.....
D. Laughman,	.....	.....	1	1	.....	48,988	72	10	82	.....	72
Moshannon Coal Co.,	.....	.....	1	1	.....	34,992	71	12	83	.....	71
Merchants Coal Co.,	.....	.....	1	1	.....	65,040	201	24	225	.....	201
Stineman Coal Mine Co.,	.....	.....	1	1	.....	246,475	275	30	305	.....	275
Sonman Shaft Coal Co.,	1	1	2	2	93,960	46,980	177	9	186	177	88
T. S. Shoemaker & Co.,	1	1	.....	.....	67,202	.....	87	10	97	87	.....
Standard Coal Co.,	.....	.....	1	1	.....	50,087	65	2	67	.....	.....
Totals and averages,	134	134	30	30	.....	.....	.....	.....	.....	.....	.....

C. Classification of Fatal Accidents for the Year 1902.

Months.	Inside of Mines.																Outside of Mines.						
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous, causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
January,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	.....	.....	.....	.....	.....	.....	.....
February,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....
April,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	.....	.....	.....	.....	.....	.....	.....
June,	2	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....
July,	.....	.....	2	1	112	.....	1	.....	.....	.....	.....	.....	.....	.....	1	117	.....	.....	.....	.....	.....	.....	.....
August,	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	4	.....	.....	.....	.....	.....	.....	.....
September,	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
October,	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....
December,	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....
Totals,	5	.....	8	2	112	.....	2	.....	.....	.....	.....	.....	.....	.....	*5	134	.....	.....	.....	.....	.....	.....	.....

*Electric shocks.

D. Classification of Non-fatal Accidents for the Year 1902.

Months.	Inside of Mines.																Outside of Mines.						
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous, causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
January,	.....	1	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
February,	.....	.....	.....	3	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
March,	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
April,	.....	1	2	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	5
May,	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
June,	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
July,	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
August,	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
September,	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
October,	1	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	4
November,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
December,	1	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
Totals,	4	9	3	11	.....	.....	1	1	1	.....	.....	.....	.....	.....	.....	30	.....	.....	.....	.....	.....	.....	30

E. Occupations of Employes Killed or Fatally Injured Inside and Outside the Mines of the Sixth Bituminous District During 1902.

Months.	Inside.												Outside.								
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	Grand total.
January,	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
March,	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
April,	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
June,	.....	.....	.....	2	1	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
July,	.....	.....	4	89	5	.....	4	.....	.....	15	.....	117	.....	.....	.....	.....	.....	.....	.....	.....	.....
August,	.....	.....	.....	3	.....	1	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
September,	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
October,	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
December,	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals,	.....	.....	4	98	6	5	5	1	.....	15	.....	134	.....	.....	.....	.....	.....	.....	.....	.....	134

F. Occupations of Employes Severely Injured Inside and Outside the Mines of the Sixth Bituminous District During 1902.

Months.	Inside.												Outside.								
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	Grand total.
January,				1				2													3
February,				2				1													3
March,		1		1		1															2
April,				4		1															5
May,		1				1															2
June,				1				1													2
July,										1											1
August,				1				1													2
September,				1		1															2
October,				4																	4
November,								1													1
December,				1		1		1													3
Totals,		1		16		5		7		1											30

G. Nationality of Employes Killed or Fatally Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Welsh.	Irish.	Germans.	Poles.	Hungarians.	Italians.	Slavs.	Austrians.	Russians.
January,	.....	.....	.....	.....	.....	.....	1	.....	.....	1	.....
February,	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....
March,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April,	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....
May,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June,	.....	.....	.....	.....	.....	.....	1	.....	2	.....	.....
July,	2	5	2	2	4	58	.....	6	26	11	1
August,	.....	.....	.....	.....	.....	3	1	.....	.....	.....	.....
September,	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
October,	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
November,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
December,	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....
Totals,	3	5	2	2	4	65	5	7	28	12	1

H. Nationality of Employes Severely Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Scotch.	Germaas.	Poles.	Hungarians.	Slavs.	Lithuanians.	French.	Grand total
January,	3	.....	.....	.....	.....	.....	.....	.....	.....	3
February,	1	.....	1	.....	.....	1	.....	.....	.....	3
March,	1	.....	.....	.....	1	.....	.....	.....	.....	2
April,	.....	.....	.....	.....	2	.....	1	2	.....	5
May,	1	.....	.....	1	.....	.....	.....	.....	.....	2
June,	.....	1	.....	.....	.....	.....	.....	.....	1	2
July,	1	.....	.....	.....	.....	.....	.....	.....	.....	1
August,	1	.....	.....	.....	1	.....	.....	.....	.....	2
September,	.....	.....	.....	.....	1	1	.....	.....	.....	2
October,	.....	.....	.....	.....	.....	1	3	.....	.....	4
November,	.....	1	.....	.....	.....	.....	.....	.....	.....	1
December,	1	1	.....	.....	.....	1	.....	.....	.....	3
Totals.	9	3	1	1	5	4	4	2	1	30

I. Giving names of operators and mines, kind of openings, type and size of fans; size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each employe per minute in Sixth Bituminous District for the year 1902.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Berwind-White C. M. Co.,														
Eureka No. 30,	Drift,	Non-gas.	Fan,	12½ x 10	2.6	Capell,	Steam,		8	91,200	85,000	92,000	519	165
Eureka No. 31,	Drift,	Non-gas.	Fan,	14 x 1½	.4	Stine & Capel,	Steam,		6	66,000	62,000	67,000	487	135
Eureka No. 32,	Drift,	Non-gas.	Fan,	11 x 6½	.6	Capell,	Steam,		6	78,000	69,000	76,000	420	164
Eureka No. 33,	Drift,	Non-gas.	Fan,	11 x 4½	.8	Capell,	Steam,		6	71,000	63,000	72,000	304	207
Eureka No. 34,	Drift,	Non-gas.	Fan,	12½ x 5	.8	Capell,	Steam,		6	73,000	71,000	72,000	376	188
Eureka No. 35,	Drift,	Non-gas.	Fan,	16 x 6	1.3	Capell,	Steam,		7	76,000	68,000	78,000	554	122
Eureka No. 36,	Drift,	Non-gas.	Fan,	16 x 6	.9	Capell,	Steam,		6	58,000	50,000	56,000	394	126
Eureka No. 37,	Drift,	Non-gas.	Fan,	16 x 5	1.3	Capell,	Steam,		6	81,000	68,000	82,000	300	226
Eureka No. 38,	Drift,	Non-gas.	Fan,	16 x 6	.4	Capell,	Steam,		4	58,000	53,000	57,000	107	495
Eureka No. 39,	Drift,	Non-gas.	Fan,	16 x 6	.2	Capell,	Steam,		1	22,000	22,000	22,000	59	372
Yellow Run,	Shaft,	Non-gas.	Fan,	16 x 5½	1.5	Guibal,	Steam,		4	55,000	50,000	60,000	232	237
Webster Coal and Coke Co.														
Webster No. 1,	Drift,	Non-gas.	Fan,	7½ x 1½	.75	Stine,	Electric,		2	26,000	25,000	26,800	87	287
Webster No. 2,	Slope,	Non-gas.	Fan,	10 x 20	.50	Stine,	Steam,		1	21,000	21,000	20,000	102	200
Webster No. 3,	Drift,	Gaseous,	Fan,	16 x 4	2.2	Guibal,	Steam,		3	48,000	46,000	46,000	256	180
Webster No. 5,	Slope,	Gaseous,	Fan,	13 x 4	3.2	Capell,	Steam,			28,000	25,000	28,000	181	138
Webster No. 6,	Drift,	Non-gas.	Fan,	12 x 3½	1.5	Guibal,	Electric,			13,000	13,000	13,000	78	166
Webster No. 8,	Drift,	Non-gas.	Fan,	12 x 3½	1.5	Guibal,	Electric,			12,000	12,000	12,000	73	164
Webster No 15,	Shaft,	Non-gas.	Fan,	12 x 20	5	Stine,	Steam,		2	2,000	2,000	2,000	102	196
Puritan Coal Company.														
Puritan No. 1,	Shaft,	Non-gas.	Fan,	16 x 5	1.8	Guibal,	Steam,			60,000	54,000	62,000	220	245
Puritan No. 3,	Slope,	Non-gas.	Fan,	12 x 4	1.1	Guibal,	Steam,		2	18,000	17,000	19,000	114	149
Cambria Steel Co.														
Rolling Mill,	Drift,	Gaseous.	Fan,	16	.2	Capell,	Steam,		8	128,000	101,000	131,000	521	211
Conemaugh slope,	Slope,	Gaseous,	Fan,	12 x 4	.6	Guibal,	Steam,		3	30,000	29,800	30,000	117	246

Franklin slope,	Slope....	Gaseous.	Fan,	12	x 4	.5	Sturdivant, ..	Electric, .	.....	2	40,000	39,000	42,000	79	493
Franklin No. 1,	Drift,....	Non-gas.	Fan,	12	x 4	.8	Guibal,.....	Steam, ...	.....	2	25,000	23,000	24,000	92	260
Franklin No. 2,	Drift,....	Non-gas.	Fan,	12		.8	Guibal,.....	Steam, ...	.....	1	12,000	12,000	12,000	46	260
W. H. Piper & Co.															
Sonman No. 1,	.....	Non-gas.	Fan,	12	x 4	.75	Guibal,.....	Steam, ...	.....	.....	15,000	15,000	15,000	48	312
Sonman No. 2,	.....	Non-gas.	Fan,	12	x 3½	1	Guibal,.....	Steam, ...	.....	1	18,000	19,000	19,000	.....	.....
Sonman No. 5,	Slope,....	Non-gas.	Fan,	20	x 7½	2	Guibal,.....	Steam, ...	.....	2	30,000	31,000	34,000	259	193
Sonman No. 4,	.....	Non-gas.	Furnace,..	6	x 4½	.....	.....	.....	27	.....	12,800	12,800	12,700	45	284
Coulter & Huff.															
Argyle No. 2 and 3,	Drift,....	Non-gas.	Fan,	8	x 4	1.5	Capell.	Steam, ...	.....	4	51,000	48,000	52,500	226	212
Conemaugh,	Drift,....	Non-gas.	Furnace,..	.....		.....	.....	.....	21	1	8,000	8,000	8,000	36	222
Kokamo,	Drift,....	Non-gas.	Furnace,..	.....		.....	.....	.....	16	1	5,200	5,200	5,200	24	216
A. J. Haws & Sons, Ltd.															
Haws shaft,	Shaft, ..	Non-gas.	Fan,	12	x 4	1.2	Guibal,.....	Steam, ...	.....	1	14,800	14,000	14,900	45	311
Coopersdale,	Drift,....	Non-gas.	Steam jet,	.....		.....	.....	.....	.....	1	8,000	8,000	8,000	15	533
Loyalhanna Coal & Coke Co.															
Sonman shaft No. 1,	Shaft, ..	Non-gas.	Fan,	18	x 5½	2.2	Guibal,.....	Steam, ...	.....	3	70,000	64,000	69,000	171	374
Loyalhanna drift No. 3,	Drift,....	Non-gas.	Furnace,..	.....		.....	.....	.....	48	2	15,000	15,000	15,000	141	106
Henrietta Coal Co.															
Henrietta No. 1,	Shaft, ..	Non-gas.	Fan,	20	x 5	1.2	Guibal,.....	Steam, ...	.....	3	70,000	60,000	72,000	176	340
Henrietta No. 2,	Shaft, ..	Non-gas.	Fan,	9	x 1½	.4	Stine,.....	Steam, ...	.....	4	12,000	9,000	12,500	65	138
A. F. Clark & Co.															
Stony Creek,	Drift,....	Non-gas.	Fan,	10	x 3½	.5	Guibal,.....	Steam, ...	.....	1	22,000	20,000	22,000	60	333
Somerset,	Drift,....	Non-gas.	Furnace,..	.....		.....	.....	.....	27½	1	10,000	10,000	10,000	50	200
Maderia Coal Co.															
Maderia No. 1,	Drift,....	Non-gas.	Furnace,..	.....		.....	.....	.....	27	.....	13,000	12,600	13,400	72	180
Maderia No. 2,	Drift,....	Non-gas.	Furnace,..	.....		.....	.....	.....	19¼	.....	10,000	10,000	10,000	36	277
Maderia No. 3,	Drift,....	Non-gas.	Furnace,..	.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Logan Coal Co.															
Logan,	Slope,....	Non-gas.	Fan,	9	x 1½	1	Stine,.....	Steam, ...	.....	.....	32,000	30,500	31,500	139	220
Wagner,	Drift,....	Non-gas.	Fan,	12	x 4	.2	Guibal,.....	Steam, ...	.....	1	18,000	18,000	18,000	58	311
Somerset Coal Co.															
Lestie,	Drift,....	Non-gas.	Fan,	12	x 4	1.4	Guibal,.....	Steam, ...	.....	.....	71,000	59,000	72,000	242	243
Stewart,	Drift,....	Non-gas.	Fan,	16	x 6	1.2	Capell, ...	Steam, ...	.....	.....	45,000	45,000	45,000	48	939
Wilson Creek,	Drift,....	Non-gas.	Fan,	12	x 4	1	Guibal,.....	Steam, ...	.....	.....	28,000	27,000	27,500	91	296
Cambria Coal Mining Co.															
Anchor,	Drift,....	Non-gas.	Furnace,..	.....		.....	.....	.....	30	.....	12,000	12,000	12,000	51	235
Lloydell,	Drift,....	Non-gas.	Furnace,..	.....		.6	.....	.....	40½	.....	14,000	14,000	14,000	85	164
C. A. Buch															
Alton,	Drift,....	Non-gas.	Fan,	7	x 1½	1	Stine,.....	Steam, ...	.....	2	16,800	16,500	16,500	107	154

TABLE I—Continued.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Meth of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
S. Hamilton Coal Co. Adams,	Drift,	Non-gas.	Fan,	12 x 4	.5	Guibal,	Steam,	.....	1	19,000	18,000	19,000	42	428
D. Laughman & J. Leahy. Bear Rock,	Drift,	Non-gas.	Furnace,	.....	.....	.....	.....	20	1	4,800	4,800	4,800	51	94
Bando Coal Co. Bando,	Drift,	Non-gas.	Furnace,	.....	.....	.....	.....	24	1	7,000	5,000	7,000	26	200
Bethel Coal Co. Bethel,	Drift,	Non-gas.	Furnace,	.....	.....	.....	.....	21	1	4,000	4,000	4,000	34	129
Munser Coal Co. Conemaugh,	Drift,	Non-gas.	Furnace,	.....	.....	.....	.....	26	1	10,200	10,200	10,200	25	408
D. Laughman. Dysert,	Drift,	Non-gas.	Fan,	7 x 1½	.3	Stine,	Steam,	.....	1	18,000	18,000	18,000	72	250
Ferndale Coal Co. Ferndale,	Drift,	Non-gas.	Furnace,	.....	.....	.....	.....	18	1	5,000	5,000	5,000	22	227
Whitney, Kemmer & Holts. Federal 1 and 2,	Drift,	Non-gas.	Furnace,	.....	.7	.....	.....	30	1	9,500	9,000	9,000	80	118
Baltzell Coal Co. Ivy Ridge,	Drift,	Non-gas.	Fan,	12 x 4	1	Guibal,	Electric,	.....	1	24,000	23,000	24,000	50	460
Lorain Steel Co. Ingle Side,	Drift,	Non-gas.	Furnace,	.....	.....	.....	.....	20	1	8,000	7,500	8,200	22	340
Somerset Mining Co. Lewis,	Drift,	Non-gas.	Fan,	12 x 4	.6	Guibal,	Steam,	.....	2	21,000	20,000	21,000	36	555

Lilly Coal Co. Lilly Slope,	Drift,	Non-gas.	Fan,	12 x 4	1.2	Guibal,	Steam,		2	18,000	18,000	18,000	139	129
Llewellyn & Yeagley. Llewellyn,	Drift,	Non-gas.	Furnace,					18	1	3,800	3,000	3,800	29	103
Moshannon Coal Co. Moshannon No. 2,	Slope,	Non-gas.	Fan,	7 x 1½	.5	Stine,	Steam,		1	24,000	18,000	24,000	71	253
Murdoch Bros. Milford shaft,	Shaft,	Non-gas.	Fan,	12 x 4	.4	Guibal,	Steam,		2	20,000	19,000	20,000	43	441
Reading Coal Iron Co. Kimmelton No. 1 and 2,	Drift,	Non-gas.	Fan,	15 x 4½	.5	Guibal,	Steam,		2	20,000	20,000	21,000	122	153
Penn Bituminous Coal Co. Portage slope,	Slope,	Non-gas.	Fan,	12 x 4	1.3	Guibal,	Steam,		2	14,000	13,500	14,500	125	108
Priscilla Coal Co. Priscilla,	Drift,	Non-gas.	Furnace,		.5			40	1	12,500	11,000	13,000	47	234
J. W. Mentzer. Plain,	Drift,	Non-gas.	Furnace,					24	1	8,000	6,000	8,000	38	210
Plymouth Coal Mining Co. Plymouth No. 1,	Drift,	Non-gas.	Furnace,					27	1	12,800	12,800	12,800	53	241
Merchant Coal Co. Quemahoning 1 and 2,	Slopes,	Non-gas.	Fan,	16 x 6			Electric,		2	29,000	29,000	30,000	201	139
Samuel Styer. Radnor,	Drift,	Non-gas.	Fan,	10 x 3½	.3	Guibal,	Steam,		1	1,300	11,000	13,000	46	239
Stineman Coal Mining Co. Stineman No. 1,	Drift,	Non-gas.	Fan,	18 x 5	1.4	Guibal,	Steam,		5	67,000	62,000	68,000	275	225
Stineman C. & C. Co. Stineman, No. 2,	Drift,	Non-gas.	2 Fans,	7 x 1½	1.1	Stine,	Electric,		3	28,000	27,000	29,000	266	105
South Fork Coal Co. South Fork,	Slope,	Non-gas.	Fan,	16 x 5	2.2	Guibal,	Steam,		3	40,000	40,000	40,000	213	187
Standard Coal Co., Ltd. Standard,	Drift,	Non-gas.	Fan,	12 x 4	1.4	Guibal,	Steam,		1	9,000	9,000	9,000	65	138
Robinson & Irvin. St. Clair,	Drift,	Non-gas.	Furnace,					15	1	7,500	7,000	7,400	26	270
Shamrock Coal Co. Shamrock,	Drift,	Non-gas.	Fan,	12 x 4	.4	Guibal,	Steam,		1	9,000	9,000	9,000	50	180
Senman Shaft Coal Co. Senman shaft No. 2,	Shaft,	Non-gas.	Fan,	16 x 5	1.4	Guibal,	Steam,		4	52,000	51,000	53,000	177	288

TABLE I—Continued.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Valley Coal Co. Valley,	Drift,	Non-gas.	Furnace,					24	1	6,000	6,000	6,000	40	150
Wells Creek Coal Co. Wells Creek,	Drift,	Non-gas.	Fan,	10 x 3½	.4	Guibal,	Steam,		2	24,000	22,000	26,000	80	275
T. S. Shoemaker & Co. Wilmore No. 1,	Drift,	Non-gas.	Fan,	16 x 5½	.2	Guibal,	Steam,		2	40,000	40,000	40,000	87	459
George Pierce & Sons. Caldwell,	Drift,	Non-gas.	Fan,	12 x 4	.4	Guibal,	Steam,			22,000	22,000	22,000	70	314
Mountain Coal Co. Dunlo,	Drift,	Non-gas.	Furnace,					30		*				
Central Coal Co. Central,	Drift,	Non-gas.	Fan,	16 x 5	1.2	Capell,	Steam,			8,000	3,000	8,000	30	263
W. J. Williams. Williams,	Drift,	Non-gas.	Furnace,					24		5,000	5,000	5,000	16	312

*Have not examined mine yet.

J. Names of mines using coal cutting machines, names of machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines during 1902.

Names of Mines.	Kind of opening.	Gaseous or non-gaseous.	Name and Number of Machines in Use.						Total machines used.	Power used by machines.	Geological and local name of seam.	Average thickness in inches.	Height of seam in inches.		Approximate number of tons produced by machines.
			Ingersoll.	Sullivan.	Harrison.	Jeffrey.	Morgan-Gardiner.	Link Belt.					Thickest.	Thinnest.	
Eureka No. 30,	Drift,	Non-gas.	18	17	.....	.....	.....	.....	35	Compressed air,	B, or Miller, ...	44	54	36	542,678
Eureka No. 31,	Drift,	Non-gas.	18	17	.....	.....	.....	.....	35	Compressed air,	B, or Miller, ...	44	54	36	488,686
Eureka No. 32,	Drift,	Non-gas.	16	16	.....	.....	.....	.....	32	Compressed air,	B, or Miller, ...	44	54	36	314,524
Eureka No. 33,	Drift,	Non-gas.	14	13	.....	.....	.....	.....	27	Compressed air,	B, or Miller, ...	44	54	36	280,946
Eureka No. 34,	Drift,	Non-gas.	15	14	.....	.....	.....	.....	29	Compressed air,	B, or Miller, ...	44	54	36	387,550
Eureka No. 35,	Drift,	Non-gas.	19	19	.....	.....	.....	.....	38	Compressed air,	B, or Miller, ...	44	54	36	446,930
Eureka No. 36,	Drift,	Non-gas.	18	15	.....	.....	.....	.....	33	Compressed air,	B, or Miller, ...	44	54	36	311,262
Eureka No. 37,	Drift,	Non-gas.	15	15	.....	.....	.....	.....	30	Compressed air,	B, or Miller, ...	44	54	36	291,242
Eureka No. 38,	Drift,	Non-gas.	5	5	.....	.....	.....	.....	10	Compressed air,	B, or Miller, ...	44	54	36	49,045
Eureka No. 39,	Drift,	Non-gas.	5	5	.....	.....	.....	.....	10	Compressed air,	B, or Miller, ...	44	54	36	14,137
Webster No. 2,	Slope,	Non-gas.	1	7	.....	.....	.....	.....	8	Compressed air,	B, or Miller, ...	42	48	30	54,910
Webster No. 15,	Shaft,	Non-gas.	5	2	.....	.....	.....	.....	7	Compressed air,	B, or Miller ...	42	48	30	39,497
Webster No. 6 and 8,	Drift,	Non-gas.	14	6	.....	.....	.....	.....	20	Compressed air,	D, or Moshannon,	46	48	42	106,336
Maderia No 2,	Drift,	Non-gas.	.....	.....	.....	.....	1	.....	1	Electric,	E, or Lemon, ...	48	54	42	6,000
Rolling Mill,	Drift,	Gaseous,	15	12	.....	.....	.....	.....	27	Compressed air,	E, or Cement, ...	48	58	42	503,865
Franklin slope,	Slope,	Gaseous,	.....	4	.....	.....	.....	.....	4	Compressed air,	B, or Miller, ...	42	60	24	39,578
Sonman No. 5,	Slope,	Non-gas.	.....	2	.....	.....	.....	.....	2	Compressed air,	B, or Miller, ...	42	50	30	5,060
Lestie,	Drift,	Non-gas.	.....	.....	.....	.....	5	.....	5	Electric,	C, or Cement, ...	54	66	42	90,390
Stewart,	Drift,	Non-gas.	.....	.....	6	.....	.....	.....	6	Compressed air,	B, or Miller, ...	36	42	34	32,062
Adams,	Drift,	Non-gas.	.....	4	.....	.....	.....	.....	4	Compressed air,	C, or Cement, ...	32	36	30	8,000
Ivy Ridge,	Drift,	Non-gas.	.....	.....	.....	.....	1	1	2	Electric,	E, ...	48	54	46	41,900
Hamilton Nos. 1 and 2,	Drift,	Non-gas.	.....	.....	16	.....	.....	.....	16	Compressed air,	C, or Cement, ..	32	36	28	81,072
Quemahoning,	Slope,	Non-gas.	7	6	.....	.....	.....	.....	13	Compressed air,	C, or Cement, ..	68	72	48	65,040
Williams,	Drift,	Non-gas.	.....	.....	.....	1	.....	.....	1	Electric,	B, or Miller, ...	42	46	30	4,000
Totals,			185	179	22	1	7	1	395						4,204,040

Remarks on Accidents.

The record of fatal accidents in this district for the past year has been favorable in so far as the ordinary causes are concerned, namely, falls of coal and rock by mine cars, and machinery; but, as usual, nearly half of them might have been avoided by ordinary care on the part of the victims themselves. A large percentage was caused by falls of rock, which exceeded those by falls of coal, which are usually foremost on the fatal list, while a very small proportion was due to mine cars.

On the whole, the reports of fatal accidents (excepting the Rolling Mill mine disaster) have been very satisfactory, considering the large quantity of coal mined, and the tendency of operators to hire any one who wanted work, regardless of whether he was a miner or not, the result of an urgent market for coal at good prices, together with a scarcity of labor.

Rolling Mill Mine Explosion.

This disaster occurred on the morning of July 10th, at about 11.30 o'clock, in the Klondyke district of the Cambria Steel Company's Rolling Mill mine, at Johnstown. I was away from home on duty and did not hear of the explosion until 5 o'clock in the evening, while I was waiting for a train at the depot in South Fork. I did not credit the report when it first reached me, as I thought it almost impossible for such a thing to occur in this mine, knowing its high reputation for ventilation and other essentials; so I went to a 'phone and called up the editor of our evening paper, who confirmed the report, adding that unfortunately nearly all the officials of the mine were also supposed to be lost. They were in the offices on the turnout, about one and one-half miles from the entrance, except four fire bosses, who were on a dilly trip ready to go out at the close of their turn. On hearing of the explosion, these latter, in company with the mine foreman, his assistant, the machine and labor bosses and an assistant fire boss, nine in all, had rushed down into the Klondyke, where they found several doors blown down. Some of them had commenced to make repairs here to aid in restoring ventilation, while others hastened to carry the news of the explosion to miners still at work and have them come out. In a short time the deadly after-damp reached the officials, causing the death of five and overcoming the balance, leaving none of them to assist in the work of rescue.

I arrived at Johnstown at 6 o'clock in the evening, and at once drove to Mill Creek, a distance of six miles, the site of the ventilating plant, where a sixteen-foot Capell fan forces air into the workings. I arrived at this opening about 7 o'clock, and found that the fan had

not been disturbed, but was forcing into the mine a continuous current of 135,000 to 145,000 cubic feet of air per minute. I was also informed that a rescuing party had gone down the shaft, composed of the mine officials who were not in the explosion, with volunteers, and accompanied by some of the leading physicians of the city.

I pause here to pay a deserved tribute to the Johnstown doctors, whose services were of incalculable value in this catastrophe, and whose courage was astonishing. They were in the lead with all the rescuing parties, and saved several lives by the use of oxygen and other preparations with which they were supplied for the occasion.

Having previously supplied myself with lamps from my office, on my arrival at Mill Creek I at once entered the shaft and overtook the rescuing parties before they had reached the vicinity of the explosion. Before any work was attempted we organized the men into gangs, and formed relays, so as to be in communication with each other all the time, and gave the members of the party to understand that everything must be done in a systematic manner and strict discipline was to be maintained. It was my desire to prevent if possible any further loss of life, and to assist all in my power in the rescue of those who might be still living, and the speedy recovery of the bodies, and I well knew that to succeed in the first mentioned object, under existing circumstances demanded the strictest sort of discipline, as the daring and bravery of miners when the lives of their fellows are at stake is never surpassed, if indeed equaled, by any other class of men living.

Thus the task was commenced. At a distance of nearly two miles from the entrance of the mine the brave band of rescuers commenced their work, and within forty hours twenty-one men had been taken out alive and 112 dead bodies had been recovered, without a single accident to any of the rescuing parties. Out of 112 persons who lost their lives in this explosion, the bodies of only seven showed marks of having been burned, the balance having been suffocated by the after-damp.

When the recovery of the bodies had been completed, little work was required to put the mine in condition for operation, except for the repairing of a few doors and some brattice work, as the destruction from the force of the detonation was almost incredibly small, attesting to its feebleness, but I doubt if there has ever occurred in any mine an explosion where the after-damp was so destructive as in this case. The fact that it was such a feeble explosion, with its location on a fall, where there was little or no air to mix with the gas, is sufficient support for the theory that, owing to the absence of the air necessary to perfect combustion, the after-damp was particularly heavy with the deadly carbonic oxide; possibly three or

four per cent. immediately following the explosion; but enough to kill men almost instantly. Only at one place in the mine was there evidence that the explosion had been violent. That was where the air, coming in from the overcast, struck the edge of the fall, and enough of it, probably, mingled with the gas to bring the latter, or at least a small body of it, to the most explosive point. But where it was ignited the mixture of air and gas was possibly as low as four or five parts of the former to one of the latter, the result being a mixture at the lowest point of ignition, but producing an after-damp of the most poisonous character. In proof of the weakness of the explosion at this point, it may be noted that a door not over 350 or 400 feet away was not torn off its hinges, and another beyond that point about 150 feet was not even blown open.

A fact which will appear remarkably strange, but is nevertheless true, is that the loss of life from this feeble explosion was fully fifty per cent. greater than would have been the case had it been more violent. This was the case for two reasons: First, because of the light detonation the men on the west side of the main heading did not know that an explosion had occurred, for if they had heard it, all on that side could have escaped. Second, if the explosion had been more violent, the after-damp would not have been so destructive to life also; it would have been much more easily diluted with enough air to make it life-supporting, as not less than 150,000 cubic feet of air was forced into this district each minute from the time of the explosion until the mine was cleared up again.

From the evidence produced at the inquest upon the bodies of the victims of this disaster, it was learned that all the men employed in the vicinity of the gas which exploded had been not only continually cautioned as to the presence of gas on the falls, but were picked men selected on account of their knowledge of safety lamps and the method of using them to examine for gas, for which they were ordered to look always before firing shots. But in spite of all these precautions and care, a great catastrophe occurred through lack of care on the one part and on the other through too much liberty, or rather through the abuse of liberty which it is now known it was unwise to give, because those who received, abused it. This liberty permitted men who worked in the vicinity of the gas, to take their naked lights into the danger marks made by the fire bosses. There was no danger in this of itself, and it gave the men better light for traveling to their work, but it also afforded an opportunity for a man who was reckless enough to lay aside his safety, and use his naked lamp for the sake of getting a better light.

But even such a catastrophe as this was not warning enough in some quarters as it seemed, for in less than six weeks after it occurred we were compelled to prosecute a man for lighting a ciga

rette right in the heart of a gaseous district of the mine, where nothing but locked safety lamps were permitted to be used. This act so enraged the miners who appreciated the possible result that I very much fear he would have received bodily harm had he not been quietly taken out of the mine and afterwards to jail. As it was, his act was followed by consequences serious enough, for it brought upon good and careful men a dread that, however great the care they themselves took, disaster and death might be brought upon them at any moment by some such reckless person igniting a body of gas through opening a lamp, or by smoking, or some other careless act, criminal under such circumstances.

In my official position I am no doubt expected to make some suggestions which may aid in the prevention of such catastrophes in the future, but I despair of offering anything that would avail under the circumstances. What can we do when among a hundred or more miners there is one who disregards the safety of himself and others, and recklessly violates all laws and rules in the gloomy caverns of the mine, where detection is no easy matter? Clearly, but one thing, invoke the law's extreme penalty upon any such when discovered, provided they have not already caused an explosion or other disaster and have fallen a victim to their own carelessness. As to the particular situation in the Cambria Rolling Mill Mine, the only suggestion I have to offer was made at the time of the investigation of the catastrophe of July 10th, which was to permit no one in the gaseous district to use any except a locked safety lamp, or some other light that would not ignite gas if suddenly come upon. It is understood, of course, that no standing gas is allowed in any part of the mine where it is practicable to remove it. One of the places where its removal is very often impracticable is on a large fall. But men are not expected to work on falls; and when engaged around the edges, if some sudden force pushes the gas down upon them, they have for their protection the safety lamp.

Until a safety lamp is put upon the market which will give something near as good illumination as the ordinary naked light, the men will continue their aversion to the common safety lamp, notwithstanding its almost absolute protection in a gaseous mine, if it is properly used and cared for, and the rules and mining laws are strictly complied with. There is no denying that the type of safety lamp in ordinary use is very unpopular with the miner of to-day, and all too frequently, in order to get a better light than it affords, he throws care and caution to the winds and endangers himself and others.

The following letter explains itself:

Johnstown, Pa., July 23, 1902.

Mr. George T. Robinson, Superintendent,
Rolling Mill Mine, Cambria Steel Co.:

Dear Sir: We made a careful and searching investigation of that portion of your Rolling Mill mine known as the Klondyke district, in which an explosion of fire-damp occurred on the 10th inst., and found miners open lamps in that part of the mine in which we were informed that safety lamps were required to be used, and were in use at that time. These lamps contained cotton and oil ready for use, and were in such places that would warrant the opinion that they were in use at the time the explosion occurred. And we further find that shots had been fired in close proximity to the rib fall on No. 5 entry where the gas was accumulated which caused said explosion, also at the face of No. 2 room off No. 6 entry right, which is connected by an opening to the fall where explosive gas had been known to your mine officials to exist since the first break or rib falls were made on said No. 5 entry. We also found smokers articles in No. 4 long wall room where safety lamps were being used. The smokers articles were in the pockets of clothing lying on the floor. This you will find by reference to Article 5, Sections 3 and 5 and Rule 15 of the Act of May 15, 1893, to be a violation of the said Act; therefore we recommend that for the future safety of your mine and the persons employed therein, you require your mine foreman and other mine officials to use their utmost endeavor to carry out the provisions of the said Act.

Very respectfully yours,

J. T. EVANS,
Inspector 6th Bit. District.
C. B. ROSS,
Inspector 2d Bit. District.
I. G. ROBY,
Inspector 5th Bit. District.
JOSEPH WILLIAMS,
Inspector 10th Bit. District.

Condition of Mines.

Improvement has been the order of the year in the district. Betterments in haulage, drainage and ventilation of the mines have tended to greater safety and a gain in sanitary condition. Quite a number of mines along the main line of the Pennsylvania Railroad,

between Johnstown and Cresson, which are among the oldest in the district, have been improved at very great expense, with a view to increasing the output of coal. But some operators have erred in neglecting to increase the air supply and make it adequate for the larger number of men necessary to produce the greater tonnage. It should require no argument to prove that as a mine is extended, more power is needed to force sufficient air into it, but this very plain fact seems to have been disregarded under the conditions that have prevailed during the past year or so. There has been a great boom in the coal trade, and a corresponding effort has been made to meet the augmented demand by increasing the capacity of mines, and in some cases doubling it. When this is done, if the haulage is by mule power, twice as many mules are put in, and if by machinery, its capacity is increased accordingly. But the minds of the operators do not appear to grasp the idea that there should be any increase in the ventilating power. They apparently expect it to meet the new demands unassisted, and to properly ventilate workings vastly increased, perhaps twice as large as those which previously taxed its capacity. Of course it need not be said that this policy is the exact opposite of that which should prevail. When an increase in the capacity of a mine is contemplated, the very first step should be to increase the ventilation, the life, as it were, of everything which must operate to produce a greater output. Even the machinery will not yield best results if the men who manage it are not furnished that which enables them to perform their work properly and energetically—namely, pure air and plenty of it. It is true that movements are now on foot in some of the mines mentioned to improve the ventilation, but, as intimated, all other improvements were looked after first.

Mechanical haulage is practically universal in the large mines, but mechanical mining is not much of a success along the Allegheny mountains, as the seam of coal in this district is not well adapted to machines, the Miller, or B seam, in particular, on account of the undulating bottom. The Lemon and C prime are well suited for either Puncher or Chain machines.

The other parts of the district, on the South Fork branches, are all practically new mines, which are well equipped with the most modern appliances. These include the Berwind-White Coal Mining Company's mines at Windber and their shaft at Dunlo, all machine mines except the latter, which produced during the year 3,307,678 tons of coal. The remainder of the mines in the district are located at Johnstown, and along the Somerset and Cambria Branch of the Baltimore and Ohio Railroad, up to Rockwood. All are in very satisfactory condition as regards ventilation, drainage, etc., except a few of the newer and smaller ones, where ventilating plants are now being installed.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Sixth Bituminous District for the year 1902.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Berwind-White C. M. Co.						
Eureka No. 30,	Somerset,	Thomas Fisher,	Philadelphia,	Chas. A. Sharpless,	Windber,	Pennsylvania Railroad.
Eureka No. 31,	Somerset,	Thomas Fisher,	Philadelphia,	Chas. A. Sharpless,	Windber,	Pennsylvania Railroad.
Eureka No. 32,	Somerset,	Thomas Fisher,	Philadelphia,	Chas. A. Sharpless,	Windber,	Pennsylvania Railroad.
Eureka No. 33,	Somerset,	Thomas Fisher,	Philadelphia,	Chas. A. Sharpless,	Windber,	Pennsylvania Railroad.
Eureka No. 34,	Somerset,	Thomas Fisher,	Philadelphia,	Chas. A. Sharpless,	Windber,	Pennsylvania Railroad.
Eureka No. 35,	Somerset,	Thomas Fisher,	Philadelphia,	Chas. A. Sharpless,	Windber,	Pennsylvania Railroad.
Eureka No. 36,	Somerset,	Thomas Fisher,	Philadelphia,	Chas. A. Sharpless,	Windber,	Pennsylvania Railroad.
Eureka No. 37,	Cambria,	Thomas Fisher,	Philadelphia,	Chas. A. Sharpless,	Windber,	Pennsylvania Railroad.
Eureka No. 38,	Somerset,	Thomas Fisher,	Philadelphia,	Chas. A. Sharpless,	Windber,	Pennsylvania Railroad.
Eureka No. 39,	Somerset,	Thomas Fisher,	Philadelphia,	Chas. A. Sharpless,	Windber,	Pennsylvania Railroad.
Yellow Run shaft,	Cambria,	A. J. Cook,	Philadelphia,	Thos. Griffith,	Windber,	Pennsylvania Railroad.
Webster Coal Co.						
Webster No. 1,	Cambria,	E. T. Conner,	Cresson,	R. D. Mainwaring,	Cresson,	Pennsylvania Railroad.
Webster No. 2,	Cambria,	E. T. Conner,	Cresson,	R. D. Mainwaring,	Cresson,	Pennsylvania Railroad.
Webster No. 3,	Cambria,	E. T. Conner,	Cresson,	W. H. Keller,	Ehrenfield,	Pennsylvania Railroad.
Webster No. 5,	Cambria,	E. T. Conner,	Cresson,	W. H. Keller,	Ehrenfield,	Pennsylvania Railroad.
Webster No. 6,	Cambria,	E. T. Conner,	Cresson,	W. H. Keller,	Ehrenfield,	Pennsylvania Railroad.
Webster No. 8,	Cambria,	E. T. Conner,	Cresson,	W. H. Keller,	Ehrenfield,	Pennsylvania Railroad.
Webster No. 15,	Cambria,	E. T. Conner,	Cresson,	R. D. Mainwaring,	Cresson,	Pennsylvania Railroad.
Puritan Coal Co.						
Puritan No. 1,	Cambria,	George E. Scott,	Philadelphia,	P. F. Campbell,	Puritan,	Pennsylvania Railroad.
Puritan No. 2,	Cambria,	George E. Scott,	Philadelphia,	P. F. Campbell,	Puritan,	Pennsylvania Railroad.
Cambria Steel Co.						
Rolling Mill,	Cambria,	M. G. Moore,	Johnstown,	Geo. T. Robinson,	Johnstown,	Coal all used in steel works of company.
Conemaugh slope,	Cambria,	M. G. Moore,	Johnstown,	Geo. T. Robinson,	Johnstown,	do. do.
Franklin slope,	Cambria,	M. G. Moore,	Johnstown,	Geo. T. Robinson,	Johnstown,	do. do.
Franklin No. 1,	Cambria,	M. G. Moore,	Johnstown,	Geo. T. Robinson,	Johnstown,	do. do.
Franklin No. 2,	Cambria,	M. G. Moore,	Johnstown,	Geo. T. Robinson,	Johnstown,	
W. H. Piper & Co.						
Sonman No. 1,	Cambria,	A. H. Slayman,	Altoona,	Geo. S. Forsythe,	Lilly,	Pennsylvania Railroad.
Sonman No. 2,	Cambria,	A. H. Slayman,	Altoona,	Geo. S. Forsythe,	Lilly,	Pennsylvania Railroad.
Sonman No. 3,	Cambria,	A. H. Slayman,	Altoona,	Geo. S. Forsythe,	Lilly,	Pennsylvania Railroad.
Sonman No. 4,	Cambria,	A. H. Slayman,	Altoona,	Geo. S. Forsythe,	Lilly,	Pennsylvania Railroad.

Coulter & Huff.						
Argyle,	Cambria,	J. P. Wilson,	South Fork,	J. W. Wilson,	South Fork,	Pennsylvania Railroad.
Conemaugh,	Cambria,	J. P. Wilson,	South Fork,	J. W. Wilson,	South Fork,	Pennsylvania Railroad.
Kokoma,	Cambria,	J. P. Wilson,	South Fork,	J. W. Wilson,	South Fork,	Pennsylvania Railroad.
A. J. Haws & Son, Ltd.						
Haws' shaft,	Cambria,	James B. Thomas,	Johnstown,	Wm. Oppy,	Johnstown,	All used at brick works of company.
Coopersdale,	Cambria,	James B. Thomas,	Johnstown,	Wm. Oppy,	Johnstown,	
Loyalhanna Coal & Coke Co.						
Sonman shaft No. 1,	Cambria,	C. C. Watt,	Philadelphia,	Joseph Paterson,	Onnalinda,	Pennsylvania Railroad.
Loyalhanna No. 3,	Cambria,	C. C. Watt,	Philadelphia,	Joseph Paterson,	Onnalinda,	Pennsylvania Railroad.
Henrietta Coal Co.						
Henrietta shaft No. 1,	Cambria,			J. S. Campbell,	Dunlo,	Pennsylvania Railroad.
Henrietta shaft No. 2,	Cambria,			J. S. Campbell,	Dunlo,	Pennsylvania Railroad.
A. F. Clark & Co.						
Stony Creek,	Somerset,	Uriah Jones,	Hooversville,	Uriah Jones,	Hooversville,	Baltimore and Ohio Railroad.
Somerset,	Somerset,	Uriah Jones,	Hooversville,			
Maderia Coal Co.						
Maderia No. 1,	Cambria,	W. J. Betts,	Clearfield,	Thos. Langford,	Portage,	Pennsylvania Railroad.
Maderia No. 2,	Cambria,	W. J. Betts,	Clearfield,	Wm. Towle,	Portage,	
Maderia No. 3,	Cambria,					
Logan Coal Co.						
Logan,	Cambria,	J. A. Boucher,	Dunlo,	J. A. Boucher,	Dunlo,	Pennsylvania Railroad.
Wagner,	Cambria,	J. A. Boucher,	Dunlo,	J. A. Boucher,	Dunlo,	Pennsylvania Railroad.
Somerset Coal Co.						
Listie,	Somerset,	J. C. Borydon,	Somerset,	F. F. Lyon,	Somerset,	Baltimore and Ohio Railroad.
Stewart,	Somerset,	J. C. Borydon,	Somerset,	F. F. Lyon,	Somerset,	Baltimore and Ohio Railroad.
Wilson Creek,	Somerset,	J. C. Borydon,	Somerset,	F. F. Lyon,	Somerset,	Baltimore and Ohio Railroad.
Cambria Coal M. Co.						
Anchor,	Cambria,			Jos. J. McCann,	Loydell,	Pennsylvania Railroad.
Lloydell,	Cambria,			Andy Barno,	Puritan,	Pennsylvania Railroad.
C. A. Buch.						
Alton,	Cambria,	C. A. Buch,	Philadelphia,	D. J. Mullollen,	Lloydell,	Pennsylvania Railroad.
S. Hamilton Coal Co.						
Adams,	Somerset,	Wm. A. Somerville,	Frostburgh, Md.,	P. M. Connor,	Listie,	Baltimore and Ohio Railroad.
D. Laughman & J. Leahy.						
Bear Rock,	Cambria,	John Leahy,	Lilly,	John Leahy,	Lilly,	Pennsylvania Railroad.
Bando Coal Co.						
Bando,	Somerset,	Thos. M. Righter,	Mt. Carmel,	Geo. Gehres,	Milford Station,	Baltimore and Ohio Railroad.
Bethel Coal Co.						
Bethel,	Somerset,			A. G. White,	Hollsopple,	Baltimore and Ohio Railroad.

TABLE I—Continued

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Munser Coal Co. Conemaugh No. 2,	Cambria,	H. Hahman,	Altoona,	John Cooper,	Puritan,	Pennsylvania Railroad.
D. Laughman. Dysert,	Cambria,	D. Laughman,	Altoona,	Thos. Leahy,	Lilly,	Pennsylvania Railroad.
Ferndale Coal Co. Ferndale,	Cambria,			Geo. K. Shryock,	Johnstown,	Baltimore and Ohio Railroad.
Whitney, Kemmer & Holts. Federal Nos. 1 and 2,	Somerset,	E. W. Holt,	Hooversville,	D. T. Edwards,	Hooversville,	Baltimore and Ohio Railroad.
Baltzell Coal Co. Ivy Ridge,	Cambria,	Chas. Baltzell,	Altoona,	Joseph Highms,	Portage,	Pennsylvania Railroad.
Lorain Steel Co. Ingleside,	Somerset,	P. Lavelle,	Johnstown,	Wm. T. Moss,	Walsell,	Baltimore and Ohio Railroad.
Somerset Mining Co. Lewis,	Somerset,			Telford Lewis,	Hooversville,	Baltimore and Ohio Railroad.
Lilly Coal Co. Lilly slope,	Cambria,	Chas. A. Hughes,	Altoona,	Nichlos Evans,	Lilly,	Pennsylvania Railroad.
Llewellyn & Yeagley. Llewellyn,	Cambria,	D. J. Llewellyn,	Johnstown,	D. J. Llewellyn,	Johnstown,	B. & O. and P. R. R.
Moshannon Coal Co. Moshannon No. 2,	Cambria,	Thos. Leahy,	Lilly,	Thos. Leahy,	Lilly,	Pennsylvania Railroad.
Murdoch Bros. Milford shaft,	Somerset,	J. M. Murdoch,	Johnstown,	A. W. Lowther,	Milford Station,	Baltimore and Ohio Railroad.
Reading Coal & Iron Co. Kimmilton Nos. 1 and 2,	Somerset,	Geo. Schuehman,	Reading,	W. H. Druse,	Kimmelton,	Baltimore and Ohio Railroad.
Penn'a Bit. Coal Co. Portage slope,	Cambria,	H. H. Houpt,	Philadelphia,	Irwin Croyl,	Portage,	Pennsylvania Railroad.
Priscilla Coal Co. Priscilla,	Cambria,	D. W. Luke,	South Fork,	J. H. Luke,	South Fork,	Pennsylvania Railroad.

J. W. Mentzer. Plain,	Cambria,	J. W. Mentzer,	Hollidaysburg,	John Leap,	Lilly,	Pennsylvania Railroad.
Plymouth Coal Mining Co. Plymouth No. 1,	Cambria,	C. H. Rowland,	Tyrone,	T. S. Adams,	Puritan,	Pennsylvania Railroad.
Merchant Coal Co. Quemahoning Nos. 1 and 2,	Somerset,	W. H. Morris,	Bosswell,	T. D. Morgan,	Boswell,	Baltimore and Ohio Railroad.
Samuel Styer. Radnor,	Cambria,	R. K. Styer,	Mineral Point,	R. K. Styer,	Mineral Point,	Pennsylvania Railroad.
Stineman Coal M. Co. Stineman No. 1,	Cambria,	W. F. Stineman,	South Fork,	Thos. D. Williams,	South Fork,	Pennsylvania Railroad.
Stineman Coal and Coke Co. Stineman No. 2,	Cambria,	H. Hahman,	Altoona,	John Cooper,	Puritan,	Pennsylvania Railroad.
South Fork Coal Co. South Fork,	Cambria,	Jas. Callaghan,	South Fork,	Jas. Callaghan, Irwin Croyel,	South Fork, Portage,	Pennsylvania Railroad.
Standard Coal Co., Ltd. Standard,	Cambria,	R. J. Hughes,	Altoona,	Nicholas Evans,	Lilly,	Pennsylvania Railroad.
Robinson & Irvin. St. Clair,	Cambria,	—— Robertson,	Johnstown,	John Thomas,	Johnstown,	Pennsylvania Railroad.
Shamrock Coal Co. Shamrock,	Somerset,	T. H. Darby,	Rockwood,	F. H. Darby,	Rockwood,	Baltimore and Ohio Railroad.
Sonman Shaft Coal Co. Sonman shaft No. 2,	Cambria,			C. W. Saxman,	Sonman,	Pennsylvania Railroad.
Valley Coal Co. Valley,	Cambria,	J. E. Ashley,	Johnstown,	J. E. Ashley,	Johnstown,	Baltimore and Ohio Railroad.
Wells Creek Coal Co. Wells Creek,	Somerset,	F. C. Keighley,	Uniontown,	J. H. Lane,	Listie,	Baltimore and Ohio Railroad.
T. S. Shoemaker. Wilmore No. 1,	Cambria,	T. S. Shoemaker,	Philadelphia,	Edw. Dawson,	Sonman,	Pennsylvania Railroad.
George Pierce & Sons. Caldwell,	Cambria,	Robert Pierce,	Puritan,	Robert Pierce,	Puritan,	Pennsylvania Railroad.
Mountain Coal Co. Dunlo drift,	Cambria,	J. P. Wilson,	South Fork,	R. Pardoe,	Dunlo,	Pennsylvania Railroad.
Central Coal Co. Central,	Cambria,	A. M. Custer,	Johnstown,	George B. Jones,	Johnstown,	Local use.
W. J. Williams. Williams,	Cambria,	W. J. Williams,		W. J. Williams,	Johnstown,	Local use.

TABLE II—Gives the total number of tons of coal mined and tons of coke produced in each colliery, number of days worked, number of employes, number of employes killed and injured, number of kegs of powder, etc., used in the Sixth Bituminous District for the year ending December 31, 1902.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Berwind-White Coal Mining Co.														
Eureka No. 30,	Somerset,	528,874	13,794	10	542,678	.....	.....	290	579	2	2	2,193	5,450	.....
Eureka No. 31,	Somerset,	480,499	7,587	.....	488,086	.....	.....	270	543	2	.....	1,980	4,825	.....
Eureka No. 32,	Somerset,	302,520	11,889	115	314,524	.....	.....	270	467	1	1	1,255	3,150	.....
Eureka No. 33,	Somerset,	274,879	6,059	8	280,946	.....	.....	266	339	1	1	1,180	2,825	.....
Eureka No. 34,	Somerset,	378,745	8,805	.....	387,550	.....	.....	277	422	4	6	1,575	3,850	.....
Eureka No. 35,	Somerset,	431,915	12,645	2,340	446,930	.....	.....	292	603	1	.....	1,825	4,450	.....
Eureka No. 36,	Somerset,	303,802	7,460	.....	311,262	.....	.....	276	436	.....	.....	1,295	3,025	.....
Eureka No. 37,	Cambria,	283,708	7,584	.....	291,292	.....	.....	285	342	3	2	1,170	2,950	.....
Eureka No. 38,	Somerset,	45,400	3,596	59	49,055	.....	.....	294	122	.....	.....	528	1,050	.....
Eureka No. 39,	Somerset,	14,137	.....	.....	14,137	.....	.....	296	71	.....	.....	355	525	.....
Yellow Run shaft,	Cambria,	174,695	5,561	962	181,218	.....	.....	206	246	.....	.....	800	1,000	40
Totals,	.....	3,219,204	84,980	3,494	3,307,678	.....	.....	274.7	4,180	14	12	14,153	33,100	40
Webster Coal Co.														
Webster No. 1,	Cambria,	47,296	.....	171	47,467	.....	.....	167	97	.....	1	196	12	10
Webster No. 2,	Cambria,	51,925	2,972	13	54,910	.....	.....	202	117	.....	.....	145	300	9
Webster No. 3,	Cambria,	388,973	14,510	789	494,272	.....	.....	220	256	.....	2	.....	.....	25
Webster No. 5,	Cambria,					.....	.....	215	282	.....	2	1,560	2,559	32
Webster No. 6,	Cambria,					.....	.....	212	78	.....	.....	.....	.....	7
Webster No. 8,	Cambria,					.....	.....	.....	73	.....	.....	.....	.....	1
Webster No. 15,	Cambria,	37,314	2,084	99	39,497	.....	.....	251	85	.....	.....	232	1,622	5
Totals,	.....	525,508	19,566	1,072	546,146	.....	.....	211.2	988	.....	5	2,133	4,593	79

*Totals in this column are averages.

Puritan Coal Co.														
Puritan No. 1,	Cambria,..	165,367	4,500	.....	169,867	.....	.....	247	240	.....	.....	520	.....	14
Puritan No. 2,	Cambria,..													
Puritan No. 3,	Cambria,....	70,640	650	540	71,830	.....	.....	232	126	.....	.....	215	.....	6
Totals,	.....	236,007	5,150	540	241,697	.....	.....	236	366	.....	.....	735	.....	20
Henrietta Coal Co.														
Henrietta shaft No. 1,	Cambria,....	143,430	2,900	894	147,224	.....	.....	298	196	.....	1	600	1,500	55
Henrietta shaft No. 2,	Cambria,....	9,312	289	10	9,611	.....	.....	98	78	.....	1	200	300	6
Totals,	.....	152,742	3,189	904	156,835	.....	.....	198	274	.....	2	800	2,000	61
A. F. Clark & Co.														
Stonycreek,	Somerset,....	29,165	520	10	29,695	.....	.....	152	67	.....	.....	95	100	7
Somerset,	Somerset,....	29,223	150	10	29,383	.....	.....	153	56	.....	.....	95	.....	5
Totals,	.....	58,388	670	20	59,078	.....	.....	152.5	123	.....	.....	190	100	12
Madeira Coal Co.														
Madeira No. 1,	Cambria,....	31,988	168	100	32,256	.....	.....	168	72	.....	.....	155	.....	6
Madeira Nos. 3 and 2,	Cambria,....	11,767	60	.....	11,827	.....	25	126	36	.....	.....	100	.....	2
Totals,	.....	43,755	228	100	44,083	.....	25	147	108	.....	.....	255	.....	8
Logan Coal Co.														
Logan,	Cambria,....	96,100	600	680	97,380	.....	.....	278	157	.....	.....	300	1,350	18
Wagner,	Cambria,....	6,300	50	.....	6,350	.....	.....	103	69	.....	.....	50	250	4
Totals,	.....	102,400	650	680	103,730	.....	.....	190.5	227	.....	.....	350	1,600	22
Somerset Coal Co.														
Listie,	Somerset, ..	179,732	859	208	180,799	.....	.....	189	263	.....	1	1,380	400	15
Stewart,	Somerset,....	29,077	2,830	95	32,002	.....	.....	178	62	.....	2	600	.....	.....
Wilson Creek,	Somerset,....	69,359	137	142	69,638	.....	.....	202	99	.....	.....	1,160	.....	13
Totals,	.....	278,168	3,826	445	282,439	.....	.....	189.6	424	.....	3	3,140	400	28
Cambria Coal Mining Co.														
Anchor,	Cambria,....	35 600	.....	1,666	36,606	.....	.....	201	53	.....	.....	400	.....	7
Lloydell,	Cambria,....	53,157	1,735	360	55,252	.....	.....	267	88	.....	.....	745	300	12
Totals,	.....	88,157	1,735	1,966	91,858	.....	.....	234	141	.....	.....	1,145	300	19
Cambria Steel Co.														
Rolling Mill,	Cambria,....	571,690	15,213	193	587,096	.....	.....	306	588	112	.....	13,251	825	66
Conemaugh slope,	Cambria,....	118,525	2,596	.....	121,121	.....	.....	255	147	1	.....	1,105	333	14
Franklin slope,	Cambria,....	77,851	.....	.....	77,851	.....	.....	302	84	.....	.....	796	1,966	12
Franklin No. 1	Cambria,..	105,236	3,507	.....	108,743	.....	.....	244	155	.....	.....	717	5,350	22
Franklin No. 2,	Cambria,..													
Totals,	.....	873,302	21,316	193	894,811	.....	.....	276.7	974	113	.....	15,869	8,484	114

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
W. H. Piper & Co.								*						
Sonman No. 1,	Cambria,	31,500	1,100	1,000	36,600	.....	.....	204	50	.....	.....	48	.....	6
Sonman No. 2,	Cambria,	149,469	1,600	1,500	152,569	.....	.....	234	268	1	1	140	1,500	26
Sonman No. 3,	Cambria,													
Sonman No. 4,	Cambria,	35,000	.....	.....	35,000	.....	.....	229	46	.....	.....	43	.....	4
Totals,		218,969	2,700	2,500	224,169	.....	.....	222.3	364	1	1	231	1,500	36
Coulter & Huff.														
Argyle No. 1, 2 and 3,	Cambria,	227,729	1,643	511	229,883	.....	.....	313	250	.....	1	2,132	850	17
Conemaugh,	Cambria,	37,549	601	118	38,268	.....	.....	294	41	.....	.....	364	150	3
Kokoma,	Cambria,	9,871	.....	.....	9,871	.....	.....	168	25	.....	.....	94	.....	2
Totals,		275,149	2,241	629	278,022	.....	.....	258.3	316	.....	1	2,590	1,000	22
A. J. Haws & Son, Ltd.														
Haws' shaft,	Cambria,	.....	1,410	.....	36,213	.....	.....	308	52	.....	.....	230	1,250	8
Coopersdale,	Cambria,	.....	600	.....	9,801	.....	.....	298	15	.....	.....	75	1,215	2
Totals,		.....	2,010	.....	†46,014	.....	.....	303	67	.....	.....	305	2,465	10
Loyalhanna Coal and Coke Co.														
Sonman shaft No. 1,	Cambria,	127,392	4,379	250	132,021	.....	.....	211	184	2	.....	1,000	.....	19
Loyalhanna No. 3,	Cambria,	105,785	232	284	106,301	.....	.....	236	150	.....	1	800	.....	14
Totals,		233,177	4,611	534	238,322	.....	.....	223.5	334	2	1	1,800	.....	33

*Totals in this column are averages.
†41,664 tons used in fire brick works.
Production and other data for single collieries will be found in the recapitulation.

Recapitulation.

								*						
Berwind-White Coal Mining Co.,	Cam. & S'm.	3,219,204	84,980	3,494	3,307,678	.....	.....	274.7	4,180	14	12	14,153	33,100	40
Webster Coal Co.,	Cambria,	525,508	19,566	1,072	546,146	.....	.....	211.2	989	1	5	2,133	4,593	79
Puritan Coal Co.,	Cambria,	236,007	5,150	540	241,697	.....	.....	236	366	.....	.....	735	.....	20
Cambria Steel Co.,	Cambria,	873,302	21,316	193	894,811	.....	.....	276.7	974	113	.....	15,869	8,484	114
W. H. Piper & Co.,	Cambria,	218,909	2,700	2,500	224,109	.....	.....	222.3	364	1	1	231	1,560	36
Coulter & Huff,	Cambria,	275,149	2,244	629	278,022	.....	.....	258.3	316	.....	1	2,590	1,000	22
A. J. Haws' & Sons, Ltd.,	Cambria,	44,004	2,010	.....	46,014	.....	.....	303	67	.....	.....	305	2,465	10
Loyalhanna Coal and Coke Co.,	Cambria,	233,177	4,611	534	238,322	.....	.....	223.5	334	2	1	1,800	.....	33
Henrietta Coal Co.,	Cambria,	152,742	3,189	904	156,835	.....	.....	198	274	.....	2	800	2,000	61
A. F. Clark & Co.,	Somerset,	58,388	670	20	59,078	.....	.....	152.5	123	.....	.....	190	100	12
Maderia Coal Co.,	Cambria,	43,755	228	100	44,083	.....	25	147	114	.....	.....	255	.....	8
Logan Coal Co.,	Cambria,	102,400	650	680	103,730	.....	.....	180.5	227	.....	.....	350	1,600	22
Somerset Coal Co.,	Somerset,	278,168	3,826	445	282,439	.....	.....	189.6	424	.....	3	3,140	400	28
Cambria Coal Mining Co.,	Cambria,	88,157	1,735	1,966	91,858	.....	.....	234	141	.....	.....	1,145	300	19
C. A. Buch,	Cambria,	83,854	500	480	84,834	.....	.....	220	116	1	.....	500	.....	14
S. Hamilton Coal Co.,	Somerset,	23,050	358	93	23,501	.....	.....	267	52	.....	.....	325	600	6
D. Laughman & J. Leahy,	Cambria,	36,450	50	100	36,600	.....	.....	199	58	.....	1	169	160	7
Bando Coal Co.,	Somerset,	12,302	32	.....	12,334	.....	.....	223	29	.....	.....	182	401	2
Bethel Coal Co.,	Somerset,	25,038	.....	.....	25,038	.....	.....	241	38	.....	.....	100	.....	4
Munser Coal Co.,	Cambria,	6,252	60	119	6,431	.....	.....	125	28	.....	.....	60	.....	4
D. Laughman,	Cambria,	47,966	872	150	4,8988	.....	.....	241	82	.....	.....	114	100	12
Ferndale Coal Co.,	Cambria,	17,213	.....	.....	17,213	.....	.....	240	23	.....	.....	150	.....	3
Whitney, Kemmer & Holts,	Somerset,	55,000	.....	110	55,110	.....	.....	195	85	.....	.....	350	200	10
Baltzell Coal Co.,	Cambria,	41,800	.....	100	41,900	300	12	234	56	.....	.....	300	.....	6
Lorain Steel Co.,	Cambria,	22,400	20	50	22,470	.....	.....	292	25	.....	.....	156	50	4
Somerset Mining Co.,	Somerset,	32,838	72	.....	32,910	.....	.....	183	40	.....	.....	150	.....	4
Lilly Coal Co.,	Cambria,	87,900	180	83	88,163	.....	.....	220	154	.....	.....	100	.....	15
Llewellyn & Yeagly,	Cambria,	23,000	.....	.....	23,000	.....	.....	95	32	.....	.....	110	40	3
Moshannon Coal Co.,	Cambria,	34,007	848	137	34,992	.....	.....	211	83	.....	1	167	110	3
Murdock Brothers,	Somerset,	25,381	312	1,418	27,111	.....	.....	225	53	.....	.....	418	.....	4
Reading Coal and Iron Co.,	Somerset,	77,980	2,592	500	81,072	.....	.....	249	146	.....	.....	457	6,900	13
Penn'a Bituminous Coal Co.,	Cambria,	60,698	1,800	75	62,573	.....	.....	225	140	.....	.....	300	.....	12
Priscilla Coal Co.,	Cambria,	42,551	240	30	42,821	.....	.....	207	54	.....	.....	360	100	9
J. W. Mentzer,	Cambria,	28,356	.....	100	28,456	.....	.....	240	44	.....	.....	100	300	6
Plymouth Coal Mining Co.,	Cambria,	12,992	.....	.....	12,992	.....	.....	97	57	.....	.....	150	50	4
Merchants' Coal Co.,	Somerset,	62,240	800	2,000	65,040	.....	.....	96	225	.....	1	400	500	8
Samuel Styer,	Cambria,	25,187	150	.....	25,337	.....	.....	217	49	.....	.....	200	250	6
Stineman Coal Mining Co.,	Cambria,	239,275	7,200	.....	246,475	.....	.....	279	305	.....	1	1,400	.....	20
Stineman Coal and Coke Co.,	Cambria,	202,715	730	.....	203,445	.....	.....	280	286	.....	.....	900	.....	14
South Fork Coal Co.,	Cambria,	145,465	5,400	200	151,065	.....	.....	250	233	.....	.....	900	.....	18
Standard Coal Co.,	Cambria,	50,807	.....	.....	50,807	.....	.....	232	67	.....	.....	15	250	12
Robinson & Irwin,	Cambria,	26,455	.....	50	26,505	.....	.....	280	27	.....	.....	100	50	3
Shamrock Coal Co.,	Somerset,	20,000	300	.....	20,300	.....	.....	170	52	.....	.....	100	.....	.....
Sonman Shaft Coal Co.,	Cambria,	90,515	2,712	733	93,960	.....	.....	213	186	1	1	1,560	.....	11
Valley Coal Co.,	Cambria,	10,500	.....	500	11,000	.....	.....	135	53	.....	.....	200	.....	4
Wells Creek Coal Co.,	Somerset,	54,040	150	350	54,540	.....	.....	202	90	.....	.....	400	2,500	12

*Totals in this column are averages.

TABLE 11—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
T. S. Shoemaker & Co.,	Cambria,	67,056	146	.....	67,202	.....	.....	* 210	97	1	.....	300	100	2
George Pierce & Sons,	Cambria,	50,903	50	.....	50,953	.....	.....	226	80	.....	.....	400	300	3
Central Coal Co.,	Cambria,	1,324	.....	5,000	6,324	.....	.....	99	32	.....	.....	140	103	2
Mountain Coal Co.,	Cambria,	500	20	7	527	.....	.....	10	23	.....	.....	.....	.....	1
W. J. Williams,	Cambria,	.....	50	14,000	14,050	.....	.....	260	18	.....	.....	140	.....	2
Totals,	.....	8,192,880	178,519	39,462	8,410,861	300	37	204.4	12,111	134	30	55,509	68,606	774
					450	.....	.....	.....	.....	.....	.....	.....	.....	.....
					‡8,411,311									

*Totals in this column are averages.
‡Used in production of coke.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Number of Boilers.				Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.	Horse power.		Steam.	Air.	Electric.							
Berwind-White Coal Mining Co.,	Cam. & Som.	26	6,500	5	370	6,870	.....	.....	47	32	6,838	36	5,150	2,200	17	21
Webster Coal Co.,	Cambria,	.....	.....	21	2,635	2,635	.....	.....	7	19	1,434	4	3,220	4,360	5	10
Puritan Coal Co.,	Cambria,	.....	.....	8	660	660	.....	.....	4	5	775	2	990	600	5	.....
Cambria Steel Co.,	Cambria,	7	1,440	7	500	1,940	1	4	.....	9	1,645	4	470	400	3	9
W. H. Piper & Co.,	Cambria,	3	600	.....	.....	600	.....	.....	.....	4	500	1	600	400	.....	2
Coulter & Huff,	Cambria,	1	15	4	325	340	.....	.....	.....	1	340	.....	.....	.....	.....	.....
A. J. Haws & Sons, Ltd.,	Cambria,	.....	.....	1	30	30	.....	.....	.....	1	25	2	165	100	.....	.....
Loyalhanna Coal and Coke Co.,	Cambria,	.....	.....	9	720	720	.....	.....	.....	5	255	6	2,375	1,060	.....	.....
Henrietta Coal Co.,	Cambria,	3	225	7	950	1,175	.....	.....	.....	9	650	2	800	500	1	.....
A. F. Clark & Co.,	Somerset,	.....	.....	1	40	40	.....	.....	.....	2	25	1	975	600	.....	.....
Maderia Coal Co.,	Cambria,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Logan Coal Co.,	Cambria,	.....	.....	3	225	225	.....	.....	.....	4	115	1	150	120	.....	.....
Somerset Coal Co.,	Somerset,	.....	.....	5	440	440	.....	.....	3	6	244	.....	.....	.....	.....	.....
Cambria Coal Mining Co.,	Cambria,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
C. A. Buch,	Cambria,	2	160	.....	.....	160	.....	.....	.....	2	175	1	200	.....	.....	.....
S. Hamilton Coal Co.,	Somerset,	.....	.....	1	80	80	.....	.....	.....	1	80	.....	.....	.....	.....	1
D. Laughman & J. Leahy,	Cambria,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bando Coal Co.,	Somerset,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bethel Coal Co.,	Somerset,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Munser Coal Co.,	Cambria,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
D. Laughman,	Cambria,	1	25	1	25	50	1	.....	.....	2	30	1	210	100	.....	.....
Ferndale Coal Co.,	Cambria,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Whitney, Kemmer & Holts,	Somerset,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Baltzell Coal Co.,	Cambria,	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Lorain Steel Co.,	Cambria,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset Mining Co.,	Somerset,	.....	.....	1	25	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lilly Coal Co.,	Cambria,	.....	.....	1	20	20	.....	.....	.....	1	20	.....	.....	.....	.....	.....
Llewellyn & Yeagly,	Cambria,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Moshannon Coal Co.,	Cambria,	2	225	.....	.....	225	.....	.....	.....	3	115	2	290	200	.....	1
Murdock Brothers,	Somerset,	1	60	.....	.....	60	.....	.....	.....	1	40	1	50	25	.....	.....
Reading Coal and Iron Co.,	Somerset,	.....	.....	3	2[illegible]	375	.....	.....	3	.....	.....	2	700	200	1	2
Penn'a Bituminous Coal Co.,	Cambria,	.....	.....	3	300	300	.....	.....	.....	2	100	2	400	200	.....	.....

TABLE II—Continued.

Names of Operators and Collieries.	County.	Number of Boilers.				Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.	Horse power.		Steam.	Air.	Electric.							
Priscilla Coal Co.,	Cambria,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
J. W. Mentzer,	Cambria,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Plymouth Coal Mining Co.,	Cambria,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Merchants' Coal Co.,	Somerset,	.....	.....	2	600	600	.....	.....	.....	3	440	1	500	350	1	1
Samuel Styer,	Cambria,	1	35	.....	.....	35	.....	.....	.....	1	25	.....	.....	.....	.....	.....
Stineman Coal Mining Co.,	Cambria,	.....	.....	5	545	545	.....	.....	3	3	400	2	1,100	800	2	1
Stineman Coal and Coke Co.,	Cambria,	.....	.....	1	150	150	.....	.....	2	2	200	.....	.....	.....	1	.....
South Fork Coal Co.,	Cambria,	.....	.....	5	600	600	.....	.....	.....	1	200	3	1,200	800	.....	2
Standard Coal Co.,	Cambria,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Robinson & Irwin,	Cambria,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Shamrock Coal Co.,	Somerset,	.....	.....	1	75	75	.....	.....	.....	1	50	.....	.....	.....	.....	1
Sonman Shaft Coal Co.,	Cambria,	.....	.....	3	252	252	.....	.....	2	3	250	3	1,400	300	1	.....
Valley Coal Co.,	Cambria,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wells Creek Coal Co.,	Somerset,	.....	.....	1	75	75	.....	.....	.....	2	45	.....	.....	.....	.....	.....
T. S. Shoemaker & Co.,	Cambria,	1	35	.....	.....	35	.....	.....	.....	1	25	.....	.....	.....	.....	.....
George Pierce & Sons,	Cambria,	1	35	.....	.....	35	.....	.....	.....	1	35	.....	.....	.....	.....	.....
Central Coal Co.,	Cambria,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mountain Coal Co.,	Cambria,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
W. J. Williams,	Cambria,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals,		49	9,355	134	10,017	19,372	.....	4	72	127	15,076	73	25,875	13,315	42	51

TABLE III—Showing the number of each class of employes at each colliery in the Sixth Bituminous District during the year 1902.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
Berwind-White Coal Mining Co.																						
Eureka No. 30,	Somerset,	1	3	.....	.....	39	388	39	.....	6	6	37	519	....	1	3	11	.....	2	43	60	579
Eureka No. 31,	Somerset,	1	3	.....	.....	36	368	36	.....	6	7	32	489	....	1	10	7	.....	1	35	54	543
Eureka No. 32,	Somerset,	1	2	.....	.....	31	313	31	.....	9	6	27	420	....	1	3	9	.....	1	33	47	467
Eureka No. 33,	Somerset,	1	2	.....	.....	23	226	23	.....	5	4	20	304	....	1	2	7	.....	1	24	35	339
Eureka No. 34,	Somerset,	1	3	.....	.....	26	259	26	.....	6	6	49	376	....	1	2	11	.....	1	31	46	422
Eureka No. 35,	Somerset,	1	3	.....	.....	42	414	42	.....	8	7	37	554	....	1	4	13	.....	1	30	49	603
Eureka No. 36,	Somerset,	1	2	.....	.....	27	267	27	.....	6	6	58	394	....	1	2	9	.....	1	29	42	436
Eureka No. 37,	Cambria,	1	2	.....	.....	21	205	21	.....	4	5	41	300	....	1	3	9	.....	1	28	42	342
Eureka No. 38,	Somerset,	1	1	.....	.....	7	79	7	.....	2	2	8	107	....	1	2	10	.....	1	11	25	132
Eureka No. 39,	Somerset,	1	1	.....	.....	3	36	3	.....	1	2	12	59	....	1	2	.....	.....	1	8	12	71
Yellow Run shaft,	Cambria,	1	1	.....	190	.....	.....	.....	24	4	8	4	232	1	....	2	3	.....	1	7	14	246
Totals,		11	23	.....	190	253	2,555	255	24	57	59	325	3,754	1	10	35	89	.....	12	279	426	4,180
Webster Coal Co.																						
Webster No. 1,	Cambria,	1	....	.....	59	.....	.....	.....	10	2	14	1	87	1	....	2	1	.....	1	5	10	97
Webster No. 2,	Cambria,	1	....	.....	.....	8	64	8	9	3	6	3	102	....	....	2	3	.....	.....	10	15	117
Webster No. 3,	Cambria,	1	....	2	152	.....	.....	.....	23	2	42	32	256	1	1	14	13	.....	3	69	101	256
Webster No. 5,	Cambria,	1	....	2	123	.....	.....	.....	22	5	23	5	181									282
Webster No. 6,	Cambria,	1	....	.....	.....	9	40	9	7	2	10	.....	78									78
Webster No. 8,	Cambria,	1	....	.....	.....	9	39	9	1	2	13	.....	74									74
Webster No. 15,	Cambria,	1	....	.....	.....	3	27	3	5	.....	22	.....	61	1	....	2	4	.....	1	16	24	85
Totals,		7	....	4	334	29	170	29	79	16	130	41	839	3	1	20	21	.....	5	100	150	989

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.													Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total Inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
Puritan Coal Co.																							
Puritan No. 1,	Cambria,	1	1	.....	173	.....	.....	.....	20	5	10	10	220	1	....	2	4	.....	2	11	20	240
Puritan Nos. 2 and 3,	Cambria,	1	....	.....	97	.....	.....	.....	8	3	2	3	114	1	....	1	3	.....	2	5	12	126
Totals,		2	1	.....	270	.....	.....	.....	28	8	12	13	334	2	....	3	7	.....	4	16	32	366
Cambria Steel Co.																							
Rolling Mill,	Cambria,	2	1	5	90	18	244	18	50	25	28	40	521	1	1	8	19	.....	2	36	67	588
Conemaugh slope,	Cambria,	1	....	1	82	.....	.....	.....	10	.....	14	9	117	....	....	2	10	.....	1	17	30	147
Franklin slope,	Cambria,	1	....	1	24	4	23	4	11	.....	8	3	79	....	....	2	.....	.....	1	2	5	84
Franklin No. 1,	Cambria,	1	....	.....	104	.....	.....	.....	14	4	10	5	138	....	....	2	4	.....	1	10	17	155
Franklin No. 2,	Cambria,																						
Totals,		5	1	7	300	22	267	22	85	29	60	57	855	1	1	14	33	.....	5	65	119	974
W. H. Piper & Co.																							
Sonman No. 1,	Cambria,	1	....	.....	40	.....	.....	.....	5	2	.....	.....	48	1	....	.....	.....	.....	1	.....	2	50
Sonman No. 2,	Cambria,	1	....	.....	240	.....	.....	.....	15	3	.....	.....	259	1	....	3	4	.....	1	.....	9	268
Sonman No. 5,	Cambria,																						
Sonman No. 4,	Cambria,	1	....	.....	40	.....	.....	.....	3	1	.....	.....	45	....	....	.....	.....	.....	1	.....	1	46
Totals,		3	....	.....	320	.....	.....	.....	23	6	.....	.....	352	2	....	3	4	.....	3	.....	12	364

Coulter & Huff.																						
Conemaugh,	Cambria,	1	....	.....	200	.....	.....	.....	19	.....	6	.....	226	1	1	4	2	.....	1	15	24	250
Argyle,	Cambria,	1	....	.....	30	.....	.....	.....	3	.....	2	.....	36	1	1	1	1	.....	1	.....	5	41
Kokomo,	Cambria,	1	....	.....	20	.....	.....	.....	2	.....	1	.....	24	1	....	.....	.....	.....	.....	.....	1	25
Totals,		3	....	.....	250	.....	.....	.....	24	.....	9	.....	286	3	2	5	3	.....	2	15	30	316
A. J. Haws & Sons, Ltd.																						
Haws' shaft,	Cambria,	1	1	.....	36	.....	.....	.....	4	.....	3	.....	45	....	....	.....	1	.....	.....	6	7	52
Coopersdale,	Cambria,	1	....	.....	12	.....	.....	.....	2	.....	.....	.....	15	....	....	.....	.....	.....	.....	.....	.....	15
Totals,		2	1	.....	48	.....	.....	.....	6	.....	3	.....	60	....	....	.....	1	.....	.....	6	7	67
Loyalhanna Coal and Coke Co.																						
Sonman shaft No. 1,	Cambria,	1	1	.....	136	.....	.....	.....	18	2	13	.....	171	....	1	2	6	.....	1	3	13	184
Loyalhanna No. 3,	Cambria,	1	....	.....	120	.....	.....	.....	10	2	6	2	141	1	1	2	1	.....	1	3	9	150
Totals,		2	1	.....	256	.....	.....	.....	28	4	19	2	312	1	2	4	7	.....	2	6	22	334
Henrietta Coal Co.																						
Henrietta shaft No. 1,	Cambria,	1	....	.....	130	.....	.....	.....	23	5	17	.....	176	1	....	3	4	.....	.....	12	20	196
Henrietta shaft No. 2,	Cambria,	1	....	.....	55	.....	.....	.....	3	1	5	.....	65	....	....	1	4	.....	.....	8	13	78
Totals,		2	....	.....	185	.....	.....	.....	26	6	22	.....	241	1	....	4	8	.....	.....	20	33	274
A. F. Clark & Co.																						
Stony Creek,	Somerset,	1	....	.....	45	.....	.....	.....	5	3	6	.....	60	1	....	1	1	.....	1	3	7	67
Somerset,	Somerset,	1	....	.....	40	.....	.....	.....	4	.....	5	.....	50	1	....	1	.....	.....	1	3	6	56
Totals,		2	....	.....	85	.....	.....	.....	9	3	11	.....	110	2	....	2	1	.....	2	6	13	123
Maderia Coal Co.																						
Maderia No. 1,	Cambria,	1	....	.....	60	.....	.....	.....	6	2	3	.....	72	....	....	1	.....	.....	1	1	3	75
Maderia Nos. 2 and 3,	Cambria,	1	....	.....	20	1	8	1	2	.....	3	.....	36	....	....	.....	.....	.....	.....	3	3	39
Totals,		2	....	.....	80	1	8	1	8	2	6	.....	108	....	....	1	.....	.....	1	4	6	114
Logan Coal Co.																						
Logan,	Cambria,	1	....	.....	108	.....	.....	.....	12	3	12	3	139	1	....	4	4	.....	1	8	18	157
Wagner,	Cambria,	1	....	.....	50	.....	.....	.....	3	1	4	.....	59	1	....	4	1	.....	.....	5	11	70
Totals,		2	....	.....	158	.....	.....	.....	15	4	16	3	198	2	....	8	5	.....	1	13	29	227
Somerset Coal Co.																						
Listie,	Somerset,	1	....	.....	100	4	100	4	15	8	4	6	242	1	....	3	2	.....	1	11	21	263
Stewart,	Somerset,	1	....	.....	5	6	25	6	.....	.....	.....	5	48	1	....	1	4	.....	1	7	11	62
Wilson Creek,	Somerset,	1	....	.....	81	.....	.....	.....	7	1	.....	1	91	1	....	1	1	.....	1	4	8	99
Totals,		3	....	.....	186	10	125	10	22	9	4	12	381	3	....	5	7	.....	3	22	40	424

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.									Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
Cambria Coal Mining Co.																							
Anchor,	Cambria,	1	....	.....	45	.....	.....	.....	5	.....	.....	.....	51	....	....	1	.....	.....	.....	1	2	53
Kloydell,	Cambria,	1	1	.....	69	.....	.....	.....	9	3	2	.....	85	....	....	1	.....	.....	.....	2	3	88
Totals,		2	1	.....	114	.....	.....	.....	14	3	2	.....	136	....	....	2	.....	.....	.....	3	5	141

Recapitulation.

Berwind-White Coal Mining Co.	Cam. & Som.	11	23	.....	190	255	2,555	255	24	57	59	325	3,754	1	10	35	89	.....	12	279	426	4,180
Webster Coal Co.,	Cambria,	7	....	4	334	29	170	29	79	16	130	41	839	3	1	20	21	.....	5	100	150	989
Puritan Coal Co.,	Cambria,	2	1	.....	270	.....	.....	.....	28	8	12	13	334	2	....	3	7	.....	4	16	32	366
Cambria Steel Co.,	Cambria,	5	1	7	890	22	267	22	85	29	60	57	855	1	1	14	33	.....	5	65	119	974
W. H. Piper & Co.,	Cambria,	3	....	.....	320	.....	.....	.....	23	6	.....	.....	352	2	....	3	4	.....	3	.....	12	364
Coulter & Huff,	Cambria,	3	....	.....	250	.....	.....	.....	24	.....	9	.....	286	3	2	5	3	.....	2	15	30	316
A. J. Haws & Sons, Ltd.,	Cambria,	2	1	.....	48	.....	.....	.....	6	.....	3	.....	60	....	....	.....	1	.....	.....	6	7	67
Loyalhanna Coal and Coke Co.,	Cambria,	2	1	.....	256	.....	.....	.....	28	4	19	2	312	1	2	4	7	.....	2	6	22	334
Henrietta Coal Co.,	Cambria,	2	....	.....	185	.....	.....	.....	26	6	22	.....	241	1	....	4	8	.....	.....	20	33	274
A. F. Clark & Co.,	Somerset,	2	....	.....	85	.....	.....	.....	9	3	11	.....	110	2	....	2	1	.....	2	6	13	123
Maderia Coal Co.,	Cambria,	2	....	.....	80	1	8	1	8	2	6	.....	108	....	....	1	.....	.....	1	4	6	114
Logan Coal Co.,	Cambria,	2	....	.....	158	.....	.....	.....	15	4	16	3	198	2	....	8	5	.....	1	13	29	227

Somerset Coal Co.,	Somerset,	1	....	.....	186	10	125	10	22	9	4	12	381	3	....	5	7	.....	3	25	43	424
Cambria Coal Mining Co.,	Cambria,	2	1	.....	114	.....	.....	.....	14	3	3	2	136	...	....	2	.....	.....	.....	3	5	141
C. A. Buch,	Cambria,	1	1	.....	90	.....	.....	.....	10	3	2	.....	107	1	....	1	2	.....	.....	4	9	116
S. Hamilton Coal Co.,	Somerset,	1	....	.....	.....	5	22	5	4	1	2	2	42	1	....	2	2	.....	1	4	10	52
D. Laughman & J. Leahy,	Cambria,	1	....	.....	38	.....	.....	.....	6	1	5	.....	51	1	....	1	.....	.....	1	4	7	58
Bando Coal Co.,	Somerset,	1	....	.....	22	.....	.....	.....	2	1	.....	.....	26	1	....	1	.....	.....	.....	1	3	29
Bethel Coal Co.,	Somerset,	1	....	.....	30	.....	.....	.....	3	.....	.....	.....	34	1	....	.....	.....	.....	1	2	4	38
Munser Coal Co.,	Cambria,	1	....	.....	20	.....	.....	.....	3	.....	1	.....	25	...	....	1	.....	.....	1	1	3	28
D. Laughman,	Cambria,	1	1	.....	50	.....	.....	.....	15	1	4	.....	72	1	....	1	3	.....	1	4	10	82
Ferndale Coal Co.,	Cambria,	1	....	.....	18	.....	.....	.....	2	.....	.....	1	22	1	....	.....	.....	.....	.....	.....	1	23
Whitney, Kemmer & Holts,	Somerset,	1	....	.....	68	.....	.....	.....	6	1	2	2	80	1	....	1	.....	.....	1	2	5	85
Baltzell Coal Co.,	Cambria,	1	1	.....	2	2	30	2	6	3	2	1	50	...	....	1	.....	3	.....	2	6	56
Lorain Steel Co.,	Cambria,	1	....	.....	19	.....	.....	.....	2	.....	.....	.....	22	1	....	.....	.....	.....	.....	2	3	25
Somerset Mining Co.,	Somerset,	1	....	.....	31	.....	.....	.....	2	1	1	.....	36	1	....	1	1	.....	.....	1	4	40
Lilly Coal Co.,	Cambria,	1	....	.....	121	.....	.....	.....	11	3	3	.....	139	...	1	1	1	.....	.....	12	15	154
Llewellyn & Yeagly,	Cambria,	1	....	.....	22	.....	.....	.....	3	.....	.....	3	29	1	1	.....	.....	.....	1	.....	3	32
Moshannon Coal Co.,	Cambria,	1	....	.....	60	.....	.....	.....	4	2	1	3	71	1	....	1	4	.....	2	4	12	83
Murdock Brothers,	Somerset,	1	....	.....	37	.....	.....	.....	3	2	.....	.....	43	1	....	2	2	.....	2	3	10	53
Reading Coal and Iron Co.,	Somerset,	1	....	.....	30	14	45	14	10	.....	8	.....	122	1	....	2	3	.....	2	16	24	146
Penn'a Bituminous Coal Co.,	Cambria,	1	1	.....	98	.....	.....	.....	10	3	.....	12	125	1	1	1	3	.....	1	8	15	140
Priscilla Coal Co.,	Cambria,	1	....	.....	40	.....	.....	.....	5	.....	1	.....	47	1	1	2	.....	.....	1	2	7	54
J. W. Mentzer,	Cambria,	1	1	.....	27	.....	.....	.....	5	2	2	.....	38	1	1	1	.....	.....	1	2	6	44
Plymouth Coal Co.,	Cambria,	1	....	.....	45	.....	.....	.....	4	1	2	.....	53	1	....	2	.....	.....	1	.....	4	57
Merchants' Coal Co.,	Somerset,	1	....	.....	100	8	54	8	10	2	18	.....	201	1	1	4	6	.....	6	6	24	225
Samuel Styer,	Cambria,	1	....	.....	40	.....	.....	.....	4	1	.....	.....	46	1	....	.....	1	.....	1	.....	3	49
Stineman Coal Mining Co.,	Cambria,	1	1	.....	238	.....	.....	.....	23	2	10	.....	275	1	1	5	7	.....	2	14	30	305
Stineman Coal and Coke Co.,	Cambria,	1	1	.....	236	.....	.....	.....	14	6	4	4	266	1	1	2	2	.....	1	13	20	286
South Fork Coal Co.,	Cambria,	1	2	.....	175	.....	.....	.....	15	4	.....	16	233	1	1	1	4	.....	2	11	20	233
Standard Coal Co.,	Cambria,	1	....	.....	55	.....	.....	.....	7	1	1	.....	65	...	....	.....	.....	.....	.....	2	2	67
Robinson & Irwin,	Cambria,	1	....	.....	20	.....	.....	.....	3	.....	2	.....	26	1	....	.....	.....	.....	.....	.....	1	27
Shamrock Coal Co.,	Somerset,	1	....	.....	10	7	15	7	3	1	4	.....	48	1	....	1	1	.....	1	.....	4	52
Sonman Shaft Coal Co.,	Cambria,	1	....	.....	150	.....	.....	.....	13	5	5	3	177	1	....	1	3	.....	1	3	9	186
Valley Coal Co.,	Cambria,	1	....	.....	36	.....	.....	.....	2	.....	2	.....	41	1	....	4	.....	.....	2	5	12	53
Wells Creek Coal Co.,	Somerset,	1	....	.....	65	.....	.....	.....	9	2	3	.....	80	1	....	3	1	.....	1	4	10	90
T. S. Shoemaker & Co.,	Cambria,	1	....	.....	70	.....	.....	.....	6	2	.....	8	87	1	1	1	.....	.....	1	6	10	97
George Pierce & Sons,	Cambria,	1	....	.....	60	.....	.....	.....	5	2	2	.....	70	1	1	1	1	.....	1	5	10	80
Central Coal Co.,	Cambria,	1	....	.....	24	.....	.....	.....	3	.....	2	.....	30	...	....	.....	.....	.....	1	1	2	32
Mountain Coal Co.,	Cambria,	1	....	.....	15	.....	.....	.....	2	.....	.....	3	21	1	....	1	.....	.....	.....	.....	2	23
W. J. Williams,	Cambria,	1	....	.....	12	.....	.....	.....	2	.....	1	.....	16	1	....	.....	.....	.....	1	....	2	18
Totals,		85	37	11	4,950	353	3,291	353	628	200	143	511	10,862	53	27	152	233	3	79	762	1,219	12,111

TABLE III—Continued.

Names of Operators and Collieries.	County.	Number of Days Worked in Each Month.												
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Berwind-White Coal Mining Co.,	Cam. & Som.	24	18.5	22	24	25.5	23.8	24.3	23.6	23.3	23.3	22.3	22	276.6
Webster Coal Co.,	Cambria,....	19.8	13.2	17.6	18.9	19.4	20.7	20.6	20.6	18.1	15.2	24	13.1	221.2
Puritan Coal Co.,	Cambria,....	17.5	21.5	21	21.5	19	21	20.5	21	22	23	18.5	13	226.5
Cambria Steel Co.,	Cambria,....	18	19.3	21.2	25.2	23.5	21.7	23.7	25.3	25.3	27	24.8	25.8	280.8
W. H. Piper & Co.,	Cambria,....	18	21	21.3	17	17.7	18	18.3	18	21.3	18	17.3	17.3	223.2
Coulter & Huff,	Cambria,....	20	17.7	20.3	20.7	23.7	22.7	23.3	23.7	22.7	22	22.3	19	258.1
A. J. Haws & Sons, Ltd.,	Cambria,....	26.5	24	26	26	25.5	24.5	25	25.5	24.5	25.5	24.5	25.5	303
Loyalhanna Coal and Coke Co.,	Cambria,....	17.5	17	22.5	20	19	17.5	16	19.5	20	19.5	17	18.5	224
Henrietta Coal Co.,	Cambria,....	26	24	26	25	26	24	26	26	23	26	24	23	299
A. F. Clark & Co.,	Somerset,....	18	5	12.5	11	15	18	11	12	15	12	13	10	152.5
Maderia Coal Co.,	Cambria,....	14.5	9	12	13.5	12	14	9	11	13	16	13	10	147
Logan Coal Co.,	Cambria,....	21	20	24	21	25	23	22	16	23	27	24.5	22	268.5
Somerset Coal Co.,	Somerset,....	.....	10	17	19	19	21	17	14	18	19	18	18	190
Cambria Coal Mining Co.,	Cambria,....	14.5	11.5	19	20.5	20.5	21.5	22.5	18.5	24.5	22.5	17	20.5	233
C. A. Buch,	Cambria,....	21	14	15	21	20	24	20	20	18	20	15	12	220
S. Hamilton Coal Co.,	Somerset,....	25	18	20	23	24	23	21	22	22	23	23	23	267
D. Laughman & J. Leahy,	Cambria,....	15	14	17	16	17	21	21	18	17	18	14	11	199
Bando Coal Co.,	Somerset,....	22	12	16	19	22	22	18	14	20	20	18	20	223
Bethel Coal Co.,	Somerset,....	20	14	22	18	20	21	23	23	15	24	22	19	241
Munser Coal Co.,	Cambria,....	.....	.....	.....	.....	.....	12	15	18	23	22	12	23	125
D. Laughman	Cambria,....	19	14	15	24	25	20	20	22	23	21	18	20	241
Ferndale Coal Co.,	Cambria,....	23	22	18	21	16	18	21	20	18	19	18	23	240
Whitney, Kemmer & Holts,	Somerset,....	20	21	12	14	13	16	14	15	18	19	19	14	195
Baltzell Coal Co.,	Cambria,....	20	17	13	23	18	20	22	18	23	19	23	18	234
Lorain Steel Co.,	Cambria,....	27	24	26	23	24	23	20	27	23	25	25	25	292
Somerset Mining Co.,	Somerset,....	17	11	12	16	19	19	14	15	20	12	14	14	183
Lilly Coal Co.,	Cambria,....	20	15	13	15	22	24	22	19	20	16	17	17	220
Llewellyn & Yeagly,	Cambria,....	26	22	24	25	26	25	25	26	26	26	25	26	302
Moshannon Coal Co.,	Cambria,....	20	10	13	19	17	18	22	16	20	19	20	17	211
Murdock Brothers,	Somerset,....	18	11	16	19	25	22	20	14	23	23	17	17	225
Reading Coal and Iron Co.,	Somerset,....	22	16	18	21	22	23	24	19	24	21	16	23	249

Penn'a Bituminous Coal Co.,	Cambria,	22	17	19	18	17	18	19	21	20	19	18	17	225
Priscilla Coal Co.,	Cambria,	18	12	18	17	18	20	22	19	21	17	12	13	207
J. W. Mentzer,	Cambria,	24	20	21	22	22	22	23	22	21	19	10	14	240
Plymouth Coal Co.,	Cambria,	...	...	...	...	...	...	4	19	20	18	14	22	97
Merchants' Coal Co.,	Somerset,	...	...	...	...	...	...	...	22	23	20	18	13	96
Samuel Styer,	Cambria,	20	17	13	20	22	17	19	16	17	21	19	16	217
Stineman Coal Mining Co.,	Cambria,	26	21	22	22	24	22	25	25	24	25	22	21	279
Stineman Coal and Coke Co.,	Cambria,	25	20	24	25	26	22	26	21	22	24	24	21	280
South Fork Coal Co.,	Cambria,	22	19	21	20	19	20	21	21	21	21	20	17	242
Standard Coal Co.,	Cambria,	23	12	13	15	23	20	23	21	23	23	16	20	232
Robinson & Irwin,	Cambria,	22	20	24	22	25	26	24	26	24	22	20	25	278
Shamrock Coal Co.,	Somerset,	14	15	18	18	17	20	12	12	8	4	12	13	170
Sonman Shaft Coal Co.,	Cambria,	21	22	23	17	1	10	22	20	17	19	18	23	213
Valley Coal Co.,	Cambria,	...	...	...	...	...	...	20	24	22	22	24	23	135
Wells Creek Coal Co.,	Somerset,	20	18	15	10	20	17	16	12	17	20	17	20	202
T. S. Shoemaker & Co.,	Cambria,	19	11	15	16	21	21	23	20	18	16	17	13	210
George Pierce & Sons,	Cambria,	25	19	15	13	11	23	19	22	23	20	19	17	226
Central Coal Co.,	Cambria,	...	...	...	...	...	...	...	...	24	25	25	25	99
Mountain Coal Co.,	Cambria,	...	...	...	...	...	...	...	...	...	...	...	10	10
W. J. Williams,	Cambria,	24	24	25	22	20	18	16	17	20	23	25	26	260

TABLE IV—List of fatal accidents that occurred in and about the mines of the Sixth Bituminous District for the year ending December 31, 1902.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 8	Mike Pinzelmis, ...	Austrian, ..	Miner, ...	54	M.	1	3	Eureka No. 30, ...	Somerset,....	Killed by electric shock; this man, with other, was drawing heading stumps; there was a piece of bad rock which they were pulling down, and he jumped back out of road of the falling rock and struck the back of his head against the trolley wire, which caused his death.
22	Frank Boras, Sr., ..	Hungarian,	Miner, ...	45	M.	1	7	Sonman No. 1 drift, or Wilmore No. 1.	Cambria,....	Fatally injured by a fall of coal, caused by the neglect of the victim to leave a stump under the coal or sprag it.
Feb. 27	Anton Zack, ...	Polish, ...	Loader, ...	36	M.	1	3	Eureka No. 34, ...	Somerset,....	This man had pushed his car out of the room and it stopped on the switch, and he went around on the wire side to pull out a sprag, when he struck his head against the trolley wire, which killed him.
April 19	Joseph Monday, ...	Polish, ...	Loader, ...	34	S.	...	....	Eureka No. 37, ...	Cambria,....	This man was killed by electric wire while lifting a car on the track with a rail for a lever, which slipped and threw him against the electric wire, causing his death from electric shock.
26	Andra Buzar, ...	Italian, ...	Miner, ...	27	M.	1	3	Alton, ...	Cambria,....	Killed by a fall of rock; he was working in a narrow cross cut, and a faulty piece of top fell on him; it was unavoidable.
June 3	Michel Joke, ...	Slovak, ...	Miner, ...	35	M.	1	3	Sonman shaft No. 1,	Cambria,....	Was killed by a fall of coal; this accident was unavoidable.
11	Peter Metarko, ...	Slovak, ...	Machine cutter,	29	M.	1	3	Eureka No. 33, ...	Somerset,....	Neck broken by fall of coal and rock he was undermining, when a slip in the rock was reached and the rock and coal fell; accident was unavoidable.

	30	John Kepe, ...	Hungarian,	Miner, ...	36	M.	....	....	Conemaugh slope, ..	Cambria,....	Burned to death by an explosion of powder; he took a five-pound can of powder into the mine early in the morning, and to open the keg he struck a hole in it with a pick, which, no doubt, ignited the powder; the can was found and the top, with a pick hole in it.
July	7	Phillip Tumgats, ...	Italian, ...	Miner, ...	33	M.	1	....	Sonman No. 2, ...	Cambria,....	Was killed through violating the mine rules; he started to walk up the plane, and a trip was coming down and the cars jumped the track and caught him, killing him; he was warned by the plane man not to walk up but to take the regular walking road, but would not.
	10	112 killed by gas ex	plosion, ...	.....	....	....	....	....	Rolling Mill, ...	Cambria.	
	11	Barno Morabit, ...	Italian, ...	Miner, ...	28	M.	1	2	Eureka No. 34, ...	Somerset,....	Killed by a fall of draw slate.
	15	John Savitch, ...	Slovak	Rockman, ...	37	M.	1	....	Eureka No. 34, ...	Somerset,....	This man, with others, was blasting some sand rock; he went back to a box to prepare a piece of dynamite and in some unknown manner the piece exploded, which exploded the balance of the dynamite, causing a terrible explosion, blowing him to pieces.
	19	John Banal, ...	Russian, ...	Miner, ...	19	S.	....	....	Eureka No. 30, ...	Somerset,....	Shocked to death by electricity; this man was on the road and the motor came along, and he turned out on the side where the wire was, instead of the other side, and while standing there he struck his head against the wire, which killed him.
	24	Andy Yandura, ...	Polish, ...	Miner, ...	19	S.	....	....	Webster No. 3, ...	Cambria,....	Was killed by a fall of coal; he undertook to undermine the coal between where he had put in two holes without any sprag or stump under the coal; was a gross carelessness on the part of the victim himself.
Aug.	9	George Bresko, ...	Polish, ...	Miner, ...	29	M.	1	1	Eureka No. 35, ...	Cambria,....	Killed by electricity; this man was walking along the road or rail, with his hand on the top; there was a small wire from trolley wire into tool shanty and he took hold of it and it caused his death.
	20	Mike Picklo, ...	Polish, ...	Miner, ...	34	M.	1	....	Sonman shaft No. 2,	Cambria,....	Fatally injured by a fall of draw slate, which should be pulled down after a fall of coal or propped before another cut is made, but unfortunately the victim of this accident did neither, and he was fatally injured by it fall-on him; he died in three days after.
	23	Demicure Kuk, ...	Hungarian,	Loader, ...	26	S.	....	....	Eureka No. 37, ...	Cambria,....	Was killed by a fall of rock; while drilling a hole in his coal, a piece of rock fell out of a pot hole in the roof; it was an unavoidable accident.

TABLE IV—Continued.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
27	Albert Lotsick, ...	Polish, ...	Miner, ...	19	S.	....	....	Sonman shaft No. 1,	Cambria,....	Head badly crushed by a fall of draw slate, which he should have either drawn down or put a prop under it.
Sept. 17	George Kesperiuski,	Hungarian,	Loader, ...	45	M.	1	5	Eureka No. 37, ...	Cambria,....	Head crushed by a fall of rock; this was an unavoidable accident; two slips which came together in the roof and were not visible, caused the rock to fall, killing him instantly.
Oct. 7	Louis Moisish, ...	Hungarian,..	Miner, ...	39	M.	1	1	Eureka No. 34, ...	Somerset,....	Killed by a fall of coal; coal fell off a slip and struck him on the temple; it was a very small lump of coal, but it killed him instantly.
19	Edward Hammel, ..	American, .	Spragger, ...	22	S.	....	....	Eureka No. 32, ...	Somerset,....	Was spragging, and in going in on the motor he leaned back and his head struck a prop, which knocked him off and he was crushed to death.
Dec. 4	Frank Dembrosky, .	Polish, ...	Loader, ...	20	S.	....	....	Eureka No. 31, ...	Somerset,..	Killed by a fall of rock; Tapensky sat down beside Dembrosky, who was loading a car, when, suddenly, several tons of rock fell on the both men, killing them; the place was well propped, but there was a clay vein on one side of the road; was an unavoidable accident.
4	Adam Tapensky, ...	Polish, ...	Scraper, ...	29	S.	....	....	Eureka No. 31, ...	Somerset,..	

TABLE IV—Continued.

List of fatal accidents that occured in Rolling Mill Mine by an explosion of gas, July 10, 1902.

Name of Person.	U. S. citizen.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	County.
Emerick Basista,	No, ..	Slovak, ..	Miner,	26	S.	....	....	Cambria.
Stephen Simko,	No, ..	Magyar, .	Miner,	44	M.	1	5	Cambria.
John Novak,	No, ..	Polish, ...	Miner,	37	S.	....	....	Cambria.
Anton Lazarsky,	No, ..	Polish, ...	Miner,	25	M.	1	1	Cambria.
Paul Lazarsky,	No, ..	Polish, ...	Miner,	29	M.	1	4	Cambria.
Frank Lazarsky,	No, ..	Polish, ...	Miner,	22	S.	....	....	Cambria.
Valentine Piaga,	No, ..	Polish, ...	Pipe man, ...	27	M.	1	3	Cambria.
Michael Sabott,	No, ..	German, ...	Coupler, ...	20	S.	....	....	Cambria.
Rejnaldy Dobrzynieski,	No, ..	Polish, ...	Miner,	34	M.	1	....	Cambria.
Stanis Ziolka,	No, ..	Polish, ...	Miner,	21	S.	....	....	Cambria.
Bolesla Wiscofsky,	No, ..	Polish, ...	Miner,	24	M.	..	1	Cambria.
John Holej,	No, ..	Slovak, ...	Miner,	41	M	1	4	Cambria.
John Karesoviach,	No, ..	Polish, ...	Miner,	40	M	1	6	Cambria.
Michael Shilovinetz, Sr.,	Yes,..	Croatian, ..	Miner,	40	M.	1	...	Cambria.
Michael Shilovinetz, Jr.,	No, ..	Croatian, ..	Miner,	17	S	...	....	Cambria.
John C. Whitney,	Yes,..	Welsh, ...	Fire boss, ...	50	M	1	8	Cambria.
William Blanch,	Yes,..	English, ...	Labor boss, ...	[illegible]	M.	1	1	Cambria.
J. R. Thomas,	Yes,..	Welsh, ...	Fire boss, ...	59	M.	1	....	Cambria.
Joseph Tomlinson,	Yes,..	English, ...	Fire boss, ...	3[illegible]	S	..	...	Cambria.
Jacob Hull,	Yes,..	Polish, ...	Miner, ...	42	M	1	2	Cambria.
Ladis Domrosky,	No, ..	Polish, ...	Miner, ...	[illegible]	S.	..	....	Cambria.
Joseph Yurotovich,	No, ..	Croatian, ..	Miner, ...	2[illegible]	S.	..	...	Cambria.
Andrew Bulischak,	No, ..	Slovak, ...	Cutter, ...	24	M	1	...	Cambria.
Michael Bulischak,	No, ..	Slovak, ...	Scraper, ...	31	M	1	...	Cambria.
Tony Vergosh,	No, ..	Croatian, ..	Miner, ...	2[illegible]	S.	..	..	Cambria.
George Tvarosmny,	No, ..	Slovak, ...	Miner, ...	[illegible]	S.	..	..	Cambria.
Frank Andrzejwski,	No, ..	Polish, ...	Scraper, ...	2[illegible]	M	1	1	Cambria.
John Feher,	No, ..	Magyar, ...	Miner, ...	2[illegible]	M	1	3	Cambria.
John Crook,	Yes,..	American, .	Cutter, ...	3[illegible]	M	1	3	Cambria.
Jacob Crook,	Yes,..	American, .	Cutter, ...	3[illegible]	M	1	3	Cambria.
John Sedlak,	No, ..	Polish, ...	Miner, ...	3[illegible]	M	1	..	Cambria.
Frank Pozniak,	No, ..	Polish, ...	Cutter, ...	24	S	..	..	Cambria.
John Bartok,	No, ..	Slovak, ...	Miner, ...	[illegible]	M	1	4	Cambria.
John Galayda,	No, ..	Slovak, ...	Miner, ...	2[illegible]	S.	..	..	Cambria.
Jacob Blishifsky,	No, ..	Polish, ...	Miner, ...	3[illegible]	S	..	..	Cambria.
Peter Baran,	No, ..	Polish, ...	Scraper, ...	2[illegible]	S	..	..	Cambria.
Anthony Andrzejwski,	No, ..	Polish, ...	Miner, ...	[illegible]	M	1	1	Cambria.
Ladis Kava,	No, ..	Polish, ...	Miner, ...	3[illegible]	M	1	..	Cambria.
Anton Klilian,	No, ..	Polish, ...	Miner, ...	1[illegible]	S.	..	..	Cambria.
John Krajofsky,	No. ..	Polish, ...	Miner, ...	3[illegible]	M	1	2	Cambria.
Phillip McCann,	Yes,..	Irish, ...	Miner, ...	3[illegible]	M	1	1	Cambria.
Michael McCann,	Yes,..	Irish, ...	Miner, ...	[illegible]	M	1	6	Cambria.
George Hologyak,	No, ..	Slovak, ...	Miner, ...	2[illegible]	M	1	..	Cambria.
Joseph Zaba,	No, ..	Polish, ...	Miner, ...	2[illegible]	S	..	..	Cambria.
Andrew Kubenko,	No, ..	Slovak, ...	Miner, ...	2[illegible]	M	1	1	Cambria.
Anton Cyburt,	No, ..	Polish, ...	Miner, ...	[illegible]	M	1	2	Cambria.
Stephen Kocsis,	No, ..	Magyar, ...	Miner, ...	1[illegible]	S	..	..	Cambria.
Jacob Walchik,	No, ..	Polish, ...	Miner, ...	[illegible]	M	1	4	Cambria.
Michael Wilk,	Yes,..	Polish, ...	Miner, ...	2[illegible]	M	1	1	Cambria.
Paul Klatch,	No, ..	Polish, ...	Miner, ...	2[illegible]	S	..	..	Cambria.
Andrew Zaidel,	No, ..	Polish, ...	Miner, ...	2[illegible]	S	..	..	Cambria.
John Lacko,	No, ..	Slovak, ...	Miner, ...	3[illegible]	M	1	4	Cambria.
Michael Prezuhy,	No, ..	Slovak, ...	Miner, ...	3[illegible]	M	1	1	Cambria.
George Prahovitch,	No, ..	Croatian, ..	Miner, ...	[illegible]	M	1	..	Cambria.
Frank Tibursky,	No, ..	Polish, ...	Miner, ...	[illegible]	M	1	2	Cambria.
Andrew Hovaldo,	No, ..	Slovak, ...	Miner, ...	2[illegible]	M	1	..	Cambria.
Branis Tetkofsky,	No, ..	Polish, ...	Miner, ...	4[illegible]	S	..	..	Cambria.
Wm. Lees,	Yes,..	English, ...	Miner, ...	3[illegible]	M	1	4	Cambria.
Daniel Lees,	Yes,..	English, ...	Miner, ...	2[illegible]	S	..	..	Cambria.
John Tyulse,	No, ..	Polish, ...	Miner, ...	2[illegible]	S	..	..	Cambria.
John Colton,	No, ..	Polish, ...	Miner, ...	3[illegible]	M	1	...	Cambria.
Stephen Barna,	No, ..	Polish, ...	Miner, ...	[illegible]	S.	..	...	Cambria.
Peter Ssupak,	No, ..	Polish, ...	Miner, ...	2[illegible]	S	..	..	Cambria.
John Gombasky,	No, ..	Slovak, ...	Miner, ...	3[illegible]	M	1	1	Cambria.
Vincent Chesla,	No, ..	Polish, ...	Miner, ...	23	M	1	1	Cambria.
Peter Warhova,	No, ..	Polish, ...	Miner, ...	2[illegible]	M	1	....	Cambria.
Stephen Imriscak,	No, ..	Slovak, ...	Miner, ...	3[illegible]	M	1	4	Cambria.
Jacob Sirvas,	No, ..	Polish, ...	Scraper, ...	2[illegible]	S	..	..	Cambria.
Woychek Pekla,	No, ..	Polish, ...	Miner, ...	38	M	1	3	Cambria.
George Babela,	No, ..	Slovak, ...	Laborer, ...	..	M	1	3	Cambria.
Martin Vrbjar,	No, ..	Slovak, ...	Laborer, ...	32	M.	1	....	Cambria.

TABLE IV—Continued.

Name of Person.	U. S. citizen.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	County.
Paul Cverna,	No, ..	Slovak, ...	Laborer, ...	....	M.	1	3	Cambria.
Woychek Pzibila,	No, ..	Polish, ...	Miner, ...	....	M.	1	1	Cambria.
Wasily Spontek,	No, ..	Slovak, ...	Miner, ...	....	M.	1	2	Cambria.
John Sandor,	No, ..	Polish, ...	Driver, ...	24	M.	1	1	Cambria.
Gotfried Hepke,	Yes,..	German, ...	Miner, ...	24	M.	1	1	Cambria.
Paul Vrabel,	No, ..	Slovak, ...	Miner, ...	22	S.	....	....	Cambria.
Matthew Woychik,	No, ..	Polish, ...	Miner, ...	38	S.	....	....	Cambria.
Frank Gusik,	No, ..	Polish, ...	Miner, ...	24	M.	1	1	Cambria.
Michael Dricsa,	No, ..	Polish, ...	Miner, ...	....	S.	....	....	Cambria.
Valentine Wenvlosky,	No, ..	Polish, ...	Miner, ...	25	S.	....	....	Cambria.
Parhell Sutula,	No, ..	Polish, ...	Miner, ...	25	M.	1	4	Cambria.
John Struzynski,	No, ..	Polish, ...	Cutter, ...	33	M.	1	5	Cambria.
Frank Bombor,	No, ..	Polish, ...	Miner, ...	22	S.	....	....	Cambria.
Michael Bulosh,	No, ..	Polish, ...	Miner, ...	25	S.	....	....	Cambria.
Lawrence Paznlak,	No, ..	Polish, ...	Laborer, ...	30	S.	....	....	Cambria.
Adam Yakuvosky,	No, ..	Polish, ...	Miner, ...	27	S.	....	....	Cambria.
Yasemby Cebula,	No, ..	Polish, ...	Miner, ...	33	M.	1	1	Cambria.
John Wallawender,	No, ..	Polish, ...	Miner, ...	....	M.	1	....	Cambria.
Joseph Kobak,	No, ..	Polish, ...	Trackman, ...	22	S.	....	....	Cambria.
John Bozak,	No, ..	Polish, ...	Bricklayer, ...	29	M.	1	3	Cambria.
Joseph Ristic,	No, ..	Polish, ...	Laborer, ...	....	S.	....	....	Cambria.
Ludwig Shalonka,	No, ..	Polish, ...	Track man, ...	23	S.	....	....	Cambria.
Andrew Babela,	No, ..	Slovak, ...	Laborer, ...	34	M.	1	3	Cambria.
Victor Bachia,	No, ..	Croatian, ..	Miner, ...	....	S.	....	....	Cambria.
Jacob Maslosfky,	No, ..	Polish, ...	Track man, ...	21	S.	....	....	Cambria.
Joseph Franko,	No, ..	Slovak, ...	Miner, ...	33	M.	1	1	Cambria.
John Ropicky,	No, ..	Slovak, ...	Miner, ...	36	M.	1	3	Cambria
George Petercsak,	No, ..	Magyar, ...	Miner, ...	31	M.	1	1	Cambria.
Michael Evok,	No, ..	Croatian, ..	Miner, ...	23	M.	1	1	Cambria.
Anton Dehlis,	No, ..	Croatian, ..	Miner, ...	21	S.	....	....	Cambria.
Mike Basenats,	No, ..	Croatian, ..	Pipe man, ...	34	S.	....	....	Cambria.
Steve Barestich,	No, ..	Croatian, ..	Miner, ...	27	S.	....	....	Cambria.
Peter Sandor,	No, ..	Polish, ...	Miner, ...	18	S.	....	....	Cambria.
Gustave Lavendrofsky,	Yes,..	German, ...	Miner, ...	39	M.	1	5	Cambria.
William Shanzek,	Yes,..	German, ...	Miner, ...	23	M.	1	2	Cambria.
Michael Jucsko,	No, ..	Slovak, ...	Miner, ...	30	S.	....	....	Cambria.
Andy Moskal,	No, ..	Slovak, ...	Miner, ...	43	M.	1	....	Cambria.
Mike Moskal,	No, ..	Slovak, ...	Miner, ...	16	S.	....	....	Cambria.
Andy Garlogy,	No, ..	Polish, ...	Driver, ...	31	M.	1	....	Cambria.
John Rachia,	No, ..	Croatian, ..	Miner, ...	....	M.	1	1	Cambria.
John Retallack,	Yes,..	English, ...	Fire boss, ...	54	M.	1	7	Cambria.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Sixth Bituminous District for the year ending December 31, 1902.

Date of accident.		Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan.	3	Alfred L. Mansfield, ..	American, ..	Spragger, ...	21	S.	Eureka No. 34, ...	Somerset,....	Injured by a motor.
	7	Richard Madison, ...	American, ..	Switch boy, ...	15	....	Webster No. 3, ...	Cambria,....	Was struck by the hauling rope.
	27	Robert Farren, ...	American, ..	Miner, ...	33	S.	Moshanon No. 2, ...	Cambria,....	Ankle dislocated by a fall of slate.
Feb.	1	Joe Ponchock, ...	Hungarian,	Miner, ...	32	M.	Stuart, ...	Somerset,....	Scalp wound, caused by a blast.
	13	A. L. Hottle, ...	American, ..	Miner, ...	22	S.	Listie, ...	Somerset,....	Foot broken by being caught in the chain of an electric cutter.
	19	John Cook, ...	Scotch, ...	Boss driver, ..	32	M.	Webster No. 1, ...	Cambria,....	Fracture of foot.
March,	7	N. G. Watkins, ...	American, ..	Miner, ...	37	M.	Quemahoning No. 2,	Somerset,....	Injured by a fall of coal.
	8	John Vinsnick, ...	Polish, ...	Loader, ...	22	S.	Eureka No.34, ...	Somerset,....	Leg broken by a lump of coal striking it.
April	2	Alex. Tomelenus, ...	Lithuanian,	Miner, ...	25	S.	Eureka No. 32, ...	Somerset,....	Back badly injured by a fall of rock.
	5	Cassimer Joges, ...	Lithuanian,	Miner, ...	33	S.	Sonman shaft No. 2,	Cambria,....	Three ribs broken.
	12	John Coons, ...	Polish.	Miner, ...	35	S.	Standard, ...	Cambria,....	Shoulder broken, struck by small piece of coal.
	21	Paul Fvorskoskie, ...	Polish.	Loader, ...	23	S.	Eureka No. 34, ...	Somerset,....	Ribs broken by being caught between cars and door frame.
	28	Tony Wisosky, ...	Slavonic, ...	Miner, ...	23	S.	Webster No. 5, ...	Cambria,....	Injured by a fall of rock.
May	10	Grant Berkstresser, ...	American, ..	Asst. foreman,	31	M.	Eureka No. 34, ...	Somerset,....	Injured internally. He was riding on the motor, and jumped off while it was in motion.
	28	Joseph Straub, ...	German, ...	Loader, ...	17	S.	Eureka No. 37, ...	Somerset,....	Fracture of leg, caught between the bumpers of the cars.
June	2	Lewis Mathews, ...	French, ...	Miner, ...	46	M.	Henrietta, ...	Cambria,....	Injured by a fall of slate.
	3	John Bell, ...	English, ...	Driver, ...	23	S.	Argyle, ...	Cambria,....	Injured by being caught between car and the frame of a door.
July	15	Rodger Harvey, ...	American, ..	Rock man, ...	57	M.	Eureka No. 34, ...	Somerset,....	Injured by an explosion of dynamite.
Aug.	6	Lemon Davis, ...	American, ..	Spragger, ...	21	M.	Eureka No. 30, ...	Somerset,....	Injured by being caught by car.
	26	John Nuglock, ...	Polish, ...	Loader, ...	34	S.	Eureka No. 33, ...	Somerset,....	Leg broken by a fall of slate.
Sept.	3	Thomas Smith, ...	Polish, ...	Loader, ...	46	M.	Webster No. 3, ...	Somerset,....	Crushed under a fall of coal.
	4	Joseph Pupp, ...	Hungarian,	Loader, ...	21	S.	Eureka No. 37, ...	Somerset,....	Injured by a fall of rock.
Oct.	4	Mike Frank, ...	....	Miner, ...	49	M.	Eureka No. 34, ...	Somerset,....	Leg broken by a fall of slate.
	8	Joe Lucketts, ...	Slavonic, ...	Miner, ...	38	M.	Loyalhanna No. 3, ..	Cambria,....	Injured by a fall of slate.
	21	Geo. Halatky, ...	Slavonic, ...	Miner, ...	38	M.	Henrietta shaft, ...	Cambria,....	Collar bone broken and injured internally by a fall of coal.

TABLE V.—Continued.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Nov. 28	George Dudz,	Slavonic,	Miner,	27	M.	Dysart,	Cambria,	Injured by a fall of slate and coal.
10	Wm. Hesketh,	English,	Driver,	23	M.	Stineman No. 1,	Cambria,	Injured by being caught between cars.
3	Mike Omerine,	Hungarian,	Miner,	27	M.	Eureka No. 30,	Somerset,	Compound fracture of right leg.
Dec. 22	Stephen Atherton,	English,	Miner,	31	M.	Sonman shaft No. 2,	Cambria,	Injured by a fall of coal.
22	Daniel Gray,	American,	Laborer,	20	S.	Webster No. 5,	Cambria,	Foot crushed, caught between cars.

Seventh Bituminous District.

ALLEGHENY AND WASHINGTON COUNTIES.

Idlewood, Pa., March 23, 1903.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.

Sir: I have the honor of presenting to you my annual report as Inspector of Mines of the Seventh Bituminous Coal District for the year ending December 31st, 1902. I am glad to report that the mines in this district are, with few exceptions, in reasonably good condition, both as regards ventilation and other matters relative to healthfulness and safety. Several new fans were installed during the year, and nearly all of the mines are now equipped with ventilating appliances equal to the requirements, if properly utilized. In part of the district the problem of mine drainage is a difficult one, as a number of the mines are working under very shallow strata, and during the rainy seasons the surface water flows through the strata into the mines in such large volumes as to flood the workings, in some cases necessitating a suspension of operations until the inflow subsides.

The total quantity of coal produced was 9,523,600 tons, which is 1,296,895 tons more than in 1901. The increase in production would have been much larger but for the fact that operations were greatly retarded by the inability of the railroads to transport the product to market.

The report contains a brief description of the condition of the mines by groups, also remarks as to the causes of many of the accidents, together with the usual tables, all of which are respectfully submitted.

Yours respectfully,

JAMES BLICK,
Inspector.

Summary of Statistics for 1902.

Number of mines in district,	84
Number of mines in operation during 1902,	32
Number of tons of coal produced,	9,523,600
Number of tons shipped to market,	9,183,564
Number of tons sold at mines to local trade,	186,471
Number of tons consumed at mines in generating steam and heat,	153,565
Number of tons produced by pick mining,	3,718,734
Number of tons produced by compressed air machines,	2,340,900
Number of tons produced by electrical machines,	3,463,966
Number of persons employed inside the mines,	11,832
Number of persons employed outside, including coke workers,	1,737
Number of fatal accidents inside the mines,	39
Number of tons produced for each fatal accident inside,	244,426
Number of persons employed per fatal accident inside,	303
Number of fatal accidents outside,	1
Number of persons employed per fatal accident outside,	1,737
Number of wives made widows by fatal accidents,	17
Number of children orphaned by fatal accidents,	34
Number of non-fatal accidents inside of mines,	127
Number of persons employed per non-fatal accident inside,	93
Number of non-fatal accident outside,	7
Number of persons employed per non-fatal accident outside,	248
Number of steam locomotives used inside,	4
Number of compressed air locomotives used inside,	1
Number of electric motors used inside,	48
Number of fans used for ventilation,	51
Number of furnaces used for ventilation,	29
Number of gaseous mines in operation during 1902,	41
Number of non-gaseous mines in operation during 1902,	40
Number of new mines opened in 1902,	12
Number of old mines abandoned during 1902,	2

Production of Coal by Counties During the Year 1902.

In the Seventh Bituminous District.	Tons.
Allegheny county,	7,477,675
Washington county,	2,045,925
Total,	9,523,600

A. Production of Coal During the Year 1902.

Names of Companies.	Tons.
Pittsburg Coal Co.,	6,009,082
New York and Cleveland Gas Coal Co.,	745,543
Monongahela River Consolidated Coal and Coke Co.,	450,586
Midland Coal Co.,	402,235
Carnegie Coal Co.,	177,229
Witch Hazel Coal Co.,	105,677
Pittsburg Terminal Railroad and Coal Co.,	6,150
Mansfield Coal and Coke Co.,	435,656
Pittsburg and Buffalo Co.,	357,870
Meadow Lands Coal Co.,	154,310
United Coal Co.,	69,524
John M. Greek,	20,100
Amyville, Youghiogheny Gas Coal Co.,	63,973
Pan Handle Mining Co.,	104,598
National Mining Co.,	7,832
Mankedick Coal Co.,	52,100
E. W. Hanford,	13,503
Verner Coal and Coke Co.,	26,149
Bulger Block Coal Co.,	97,406
Chartiers Coal and Coke Co.,	40,085
P. F. Hormel,	20,039
Thomas Fox Estate,	13,370
Pittsburg and Castle Shannon Railroad Co.,	94,742
W. S. B. Hays,	10,146
Weinman Brothers,	11,988
G. Vogele,	7,127
Patterson & Robbins,	12,590
Kramer & Foultz,	14,000
Total,	9,523,610

B. Showing the number of fatal and non-fatal accidents inside and outside the mines; number of tons of coal produced per fatal and non-fatal accident inside the mines; number of persons employed inside and outside; and the number employed inside and outside for every fatal and non-fatal accident for each company during 1902.

Names of Companies.	Number of lives lost inside.	Number of lives lost outside.	Total number of lives lost.	Number severely injured inside.	Number severely injured outside.	Total number severely injured.	Tons of coal produced per each life lost inside.	Tons of coal produced per serious injury inside.	Number employes inside of mines.	Number employes outside of mines.	Total number employed.	Number of employes inside for each life lost.	Number of employes inside for each severe injury.	Number of employes outside for each life lost.	Number of employes outside for each severe injury.
Pittsburg Coal Co.,	26	.....	26	96	6	102	231,118	62,595	7,170	988	8,158	276	75	.....	165
New York and Cleveland Gas Coal Co.,	4	.....	4	5	.....	5	186,385	149,109	764	101	865	191	153	.....	.....
Monongahela River C. C. and C. Co.,	.....	.....	.....	7	.....	7	.....	64,369	513	87	600	.....	73	.....	.....
Midland Coal Co.,	1	.....	1	7	.....	7	402,235	57,462	645	85	730	645	92	.....	.....
Carnegie Coal Co.,	1	.....	1	2	1	3	177,229	88,614	198	30	228	198	99	.....	30
Witch Hazel Coal Co.,	1	.....	1	1	.....	1	105,677	105,677	145	18	163	145	145	.....	.....
Pittsburg Terminal Railroad and Coal Co.,	.....	1	1	.....	.....	.....	.....	.....	140	92	232	.....	.....	92	.....
Mansfield Coal and Coke Co.,	.....	.....	.....	3	.....	3	.....	145,219	375	39	414	.....	125	.....	.....
Pittsburg and Buffalo Co.,	1	.....	1	.....	.....	.....	357,870	.....	500	51	551	500	.....	.....	.....
Meadow Lands Coal Co.,	1	.....	1	1	.....	1	154,310	154,310	146	11	157	146	146	.....	.....
United Coal Co.,	1	.....	1	2	.....	2	69,524	34,762	90	12	102	90	45	.....	.....
Pan Handle Mining Co.,	1	.....	1	.....	.....	.....	104,598	.....	114	12	126	114	.....	.....	.....
Mankedick Coal Co.,	1	.....	1	.....	.....	.....	52,100	.....	89	7	96	89	.....	.....	.....
Verner Coal and Coke Co.,	.....	.....	.....	1	.....	1	.....	26,149	119	10	129	.....	119	.....	.....
Bulger Block Coal Co.,	1	.....	1	2	.....	2	97,406	48,703	172	12	184	172	86	.....	.....
Totals and averages,	39	1	40	127	7	134	176,223	89,724	745	104	849	104	105	92	28

C. Classification of Fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						
	By Falls of								By Falling into														
	Coal.	Slate.	Roof.	By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	Shafts.	Slopes.	Manways, breasts, etc.	Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
February,	.....	1	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	4
March,	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
April,	.....	2	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
May,	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
June,	1	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	6
July,	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
August,	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
September,	.....	4	1	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	.....	.....	.....	.....	1	1	9
October,	1	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
November,	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	3	.....	.....	.....	.....	.....	.....	3
December,	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	4	.....	.....	.....	.....	.....	.....	4
Totals,	2	24	2	7	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	39	.....	.....	.....	.....	1	1	40

D. Classification of Non-fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
January,	4	6	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	13	.....	.....	.....	.....	.....	.....	13
February,	1	4	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	9	1	.....	.....	.....	1	2	11
March,	.....	5	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	10	1	.....	.....	.....	2	3	13
April,	2	3	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	.....	.....	.....	.....	.....	.....	8
May,	3	7	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12	.....	.....	.....	.....	.....	.....	12
June,	.....	3	.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	.....	.....	.....	.....	.....	.....	9
July,	3	4	.....	2	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	11	.....	.....	.....	.....	.....	.....	11
August,	2	11	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	20	.....	.....	.....	.....	1	1	21
September,	.....	3	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	7	.....	.....	.....	.....	.....	.....	7
October,	3	2	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	7
November,	.....	5	.....	3	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11	.....	.....	.....	.....	.....	.....	11
December,	1	7	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11	.....	.....	.....	.....	.....	.....	11
Totals,	18	60	1	37	3	.....	.....	3	.....	.....	.....	.....	1	.....	5	128	2	.....	.....	.....	4	6	134

E. Occupations of Employes Killed or Fatally Injured Inside and Outside the Mines of the Seventh Bituminous District During 1902.

Months.	Inside.												Outside.								Grand total.
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total Inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
February,	.....	.....	.....	1	.....	2	.....	1	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	4
March,	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
April,	.....	.....	.....	.....	1	2	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	3
May,	.....	.....	.....	2	1	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	3
June,	.....	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	.....	.....	6
July,	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	2
August,	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	2
September,	.....	.....	.....	2	.....	5	.....	1	.....	.....	.....	8	.....	.....	.....	.....	.....	.....	1	1	9
October,	.....	.....	.....	.....	.....	2	.....	.....	.....	1	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	3
November,	.....	.....	.....	.....	1	1	1	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	3
December,	.....	.....	.....	1	.....	2	1	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	4
Totals,	.....	.....	.....	6	3	24	2	2	.....	2	.....	39	.....	.....	.....	.....	.....	.....	1	1	40

F. Occupations of Employes Severely Injured Inside and Outside the Mines of the Seventh Bituminous District During 1902.

Months.	Inside.												Outside.								Grand total.
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total Inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
January,	.....	.....	.....	3	1	6	1	1	.....	.....	.....	12	.....	.....	.....	.....	.....	.....	1	1	13
February,	.....	.....	.....	2	.....	5	.....	2	.....	.....	.....	9	.....	.....	.....	.....	.....	.....	2	2	11
March,	.....	.....	.....	5	1	1	.....	2	.....	1	.....	10	.....	.....	1	.....	.....	.....	2	3	13
April,	.....	.....	.....	1	1	3	.....	3	.....	.....	.....	8	.....	.....	.....	.....	.....	.....	.....	.....	8
May,	.....	.....	.....	6	1	1	1	3	.....	.....	.....	12	.....	.....	.....	.....	.....	.....	.....	.....	12
June,	.....	.....	.....	.....	.....	4	.....	4	1	.....	.....	9	.....	.....	.....	.....	.....	.....	.....	.....	9
July,	.....	.....	.....	.....	3	5	1	2	.....	.....	.....	11	.....	.....	.....	.....	.....	.....	.....	.....	11
August,	.....	.....	.....	6	1	9	1	3	.....	.....	.....	20	.....	.....	.....	.....	.....	.....	1	1	21
September,	.....	.....	.....	1	.....	4	1	1	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	.....	.....	7
October,	.....	.....	.....	3	2	1	.....	1	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	.....	.....	7
November,	.....	.....	.....	1	.....	7	.....	3	.....	.....	.....	11	.....	.....	.....	.....	.....	.....	.....	.....	11
December,	.....	.....	.....	1	1	5	1	2	.....	1	.....	11	.....	.....	.....	.....	.....	.....	.....	.....	11
Totals,	.....	.....	.....	29	11	51	6	27	1	2	.....	127	.....	.....	1	.....	.....	.....	6	7	134

G. Nationality of Employes Killed or Fatally Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Scotch.	Irish.	Germans.	Poles.	Hungarians.	Italians.	Slavs.	Austrians.	Russians.	Belgians.	Total.
February,	.....	1	.....	.....	1	.....	1	.....	.....	.....	1	.....	1
March,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1
April,	.....	.....	.....	.....	.....	1	.....	.....	.....	2	.....	.....	3
May,	.....	1	.....	.....	1	.....	.....	1	.....	.....	.....	.....	3
June,	.....	.....	.....	1	.....	.....	2	.....	2	.....	1	.....	6
July,	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	2
August,	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	2
September,	1	.....	.....	.....	.....	1	2	2	.....	2	.....	1	9
October,	.....	.....	.....	.....	.....	.....	1	.....	1	1	.....	.....	3
November,	1	.....	.....	.....	.....	1	.....	.....	.....	.....	1	.....	3
December,	.....	.....	1	.....	.....	1	.....	.....	.....	1	1	.....	4
Totals,	2	2	1	1	2	4	7	6	3	6	5	1	40

H. Nationality of Employes Severely Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Welsh.	Scotch.	Irish.	Germans.	Poles.	Hungarians.	Italians.	Slavs.	Lithuanians.	Austrians.	Russians.	Swedes.	French.	Tyroleans.	Belgians.	Danes.	Total.
January,	2	....	....	....	2	....	1	2	1	....	....	....	1	....	....	....	2	2	13
February,	3	1	1	....	....	1	....	....	2	1	2	....	....	....	....	....	....	....	11
March,	2	1	....	....	....	2	1	....	2	....	....	1	....	1	....	....	3	....	13
April,	3	....	....	....	....	....	1	....	1	1	1	....	....	....	1	....	....	....	8
May,	6	1	....	....	....	1	1	....	1	....	....	....	....	....	1	....	1	....	12
June,	4	....	....	1	....	....	1	1	1	1	....	....	....	....	....	....	....	....	9
July,	1	....	....	....	....	2	5	....	1	1	....	....	....	....	....	....	1	....	11
August,	6	....	....	1	....	2	4	4	3	....	....	1	....	....	....	....	....	....	21
September,	2	....	....	....	....	1	3	....	1	....	....	....	....	....	....	....	....	....	7
October,	2	1	....	....	....	....	1	....	1	....	....	2	....	....	....	....	....	....	7
November,	1	....	....	....	2	....	3	....	....	1	....	....	1	....	3	....	....	....	11
December,	3	1	....	....	....	....	2	....	1	....	....	1	....	....	....	1	2	....	11
Totals,	35	5	1	2	4	9	23	7	15	5	3	5	2	1	5	1	9	2	134

I. Giving names of operators and mines, kind of openings, type and size of fans; size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each employe per minute in Seventh Bituminous District for the year 1902.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Pittsburg Coal Co.														
Moon Run,	Drift,..	Non-gas.	Fan and furnace.	8 x 7 13 x 6	1.7 .7	Capell, ... Brazil, ...	Steam, ..	30	8	182,000	103,200	182,000	471	386
First Pool No. 1,	Drift,..	Gaseous,	Fan,	24 x 7.5	.7	Vulcan, ...	Steam, ..	.....	5	.....	92,000	121,000	265	456
First Pool No. 2,	Shaft,..	Gaseous,	Fan,	13.5 x 7	.8	Capell, ...	Steam, ..	.....	4	.....	47,500	63,000	215	290
Jumbo,	Drift,..	Gaseous,	Fan,	10 x 4.4	1.6	Capell, ...	Steam, ..	.....	4	.....	40,000	75,000	181	414
Brier Hill,	Drift,..	Gaseous,	Fan,	20 x 6	1	Vulcan, ...	Steam, ..	.....	4	51,000	30,900	.....	212	241
Laurel Hill No. 1,	Drift,..	Gaseous,	Fan,	20 x 6	1.2	Vulcan, ...	Steam, ..	.....	5	.....	50,040	78,600	225	349
Shaw No. 1,	Drift,..	Non-gas.	Fan,	20 x 6	.6	Vulcan, ...	Steam, ..	.....	3	.....	21,500	30,000	154	195
Nickel Plate,	Drift,..	Non-gas.	Furnace,	.....	.....	.....	.....	48	3	.....	26,000	44,000	164	268
Laurel Hill No. 2,	Shaft,..	Gaseous,	Fan,	20 x 6	.7	Vulcan, ...	Steam, ..	.....	3	.....	30,600	52,000	106	490
Champion,	Drift,..	Non-gas.	Fan,	11 x 4.4	2.5	Capell, ...	Steam, ..	.....	5	.....	36,000	99,000	218	454
Oak Ridge,	Drift,..	Non-gas.	Fan,	12 x 4	.3	Brazil, ...	Steam, ..	.....	1	.....	12,000	21,000	75	280
National,	Drift,..	Gaseous,	Furnace,	.....	.....	.....	.....	56	3	.....	21,700	37,000	69	536
Cherry,	Drift,..	Non-gas.	Furnace,	.....	.....	.....	.....	64	2	.....	15,000	31,000	86	360
Boyd,	Drift,..	Gaseous,	Furnace,	.....	.....	.....	.....	48	1	.....	16,500	32,000	135	237
Fort Pitt,	Drift,..	Non-gas.	Furnace,	.....	.....	.....	.....	72	2	.....	17,500	29,000	146	198
Grant,	Drift,..	Non-gas.	Furnace,	.....	.....	.....	.....	25	2	.....	13,000	22,400	121	185
Idlewood,*	Drift,..	Gaseous,		.....	.....	.....	.....	.....	.....	.....	.....	.....	13	.....
Nixon,	Drift,..	Gaseous,	Fan,	16 x 6	.....	Capell, ...	Steam,	.....	3	38,000	30,700	38,000	207	183
Leasdale,	Drift,..	Gaseous,						.....	3	.....	29,700	42,000	105	400
Summer Hill,	Drift,..	Gaseous,						.....	3	67,000	35,600	.....	182	368
Bower Hill,	Drift,..	Gaseous,	Furnace,	.....	.....	.....	.....	44	2	.....	21,300	33,600	124	319
Bridgeville,	Drift,..	Gaseous,	Fan,	16 x 5	1.3	Vulcan, ...	.....	.....	5	.....	45,100	94,000	208	452
Boon,	Drift,..	Gaseous,	Fan,	12 x 4.5	.....	Brazil, ...	Steam, ..	.....	3	.....	31,800	41,000	85	517
Allison,	Drift,..	Non-gas.	Furnace,	.....	.....	.....	.....	40	2	.....	16,500	21,000	168	125
Morgan,	Slope,..	Gaseous,	Fan,	12 x 5	.7	Pollock, ...	Steam, ..	.....	2	.....	27,000	45,400	157	289
Vulcan,	Slope,..	Gaseous,	Fan,	13.5 x 5.5	.7	Capell, ...	Steam, ..	.....	5	.....	53,000	96,000	218	440

*Under construction.

Laurel Hill No. 5,	Shaft,	Gaseous,	Fan,	16 x 5	.6	Vulcan,	Steam,		3		35,000	62,000	198	313
Creedmoore,	Shaft,	Gaseous,	Fan,	16 x 8	.6	Wilson,	Steam,		5		56,900	81,000	183	442
Ridgeway,	Slope,	Gaseous,	Fan,	18 x 9	.7	Wilson,	Steam,		4	71,000	49,300		185	372
Pan Handle,	Drift,	Gaseous,	Fan,	14.5 x 4.5	.9	Brazil,	Steam,		3	70,000	34,800		142	492
Essen No. 1,	Drift,	Gaseous,	Fan,	20 x 6	1.4	Robinson,	Steam,		3		26,300	67,000	155	432
Harrison,	Slope,	Gaseous,	Fan,	25 x 7.5	1.2	Vulcan,	Steam,		3	70,000	53,250		158	443
Lake Superior,	Slope,	Gaseous,	Fan,	8 x 3.5	.8	Capell,	Steam,		4		32,500	56,000	158	354
O. I. C.,	Drift,	Non-gas.	Fan,	12 x 5	.4	Pollock,	Steam,		2		25,000	37,000	94	393
Essen No. 2,	Slope,	Gaseous,	Fan,	18 x 4.9	.75	Robinson,	Steam,		3		36,300	47,000	201	233
Essen No. 3,	Slope,	Gaseous,	Fan,	10 x 6	1.75	Capell,	Steam,		4		38,600	79,000	182	617
Federal No. 2,	Drift,	Non-gas.	2 furnaces,					112	2		20,000	35,000	81	432
Dickson,	Drift,	Non-gas.	Fan,	10 x 4.4	1.4	Capell,	Steam,		3		42,700	76,000	169	449
Margerum,	Drift,	Non-gas.	2 Clark fans,	6 / 6		Clark,	Electric,		3		33,800	68,000	203	234
Partridge,	Drift,	Non-gas.	Fan,	18 x 6	1	Brazil,	Steam,		2		27,000	41,500	208	199
Hartley and Marshell,	Drift,	Gaseous,	Fan,	25 x 7.5	1.2	Vulcan,	Steam,		5		45,500	82,000	220	372
Fair Haven,	Drift,	Gaseous,	Furnace,					48	3		37,000	40,000	191	209
Lick Run,	Slope,	Gaseous,	Fan,	25 x 7.5		Vulcan,	Steam,		1		30,000	71,000	132	537
New York and Cleveland Gas Coal Co.														
Oak Hill No. 3,	Drift,	Non-gas.	Furnace,					40	2		21,000	30,000	102	294
Oak Hill No. 4,	Drift,	Non-gas.	Furnace,					48	4		26,800	35,000	157	223
Oak Hill No. 5,	Drift,	Non-gas.	Furnace,					48	6		73,400	90,000	315	286
Duquesne,	Drift,	Non-gas.	Furnace,					83	3		21,000	37,500	190	197
Monongahela River C. C. & C. Co.														
Beck's Run,	Drift,	Non-gas.	3 furnaces,					112	3		39,600	65,000	189	344
Walton,	Drift,	Gaseous,	Fan,	12 x 4		Pollock,	Steam,		2		19,000	52,000	122	426
Six Mile Ferry,	Drift,	Non-gas.	Furnace,					112	3		42,500	52,000	202	275
Midland Coal Co.														
Midland No. 1,	Drift,	Non-gas.	Fan,	11 x 4.4	.7	Capell,	Steam,		5		60,000	73,000	310	235
Midland No. 2,	Drift,	Non-gas.	Fan,*		.6	Capell,	Steam,						170	
Midland No. 3,	Drift,	Non-gas.	Fan,	11 x 4.4	.6	Capell,	Steam,		2		31,000	38,000	165	230
Carnegie Coal Co.														
Carnegie,	Drift,	Non-gas.	Fan,	9 x 6		Capell,	Steam,		2		27,800	67,000	175	383
Primrose,*	Drift,	Non-gas.											23	
Witch Hazel Coal Co.														
Readling,	Slope,	Gaseous,	Fan,	12 x 4.8	.4	Brazil,	Steam,		2	45,000	22,500	45,000	133	338
Florence,*	Slope,												12	
Mansfield Coal and Coke Co.														
Mansfield No. 2,	Drift,	Gaseous,	2 fans,	5 x 3 / 18 x 9	1.2 / 1.1	Capell, / Wilson,	Electric, / Steam,		5		67,500	117,000	375	312
Pittsburg and Buffalo Co.														
Hazel,	Slope,	Gaseous,	Fan,	13.5 x 5		Capell,	Steam,		6		84,600	117,400	500	234
Meadow Lands Coal Co.														
Meadow Lands,	Slope,	Non-gas.	Fan,	16 x 4.5		Brazil,	Steam,		3		32,000	42,000	146	288

*Under construction.

TABLE I—Continued.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
United Coal Co. Rich Hill,	Slope,..	Non-gas.	Furnace,.....	.....	.....	.....	.....	20	1	.....	10,000	14,000	90	155
John M. Greek. Sallie,	Slope,..	Non-gas.	Furnace,.....	.....	.....	.....	.....	16	....	.....	.....	.....	43	.....
Amyville-Youghlogheny Gas Coal Co. Katie,	Slope,..	Non-gas.	Fan,.....	12 x 4.5	.....	Brazil, ...	Steam, ..	.....	1	.....	27,000	45,000	77	584
Pan Handle Mining Co. Blyth,	Slope,..	Gaseous,	Fan,.....	16 x 4.2	.....	Brazil, ...	Steam, ..	.....	2	37,000	28,200	37,800	114	331
National Mining Co. National No. 1,	Slope,..	Gaseous,	Fan,.....	16 x 6	.....	Capell, ...	Steam, ..	.....	1	.....	16,800	23,000	73	315
Mankedick Coal Co. Pine Ridge,	Drift,..	Non-gas.	Furnace,.....	.....	.....	.....	.....	36	2	.....	13,600	19,400	89	218
E. W. Hanford. Chalfant,	Drift,..	Non-gas.	Fan,.....	12 x 4.5	.....	Capell, ...	Steam, ..	.....	1	.....	7,000	7,000	89	78
Verner Coal and Coke Co. Verner,	Slope,..	Gaseous,	Fan,.....	10 x 4.4	.....	Capell, ...	Steam, ..	.....	2	.....	24,000	30,000	119	252
Bulger Block Coal Co. Bulger,	Shaft,..	Gaseous,	Fan,.....	10 x 4.4	.....	Capell, ...	Steam, ..	.....	3	.....	37,300	40,000	172	232
Chartiers Coal and Coke Co. Chartiers,	Drift,..	Non-gas.	Fan,.....	12 x 3.5	.6	Brazil, ...	Steam, ..	.....	1	.....	28,000	28,000	59	474

P. F. Hormel.														
Beachmount,	Drift,..	Non-gas.	Furnace,.....	.....	.....	.....	.....	12	1	.....	4,000	6,000	28	214
Thomas Fox Estate.														
Fox, ...	Drift,..	Non-gas.	Fan,.....	10 x 4	.3	Irwin, ...	Steam, ..	.....	1	.....	7,000	12,000	22	545
Pittsburg and Castle Shannon Railroad Co.														
Castle Shannon, ...	Drift,..	Non-gas.	Furnace,.....	.....	.....	.....	.....	42	2	.....	16,000	30,000	128	234
W. S. B. Hays.														
Calhoon, ...	Drift,..	Non-gas.	Furnace,.....	.....	.....	.....	.....	24	1	.....	5,000	5,000	9	555
Weinman Brothers.														
Weinman, ...	Drift,..	Non-gas.	Furnace,.....	.....	.....	.....	.....	24	1	.....	4,000	4,000	23	174
G. Vogele.														
Ocean, ...	Drift,..	Non-gas.	Furnace,.....	.....	.....	.....	.....	16	1	.....	5,000	5,000	12	416
Patterson & Robbins.														
Reilly, ...	Drift,..	Non-gas.	Fan,.....	6	.....	Clark, ...	Steam, ..	.....	1	40,000	40,000	40,000	70	571
Kramer & Foultz.														
Bellwood, ...	Drift,..	Non-gas.	Furnace,.....	.....	.....	.....	.....	48	1	10,000	10,000	10,000	19	526
Pittsburg Terminal Railroad and Coal Co.														
Pittsburg Terminal No. 1,* ...	Slope,..	Gaseous,	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....
Pittsburg Terminal No. 2, ...	Shaft,..	Gaseous,	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....
Pittsburg Terminal No. 3, ...	Shaft,..	Gaseous,	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....
Pittsburg Terminal No. 6, ...	Shaft,..	Gaseous,	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....

*Under construction.

J. Names of mines using coal cutting machines, names of machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines during 1902.

	Kind of opening.	Gaseous or non-gaseous.	Name and Number of Machines in Use.						Total machines used.	Power used by machines.	Geological and local name of seam.	Average thickness in inches.	Approximate number of tons produced by machines.
			Ingersoll.	Sullivan.	Harrison.	Jeffrey.	Morgan-Gardner.	Link Belt.					
Moon Run,	Drift,	Non-gas.	.....	17	.....	.....	7	.....	24	Air and electricity,	Pittsburg seam,	64	357,267
First Pool No. 1,	Drift,	Gaseous,	6	12	5	.....	.....	.....	23	Air,	Pittsburg seam,	64	395,418
First Pool No. 2,	Shaft,	Gaseous,	1	16	1	.....	.....	.....	18	Air,	Pittsburg seam,	64	
Jumbo,	Drift,	Gaseous,	2	12	14	.....	.....	.....	28	Air,	Pittsburg seam,	64	141,641
Brier Hill,	Drift,	Gaseous,	.....	12	4	.....	.....	.....	16	Air,	Pittsburg seam,	64	94,060
Laurel Hill No. 1,	Drift,	Gaseous,	.....	.....	.....	.....	11	.....	11	Electricity,	Pittsburg seam,	64	173,535
Shaw No. 1,	Drift,	Non-gas.	.....	.....	10	.....	.....	.....	10	Air,	Pittsburg seam,	64	17,394
Nickel Plate,	Drift,	Non-gas.	.....	.....	16	.....	.....	.....	16	Air,	Pittsburg seam,	64	54,015
Laurel Hill No. 2,	Shaft,	Gaseous,	.....	.....	15	.....	.....	.....	15	Air,	Pittsburg seam,	64	21,900
Champion,	Drift,	Non-gas.	.....	3	18	.....	.....	.....	21	Air,	Pittsburg seam,	64	123,894
Oak Ridge,	Drift,	Non-gas.	1	4	.....	.....	.....	.....	5	Air,	Pittsburg seam,	64	40,931
National,	Drift,	Gaseous,	.....	.....	.....	.....	3	.....	3	Electricity,	Pittsburg seam,	64	51,794
Cherry,	Drift,	Non-gas.	.....	.....	.....	.....	4	.....	4	Electricity,	Pittsburg seam,	64	72,922
Boyd,	Drift,	Gaseous,	.....	.....	.....	.....	4	.....	4	Electricity,	Pittsburg seam,	64	52,581
Fort Pitt,	Drift,	Non-gas.	.....	.....	.....	4	.....	.....	4	Electricity,	Pittsburg seam,	64	70,504
Grant,	Drift,	Non-gas.	.....	.....	.....	.....	3	.....	3	Electricity,	Pittsburg seam,	64	88,243
Nixon,	Drift,	Gaseous,	.....	.....	.....	6	.....	.....	6	Electricity,	Pittsburg seam,	64	149,101
Leasdale,	Drift,	Gaseous,	.....	.....	.....	3	.....	.....	3	Electricity,	Pittsburg seam,	64	75,359
Summer Hill,	Drift,	Gaseous,	.....	.....	.....	7	.....	.....	7	Electricity,	Pittsburg seam,	64	77,957
Bower Hill,	Drift,	Gaseous,	.....	.....	.....	8	.....	.....	8	Electricity,	Pittsburg seam,	64	90,801
Bridgeville,	Drift,	Gaseous,	.....	.....	.....	5	.....	.....	5	Electricity,	Pittsburg seam,	64	167,701
Boon,	Drift,	Gaseous,	.....	.....	.....	5	.....	.....	5	Electricity,	Pittsburg seam,	64	60,616
Allison,	Drift,	Non-gas.	.....	.....	10	.....	.....	.....	10	Air,	Pittsburg seam,	64	1,756
Morgan,	Slope,	Gaseous,	.....	.....	.....	4	3	.....	7	Electricity,	Pittsburg seam,	64	89,216
Vulcan,	Slope,	Gaseous,	.....	.....	.....	6	.....	6	12	Electricity,	Pittsburg seam,	64	116,510
Laurel Hill No. 5,	Shaft,	Gaseous,	6	.....	.....	.....	6	.....	12	Air and electricity,	Pittsburg seam,	64	120,100
Creedmoore,	Shaft,	Gaseous,	.....	1	17	.....	.....	.....	18	Air,	Pittsburg seam,	64	77,375
Ridgeway,	Slope,	Gaseous,	11	1	9	.....	.....	.....	21	Air,	Pittsburg seam,	64	67,157
Pan Handle,	Drift,	Gaseous,	8	1	.....	.....	.....	.....	9	Air,	Pittsburg seam,	64	77,146
Essen No. 1,	Drift,	Gaseous,	.....	.....	.....	3	.....	.....	3	Electricity,	Pittsburg seam,	64	78,009

Harrison,	Slope,	Gaseous,	5	6	6	1			18	Air and electricity,	Pittsburg seam,	64	113,424
Lake Superior,	Slope,	Gaseous,				6			6	Electricity,	Pittsburg seam,	64	107,417
O. I. C.,	Drift,	Non-gas.						4	4	Electricity,	Pittsburg seam,	64	66,139
Essen No. 2,	Slope,	Gaseous,					1	8	9	Electricity,	Pittsburg seam,	64	125,462
Essen No. 3,	Slope,	Gaseous,						8	8	Electricity,	Pittsburg seam,	64	97,601
Federal No. 2,	Drift,	Non-gas.					5		5	Electricity,	Pittsburg seam,	64	35,137
Dickson,	Drift,	Non-gas.	7	8					15	Air,	Pittsburg seam,	64	104,565
Margerum,	Drift,	Non-gas.				4			4	Electricity,	Pittsburg seam,	64	89,600
Partridge,	Drift,	Non-gas.				8			8	Electricity,	Pittsburg seam,	64	134,547
Hartley and Marshall,	Drift,	Gaseous,		10					10	Air,	Pittsburg seam,	64	95,156
Fair Haven,	Drift,	Gaseous,					5		5	Electricity,	Pittsburg seam,	64	130,740
Lick Run,	Slope,	Gaseous,		6					6	Air,	Pittsburg seam,	64	59,225
Beck's Run,	Drift,	Gaseous,					6		6	Electricity,	Pittsburg seam,	64	122,112
Six Mile Ferry,	Drift,	Non-gas.					6		6	Electricity,	Pittsburg seam,	64	43,323
Midland No. 1,	Drift,	Non-gas.		20					20	Air,	Pittsburg seam,	64	216,268
Midland No. 2,	Drift,	Non-gas.			32				32	Air,	Pittsburg seam,	64	52,212
Midland No. 3,	Drift,	Non-gas.	1						1	Air,	Pittsburg seam,	64	74,465
Mansfield No. 2,	Drift,	Gaseous,					10		10	Electricity,	Pittsburg seam,	64	231,087
Hazel,	Slope,	Gaseous,				18	1		19	Electricity,	Pittsburg seam,	64	315,000
Meadow Lands,	Slope,	Non-gas.	9						9	Air,	Pittsburg seam,	64	78,335
Rich Hill,	Slope,	Non-gas.	8						8	Air,	Pittsburg seam,	64	47,882
Katie,	Slope,	Non-gas.				5			5	Electricity,	Pittsburg seam,	64	50,000
Blyth,	Slope,	Gaseous,				2	3		5	Electricity,	Pittsburg seam,	64	57,490
National No. 1,	Slope,	Gaseous,				6			6	Electricity,	Pittsburg seam,	64	3,900
Carnegie,	Drift,	Non-gas.					7		7	Electricity,	Pittsburg seam,	64	135,000
Chalfant,	Drift,	Non-gas.			1				1	Air,	Pittsburg seam,	64	45
Verner,	Slope,	Gaseous,	7	2	1				10	Air,	Pittsburg seam,	64	17,433
Bulger,	Shaft,	Gaseous,				6			6	Electricity,	Pittsburg seam,	64	71,471
Chartiers,	Drift,	Non-gas.						3	3	Electricity,	Pittsburg seam,	64	20,000
Beadling,	Shaft,	Gaseous,	8	1					9	Air,	Pittsburg seam,	64	83,337
Reilly,	Drift,	Non-gas.				6			6	Electricity,	Pittsburg seam,	64	11,590
Totals,			80	132	159	113	85	29	598				5,804,866

Remarks on Accidents.

The number of fatal accidents was forty, an increase of five over that of 1901. The number of non-fatal injuries was 134, an increase of sixty-one over the previous year, but I have reason to believe that many of the non-fatal injuries were very slight, and probably should not have been included in this report. There are several reasons why the accidents are more numerous than they were a number of years past. Nearly all of the mines are now equipped with mining machines, the introduction of which (especially that of the electric type), has undoubtedly increased the dangers of mining, and more particularly so in this and adjoining districts where the stratum of slate immediately above the coal is of such a treacherous nature. Also a majority of the persons directly employed in mining the coal were not skilled miners, consequently they are not familiar with the dangers attending the mining of coal or the use of the necessary precautions for self protection.

While it is true that most of the accidents could have been prevented if the victims themselves had used proper precautions, still it would be hardly proper to say that they were all due to carelessness, for sometimes an investigation of the cause of accidents leads to the conclusion that the victims' knowledge of coal mining with its attendant dangers was such that they did not realize the fact that they were working in danger, whereas a skilful miner, trained to his calling, could have detected the danger and have used the proper safeguards for protection. The mines cannot be closed against this class of labor referred to, for they have to be depended very largely upon for the coal production, and the only way that I can see by which accidents can be prevented under such circumstances, is by determined vigilance on the part of the mine officials. There was no single accident that caused more than one death at the same time during the year.

The approximate production of machine mined coal was 5,804,866 tons and the number of machine miners killed or fatally injured while actually engaged in the mining of coal in the working places, was 25; a production of 232,194 tons per each life lost. The approximate production of pick mined coal was 3,718,734 tons, and the number of pick miners killed or fatally injured while actually engaged in the mining of coal in the working places was 6, a production of 619,789 tons per each life lost. There were 60 machine miners non-fatally injured while directly engaged in the mining of coal, or a production of 96,748 tons per each person injured. By pick mining there were 24 non-fatal injuries and the production of pick mined coal was 154,947 tons per each person injured while directly engaged in the mining of coal.

This shows that the deaths and non-fatal injuries by machine mining during the year were far in excess of those of pick mining, notwithstanding the fact that in mines where machines are used, most of the pick mined coal is produced from pillar workings and other places where the roof conditions are too dangerous to admit of the use of machines, but it may be stated that the best and most careful men are usually employed as pick miners.

General Condition of Mines by Groups.

Operations on the Monongahela River, on the Wheeling Division of the Baltimore and Ohio Railroad, and on the West End Railroad:

There are thirteen mines in this division of the district, all of which were in operation. The Streets Run mine was worked out and abandoned during the early part of the year, and the Bellwood mine in the near future will not employ the required number of persons to come under the provisions of the law. The Reilly mine is a new operation, located on the B. & O R. R., near Willock Station, which began to ship coal during the month of November. The mine is equipped with electric mining machinery of the Jeffrey type. The ventilation is produced by a Clark fan. The inside workings are being rapidly developed, and the operators will be in a position to obtain a fairly large output during the coming year. I may state that the sanitary condition of all the mines in this part of the district is satisfactory.

Mines Located Along the Main Line of the P. C. C. & St. L. R. R.

There are nineteen mines located on and adjacent to the above railroad, three of which have been opened during the present year. Two of these, namely, Idlewood and Primrose, are old abandoned mines, the old passageways are being cleaned up and repaired for use as main haulage roads in the development of the coal territory adjacent thereto.

Chalfant mine is the other new operation which commenced to ship coal in September. The outside equipments are about all complete and the mine will likely be a large producer in the near future. A mining machine plant has been installed, the machines are of the Punching type operated by compressed air. A new fan of the Capell type has been provided to produce ventilation at the Verner mine. The conditions of most of the mines in this section of the district relative to healthfulness and safety are favorable, but there are two or three where the ventilation in parts of the workings was not satisfactory when last inspected; in each case the officials were notified of the defects and requested to make improvements.

Mines on the Chartiers Valley and B. & M, Branches of the P. C. C. and St. L. R. R.

There are now twenty-five mines in active operation in this part of the district, three of which were opened during the year. The Slope mine was abandoned the beginning of the year. Enterprise and Provident mines are also abandoned for the time being, but neither of the above mines are exhausted, there being large available coal fields adjacent to them.

Ventilating fans of the Capell type have been installed at Midland mines Nos. 2 and 3, and a Brazil fan has been provided at the Katie mine. All of the mines, except two, in this division of the district are equipped with good ventilating fans, which provide ample means for ventilation if properly utilized. With one or two exceptions the sanitary condition of each mine was found satisfactory when last inspected. The three new openings are National No. 1, Sallie and Florence. The former is a slope opening and is equipped with electric mining machines of the Jeffrey type. A sixteen foot Capell fan is used to produce ventilation; all the latest improvements are being utilized in the development of the property, and the mine is destined to become a large producer. The company owns a large valuable coal field, and intends opening several other mines in the near future.

The Moon Run, Dickson, Margerum and Partridge mines are located on the Moon Run and Montour railroads. When last inspected, Moon Run was in good condition. Dickson was not so good, the ventilation being slack in one section of the workings, which are located a long distance from the fan, and may require additional airways or other means to produce a sufficient supply of air. The workings are under a very shallow cover, and the strata breaks to the surface which sometimes adds to the difficulty of conducting the air-currents to the face of workings, and also allows large volumes of surface water to flow into the mine, making it very difficult to keep the workings properly drained during rainy seasons. Two small Clark fans are now used to ventilate the Margerum mine, which produce sufficient air at the present time if properly cared for. In the matter of drainage the same difficulties prevail as at Dickson mine. A eighteen foot Brazil fan has been installed at the Partridge mine, but it has not given very satisfactory results so far, but should do better after the airways are improved. The drainage conditions are the same as mentioned above.

P. C. and Y. R. R.

There are eleven mines located in this part of the district, all of which are in active operation. The Beachmount mine when last

inspected was not in good condition, the ventilation and drainage being very unsatisfactory. Action was taken against the operator of this mine about one year ago, but the case is still pending in court.

At Federal No. 2 mine a new ventilating furnace has been erected in No. 2 section of workings, which has ample power to produce sufficient air if properly attended to.

A twelve foot Brazil fan has been provided at the Chartiers mine. The coal acreage to be mined from this opening is limited, so that this fan will produce ample ventilation to exhaust the territory. The mine was in good condition when last inspected. The condition of all the other mines in this division of the district was satisfactory at the time of last inspection.

There are six mines located in the vicinity of Wilkinsburg and Turtle Creek on the P. R. R. When last inspected they were all reported in fairly good condition, except the Duquesne mine, where the ventilation was inadequate, but I am informed that the air volume has since been increased to legal and sanitary requirements. One new mine, Oak Hill No. 3, has been opened in this section during the past year.

The workings are at present ventilated by a small furnace, but a Capell fan is being constructed to supplant the furnace. This mine will become a large producer in the near future. Oak Hill No. 4 will be exhausted in a few months. The territory of Oak Hill No. 5 mine is also being rapidly worked out.

Pittsburg Terminal Railroad.

This is a new coal territory located at Castle Shannon, Allegheny county, only a few miles from the city of Pittsburg. It is operated by the Pittsburg Terminal Railroad and Coal Company, which owns a large and valuable tract of the Pittsburg coal bed in this vicinity. It is the intention of the company to open eight or ten mines upon the property, all of which will be large producers, and a large tonnage will be shipped from this territory in the near future. The following is a brief description of the property, with present and prospective developments, by Mr. Austin King, General Manager.

"The coal field extends from Fair Haven on Big Saw Mill Run on the north, to Peter Creek and Library on the south, and contains about 13,600 acres of the best coal of the Pittsburg coal field.

"The company is now operating three shafts and one drift mine; another shaft is down to the coal, and at the fifth, sinking has just commenced.

The coal lies mostly in the Ninevah Synclinal, and the shafts are close to the bottom of it. The shafts vary in depth from 100 feet to

200 feet. Three other shafts are to be put down at suitable points in the field lying south of Castle Shannon and extending to Library.

"These mines are to be equipped with the most approved hoisting and mining machinery. In the drift mines electric chain mining machines will be used, and compressed air mining machines will be used in the shaft mines. Steel tipples, gravity hoists and electric lighting and haulage will be used. Hoisting engines will be of first motion type, and cages will be of steel and of the lastest pattern.

"The mechanical department will be equipped with best make of compressors, electric engines, generators and motors necessary for an output of 1,600 tons per day per mine.

"The fans and fan engines are of the most approved type with ample power to circulate double the quantity of air usually required, if found necessary. Mine tracks will be of forty and twenty pound T rail and gauge 44".

"All mine pumps are of first class make and range from 100,000 to 1,000,000 gallons per day capacity.

"Three hundred and seventy dwelling houses are contracted for, and of these 170 are built and two hundred now being built. With the exception of twenty single three-room houses, they are all commodious houses with rooms ranging from four to six in number."

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Seventh Bituminous District for the year 1902.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Pittsburg Coal Co.						
Moon Run,	Allegheny,	G. W. Schluederberg,	Pittsburg,	Jno. Clapperton, Jr.	Moon Run,	M. R. R. R.
First Pool No. 1,	Allegheny,	G. W. Schluederberg,	Pittsburg,	Jacob Kuvedler,	Willock,	B. & O.
First Pool No. 2,	Allegheny,	G. W. Schluederberg,	Pittsburg,	Jacob Kuvedler,	Willock,	B. & O.
Jumbo,	Washington,	G. W. Schluederberg,	Pittsburg,	P. Y. Cox,	McDonald,	P. C. C. & St. L.
Brier Hill,	Washington,	G. W. Schluederberg,	Pittsburg,	P. Y. Cox,	McDonald,	P. C. C. & St. L.
Nickel Plate,	Allegheny,	G. W. Schluederberg,	Pittsburg,	John Britt,	Sturgeon,	P. C. C. & St. L.
Shaw No. 1,	Washington,	G. W. Schluederberg,	Pittsburg,	David Brown,	Midway,	P. C. C. & St. L.
Laurel Hill No. 1,	Allegheny,	G. W. Schluederberg,	Pittsburg,	P. Y. Cox,	McDonald,	P. C. C. & St. L.
Laurel Hill No. 2,	Washington,	G. W. Schluederberg,	Pittsburg,	Robert Lightburn,	Reissing,	P. C. C. & St. L.
Champion,	Allegheny,	G. W. Schluederberg,	Pittsburg,	John Britt,	Sturgeon,	P. C. C. & St. L.
Oak Ridge,	Allegheny,	G. W. Schluederberg,	Pittsburg,	J. J. Boyle,	Oakdale,	P. C. C. & St. L.
National,	Allegheny,	G. W. Schluederberg,	Pittsburg,	J. J. Boyle,	Oakdale,	P. C. C. & St. L.
Cherry,	Allegheny,	G. W. Schluederberg,	Pittsburg,	J. J. Boyle,	Oakdale,	P. C. C. & St. L.
Boyd,	Allegheny,	G. W. Schluederberg,	Pittsburg,	John I. Pratt,	Carnegie,	P. C. C. & St. L.
Fort Pitt,	Allegheny,	G. W. Schluederberg,	Pittsburg,	John I. Pratt,	Carnegie,	P. C. C. & St. L.
Grant,	Allegheny,	G. W. Schluederberg,	Pittsburg,	W. E. Carroll,	Carnegie,	P. C. C. & St. L.
Idlewood,	Allegheny,	G. W. Schluederberg,	Pittsburg,	W. H. Carroll,	Carnegie,	P. C. C. & St. L.
Nixon,	Allegheny,	G. W. Schluederberg,	Pittsburg,	H. D. Thomson,	Woodville,	P. C. C. & St. L.
Leasdale,	Allegheny,	G. W. Schluederberg,	Pittsburg,	H. D. Thomson,	Woodville,	P. C. C. & St. L.
Summer Hill,	Allegheny,	G. W. Schluederberg,	Pittsburg,	H. D. Thomson,	Woodville,	P. C. C. & St. L.
Bower Hill,	Allegheny,	G. W. Schluederberg,	Pittsburg,	Simon P. McCaffrey,	Bridgeville,	P. C. C. & St. L.
Bridgeville,	Allegheny,	G. W. Schluederberg,	Pittsburg,	Simon P. McCaffrey,	Bridgeville,	P. C. C. & St. L.
Boon,	Washington,	G. W. Schluederberg,	Pittsburg,	W. A. Lockhart,	Canonsburg,	P. C. C. & St. L.
Allison,	Washington,	G. W. Schluederberg,	Pittsburg,	W. A. Lockhart,	Canonsburg,	P. C. C. & St. L.
Morgan,	Allegheny,	G. W. Schluederberg,	Pittsburg,	Thos. Hall,	Cuddy,	P. C. C. & St. L.
Vulcan,	Allegheny,	G. W. Schluederberg,	Pittsburg,	Thos. Hall,	Cuddy,	P. C. C. & St. L.
Laurel Hill No. 5,	Allegheny,	G. W. Schluederberg,	Pittsburg,	Thos. Hall,	Cuddy,	P. C. C. & St. L.
Creedmore,	Washington,	G. W. Schluederberg,	Pittsburg,	Thos. Renshaw,	Cecil,	P. C. C. & St. L.
Ridgway,	Washington,	G. W. Schluederberg,	Pittsburg,	Thos. Renshaw,	Cecil,	P. C. C. & St. L.
Pan Handle,	Allegheny,	G. W. Schluederberg,	Pittsburg,	W. H. Linsley,	Borland,	P. C. & Y.
Essen No. 1,	Allegheny,	G. W. Schluederberg,	Pittsburg,	W. H. Linsley,	Borland,	P. C. & Y.
Harrison,	Allegheny,	G. W. Schluederberg,	Pittsburg,	W. H. Linsley,	Borland,	P. C. & Y.
Lake Superior,	Allegheny,	G. W. Schluederberg,	Pittsburg,	Chas. McKay,	Fedral,	P. C. & Y.
G. I. C.,	Allegheny,	G. W. Schluederberg,	Pittsburg,	Chas. McKay,	Fedral,	P. C. & Y.
Essen No. 2,	Allegheny,	G. W. Schluederberg,	Pittsburg,	J. A. Trimbath,	Fedral,	P. C. & Y.
Essen No. 3,	Allegheny,	G. W. Schluederberg,	Pittsburg,	J. A. Trimbath,	Fedral,	P. C. & Y.
Federal No. 2,	Allegheny,	G. W. Schluederberg,	Pittsburg,	J. A. Trimbath,	Fedral,	P. C. & Y.
Dickson,	Allegheny,	G. W. Schluederberg,	Pittsburg,	Wm. C. Murray,	Imperial,	Montours R. R.
Margerum,	Allegheny,	G. W. Schluederberg,	Pittsburg,	Wm. C. Murray,	Imperial,	Montours R. R.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Partridge,	Allegheny,	G. W. Schluederberg,	Pittsburg,	Wm. C. Murray,	Imperial,	Montours R. R.
Hartley & Marshall,	Allegheny,	G. W. Schluederberg,	Pittsburg,	W. E. Lahw,	Pittsburg,	West End R. R.
Fair Haven,	Allegheny,	G. W. Schluederberg,	Pittsburg,	P. J. Keeling,	Pittsburg,	P. V. & C. R. R.
Lick Run,	Allegheny,	G. W. Schluederberg,	Pittsburg,	James Porter,	Broughton,	B. & O.
New York and Cleveland Gas Coal Co.						
Oak Hill Nos. 3 and 4,	Allegheny,			W. F. Craig,	Turtle Creek,	P. R. R.
Oak Hill No. 5,	Allegheny,			Hugh Dunning,	Unity,	
Duquesne,	Allegheny,			R. Green,	Edgewood Park,	P. R. R.
Monongahela River C. C. & C. Co.						
Becks Run,	Allegheny,	O. A. Blackburn,	Pittsburg,	B. M. Thomas,	Camden,	River.
Walton,	Allegheny,	O. A. Blackburn,	Pittsburg,	John M. Kapp,	Redman Mills,	River.
Six Mile Ferry,	Allegheny,	O. A. Blackburn,	Pittsburg,	Wm. Fillebom,	Hope Church,	River.
Midland Coal Co.						
Midland No. 1,	Washington,	A. C. Munhall,	Pittsburg,	W. B. Gates,	Houston,	P. C. C. & St. L.
Midland No. 2,	Washington,	A. C. Munhall,	Pittsburg,	W. B. Gates,	Houston,	P. C. C. & St. L.
Midland No. 3,	Washington,	A. C. Munhall,	Pittsburg,	W. B. Gates,	Houston,	P. C. C. & St. L.
Mansfield C. & C. Co.						
Mansfield No. 2,	Allegheny,	Daniel Boden,	Carnegie,	Daniel Boden,	Carnegie,	P. C. C. & St. L.
Pittsburg and Buffalo Co.						
Hazel,	Washington,	Harry P. Jones,	Canonsburg,	W. J. Holsing,	Canonsburg,	P. C. C. & St. L.
Meadow Lands Coal Co.						
Meadow Lands,	Washington,	W. L. Dixon,	Schmidt Building, Pittsburg.	Alex. McLean,	Meadow Lands,	P. C. C. & St. L.
United Coal Co.						
Rich Hill,	Washington,	W. L. Coulter,	Pittsburg,	A. C. Latimer,	Meadow Lands,	P. C. C. & St. L.
John M. Greek.						
Sallie,	Washington,			C. P. McGregor,	R. D. 5 Washington, Pa.	P. C. C. & St. L.
Amyville-Youghiogheny Gas Coal Co.						
Katie,	Allegheny,	Peter Watkinson,	Bridgeville,	Peter Watkinson,	Bridgeville,	P. C. C. & St. L.
Pan Handle Mining Co.						
Blyth,	Allegheny,			John Blyth,	Pittsburg,	P. C. C. & St. L.

National Mining Co.						
National No. 1,	Allegheny,	F. A. McDonald,	Pittsburg,	W. L. McDonald,	Carnegie,	P. C. C. & St. L.
Carnegie Coal Co.						
Carnegie,	Allegheny,	R. P. Burgan,	Carnegie,			P. C. C. & St. L.
Primrose,	Washington,	R. P. Burgan,	Carnegie,			P. C. C. & St. L.
Mankedick Coal Co.						
Pine Ridge,	Allegheny,	E. H. Mankedick,	Greggs,	E. H. Mankedick,	Greggs,	P. C. C. & St. L.
E. W. Hanford.						
Chalfant,	Allegheny,	E. W. Hanford,	Pittsburg,	Andrew G. Hunt,	Noblestown,	P. C. C. & St. L.
Verner Coal and Coke Co.						
Verner,	Washington,	Thomas Beadling,	Carnegie,	Thomas Gray,	Carnegie,	P. C. C. & St. L.
Bulger Block Coal Co.						
Bulger,	Washington,	D. J. Kennedy,	150 Frankstown av., Pittsburg.	J. M. Sloan,	Bulger,	P. C. C. & St. L.
Chartiers Coal and Coke Co.						
Chartiers,	Allegheny,	J. Stoneroad,	Carnegie.			P. C. C. & St. L.
Witch Hazel Coal Co.						
Beadling (Witch Hazel),	Allegheny,	David Jacob,	Beadling,			P. C. & Y.
Florence,	Washington,	David Jacob,	Beadling,			P. C. C. & St. L.
P. F. Hormel.						
Beachmount,	Allegheny,			P. F. Hormel,	Hickman,	P. C. & Y.
Thomas Fox Estate.						
Fox,	Allegheny,	James T. Fox,	West End, Pbg.,	James T. Fox,	W. E. Pittsburg,	
Pittsburg & C. S. R. R. Co.						
Castle Shannon,	Allegheny,	G. W. Schluederberg,	Pittsburg,	E. J. Reamer,	Carson st., Pbg.,	P. & C. S. R. R.
W. S. B. Hays.						
Calhoon,	Allegheny,	L. O. Hays,	Homestead,	L. O. Hays,	Homestead,	
Weinman Bros.						
Weinman,	Allegheny,	Jacob Weinman,	Station D, Pbg.,	Jacob Weinman,	Station D, Pbg.,	
G. Vogele.						
Ocean,	Allegheny,	G. Vogele,	Wilkinsburg,	G. Vogele,	Wilkinsburg,	
Patterson & Robbins.						
Reilly,	Allegheny,	A. M. Osborne,	Cleveland, Ohio,	John Reese,	Hazelwood, Pa.,	B. & O.
Pbg. Term. R. R. & C. Co.						
Pittsburg Terminal No. 1,	Allegheny,	Austin King,	Castle Shannon,	W. I. Dolan,	Castle Shannon,	P. T. R. R.
Pittsburg Terminal No. 2,	Allegheny,	Austin King,	Castle Shannon,	W. I. Dolan,	Castle Shannon,	P. T. R. R.
Pittsburg Terminal No. 3,	Allegheny,	Austin King,	Castle Shannon,	F. E. King,	Castle Shannon,	P. T. R. R.
Pittsburg Terminal No. 6,	Allegheny,	Austin King,	Castle Shannon,	S. H. Blair,	Broughton,	P. T. R. R.
Kramer and Foultz.						
Bellwood,	Allegheny,	G. W. Kramer,	Homestead,			

TABLE II—Gives the total number of tons of coal mined and tons of coke produced in each colliery, number of days worked, number of employes, number of employes killed and injured, number of kegs of powder, etc., used in the Seventh Bituminous District for the year ending December 31, 1902.

Name of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Pittsburg Coal Co.						*						
Moon Run,	Allegheny,	495,637	7,175	1,706	504,518	271.5	540	2	2	7,600	400	32
First Pool No. 1,	Allegheny,	527,953	8,406	2,231	538,584	285	314	2	4	.....	.....	24
First Pool No. 2,	Allegheny,	.....	.....	.....	.....	265	247	2	4	.....	.....	20
Jumbo,	Washington,	160,422	12,671	766	173,859	292.5	212	.....	4	.....	50	32
Brier Hill,	Washington,	158,792	1,185	823	160,800	222.5	232	1	.....	.....	50	18
Laurel Hill No. 1,	Allegheny,	207,978	8,552	828	217,358	217.5	259	1	7	.....	150	24
Shaw No. 1,	Washington,	112,785	1,124	210	114,119	219	196	.....	3	275	50	13
Nickel Plate,	Allegheny,	13,473	3,628	632	97,733	175.5	184	1	.....	1,000	.....	21
Laurel Hill No. 2,	Washington,	24,972	1,422	401	26,795	80	126	.....	4	7	50	13
Champion,	Allegheny,	184,647	7,438	624	192,709	266	247	.....	3	1,500	200	25
Oak Ridge,	Allegheny,	73,934	1,809	173	75,916	208.5	88	.....	1	.....	8	8
National,	Allegheny,	64,415	651	49	65,115	190	81	.....	3	.....	40	8
Cherry,	Allegheny,	98,316	1,754	68	100,166	227	99	.....	4	.....	10	10
Boyd	Allegheny,	64,047	852	436	65,335	187	151	1	4	70	3	9
Fort Pitt,	Allegheny,	86,458	765	98	87,321	196.5	165	.....	2	75	3	9
Grant,	Allegheny,	89,895	1,202	447	91,544	160.5	141	.....	2	175	.....	12
Idlewood,	Allegheny,	.....	136	76	212	213	25	.....	.....	30	.....	3
Nixon,	Allegheny,	183,207	466	601	184,214	260.5	236	3	2	.....	.....	15
Leasdale,	Allegheny,	96,145	214	280	96,629	207.5	119	.....	.....	.....	.....	10
Summer Hill,	Allegheny,	90,125	3,798	165	94,028	122	209	1	5	.....	.....	11
Bower Hill	Allegheny,	101,759	1,430	440	103,629	184.5	139	.....	.....	550	.....	9
Bridgeville,	Allegheny,	182,724	2,917	1,771	187,412	207.5	229	.....	6	951	50	15
Boon,	Washington,	81,927	1,111	306	83,341	194	104	.....	1	.....	.....	12
Allison,	Washington,	105,140	296	203	105,633	171	182	.....	.....	.....	.....	16
Morgan,	Allegheny,	105,883	1,452	1,083	108,418	169	182	1	1	317	.....	15

*Totals in this column are averages.

						*						
Vulcan,	Allegheny,	181,171	3,763	612	185,546	161	254	1	1	500	100	36
Laurel Hill No. 5,	Allegheny,	147,528	3,009	471	151,008	190.5	218	.....	.....	700	50	22
Creedmoore,	Washington,	126,368	3,992	1,375	131,705	158.5	207	.....	3	.....	.....	22
Ridgeway,	Washington,	112,599	5,413	4,064	122,076	158.5	210	1	1	.....	.....	14
Pan Handle,	Allegheny,	137,885	5,662	172	143,719	224.5	161	1	.....	328	50	15
Essen No. 1,	Allegheny,	165,334	1,797	97	167,228	219	168	.....	7	330	.....	12
Harrison,	Allegheny,	162,687	3,437	1,632	167,756	199.5	178	.....	2	410	300	12
Lake Superior,	Allegheny,	125,777	758	240	126,775	212.5	176	2	2	460	.....	11
O. I. C.,	Allegheny,	90,021	.....	75	*90,096	219.5	164	.....	.....	300	.....	10
Essen No. 2,	Allegheny,	155,487	1,299	96	156,882	178	217	1	5	760	.....	15
Essen No. 3,	Allegheny,	107,402	4,848	378	112,628	186.5	196	2	1	630	50	11
Federal No. 2,	Allegheny,	59,663	1,448	185	*61,236	193	91	.....	5	520	.....	8
Dickson,	Allegheny,	152,074	4,087	467	156,628	253.5	189	.....	3	1,000	150	20
Margerum,	Allegheny,	162,945	119	465	163,529	263.5	228	.....	1	1,000	200	18
Partridge,	Allegheny,	170,564	3,161	649	174,374	252.5	234	1	3	1,100	100	22
Hartley & Marshall,	Allegheny,	157,135	723	963	158,821	221	243	.....	6	1,900	50	15
Fair Haven,	Allegheny,	161,533	5,043	381	169,957	281	226	.....	.....	.....	.....	14
Lick Run,	Allegheny,	91,101	1,636	960	93,697	185.5	151	2	1	570	150	12
Totals,		5,860,888	120,547	27,637	6,009,072	206	8,158	26	102	22,998	2,264	665
New York and Cleveland Gas Coal Co.												
Oak Hill No. 3,	Allegheny,	10,618	.....	.....	10,618	25.5	145	.....	.....	.....	.....	12
Oak Hill No. 4,	Allegheny,	161,773	1,819	526	164,118	269.5	173	2	1	.....	.....	18
Oak Hill No. 5,	Allegheny,	428,640	910	89	429,639	292.5	238	2	3	.....	.....	19
Duquesne,	Allegheny,	139,750	664	754	141,168	260.5	209	.....	1	.....	.....	18
Totals,		740,781	3,393	1,369	745,543	214	865	4	5	.....	.....	67
Monongahela River C. C. & C. Co.												
Becks Run,	Allegheny,	214,067	3,726	875	218,668	249	222	.....	7	.....	.....	19
Walton,	Allegheny,	160,512	1,520	369	162,401	257	144	.....	.....	.....	.....	17
Six Mile Ferry,	Allegheny,	69,012	319	186	*69,517	81	234	.....	.....	.....	.....	19
Totals,		443,591	5,565	1,430	450,586	195.6	600	.....	7	.....	.....	55
Midland Coal Co.												
Midland No. 1,	Washington,	253,463	3,600	400	257,463	237.5	345	1	4	.....	.....	30
Midland No. 2,	Washington,	62,033	.....	.....	62,033	129.5	191	.....	1	.....	.....	22
Midland No. 3,	Washington,	79,079	3,400	260	82,739	129.5	194	.....	2	.....	.....	24
Totals,		394,575	7,000	660	402,235	165.5	730	1	7	.....	.....	76
Carnegie Coal Co.												
Carnegie,	Allegheny,	175,309	1,920	.....	177,229	208	192	1	3	.....	.....	15
†Primrose,	Washington,	.....	.....	.....	.....	.....	35	.....	.....	.....	.....	.....
Totals,		175,309	1,920	.....	177,229	208	228	1	3	.....	.....	15

*Totals in this column are averages. †New mines under construction.

TABLE II—Continued.

Name of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Witch Hazel Coal Co.												
Readling,	Allegheny,	104,177	1,500	.....	105,677	179	143	1	1	.....	.....	9
*Florence,	Washington,	.....	.....	.....	.....	99	20	.....	.....	.....	.....	.....
Totals,	.....	104,177	1,500	.....	105,677	139	163	1	1	.....	.....	9
Pittsburg Terminal Railroad and Coal Co.												
Pittsburg Terminal No. 1,	Allegheny,	4,000	.....	.....	4,000	153	109	.....	.....	.....	1,400	4
Pittsburg Terminal No. 2,	Allegheny,	1,000	.....	.....	1,000	101	28	1	.....	.....	800	2
Pittsburg Terminal No. 3,	Allegheny,	650	.....	.....	*650	40	52	.....	.....	.....	500	.....
Pittsburg Terminal No. 6,	Allegheny,	500	.....	.....	*500	25	43	.....	.....	.....	.....	.....
Totals,	.....	6,150	.....	.....	6,150	79.7	232	1	.....	.....	2,700	6

*Totals in this column are averages. *New mines under construction.

Recapitulation.

Pittsburg Coal Co.,	Alle'y & Wash.,	5,860,898	120,547	27,637	6,009,082	206	8,158	26	102	22,998	2,264	665
New York and Cleveland Gas Coal Co.,	Allegheny,	740,781	3,393	1,396	745,543	214	865	4	5	.....	.....	76
Monongahela River C. C. & C. Co.,	Allegheny,	443,591	5,565	1,430	450,586	195.6	600	.....	7	.....	.....	55
Midland Coal Co.,	Washington,	394,575	7,000	660	402,235	165.5	730	1	7	.....	.....	76
Carnegie Coal Co.,	Alle'y & Wash.,	175,309	1,920	.....	177,299	208	228	1	3	.....	.....	15
Witch Hazel Coal Co.,	Alle'y & Wash.,	104,177	1,500	.....	105,677	139	163	1	1	.....	.....	9
Pittsburg Terminal Railroad and Coal Co.,	Allegheny,	6,150	.....	.....	6,150	79.7	232	1	.....	.....	2,700	6
Mansfield Coal and Coke Co.,	Allegheny,	430,763	3,500	1,393	435,656	279.5	414	.....	3	.....	.....	30
Pittsburg and Buffalo Co.,	Washington,	352,870	2,500	2,500	357,870	217	551	1	.....	3,500	300	22

Meadow Lands Coal Co.,	Washington,	153,375	900	35	154,310	168.5	157	1	1	250	200	8
United Coal Co.,	Washington,	68,137	1,387	.....	69,524	150	102	1	2	.....	.....	6
John M. Greek,	Washington,	20,000	100	.....	20,100	136	55	.....	.....	5	.....	2
Amyville, Youghlogheny Gas Coal Co.,	Allegheny,	63,973	.....	.....	63,973	207.5	85	.....	.....	220	50	11
Pan Handle Mining Co.,	Allegheny,	103,568	1,030	....	104,598	206	126	1	.....	.....	.....	8
National Mining Co.,	Allegheny,	6,810	953	69	7,832	197	119	.....	.....	6	.....	4
Mankedick Coal Co.,	Allegheny,	52,000	.....	100	52,100	227	96	1	.....	100	.....	11
E. W. Hanford,	Allegheny,	13,419	20	64	13,503	50.5	146	.....	.....	200	510	10
Verner Coal and Coke Co.,	Washington,	26,049	100	.....	26,149	104	129	.....	1	.....	.....	5
Bulger Block Coal Co.,	Washington,	95,946	1,460	.....	97,406	210	184	1	2	.....	.....	6
Chartiers Coal and Coke Co.,	Allegheny,	39,125	960	.....	40,085	90	67	.....	.....	.....	.....	6
P. F. Hormel,	Allegheny,	19,968	50	21	20,039	263	30	.....	.....	.....	.....	3
Thomas Fox Estate,	Allegheny,	.....	270	13,100	13,370	270	24	.....	.....	.....	.....	2
Pittsburg and Castle Shannon R. R. Co.,	Allegheny,	.....	.....	94,742	94,742	275.5	138	.....	.....	.....	.....	15
W. S. B. Hays,	Allegheny,	.....	... .	10,146	10,146	311	11	.....	.....	.....	.....	1
Wehrman Brothers,	Allegheny,	.....	... .	11,988	11,988	270	23	.....	.....	.....	.....	3
G. Vogele,	Allegheny,	.....	10	7,117	7,127	270	21	.....	.....	.....	.....	2
Patterson & Robbins,	Allegheny,	12,090	400	100	12,590	29	90	.....	.....	252	100	6
Kramer & Foultz,	Allegheny,	.....	.....	14,000	14,000	307	25	.....	.....	.....	.....	3
Grand totals, ...	.....	9,183,574	153,565	186,498	9,523,637	194.5	13,569	40	134	27,531	6,124	1,006

*Totals in this column are averages.

TABLE II—Continued.

Name of Operators and Collieries.	County.	Number of Boilers.				Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.	Horse power.		Steam.	Air.	Electric.							
Pittsburg Coal Co.,	Alle'y & Wash.,	32	2,391	118	14,355	16,746	5	1	36	130	12,796	76	13,760	11,678	32	31
New York and Cleveland Gas Coal Co.,	Allegheny,	2	200	1	35	235	4	.....	.....	4	285	.....	.....	.....	.....	.....
Monongahela River C. C. & C. Co.,	Allegheny,	5	170	6	340	510	2	.....	2	11	335	4	560	350	1	.....
Midland Coal Co.,	Washington,	.....	.....	12	1,800	1,800	.....	.....	1	9	.....	13	.....	.....	1	5
Carnegie Coal Co.,	Alle'y & Wash.,	.....	.....	2	250	250	.....	.....	1	2	380	.....	.....	.....	1	.....
Witch Hazel Coal Co.,	Alle'y & Wash.,	2	300	1	200	500	.....	.....	.....	2	60	1	200	20	.....	1
Pittsburg Terminal Railroad & Coal Co.,	Allegheny,	1	40	7	950	990	.....	.....	.....	5	.....	4	880	530	2	2
Mansfield Coal and Coke Co.,	Allegheny,	.....	.....	3	380	380	1	.....	4	2	350	2	350	200	2	.....
Pittsburg and Buffalo Co.,	Washington,	.....	.....	4	600	600	.....	.....	3	4	1,060	1	900	500	2	.....
Meadow Lands Coal Co.,	Washington,	.....	.....	1	150	150	.....	.....	.....	2	.....	.....	.....	.....	.....	1
United Coal Co.,	Washington,	.....	.....	3	300	300	.....	.....	.....	2	.....	2	83	83	.....	1
John M. Greek,	Washington,	.....	.....	1	35	35	.....	.....	.....	1	25	1	10	10	.....	.....
Amyville-Youghiogheny Gas Coal Co.,	Allegheny,	.....	.....	2	250	250	.....	.....	.....	3	446	1	1,562	1,562	1	.....
Pan Handle Mining Co.,	Allegheny,	.....	.....	2	250	250	.....	.....	.....	2	225	1	.....	.....	1	.....
National Mining Co.,	Allegheny,	.....	.....	3	900	900	.....	.....	.....	5	800	1	50	50	2	.....
Mankedick Coal Co.,	Allegheny,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
E. W. Hanford,	Allegheny,	.....	.....	3	450	450	.....	.....	.....	2	.....	.....	.....	.....	.....	1
Verner Coal and Coke Co.,	Washington,	.....	.....	2	300	300	.....	.....	.....	2	200	1	.....	.....	.....	1
Bulger Block Coal Co.,	Washington,	.....	.....	2	300	300	.....	.....	.....	4	300	1	.....	.....	1	.....
Chartiers Coal and Coke Co.,	Allegheny,	.....	.....	1	150	150	.....	.....	1	2	110	1	83	.....	1	.....
P. F. Hormel,	Allegheny,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Thomas Fox Estate,	Allegheny,	1	60	.....	.....	60	.....	.....	.....	2	50	2	50	50	.....	.....
Pittsburg and Castle Shannon R. R. Co.,	Allegheny,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	90	.....	.....	.....
W. S. B. Hays,	Allegheny,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Weirman Brothers,	Allegheny,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
G. Vogele,	Allegheny,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Patterson & Robbins,	Allegheny,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kramer & Foultz,	Allegheny,	.....	.....	1	150	150	.....	.....	.....	1	246	.....	.....	.....	1	.....
		.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand totals,	.....	43	3,161	175	22,145	25,306	13	1	48	198	17,698	113	18,578	15,433	48	43

TABLE III—Showing the number of each class of employes at each colliery in the Seventh Bituminous District during the year 1902.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
Pittsburg Coal Co.																						
Moon Run,	Allegheny,	1	3	....	123	29	221	22	32	6	30	4	471	1	....	10	9	.....	3	46	69	540
First Pool No. 1,	Allegheny,	1	1	2	65	19	120	19	24	3	11	.....	265	1	....	9	9	.....	2	28	49	314
First Pool No. 2,	Allegheny,	1	....	3	45	19	95	19	26	4	9	.....	215	....	....	4	7	.....	2	19	32	247
Jumbo,	Washington,	1	....	3	30	17	80	17	15	2	16	.....	181	....	....	4	11	.....	1	15	31	212
Brier Hill,	Washington,	1	....	2	49	14	105	14	12	2	13	.....	212	1	....	3	3	.....	1	12	20	232
Laurel Hill No. 1,	Allegheny,	1	....	4	66	12	85	12	21	5	2	17	225	....	....	6	8	.....	1	19	34	259
Shaw No. 1,	Washington,	1	....	1	65	11	41	4	10	2	4	15	154	1	1	4	4	.....	1	31	42	196
Nickel Plate,	Allegheny,	1	....	1	58	15	40	15	12	3	14	.....	164	1	....	3	5	.....	1	10	20	184
Laurel Hill No. 2,	Washington,	1	....	1	20	10	50	10	8	3	3	.....	106	1	....	5	5	.....	1	8	20	126
Champion,	Allegheny,	1	....	1	63	20	72	20	20	3	18	.....	218	....	....	4	8	.....	1	16	29	247
Oak Ridge,	Allegheny,	1	....	1	24	6	25	6	7	.....	5	.....	75	....	....	2	3	.....	1	7	13	88
National,	Allegheny,	1	....	1	16	3	32	3	6	2	5	.....	69	1	....	2	1	.....	1	7	12	81
Cherry,	Allegheny,	1	....	....	25	4	39	4	7	1	5	.....	86	....	....	3	2	.....	1	7	13	99
Boyd,	Allegheny,	1	....	1	60	6	45	.....	12	2	.....	8	135	1	....	2	2	.....	1	10	16	151
Fort Pitt,	Allegheny,	1	....	....	70	7	50	.....	10	2	.....	6	146	....	....	1	3	.....	1	14	19	165
Grant,	Allegheny,	1	....	....	8	4	84	4	10	2	.....	8	121	1	....	2	2	.....	.....	15	20	141
Idlewood,	Allegheny,	1	....	....	6	.....	.....	.....	3	.....	3	.....	13	1	....	.....	.....	.....	.....	11	12	25
Nixon,	Allegheny,	1	....	3	34	12	103	12	21	3	.....	18	207	1	....	4	.....	.....	1	23	29	236
Leasdale,	Allegheny,	1	....	1	23	5	45	5	13	2	.....	10	105	1	....	3	1	.....	1	8	14	119
Summer Hill,	Allegheny,	1	....	3	30	7	102	7	14	2	.....	16	182	1	1	3	5	.....	1	16	27	209
Bower Hill,	Allegheny,	1	....	1	14	6	75	6	11	3	7	.....	124	1	....	2	2	.....	2	8	15	139
Bridgeville,	Allegheny,	1	....	2	20	10	135	10	17	3	10	.....	208	....	....	5	3	.....	2	11	21	229
Boon,	Washington,	1	....	1	24	5	34	5	8	2	.....	5	85	1	....	2	3	.....	1	12	19	104
Allison,	Washington,	1	....	....	100	8	31	8	11	1	.....	8	168	....	....	4	2	.....	1	7	14	182
Morgan,	Allegheny,	1	....	2	25	7	96	7	14	4	.....	1	157	1	....	3	3	.....	1	17	25	182
Vulcan,	Allegheny,	1	....	2	50	12	101	12	16	5	.....	19	218	....	....	6	4	.....	2	21	36	254

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
Laurel Hill No. 5,	Allegheny,	1	....	2	32	14	99	14	19	6	2	9	198	....	....	5	5	.....	1	9	20	218
Creedmoore,	Washington,	1	....	2	54	12	69	12	16	6	11	.....	183	1	....	4	5	.....	1	13	24	207
Ridgeway,	Washington,	1	....	3	64	14	62	14	12	5	10	.....	185	....	....	4	6	.....	1	14	25	210
Pan Handle,	Allegheny,	1	....	2	50	9	50	9	12	2	7	.....	142	1	....	3	4	.....	1	10	19	161
Essen No. 1,	Allegheny,	1	....	2	80	3	45	3	12	2	7	.....	155	....	....	3	3	.....	1	6	13	168
Harrison,	Allegheny,	1	....	2	30	13	75	13	14	2	8	.....	158	....	....	3	6	.....	1	10	20	178
Lake Superior,	Allegheny,	1	....	2	22	8	87	8	12	4	14	.....	158	1	....	3	3	.....	1	10	18	176
O. I. C.,	Allegheny,	1	....	....	22	6	46	6	9	1	3	.....	94	....	....	3	.....	.....	1	6	10	104
Essen No. 2,	Allegheny,	1	....	2	23	9	120	9	13	3	13	8	201	1	....	4	2	.....	1	8	16	217
Essen No. 3,	Allegheny,	1	....	2	40	10	89	10	10	3	11	6	182	....	....	3	3	.....	1	8	14	196
Federal No. 2,	Allegheny,	1	....	....	30	4	20	4	8	2	10	2	81	....	....	2	2	.....	1	5	10	91
Dickson,	Allegheny,	1	1	....	45	8	75	8	13	5	7	.....	169	1	....	3	5	.....	1	10	20	189
Margerum,	Allegheny,	1	1	....	95	4	65	4	16	6	11	.....	203	....	....	8	.....	.....	2	15	25	228
Partridge,	Allegheny,	1	....	1	55	8	90	8	25	6	8	6	208	....	....	3	3	.....	1	19	26	234
Hartley and Marshall,	Allegheny,	1	....	3	79	14	74	14	15	2	3	15	220	1	....	4	6	.....	2	10	23	243
Fair Haven,	Allegheny,	1	....	2	30	14	92	14	18	1	9	10	191	1	....	6	5	.....	1	22	35	226
Lick Run,	Allegheny,	1	....	2	35	6	60	6	9	4	4	5	132	1	....	3	4	.....	1	10	19	151
Totals,	.....	43	6	63	1,899	424	3,124	397	598	127	293	196	7,170	24	2	160	166	.....	50	586	988	8,158
New York and Cleveland Gas Coal Co.																						
Oak Hill No. 3,	Allegheny,	1	....	....	77	.....	.....	.....	12	4	.....	8	102	1	....	2	.....	.....	1	39	43	145
Oak Hill No. 4,	Allegheny,	1	....	....	134	.....	.....	.....	10	5	.....	7	157	1	....	2	2	.....	1	10	16	173

Oak Hill No. 5,	Allegheny,	1	1	....	281	.....	.....	.....	14	9	.....	9	315	1	....	2	2	.....	1	17	23	338
Duquesne,	Allegheny,	1	....	....	165	.....	.....	.....	8	7	.....	9	190	1	....	2	4	.....	1	11	19	209
Totals,		4	1	....	657	.....	.....	.....	44	25	.....	33	764	4	....	8	8	.....	4	77	101	865
Monongahela River C. C. and Coke Co.																						
Beck's Run,	Allegheny,	1	....	1	70	6	70	6	16	3	.....	16	189	1	....	4	7	.....	1	20	33	222
Walton,	Allegheny,	1	....	1	100	.....	.....	.....	11	1	.....	8	122	1	....	3	3	.....	1	14	22	144
Six Mile Ferry,	Allegheny,	1	1	....	80	6	70	6	13	5	.....	20	202	1	....	3	2	.....	1	25	32	234
Totals,		3	1	2	250	12	140	12	40	9	.....	44	513	3	....	10	12	.....	3	59	87	600
Midland Coal Co.																						
Midland No. 1,	Washington,	1	1	....	20	30	198	30	20	4	.....	6	310	1	1	4	9	.....	2	18	35	345
Midland No. 2,	Washington,	1	1	....	9	15	107	15	16	2	.....	4	170	....	1	3	.....	.....	1	16	21	191
Midland No. 3,	Washington,	1	1	....	8	15	102	15	17	2	.....	4	165	....	1	3	8	.....	1	16	29	194
Totals,		3	3	....	37	60	407	60	53	8	.....	14	645	1	3	10	17	.....	4	50	85	730
Carnegie Coal Co.																						
Carnegie,	Allegheny,	1	....	1	30	7	105	7	13	5	.....	6	175	....	....	2	3	.....	2	11	18	193
Primrose,	Washington,	1	....	....	.....	.....	.....	.....	2	.....	20	.....	23	....	....	2	.....	.....	.....	10	12	35
Totals,		2	....	1	30	7	105	7	15	5	20	6	198	....	....	4	3	.....	2	21	30	228
Witch Hazel Coal Co.																						
Beadling,	Allegheny,	1	....	1	12	12	72	12	11	3	4	5	133	1	....	2	3	.....	1	3	10	143
Florence,	Washington,	1	....	....	10	.....	.....	.....	1	.....	.....	.....	12	....	....	1	1	.....	.....	6	8	20
Totals,		2	....	1	22	12	72	12	12	3	4	5	145	1	....	3	4	.....	1	9	18	163
Pittsburg Terminal Railroad and Coal Co.																						
Pittsburg Terminal No. 1,	Allegheny,	1	....	1	43	.....	.....	.....	6	2	4	.....	57	1	1	4	4	.....	2	40	52	109
Pittsburg Terminal No. 2,	Allegheny,	....	....	....	12	.....	.....	.....	2	.....	.....	.....	14	....	....	.....	4	.....	.....	10	14	28
Pittsburg Terminal No. 3,	Allegheny,	1	....	....	25	.....	.....	.....	.....	.....	2	.....	28	1	....	2	6	.....	.....	15	24	52
Pittsburg Terminal No. 6,	Allegheny,	1	....	....	36	.....	.....	.....	2	.....	2	.....	41	1	....	1	.....	.....	.....	.....	2	43
Totals,		3	....	1	116	.....	.....	.....	10	2	8	.....	140	3	1	7	14	.....	2	65	92	232
Mansfield Coal and Coke Co.																						
Mansfield No. 2,	Allegheny,	1	....	5	78	13	221	13	16	1	14	10	375	1	....	17	3	.....	3	15	39	414
Pittsburg and Buffalo Co.																						
Hazel,	Washington,	1	2	2	75	22	330	22	20	2	4	20	500	1	1	8	4	.....	4	33	51	551
Meadow Lands Coal Co.																						
Meadow Lands,	Washington,	1	1	....	30	10	80	10	10	.....	4	.....	146	1	....	1	2	.....	1	6	11	157
United Coal Co.																						
Rich Hill,	Washington	1	...	...	12	4	53	4	8	2	.....	6	90	1	...	2	2	.....	1	6	12	102

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.													Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
John M. Greek. Sallie,	Washington,	1	....	....	40	.....	.....	.....	2	.....	.....	.....	43	1	....	2	2	.....	2	5	12	55
Amyville-Youghiogheny Gas Coal Co. Katie,	Allegheny,...	1	....	....	6	4	46	4	7	3	6	.....	77	....	....	2	3	.....	1	2	8	85
Pan Handle Mining Co. Blyth,	Allegheny,...	1	....	1	20	5	70	5	6	2	2	2	114	1	....	2	3	.....	.....	6	12	126
National Mining Co. National No. 1,	Allegheny,...	1	....	....	.....	3	34	3	4	.....	24	4	73	1	1	4	4	.....	1	35	46	119
Mankedick Coal Co. Pine Ridge,	Allegheny,...	1	....	....	80	.....	.....	.....	5	.....	3	.....	89	1	....	1	.....	.....	2	3	7	96
E. W. Hanford. Chalfant,	Allegheny,...	1	....	....	61	1	7	1	9	1	8	.....	89	1	....	3	2	.....	1	50	57	146
Verner Coal and Coke Co. Verner,	Washington,	1	....	1	10	12	70	12	7	2	3	1	119	1	....	1	3	.....	1	4	10	129
Bulger Block Coal Co. Bulger,	Washington,	1	....	1	75	8	68	8	5	1	5	.....	172	1	....	2	3	.....	1	5	12	184

Chartiers Coal and Coke Co. Chartiers,	Allegheny,...	1	....	....	21	2	27	2	5	1	.....	.....	59	....	....	1	2	.....	.....	5	8	67
P. F. Hormel. Beachmount,	Allegheny,...	1	....	....	25	.....	.....	.....	2	.....	.....	.....	28	....	1	.....	.....	.....	.....	1	2	30
Thomas Fox Estate. Fox,	Allegheny,...	1	1	....	18	.....	.....	.....	1	.....	.....	1	22	....	1	.....	1	.....	.....	.....	2	24
Pittsburg and Castle Shannon Railroad Co. Castle Shannon,	Allegheny,...	1	....	....	115	.....	.....	.....	8	.....	4	.....	128	....	....	1	.....	.....	.....	9	10	138
W. S. B. Hays. Calhoon,	Allegheny,...	....	....	....	8	.....	.....	.....	1	.....	.....	.....	9	1	....	.....	.....	.....	1	.....	2	11
Weinman Brothers. Weinman,	Allegheny,...	1	....	....	20	.....	.....	.....	2	.....	.....	.....	23	....	....	.....	.....	.....	.....	.....	.....	23
G. Vogele. Ocean,	Allegheny,...	1	1	....	9	.....	.....	.....	1	.....	.....	.....	12	1	....	.....	.....	.....	1	7	9	21
Patterson & Robbins. Reilly,	Allegheny,...	1	....	....	10	8	32	8	5	1	5	.....	70	1	....	3	3	.....	1	12	20	90
Kramer & Foultz. Bellwood,	Allegheny,...	1	....	....	15	.....	.....	.....	2	.....	1	.....	19	1	....	.....	1	.....	.....	4	6	25

Recapitulation.

Pittsburg Coal Co.,	Alle.& Wash.	43	6	63	1,899	424	3,124	397	598	127	293	196	7,170	24	2	160	166	.....	50	586	988	8,158
New York and Cleveland Gas Coal Co.,	Allegheny,...	4	1	....	657	.....	.....	.....	44	25	.....	33	764	4	....	8	8	.....	4	77	101	865
Monongahela River Consolidated Coal and Coke Co.,	Allegheny,...	3	1	2	250	12	140	12	40	9	.....	44	513	3	....	10	12	.....	3	59	87	600
Midland Coal Co.,	Washington,	3	3	....	37	60	407	60	53	8	.....	14	645	1	3	10	17	.....	4	50	85	730
Carnegie Coal Co.,	Alle.& Wash.	2	....	1	30	7	105	7	15	5	20	6	198	....	....	4	3	.....	2	21	30	228
Witch Hazel Coal Co.,	Alle.& Wash.	2	....	1	22	12	72	12	12	3	4	5	145	1	....	3	4	.....	1	9	18	163
Pittsburg Terminal Railroad and Coal Co.,	Allegheny,...	3	....	1	116	.....	.....	.....	10	2	8	.....	140	3	1	7	11	.....	2	65	92	232
Mansfield Coal and Coke Co.,	Allegheny,...	1	....	5	78	13	224	13	16	1	14	10	375	1	....	17	3	.....	3	15	39	414
Pittsburg and Buffalo Co.,	Washington,	1	2	2	75	22	330	22	20	2	4	20	500	1	1	8	4	.....	4	33	51	551
Meadow Lands Coal Co.,	Washington,	1	1	....	30	10	80	10	10	.....	4	.....	146	1	....	1	2	.....	1	6	11	157
United Coal Co.,	Washington,	1	....	....	12	4	53	4	8	2	.....	6	90	1	....	2	2	.....	1	6	12	102
John M. Greek,	Washington,	1	....	....	40	.....	.....	.....	2	.....	.....	.....	43	1	....	2	2	.....	2	5	12	55
Amyville - Youghiogheny Gas Coal Co.,	Allegheny,...	1	....	....	6	4	46	4	7	3	6	.....	77	.....	.....	2	3	.....	1	2	8	85
Pan Handle Mining Co.,	Allegheny,...	1	....	1	20	5	70	5	6	2	2	2	114	1	...	2	3	.....	.....	6	12	126
National Mining Co.,	Allegheny,...	1	....	....	.....	3	34	3	4	.....	24	4	73	1	1	4	4	.....	1	35	46	119

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
Mankedick Coal Co.,	Allegheny,	1	....	....	80	.....	.....	.....	5	.....	3	.....	89	1	....	1	.....	.....	2	3	7	96
E. W. Hanford,	Allegheny,	1	....	....	61	1	7	1	9	1	8	.....	89	1	....	3	2	.....	1	50	57	146
Verner Coal and Coke Co.,	Washington,	1	....	1	10	12	70	12	7	2	3	1	119	1	....	1	3	.....	1	4	10	129
Bulger Block Coal Co.,	Washington,	1	....	1	75	8	68	8	5	1	5	.....	172	1	....	2	3	.....	1	5	12	184
Chartiers Coal and Coke Co.,	Allegheny,	1	....	....	21	2	27	2	5	1	.....	.....	59	....	....	1	2	.....	.....	5	8	67
P. F. Hormel,	Allegheny,	1	....	....	25	.....	.....	.....	2	.....	.....	.....	28	....	1	.....	.....	.....	.....	1	2	30
Thomas Fox Estate,	Allegheny,	1	1	....	18	.....	.....	.....	1	.....	.....	1	22	....	1	.....	1	.....	.....	.....	2	24
Pittsburg and Castle Shannon Railroad Co.,	Allegheny,	1	....	....	115	.....	.....	.....	8	.....	4	.....	128	....	....	1	.....	.....	.....	9	10	138
W. S. B. Hays,	Allegheny,	....	....	....	8	.....	.....	.....	1	.....	.....	.....	9	1	....	.....	.....	.....	1	.....	2	11
Weinman Brothers,	Allegheny,	1	....	....	20	.....	.....	.....	2	.....	.....	.....	23	....	....	.....	.....	.....	.....	.....	.....	23
G. Vogele,	Allegheny,	1	1	....	9	.....	.....	.....	1	.....	.....	.....	12	1	....	.....	.....	.....	1	7	9	21
Patterson & Robbins,	Allegheny,	1	....	....	10	8	32	8	5	1	5	.....	70	1	....	3	3	.....	1	12	20	90
Kramer & Foultz,	Allegheny,	1	....	....	15	.....	.....	.....	2	.....	1	.....	19	1	....	.....	1	.....	.....	4	6	25
Grand totals,		80	16	78	3,739	607	4,889	580	898	195	408	342	11,832	51	10	252	262	.....	87	1,075	1,737	13,569

TABLE III—Continued.

Names of Operators and Collieries.	County.	Number of Days Worked in Each Month.												
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Pittsburg Coal Co.,	Alle.& Wash.	15.2	13.5	15.7	17.1	17.8	20.4	19.6	18.2	18.5	18.5	13.3	16.2	206
New York and Cleveland Gas Coal Co.,	Allegheny,...	25.6	22.2	21.3	22	22.2	23.1	23.8	23.6	22.8	23.6	21.7	23.7	214
Monongahela River Consolidated Coal and Coke Co.,	Allegheny,...	24	17	21.6	22	21	15	21.5	23	24	22.5	17	16.5	195.6
Midland Coal Co.,	Washington,	21.5	18.5	20	20.5	21.5	20.6	18.5	17	20.5	19.2	16	19.6	165.5
Carnegie Coal Co.,	Alle.& Wash.	18	16.5	14.5	17	18	22	14.5	16	17	18.5	20	16	208
Witch Hazel Coal Co.,	Alle.& Wash.	20	14	15	18	20	18.5	19	10	24	19.7	22.5	17.5	189
Pittsburg Terminal Railroad and Coal Co.,	Allegheny,...	.....	.....	.....	.....	.....	.....	25	25	25.5	25.5	22.3	25	79.7
Mansfield Coal and Coke Co.,	Allegheny,...	25	23.5	24.5	16	22	24.5	24	24.5	24.5	25.5	21	24.5	279.5
Pittsburg and Buffalo Co.,	Washington,	18	18	19	18	19	18	19	18	18	18.5	18	15.5	217
Meadow Lands Coal Co.,	Washington,	15.5	8	14	16	16.5	18	16	13	16.5	13.5	10	11.5	168.5
United Coal Co.,	Washington,	9	11	13	14	12	13	14	13	12	13	14	12	150
John M. Greek,	Washington	.....	.....	.....	.....	.....	20	22	21	24	18	15	16	136
Amyville-Youghiogheny Gas Coal Co.,	Allegheny,...	19	15	16	17	20	21.5	23	20.5	23	12	9	11.5	207.5
Pan Handle Mining Co.,	Allegheny,...	15.5	13.5	16	19.5	17	18	18	17.5	18.5	18.5	14.5	19.5	206
National Mining Co.,	Allegheny,...	.....	.....	.....	.....	18	25	26	25	26	27	24	26	197
Mankedick Coal Co.,	Allegheny,...	19	19	21	18	20	16	18	22	20	20	18	16	227
E. W. Hanford,	Allegheny,...	.....	.....	.....	.....	.....	.....	.....	.....	4	16	12.5	18	50.5
Verner Coal and Coke Co.,	Washington,	6	8	8	8	9	10	12	10	9	10	8	6	104
Bulger Block Coal Co.,	Washington,	21.5	15.5	15.5	21	17.5	17	22.5	16.5	16.5	13	15.5	18	210
Chartiers Coal and Coke Co.,	Allegheny,...	.....	.....	.....	.....	.....	.....	7	22	20	16	14	11	90
P. F. Hormel,	Allegheny,...	24	21.5	23	20.5	21.5	25	22.5	24.5	22	24	18.5	18	263
Thomas Fox Estate,	Allegheny,...	22	21	23	19	21	25	21	24	21	25	22	21	270
Pittsburg and Castle Shannon Railroad Co.,	Allegheny,...	26.5	24	25.5	21	19	20.5	22	21	23	24	26	26	275.5
W. S. B. Hays,	Allegheny,...	27	24	26	26	27	25	26	26	26	27	25	26	311
Weinman Brothers,	Allegheny,...	26	24	20	21	17	15	24	26	21	23	24	26	270
G. Vogele,	Allegheny,...	24	22	24	23	20	21	19	23	24	24	24	23	270
Patterson & Robbins,	Allegheny,...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13	16	29
Kramer & Foultz,	Allegheny,...	25	24	26	26	25	26	26	25	26	27	25	26	307

TABLE IV—List of fatal accidents that occurred in and about the mines of the Seventh Bituminous District for the year ending December 31, 1902.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Feb. 4	Frank Wisoloski, ...	German, ...	Driver, ...	20	S.	....	....	Partridge, ...	Allegheny,...	Killed by mine cars; he neglected to use sprags, the cars jumped the track and crushed him against side of passageway.
5	Robert Simpson, ...	English, ...	Loader, ...	45	S.	....	....	Moon Run, ...	Allegheny,...	Killed by mine cars; he was traveling on moter road in the mine and was run down by trip of loaded cars. He should have used the traveling road.
21	Sanodor Donioce, ...	Hungarian,	Loader, ...	27	M.	1	1	First Pool No. 2, ...	Allegheny,...	Killed by fall of roof in his room; he failed to set props.
23	Philip Leenoski, ...	Russian, ...	Miner, ...	27	S.	....	....	Pan Handle, ...	Allegheny,...	Killed by fall of slate in pillar working.
March 3	John Pollack, ...	Russian, ...	Loader, ...	52	M.	1	3	Lake Superior, ...	Allegheny,...	Killed by fall of slate in his room.
April 4	Joseph Botonas, ...	Polish, ...	Mach. run'r,	31	M.	1	....	Hazel, ...	Washington,	Killed by mine cars; the moter trip was passing along the entry and one of the couplings broke, and thinking the cars was coming into his room he ran out into the entry and was struck by the cars as they left the track.
16	Anthony Berteni, ...	Austrian, ..	Loader, ...	20	S.	....	....	Meadow Lands, ...	Washington,	Killed by fall of slate in his room.
22	Tony Saltz, ...	Austrian, ..	Loader, ...	28	M.	1	....	First Pool No. 1, ...	Allegheny,...	Fatally injured by fall of slate in his room.
May 5	Thomas Hulmes, ...	English, ...	Miner, ...	53	M.	1	1	Brier Hill, ...	Washington,	Fatally injured by fall of slate in his room.,
6	Peter Oehms, ...	German, ...	Mach. run'r,	39	M.	1	4	Nixon, ...	Allegheny,...	Killed by fall of slate in his room.
24	Louis Dadpova, ...	Italian, ...	Miner, ...	16	S.	....	....	Oak Hill No. 5, ...	Allegheny,...	Killed by fall of slate in pillar workings; this boy was working with an older brother who failed to set sufficient props for protection, the slate fell from between the props which were too far apart.
June 3	Joseph Schenka, ..	Hungarian,	Loader, ...	28	S.	....	....	Morgan, ...	Allegheny,...	Killed by fall of slate in his room.
11	Charles Cunder, ...	Russian, ...	Loader, ...	21	M.	1	1	Blyth, ...	Allegheny,...	Killed by flying coal from a blast.
18	John Csamas, ...	Hungarian,	Loader, ...	19	S.	....	....	Rich Hill, ...	Washington,	Killed by fall of slate in his room.
26	William Kotson, ...	Slavonic, ...	Loader, ...	22	S.	....	....	Essen No. 3, ...	Allegheny,...	Killed by fall of slate in his room.

	27	Harry Creprilla, ...	Slavonic, ...	Loader, ...	25	S.	....	....	Moon Run, ...	Allegheny,...	Killed by fall of slate in his room.
	27	James McManus, ...	Irish, ...	Loader, ...	31	S.	....	....	Bulger, ...	Washington,	Killed by fall of slate in his working place.
July	11	John Matista, ...	Italian, ...	Loader, ...	40	M.	1	3	Witch Hazel, ...	Allegheny,...	Killed by fall of slate in his room.
	15	Paul Snoary, ...	Hungarian,	Loader, ...	19	S.	....	....	Vulcan, ...	Allegheny,...	Killed by fall of slate in his room.
Aug.	4	Salvaus Paris, ...	Italian, ...	Loader, ...	19	S.	....	....	Midland No. 1, ...	Washington,	Killed by mine car.
	16	Eli Domico, ...	Italian, ...	Com'y man	33	M.	1	2	First Pool No. 2, ...	Allegheny,...	Killed by fall of slate.
Sept.	2	Frank Wlaker, ...	Austrian, ..	Loader, ...	41	M.	1	4	Lick Run, ...	Allegheny,...	Killed by fall of roof in his room.
	4	Wilbert Elai, ...	Belgian, ...	Loader, ...	14	S.	....	....	Laurel Hill No. 1, ...	Allegheny,...	Killed by fall of slate in a room.
	4	Paul Koash, ...	Hungarian,	Com'y man,	50	S.	....	....	Pittsburg Term. No. 2,	Allegheny,...	Killed by mine car outside of mine.
	11	Mike Ganels, ...	Austrian, ..	Miner, ...	42	M.	1	4	Oak Hill No. 5, ...	Allegheny,...	Killed by fall of slate in a room piller.
	12	Simon P. Byers, ...	American, ..	Driver, ...	22	S.	....	....	Oak Hill No. 4, ...	Allegheny,...	Killed by mine cars; he was taking sprags out of the car wheels on the main passage way, and was caught between car and side of entry.
	18	Buscagline Carlo, ..	Italian, ...	Miner, ...	29	M.	1	2	Oak Hill No. 4, ...	Allegheny,...	Killed by fall of slate in his room.
	18	Joseph Eukena, ...	Hungarian,	Loader, ...	35	S.	....	....	Essen No. 3, ...	Allegheny,...	Killed by fall of slate in his room.
	20	Jacob Koleskey, ...	Polish, ...	Loader, ...	32	S.	....	....	Carnegie, ...	Allegheny,...	Killed by electric shock; he came in contact with electric wire on the mine passage way causing instant death.
	30	Mike Meneno, ...	Italian, ...	Loader, ...	25	S.	....	....	Summer Hill, ...	Allegheny,...	Fatally injured by explosion of gas; he fired a blast in the coal in an entry which liberated a gas feeder, and in going back to face of entry ignited the gas with his open light; was only slightly burned, but died from the shock.
Oct.	6	Thos. Potocnik, ...	Slavonic, ...	Loader, ...	32	M.	1	....	Lick Run, ...	Allegheny,...	Killed by fall of slate in his room.
	9	Joseph Weysick, ...	Austrian, ..	Com'y man,	25	M.	1	1	Essen No. 2, ...	Allegheny,...	Killed by cars in the mine.
	17	Steve Hegerdish, ...	Hungarian,	Loader, ...	36	M.	1	4	Ridgeway, ...	Washington,	Killed by fall of coal in his room.
Nov.	1	Leon Weyniskie, ...	Russian, ...	Mach. run'r,	30	S.	....	....	Nixon, ...	Allegheny,...	Killed by electric shock; the mining machine had become charged through some defect in the machinery, and the man touched the machine, causing instant death.
	19	Albert Lashek, ...	Polish, ...	Loader, ...	36	M.	1	4	Boyd, ...	Allegheny,...	Killed by fall of slate in his room.
	24	John Antoney, ...	American, ..	Scraper, ...	20	S.	....	....	Lake Superior, ...	Allegheny,...	Killed by electric mining machine; his leg was caught by the bitts of cutter chain.
Dec.	4	Stanlius Moleski, .	Polish, ...	Scraper, ...	22	M.	1	....	Nixon, ...	Allegheny,...	Killed by being caught by cutter chain of electric mining machine.
	15	Anton Jurinovic, ...	Austrian, ..	Miner, ...	29	S.	....	....	Pine Ridge, ...	Allegheny,...	Killed by fall of slate in his room.
	15	Archie Campbell, ...	Scotch, ...	Loader, ...	36	S.	....	....	Nickel Plate, ...	Allegheny,...	Killed by fall of slate in his room.
	27	Nicholas Bordowsky,	Russian, ...	Loader, ...	26	S.	....	....	First Pool No. 1, ...	Allegheny,...	Killed by fall of slate in his room.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Seventh Bituminous District for the year ending December 31, 1902.

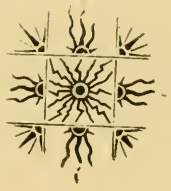
Date of Accident.		Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan.	2	John Smith,	Hungarian,	Driver,	40	M.	First Pool No. 2,	Allegheny,	Shoulder blade broken, caught between cars.
	3	John Fisher,	Irish,	Miner,	50	M.	First Pool No. 2,	Allegheny,	Three ribs broken, fall of slate.
	4	Ceder Rabic,	Russian,	Loader,	23	S.	First Pool No. 1,	Allegheny,	Collar bone broken by fall of coal.
	8	William Powell,	American,	Scraper,	25	M.	Laurel Hill No. 1,	Allegheny,	Leg broken by fall of coal.
	10	Antonio Celandon,	Italian,	Loader,	48	S.	Federal No. 2,	Alegheny,	Injured by fall of coal.
	13	Alex. Galthrie,	Belgian,	Machine runner,	42	M.	Champion,	Allegheny,	Injured by fall of slate.
	14	Mike Powlak,	Polish,	Loader,	24	S.	Moon Run,	Allegheny,	Seriously injured by fall of slate.
	15	Henry Boenalt,	Belgian,	Loader,	43	S.	Champion,	Allegheny,	Both feet injured by fall of slate.
	16	Wm. Snyder,	American,	Company man,	28	M.	Grant,	Allegheny,	Injured by car outside of mine.
	20	Martin Panda,	Danish,	Miner,	45	M.	Boon,	Washington,	Leg broken by fall of coal and slate.
	28	Thomas Callaghan,	Irish,	Miner,	45	M.	Champion,	Allegheny,	Burned by explosion of crude oil, which he had taken into the mine for lighting purposes.
	29	Marting Swanger,	Danish,	Loader,	24	S.	Margerum,	Allegheny,	Injured by fall of slate.
	29	John Goodlaws,	Hungarian,	Loader,	36	M.	Bulger,	Washington,	Leg broken by fall of slate.
Feb.	3	Lonie Zelash,	German,	Loader,	50	M.	Ridgeway,	Washington,	Injured internally by fall of slate.
	5	John Syphos,	Lithuanian,	Loader,	18	S.	Fort Pitt,	Allegheny,	Slightly injured by fall of slate.
	7	Wm. Swarton,	American,	Company man,	17	S.	Carnegie,	Allegheny,	Injured by cars outside.
	10	Ark Redman,	American,	Driver,	27	M.	Dickson,	Allegheny,	Hip injured by cars inside of mine.
	14	Sam. Thomas,	Welsh,	Loader,	37	S.	Dickson,	Allegheny,	Leg injured by fall of slate.
	15	John Usnick,	Slavonic,	Loader,	24	S.	Essen No. 2,	Allegheny,	Leg broken by fall of slate.
	22	John Selinski,	Lithuanian,	Miner,	17	S.	Hartley & Marshall,	Allegheny,	Knee injured by mine cars.
	24	John O'Brien,	American,	Driver,	18	S.	Carnegie,	Allegheny,	Injured by mine cars.
	27	Henry Hillman,	English,	Miner,	65	S.	Hartley & Marshall,	Allegheny,	Severe cut on hand while cutting a cap piece.
	28	Samuel Curty,	Italian,	Loader,	45	M.	Midland No. 1,	Washington,	Leg fractured by fall of coal.
	28	Andrew Boninie,	Italian,	Company man,	40	M.	Nixon,	Allegheny,	Internally injured, fell from the tipple.
March	1	George Sudikum,	German,	Carpenter,	50	M.	National,	Allegheny,	Leg severely injured by falling of a log.
	3	Antonio Messing,	Austrian,	Machine runner,	23	M.	First Pool No. 1,	Allegheny,	Leg injured by fall of slate.
	5	Robert Welshire,	American,	Company man,	18	S.	Essen No. 1,	Allegheny,	Arm broken by falling from railroad car at tipple.
	6	John Gndt,	Belgian,	Miner,	52	M.	Federal No. 2,	Allegheny,	Injured by fall of slate.
	11	Conrad Woodapple,	German,	Driver,	33	S.	Becks Run,	Allegheny,	Leg broken by mine cars.

	14	Jos. Vangeyer,	Belgian,	Loader,	26	M.	Jumbo,	Washington,	Foot severly injured by fall of slate.
	15	James Clase,	American,	Company man,	43	S.	Shaw No. 1,	Washington,	Leg broken by railroad cars.
	16	Richard Cox,	English,	Company Man,	38	M.	Grant,	Allegheny,	Seriously injured by a mine car.
	18	Mike Grova,	Polish,	Miner,	50	M.	Lake Superior,	Allegheny,	Ankle injured by fall of slate.
	20	Goal Galee,	Italian,	Miner,	30	S.	Oak Hill No. 4,	Allegheny,	Injured, kicked by a mule.
	25	Laureno Gellirt,	Belgian,	Driver,	16	S.	Jumbo,	Washington,	Shoulder injured by cars.
	25	Angelo Ross,	Italian,	Miner,	50	M.	Essen No. 1,	Allegheny,	Injured by cars in the mine.
	25	Samuel Johnston,	Swedish,	Miner,	57	S.	Cherry,	Allegheny,	Back injured by fall of slate.
April	3	Julius Yamarion,	Italian,	Loader,	46	S.	Jumbo,	Washington,	Leg broken by fall of slate.
	4	Chas. McFarland,	American,	Machine runner,	33	M.	Dickson,	Allegheny,	Shoulders injured by fall of roof coal.
	4	Stamn Sloar,	Lithuanian.	Loader,	28	S.	Morgan,	Allegheny,	Leg broken by fall of slate.
	8	Mike Eusiski,	Polish,	Loader,	19	S.	Partridge,	Allegheny,	Leg broken by fall of slate.
	10	Sam. Pigeo,	American,	Driver,	17	S.	Lake Superior,	Allegheny,	Leg broken by cars.
	12	Jacob Tolliatty,	Slavonic,	Driver,	28	M.	Essen No. 2,	Allegheny,	Foot injured by mine cars.
	12	Jos. Holland,	American,	Driver,	21	S.	Shaw No. 1,	Washington,	Leg broken and crushed by a car.
	30	Leapol Postey,	French,	Miner,	40	M.	Creedmoor,	Washington,	Ankle dislocated by fall of coal and slate.
May	5	Lrvin Cargo,	American,	Miner,	18	S.	Duquesne,	Allegheny,	Leg broken by fall of slate.
	5	Frank Abbbet,	Italian,	Miner,	44	S.	Witch Hazel,	Allegheny,	Leg broken by fall of slate.
	7	James Busseli,	French,	Miner,	44	S.	First Pool No. 2,	Allegheny,	Leg broken by fall of roof coal.
	13	William Sperrings,	English,	Loader,	16	S.	Mansfield No. 2,	Allegheny,	Leg broken by fall of slate.
	13	James Mull,	American,	Scraper,	18	S.	Rich Hill,	Washington,	Injured by fall of roof coal.
	13	Sam Kager,	American,	Machine runner,	21	M.	Rich Hill,	Washington,	Injured by fall of roof coal.
	16	Joseph Veargen,	Belgian,	Miner,	33	M.	Jumbo,	Washington,	Leg broken by fall of slate.
	21	John Bortzr,	Polish,	Miner,	22	S.	Lick Run,	Allegheny,	Leg broken by fall of slate.
	22	John Murphey,	American,	Driver,	30	S.	Bridgeville,	Allegheny,	Injured, caught between cars.
	23	Joseph Rushnosky,	German,	Miner,	23	S.	Carnegie,	Allegheny,	Collar bone broken by fall of slate.
	26	Edwin Jones,	American,	Driver,	40	M.	Mansfield No. 2,	Allegheny,	Collar bone broken by fall of slate.
	28	William Riley,	American,	Driver,	30	S.	Oak Hill No. 5,	Allegheny,	Leg broken by cars.
June	4	John Gilmor,	Scotch,	Driver,	21	S.	Midland No. 1,	Washington,	Leg injured by mine cars.
	4	John Cooper,	American,	Driver,	18	S.	Midland No. 1,	Washington,	Four ribs broken, caught between car and passageway.
	9	Mike Crownkey,	Slavonic,	Loader,	33	M.	Midland No. 3,	Washington,	Arm broken, caught between car and side of entry.
	10	James Rane,	Italian,	Loader,	25	S.	National,	Allegheny,	Injured by fall of slate.
	11	A. Dollav,	American,	Door boy,	15	S.	Federal No. 2,	Allegheny,	Injured by cars, he fell asleep at his post and was struck by car.
	19	George Kiesling,	Hungarian,	Driver,	19	S.	Cherry,	Allegheny,	Injured by a car in the mine.
	21	Joseph Bondorlski,	Polish,	Loader,	32	S.	Laurel Hill No. 1,	Allegheny,	Injured by fall of slate.
	21	Jos. Palter,	American,	Loader,	35	M.	Oak Ridge,	Allegheny,	Injured by fall of slate.
	26	William Pemberty,	American,	Driver,	20	S.	Moon Run,	Allegheny,	Leg broken by cars in the mine.
July	2	E. Bozier,	Belgian,	Driver,	22	M.	Federal No. 2,	Allegheny,	Injured by cars.
	8	Frank Sour,	Slavonic,	Loader,	18	S.	Essen No. 2,	Allegheny,	Leg broken by fall of slate.
	14	Peater Polle,	Italian,	Loader,	25	S.	Summer Hill,	Allegheny,	Burned by powder from a premature blast.
	14	Mike Dennis,	Polish,	Machine runner,	35	M.	Summer Hill,	Allegheny,	Burned by a premature blast.
	14	John Soback,	Polish,	Machine runner,	30	M.	Summer Hill,	Allegheny,	Burned by a premature blast.
	15	Mike Machimch,	Polish,	Loader,	33	M.	Laurel Hill No. 1,	Allegheny,	Injured by fall of slate.
	15	Christ Kelsling,	American,	Driver,	40	M.	Cherry,	Allegheny,	Leg broken by fall of slate.
	23	Peater Mathalis,	Polish,	Scraper,	25	M.	Partridge,	Allegheny,	Injured by fall of coal and slate.
	23	Steve Mathalis,	Polish,	Machine runner,	25	M.	Partridge,	Allegheny,	Leg broken by fall of coal and slate.
	25	Lowis Heninger,	German,	Loader,	47	M.	Becks Run,	Allegheny,	Two ribs broken by fall of slate.
	25	John Nauth,	German,	Loader,	42	M.	Becks Run,	Allegheny,	Leg broken by fall of slate.
Aug.	1	Mike Pooher,	Hungarian,	Machine runner,	32	M.	Vulcan,	Allegheny,	Injured by electric mining machine.
	1	Comprinio Albonio,	Italian,	Loader,	25	S.	Summer Hill,	Allegheny,	Skull fractured by fall of slate.
	4	John Mnscot,	Hungarian,	Loader,	29	M.	First Pool No. 1,	Allegheny,	Hip dislocated by fall of slate.

TABLE V—Continued.

Date of Accident.		Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Aug.	4	Antonhey Alecks,	Polish,	Loader,	30	S.	Summer Hill,	Allegheny,	Injured by fall of slate.
	4	Robert D. Gregery,	American,	Driver,	18	S.	Laurel Hill No. 2,	Washington,	Injured by cars.
	5	Joseph Tylka,	Polish,	Loader,	25	M.	Boyd,	Allegheny,	Arm broken by fall of slate.
	7	Stephen Hevelog,	Hungarian,	Loader,	44	M.	Laurel Hill No. 2,	Washington,	Arm broken by fall of slate.
	7	John Downs,	American,	Driver,	24	S.	Essen No. 2,	Allegheny,	Injured by car.
	8	Loadix Modor,	Hungarian,	Loader,	30	S.	Midland No. 2,	Washington,	Thigh broke by fall of coal.
	8	James Pasgall,	Italian,	Miner,	36	M.	Oak Hill No. 5,	Allegheny,	Jaw bone broke and one eye knocked out by fall of slate.
	11	James Dolance,	Italian,	Miner,	40	M.	Oak Hill No. 5,	Allegheny,	Seriously injured by fall of slate.
	11	White Carter,	American,	Miner,	45	M.	Harrison,	Allegheny,	Injured by fall of slate.
	13	Partcher Valentine,	American,	Scraper,	13	S.	Laurel Hill No. 2,	Washington,	Hip dislocated by a car.
	14	David McLean,	Scotch,	Miner,	56	M.	Hartley & Marshall,	Allegheny,	Foot injured by a fall of slate.
	15	Chas. Eisenbart,	German,	Miner,	27	M.	Becks Run,	Allegheny,	Hip injured by fall of slate.
	16	Andy Rushul,	Polish,	Loader,	41	M.	Laurel Hill No. 1,	Allegheny,	Injured by fall of slate.
	16	William Chise,	Austrian,	Company man,	27	S.	Hartley & Marshall,	Allegheny,	Injured by a lump of coal falling upon him at tipple.
	18	Harry Meadrelle,	American,	Loader,	17	S.	Hartley & Marshall,	Allegheny,	Injured while lifting slate into a car.
	20	John Dernirskey,	Polish,	Loader,	59	M.	Midland No. 3,	Washington,	Two ribs broken by cars in the mine.
	22	William Korcting,	German,	Miner,	19	S.	Becks Run,	Allegheny,	Leg broken by fall of coal.
	23	John Brown,	American,	Driver,	20	S.	Essen No. 1,	Allegheny,	Knee injured by car.
Sept.	4	Mike Deek,	Polish,	Loader,	33	M.	Boyd,	Allegheny,	Wrist broken by a car.
	4	John Brozier,	Polish,	Scraper,	24	S.	Essen No. 1,	Allegheny,	Foot injured by cutter chain of electric mining machine.
	9	Peter Defirir,	Italian,	Miner,	24	S.	Harrison,	Allegheny,	Collar bone broken by a car.
	10	Alexander Plants,	American,	Loader,	41	M.	Shaw No. 1,	Washington,	Injured by fall of slate.
	20	Stephen Talub,	Polish,	Loader,	37	M.	Boyd,	Allegheny,	Injured by fall of slate.
	24	Martin McGrogen,	American,	Driver,	19	S.	Boyd,	Allegheny,	Arm broken by cars.
	29	William Mesing,	German,	Loader,	32	M.	Becks Run,	Allegheny,	Leg broken by fall of slate.
Oct.	1	Seve Slesak,	Polish,	Miner,	44	M.	Midland No. 1,	Washington,	Leg fractured by fall of roof coal.
	4	William Danks,	English,	Machine runner,	30	S.	Mansfield No. 2,	Allegheny,	Injured internally by fall of coal and slate.
	4	George Modritsh,	Austrian,	Loader,	40	S.	Essen No. 2,	Allegheny,	Ankle broken by car.
	7	Ernest Bertona,	Austrian,	Miner,	26	S.	Meadow Lands,	Washington,	Seriously injured by a fall of slate.
	16	Martin Baure,	American,	Driver,	23	S.	Becks Run,	Allegheny,	Injured by cars.
	23	John Didiow,	American,	Machine runner,	26	M.	Hartley & Marshall,	Allegheny,	Collar bone broken by a fall of coal.

	28	John Sylvester,	Italian,	Miner,	26	S.	First Pool No. 2,	Allegheny,	Injured by fall of slate.
Nov.	3	John Fisher,	Irish,	Loader,	58	M.	First Pool No. 1,	Allegheny,	Injured by fall of slate.
	8	Ignotus Barashey,	Russian,	Loader,	22	S.	Bridgeville,	Allegheny,	Injured by fall of slate.
	10	John Stetkler,	Polish,	Loader,	19	S.	Bridgeville,	Allegheny,	Burned by explosion of gas.
	10	Adam Klepety,	Polish,	Loader,	24	S.	Bridgeville,	Allegheny,	Burned by explosion of gas.
	14	E. Leviber,	French,	Loader,	42	S.	Federal No. 2,	Allegheny,	Leg broken by fall of slate.
	18	Emel Dewit,	French,	Miner,	46	M.	Laurel Hill No. 1,	Allegheny,	Leg broken by fall of slate.
	18	Robert Smith,	Irish,	Driver,	29	M.	Laurel Hill No. 1,	Allegheny,	Ribs broken by car.
	18	Jacob Russell,	American,	Driver,	21	S.	Bulger,	Washington,	Injured by car.
	18	Joseph Yanicheck,	Slavonic,	Loader,	29	M.	Essen No. 3,	Allegheny,	Burned by gas explosion.
	21	William Spoolnik,	Polish,	Loader,	23	S.	Cherry,	Allegheny,	Injured by fall of slate.
	24	August Sentony,	French,	Driver,	23	M.	Laurel Hill No. 1,	Allegheny,	Arm broken by car.
Dec.	2	James Bertram,	American,	Company man,	17	S.	Laurel Hill No. 2,	Washington,	Injured by cars.
	3	Martin Penisky,	Polish,	Loader,	34	M.	Verner,	Washington,	Leg broken by fall of slate.
	4	Patrick Welsh,	American,	Driver,	20	S.	Bridgeville,	Allegheny,	Arm broken by fall of roof.
	5	Jno. Pazza,	Tyrolean,	Loader,	44	M.	Essen No. 1,	Allegheny,	Arm fractured by fall of slate.
	7	Mike Kriser,	Austrian,	Loader,	42	M.	Bridgeville,	Allegheny,	Hips dislocated by fall of slate.
	8	Jacob Rocco,	Italian,	Miner,	40	M.	Essen No. 1,	Allegheny,	Leg fractured by fall of coal.
	10	Carlo Benalls,	American,	Driver,	18	S.	Essen No. 1,	Allegheny,	Leg injured by cars, necessitating amputation.
	16	John Worchuck,	Polish,	Loader,	40	M.	Fort Pitt,	Allegheny,	Leg broken by fall of slate.
	20	John Burns,	English,	Loader,	40	S.	Nixon,	Allegheny,	Arm broken by fall of slate.
	31	Louis Phillips,	Belgian,	Machine runner,	43	M.	Creedmoor,	Washington,	Arm dislocated by fall of slate.
	31	Roudolph Phillips,	Belgian,	Scraper,	35	M.	Creedmoor,	Washington,	Leg and arm broken and knee dislocated by fall of slate.



Eighth Bituminous District.

CLEARFIELD AND CENTRE COUNTIES.

Philipsburg, Pa., February, 1903.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.

Sir: In compliance with the Bituminous mining law and its provisions, as approved May 15, 1893, I herewith submit my annual report for the Eighth Bituminous District for the year ending December 31, 1902.

The report contains the usual statistical tables, with the total production of coal in net tons; the number of accidents that occurred in and about the mines, and the condition of the mines, as to healthfulness and safety, and the improvements made therein.

The coal production has been one-third greater than that of the preceding year, but the number of accidents has remained the same.

1,458,930 tons of coal have been produced for each fatal accident, and 162,102 tons for each non-fatal accident, which is the highest record that has been attained in this district for the past ten years, and the result is attributable alike to more vigilance and care on the part of the workmen, the efforts put forth by the operators to equip and supply their mines with modern methods and material, and a general tendency on the part of the mine officials to enforce more rigid discipline.

Other data is given more fully and at length in the report.

All of which is respectfully submitted.

JOSEPH KNAPPER,
Inspector.

Summary of Statistics for 1902.

Number of mines in district,	126
Number of mines in operation during 1902,	126
Number of tons of coal produced,	4,376,762
Number of tons shipped to market,	4,249,594

Number of tons sold at mines to local trade,	11,938
Number of tons consumed at mines in generating steam and heat,	53,134
Number of coke ovens in the district,	106
Number of coke ovens in operation during 1902,	106
Number of tons of coke produced,	44,731
Number of tons of coal used in manufacture of coke,	62,096
Number of tons produced by pick mining,	3,895,101
Number of tons produced by compressed air machines,	342,420
Number of tons produced by electrical machines,	139,241
Number of persons employed inside the mines,	6,940
Number of persons employed outside, including coke workers,	554
Number of persons employed at manufacture of coke,	40
Number of fatal accidents inside the mines,	2
Number of tons produced for each fatal accident inside,	2,188,381
Number of persons employed per fatal accident inside,	3,470
Number of fatal accidents outside,	1
Number of persons employed per fatal accident outside,	554
Number of wives made widows by fatal accidents,	2
Number of children orphaned by fatal accidents,	5
Number of non-fatal accidents inside of mines,	24
Number of persons employed per non-fatal accident inside,	289
Number of non-fatal accidents outside,	3
Number of persons employed per non-fatal accident outside,	184
Number of electric motors used inside,	20
Number of fans used for ventilation,	19
Number of furnaces used for ventilation,	99
Number of non-gaseous mines in operation during 1902,	126
Number of new mines opened in 1902,	14
Number of old mines abandoned during 1902,	2

A. Production of Coal During the Year 1902.

Names of Companies.	Tons, Net.
Berwind-White Coal Mining Co.,	541,756
Morrisdale Coal Mining Co.,	402,890
Peale, Peacock and Kerr, Inc.,	548,444
Beech Creek Coal and Coke Co.,	406,757
Henry Liveright,	95,969
Irish Brothers,	277,928

Cambria Coal Mining Co.,	82,494
Wm. A. Gould & Bro. and Reakirt Bros. & Co.,	86,939
Victoria Coal Mining Co.,	152,115
Ashman and Ophir Coal Co.,	159,517
Henrietta Coal Mining Co., Limited,	50,709
Penn Collieries Co.,	70,423
Moshannon Coal Mining Co.,	53,628
G. L. Whitehead Coal Co.,	61,003
S. J. Mountz,	33,522
James F. Stott,	25,572
H. W. Wortz & Co.,	22,680
Betz Coal Mining Co. and Swoope Coal Co.,	109,792
L. Milton Wilson,	35,675
H. M. Hughes,	24,986
J. R. Brown,	22,342
Thos. C. Heims & Co.,	115,703
Thos. J. Lee,	53,624
M. and F. Craig,	40,320
Harbison-Walker Co.,	34,846
Brown & Dyer,	23,699
O. L. Schoonover,	15,840
American Union Coal Co.,	11,200
Gheen Coal Co.,	90,444
Bulah Coal Co.,	74,680
John J. and H. W. Todd,	74,970
Elsworth & Dunham,	42,160
Adams & Co.,	34,186
Penn Iron Co., Limited,	23,370
Osceola Coal and Coke Co.,	21,158
E. J. Walker & Co.,	17,676
C. D. Loraine,	16,192
Lawton & Cox,	16,404
Clearfield Lumber Co., Limited,	15,069
W. F. Holt,	11,274
Stratton Bros.,	10,329
Brown & Reeves,	9,968
Meadowbrook Mining Co.,	9,610
Hilling & Morgan,	7,948
John Walton & Son,	6,681
J. M. Roberson,	6,593
Townsend and Milsom,	7,125
Beaver Run Coal Co.,	5,750
J. R. Flenner & Co.,	5,432
Mapleton Coal Co.,	5,600
Wm. Caskey,	5,247

Stanley Coal Co.,	4,013
S. V. Davis & Co.,	3,151
Lincoln Coal Co.,	1,536
W. G. Fishburn,	9,467
Stott, Hill & Dale,	5,600
Thos. Blythe and Pennsylvania Coal and Coke Co.,	62,901
J. W. Hooten,	25,083
Anda & Co.,	7,259
Coaldale Mining Co.,	37,800
Powelton Coal Mining Co.,	17,987
Isaac Reese Sons Co.,	20,384
John Barnes & Sons,	13,708
John G. Platt,	3,125
Blair Bros.,	77,545
Samuel Styre,	8,961
Total,	4,376,762

B. Showing the number of fatal and non-fatal accidents inside and outside the mines; number of tons of coal produced per fatal and non-fatal accident inside the mines; number of persons employed inside and outside; and the number employed inside and outside for every fatal and non-fatal accident for each company during 1902.

Names of Companies.	Number of lives lost inside.	Number of lives lost outside.	Total number of lives lost.	Number severely injured inside.	Number severely injured outside.	Total number severely injured.	Tons of coal produced per each life lost inside.	Tons of coal produced per serious injury inside.	Number employes inside of mines.	Number employes outside of mines.	Total number employed.	Number of employes inside for each life lost.	Number of employes inside for each severe injury.	Number of employes outside for each life lost.	Number of employes outside for each severe injury.
Berwind-White Coal Mining Co.,	.....	.....	.....	4	1	5	541,756	135,439	754	68	822	.....	151	.....	.....
Morrisdale Coal Mining Co.,	.....	.....	.....	2	.....	2	402,890	201,485	478	107	585	.....	239	.....	.....
Peale, Peacock & Kerr, Inc.,	.....	.....	.....	4	.....	4	548,444	137,111	653	37	690	.....	163	.....	.....
Beech Creek Coal and Coke Co.,	.....	.....	.....	2	.....	2	406,757	203,378	431	33	464	.....	215	.....	.....
Irish Bros.,	2	.....	2	5	.....	5	138,964	55,585	629	19	648	314	126	.....	.....
Victoria Coal Mining Co.,	.....	1	1	.....	.....	.....	152,115	.....	203	21	224	224	.....	21	.....
Henrietta Coal Mining Co., Ltd.,	.....	.....	.....	1	.....	1	50,709	50,709	87	5	92	.....	87	.....	5
O. L. Schoonover,	.....	.....	.....	1	1	2	15,840	15,840	165	8	173	.....	82	.....	4
American Union Coal Co.,	.....	.....	.....	1	.....	1	11,200	11,200	26	4	30	.....	26	.....	4
Elsworth & Dunham,	.....	.....	.....	2	.....	2	42,160	21,080	118	7	125	.....	59	.....	3
J. R. Flenner & Co.,	.....	.....	.....	1	.....	1	5,432	5,432	13	1	14	.....	13	.....	1
Thos. Blythe & Penn'a Coal and Coke Co.,	.....	.....	.....	.....	1	1	62,901	.....	134	8	142	.....	134	.....	8
S. V. Davis Co.,	.....	.....	.....	.....	.....	.....	3,151	.....	14	1	15	.....	.....	.....	.....
Powelton Coal Mining Co.,	.....	.....	.....	1	.....	1	17,987	17,987	22	1	23	.....	22	.....	1
Totals and averages,	2	1	3	24	3	27	2,188,381	182,365	6,940	554	7,494	2,313	257	184	20

C. Classification of Fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						
	By Falls of			By mine cars.	By explosions of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
February,	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
September,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1
Totals,	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	1	1	3

D. Classification of Non-fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						
	By Falls of			By mine cars.	By explosions of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
January,	1	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
February,	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
March,	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
April,	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
May,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
June,	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
July,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
August,	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	1	.....	.....	.....	.....	1	3
September,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	1
October,	3	2	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	6
November,	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
December,	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
Totals,	12	7	1	5	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	26	2	.....	.....	.....	.....	2	28

E. Occupations of Employes Killed or Fatally Injured Inside and Outside the Mines of the Eighth Bituminous District During 1902.

Months.	Inside.														Outside.										Grand total.
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total, inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
February,				1				1				2				1				1	3
September,																					
Totals,				1				1				2				1				1	3

F. Occupations of Employes Severely Injured Inside and Outside the Mines of the Eighth Bituminous District During 1902.

Months.	Inside.													Outside.									Grand total.
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
January,				3								3									3
February,				1						1		2									2
March,				1								1									1
April,				3								3									3
May,				1								1									1
June,				2								2									2
July,				1				1				2							1	1	3
August,																					1
September,				3				1				6									6
October,				2								3									3
November,	1			1								3									3
December,				21				2		1		25							2	2	27
Totals,	1																				

G. Nationality of Employes Killed or Fatally Injured Inside and Outside the Mines During 1902.

	Americans.
February,	2
September,	1
Total,	3

H. Nationality of Employes Severely Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Scotch.	Irish.	Germans.	Hungarians.	Slavs.	Russians.	Swedes.	Canadians.	Total.
January,	.....	.....	1	.....	.....	.....	.....	1	1	.....	3
February,	1	.....	.....	.....	.....	.....	.....	1	.....	.....	2
March,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
April,	.....	1	.....	.....	.....	.....	2	.....	.....	.....	3
May,	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
June,	.....	.....	.....	.....	1	.....	1	.....	.....	.....	2
July,	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
August,	1	.....	.....	.....	1	.....	.....	.....	.....	.....	2
September,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
October,	1	1	.....	1	2	1	.....	.....	.....	.....	6
November,	1	.....	.....	.....	.....	1	.....	.....	.....	1	3
December,	1	.....	.....	.....	.....	.....	1	.....	.....	.....	2
Totals,	6	4	1	2	4	2	4	2	1	1	27

I. Giving names of operators and mines, kind of openings, type and size of fans; size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each employe per minute in Eighth Bituminous District for the year 1902.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Berwind-White Coal Mining Co.														
Atlantic No. 1,	Slope,	Non-gas.	Fan,	4½ x 16	¾	Brazil,	Steam,		3	35,100	25,050	*	111	316
Eureka No. 5,	Slope,	Non-gas.	Fan,	4½ x 16	½	Brazil,	Steam,		2	32,400	28,200	35,400	70	462
Eureka No. 7,	Shaft,	Non-gas.	Fan,	4 x 12	¾	Brazil,	Steam,		2	56,250	33,000	62,400	145	387
Eureka No. 16,	Drift,	Non-gas.	Fan,	3 x 10	¾	Brazil,	Steam,		2	18,000	16,400	23,400	58	310
Eureka No. 19,	Drift,	Non-gas.	Fan,	4½ x 16	½	Brazil,	Steam,		2				43	404
Eureka No. 22,	Drift,	Non-gas.	Fan,	2 x 12	¾	Stine,	Steam,		3	36,000	27,720	38,660	114	315
Eureka No. 24,	Drift,	Non-gas.	Furnace,		½			42		10,500	10,500	12,000	35	300
Eureka No. 27,	Drift,	Non-gas.	Furnace,		½			36	2	24,000	24,000	25,200	80	300
Eureka No. 28,	Shaft,	Non-gas.	Fan,	7 x 11	1	Capell,	Steam,		2	66,000	50,600	70,000	82	804
Morrisdale Coal Mining Co.														
Morrisdale No. 1,	Shaft,	Non-gas.	Fan,	2 x 12	½	Stine,	Steam,		4	43,000	39,000	45,000	224	191
Morrisdale No. 2,	Shaft,	Non-gas.	Fan,	2 x 7	½	Stine,	Steam,		3	30,550	30,550	32,000	112	272
Morrisdale No. 3,	Shaft,	Non-gas.	Steam,				Steam,			5,700	5,700	6,400	47	121
Morrisdale No. 6,	Drift,	Non-gas.	Furnace,		¼			12	2	3,860	4,140	4,140	20	207
Mabel,	Drift,	Non-gas.	Furnace,		¼			36		6,680	6,680	12,600	16	417
Troy Nos. 1 and 3,	Drifts,	Non-gas.	Furnace,		½			30	2	6,600	5,900	7,400	18	366
Troy No. 4,	Drift,	Non-gas.	Natural,					12		4,000	4,000	4,000	15	266
Madera No. 1,	Drift,	Non-gas.	Furnace,		¼			10		8,700	8,700	9,900	26	334
Peale, Peacock & Kerr, Inc.														
Decatur No. 1,	Drift,	Non-gas.	Furnace,		¼			30	2	14,800	14,800	15,350	55	269
Decatur No. 2,	Drift,	Non-gas.	Furnace,		¼			20		8,000	8,000	9,350	59	135
Decatur No. 3,	Drift,	Non-gas.	Furnace		½			30	3			24,500	200	122

*Broken strata.

TABLE I—Continued.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—In inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Decatur No. 4,	Drift,	Non-gas.	Furnace,		½			25		9,300	9,300	12,500	34	273
Decatur No. 6,	Drift,	Non-gas.	Furnace,		¼			12		5,400	5,400	6,000	10	540
Ogle No. 1,	Drift,	Non-gas.	Fan,	2	¾	Stine,	Steam,		4	27,600	27,600	31,000	230	120
Ogle No. 5,	Drift,	Non-gas.	Fan,	2	¾	Stine,	Steam,			12,700	12,700	13,400	65	195
Ogle No. 7,	Drift,	Non-gas.	Natural,				Natural,							
Irish Bros. & Co.														
Baltic Nos. 1 and 3,	Drift,	Non-gas.	Furnace,		½			30			10,500	10,500	64	164
Colorado No. 2,	Drift,	Non-gas.	Furnace,		¼			30		7,500	7,500	9,000	56	133
Colorado Nos. 3 and 4,	Drifts,	Non-gas.	3 fur's,		¼-½			78	3	21,500	18,800	32,000	94	228
Colorado No. 5,	Drift,	Non-gas.	Furnace,		½			30	2	15,800	15,800	22,600	144	109
Cuba,	Drift,	Non-gas.	Furnace,		¼			25		7,600	7,600	8,500	46	165
Guion,	Drift,	Non-gas.	Furnace,		½			42		9,200	9,200	10,500	60	153
Jefferson,	Drift,	Non-gas.	Furnace,		½			30		7,900	7,900	9,000	33	239
Gearhart,	Drift,	Non-gas.	Furnace,		½			30	2	10,700	10,700	12,000	83	128
Red Jacket,	Drift,	Non-gas.	Furnace,		½			36		9,100	9,100	9,600	47	193
Cambria Coal Mining Co.														
Leland No. 1,	Drift,	Non-gas.	2 fans,	2 x 7 & 4 x 10	¾	Stine and Brazil,	Steam,		2	26,000	26,000	24,900	138	188
Leland No. 2,	Drift,	Non-gas.	Furnace,		¼			20		4,700	4,700	6,000	33	142
Leland No. 3,	Drift,	Non-gas.	Furnace,		¼			24						
Leland No. 4,	Drift,	Non-gas.	Fan,	2 x 7	¼	Brazil,	Steam,			10,400	10,400	12,000	40	260
Leland No. 5,	Drift,	Non-gas.	Furnace,		¼			18		7,200	7,200	9,000	20	360
Leland No. 6,	Drift,	Non-gas.	Furnace,		¼			42		12,000	12,000	14,400	46	260
Beech Creek Coal & Coke Co.														
Forest No. 1,	Drift,	Non-gas.	Furnace,		½			42	2	18,900	18,900	20,700	96	196
Forest No. 2,	Drift,	Non-gas.	Furnace,		¼			25		6,700	6,700	8,100		
Kyler,	Drift,	Non-gas.	Fan,	4 x 10	¾	Brazil,	Electric,		3	54,000	61,000	72,000	108	564
Summerville No. 8,	Drift,	Non-gas.	Fan,	4 x 10	1	Capell,	Steam,		4	58,000	34,700	63,000	227	253
Summerville No. 9,†	Drift,	Non-gas.	Natural,											

†Temporary.

W. A. Gould & Bro.														
Henderson No. 4,	Drift,	Non-gas.	2 fur's,		¼			40		3,600	3,600	4,300	9	400
Henderson No. 5,	Drift,	Non-gas.	Furnace,		¼			12		17,200	17,200	18,600	20	860
Midvale No. 1,	Drift,	Non-gas.	Furnace,		¼			20	2	6,400	6,400	7,600	30	213
Midvale No. 2,	Drift,	Non-gas.	Furnace,		¼			20	2	8,400	8,400		26	323
Loraine,	Drift,	Non-gas.	2 fur's,		½			40	2	11,100	11,100	12,600	42	264
H. Liveright.														
Fairmount No. 2,	Drift,	Non-gas.	2 fur's,		¼			50	3	24,700	22,700	27,000	70	352
Fairmount No. 3,	Drift,	Non-gas.	Furnace,		T.			9		4,500	4,500	5,300	8	562
Fairmount No. 4,	Drift,	Non-gas.	Furnace,		½			36		14,200	13,900	15,000	50	284
Phoenix,	Drift,	Non-gas.	Furnace,		¼			30		5,600	5,600	6,700	35	160
Fairmount No. 5,	Drift,	Non-gas.	Furnace,					9		2,700	2,700	3,000	11	245
Victoria Mining Co.														
Acme No. 1,	Slope,	Non-gas.	Fan,	2 x 10	¾	Stine,	Steam,				26,800	38,400	153	175
Acme No. 2,	Slope,	Non-gas.	Fan,	2 x 10	¾	Stine,	Steam,		4					
Acme No. 3,	Drift,	Non-gas.	Furnace,		¼			20					4	
Acme No. 5,	Drift,	Non-gas.	Furnace,		T.			12		9,400	9,400	12,000	37	254
Acme No. 6,	Drift,	Non-gas.	None,										9	
J. Swires & Ophir Coal Co.														
Ashman,	Drifts,	Non-gas.	2 fur's,		¼			44	2	12,500	12,000	14,550	62	201
Ghem,	Slope,	Non-gas.	Fan,		¼	Stine,	Steam,			14,500	14,500	16,700	57	254
Ohpir No. 1,	Drift,	Non-gas.	Furnace,		¼			42	2	11,400	11,400	21,600	52	219
Douglas,	Slope,	Non-gas.	Furnace,		¼			30		6,700	3,700	7,600	17	394
Henrietta Coal Mining Co.														
Henrietta,	Drift,	Non-gas.	2 fur's,		¼			50	2	3,700	3,700	4,500	57	64
Friendship,	Drift,	Non-gas.	Furnace,		T.			12		2,400	2,400	3,000	16	150
Meridian,	Drift,	Non-gas.	Furnace,		¼			26		3,600	3,600	4,500	14	257
Penn Collieries Co.														
Falcon No. 1,	Drift,	Non-gas.	Furnace.		¼			20		3,600	3,600	7,500	21	171
Falcon No. 2,	Drift,	Non-gas.	Furnace,		¼			25		36,700	32,000	38,000	78	470
Falcon No. 3,	Drift,	Non-gas.	Fan,	2 x 7	½	Stine,	Steam,		2	14,300	14,300	16,500	34	420
Moshannon Coal Mining Co.														
Moshannon No. 1,	Drift,	Non-gas.	Furnace,		T.			12		7,500	7,500	8,400	27	277
Moshannon No. 2,	Drift,	Non-gas.	Furnace,		¼			16		2,700	2,700	3,000	15	180
Moshannon No. 3,	Drift,	Non-gas.	Furnace,		T.			16	2	5,400	5,400	6,500	9	600
Moshannon No. 4,	Drift,	Non-gas.	Natural							5,400	5,400	6,400	9	600
Moshannon No. 7,	Drift,	Non-gas.	Natural										9	
Brown & Dwyer.														
Union No. 3,	Drift,	Non-gas.	Furnace,		T.			9	2	9,240	9,240	10,200	98	94
Union No. 5,	Drift,	Non-gas.	Furnace,		¼			20	2	8,100	8,100	9,200	78	103
Eureka No. 1,	Drift,	Non-gas.	Furnace,		¼			48		5,980	5,980	11,800	40	149
Betz Coal Mining Co.														
Betz No. 1,	Drift,	Non-gas.	Furnace,		¼			36	2	17,400	17,400	19,800	98	177
Betz No. 2,	Drift,	Non-gas.	Furnace,		½			36		14,700	14,700	16,000	78	188
Betz No. 18,	Drift,	Non-gas.	Furnace,		T.			20		10,900	10,900	11,700	40	272

TABLE I—Continued.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
M. & F. Craig.														
Sterling No. 2,	Drift,	Non-gas.	Furnace,		T.			12		3,400	3,400	7,500	15	226
Sterling No. 3,	Drift,	Non-gas.	Furnace,		¼			20		8,100	8,100	10,000	37	218
Blair Bros.														
Orient No. 1,	Drift,	Non-gas.	Furnace,		T.			20		6,600	6,600	7,400	9	733
Orient No. 2,	Drift,	Non-gas.	Furnace,		¼			20	3	11,850	15,600	17,800	50	312
Orient No. 3,	Drift,	Non-gas.	Furnace,		½			30						
Thomas C. Heims.														
Electric,	Drift,	Non-gas.	Furnace,		¼			56	2	16,200	16,000	17,000	82	197
Lenore,	Drift,	Non-gas.	Furnace,		¼			25	3	4,300	8,700	8,700	68	127
G. L. Whitehead Coal Co.														
Standard No. 1,	Drift,	Non-gas.	Furnace,		¼			20		7,200	7,200	8,000	39	184
Standard No. 7,	Drift,	Non-gas.	Furnace,		¼			25		4,950	4,950	6,800	26	190
Thomas Blythe.														
Alexandra,	Drift,	Non-gas.	Furnace,		½			36		8,400	8,400	11,800	45	186
California,‡	Drift,	Non-gas.	Furnace,							10,400	10,400	11,000	9	1,155
Pennsylvania,	Drift,	Non-gas.	Furnace,		½			56	2	14,200	13,200	15,000	84	169
L. Milton Wilson.														
Schwinn,	Drift,	Non-gas.	Furnace,		T.			20		7,500	7,500		30	250
Bear Run,	Drift,	Non-gas.	Furnace,		¼			25		4,700	4,700	6,600	26	180
J. & H. Todd Bros.														
Lane Nos. 1 and 2,	Drifts,	Non-gas.	2 fur's,		½			54	3	21,000	21,000	31,200	89	235
Lane No. 3,	Drift,	Non-gas.	Natural,		T.					1,700	1,700	2,700	8	212

‡Not complete.

J. R. Brown.														
Royal,	Slope,	Non-gas.	Furnace,		¼			20		8,550	8,550	9,340	8	1,068
Osceola No. 3,	Drift,	Non-gas.	Furnace,		¼			30		7,500	7,500	8,400	32	234
Harbison-Walker Co.														
Varner,	Drift,	Non-gas.	Furnace,		¼			25		10,400	10,400	11,200	24	433
Plane,	Drift,	Non-gas.	Furnace,		¼			22		7,700	7,700	9,000	19	405
Lawton & Cox.														
White Oak No. 1,	Drift,	Non-gas.	Furnace,		¼			36		4,500	4,500	9,000	27	166
White Oak No. 2,§														
Beaver Run Coal Co.														
Beaver Run No. 1,	Drift,	Non-gas.	Furnace,		T.			20			1,700	2,100	19	89
Ghem Coal Mining Co.														
Ghem,	Drift,	Non-gas.	Furnace,		½			42	3	19,400	26,780	33,300	113	236
Elsworth & Dunham.														
Royal,	Slope,	Non-gas.	Fan,	4 x 16	½	Brazil,	Steam,		4	23,600	17,880	26,400	118	200
Walnut Coal Co.														
Lancashire Nos. 2 and 3,	Drift,	Non-gas.	Furnace,		¼			20		4,800	4,800	5,000	19	252
Bulah Coal Co.														
Webster No. 4,	Drifts,	Non-gas.	2 fur's,		½			55	2	26,400	26,400	28,200	105	251
Samuel Styer.														
Black Diamond,	Drift,	Non-gas.	Furnace,		T.			30		2,970	1,700		15	198
Alder Run Coal Mining Co.														
Alder Run,	Slope,	Non-gas.	Furnace,		T.			12		5,700	5,700	9,000	27	211
T. J. Lee Coal Co.														
Lee,	Drift,	Non-gas.	Furnace,		T.			12		2,050	6,600	6,600	39	169
Coaldale Mining Co.														
Coaldale No. 4,	Drift,	Non-gas.	Furnace,		¼			25		8,750	8,750	10,400	45	194
W. J. Davis.														
Davis,	Drifts,	Non-gas.	Furnace,		T.			30	2	9,000	12,400	16,000	28	442
H. M. Hughes.														
Leader Nos. 1 and 2,	Drift,	Non-gas.	Furnace,		¼			30			9,000	15,000	27	333
J. Walton & Son.														
London,	Drift,	Non-gas.	Natural,		T.								9	
Mapleton Coal Co.														
Mapleton,	Drift,	Non-gas.	Natural,		T.					9,000	9,000	4,700	10	900
Powelton Coal Co.														
Powelton,	Drift,	Non-gas.	Natural,		¼					7,500	6,000		22	340

§New opening; not complete.

TABLE I—Continued.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—In inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Hilling & Lamb.														
Porter Run,	Drift,	Non-gas.	Furnace,		T.			12		2,340	2,340	2,570	9	260
W. F. Holt.														
Phoenix,	Slope,	Non-gas.	Natural,		T.					4,500	4,500	3,400	18	250
Madeira Hill & Co.														
Kentuck,	Drift,	Non-gas.	Furnace,		T.			20	2	8,340	8,340	9,400	26	320
Penn Iron Co.														
Reading,	Drift,	Non-gas.	Furnace,		½			36		10,500	10,500	16,700	27	388
Walker & Gleason.														
Troy,	Drift,	Non-gas.	Furnace,		T.			20		5,600	5,600	7,300	26	215
Jas. F. Stott.														
Ophir No. 2,	Drift,	Non-gas.	Furnace,		T.			20		7,500	7,500	8,400	29	258
C. D. Loraine.														
West Moshannon,	Drift,	Non-gas.	Natural,		T.					7,200	7,200		33	218
J. R. Flenner & Co.														
Standard No. 4,	Drift,	Non-gas.	Furnace,		¼			25		5,200	5,200	7,400	13	400
J. Robinson.														
Robinson,	Drift,	Non-gas.	Natural,		T.								9	
Seth Davis.														
Mt. Vernon No. 9,	Drift,	Non-gas.	Furnace,		¼			30		4,500	4,500	7,200	14	321
Meadow Brook Mining Co.														
Meadow Brook,	Drift,	Non-gas.	Furnace,		¼			30		4,500	4,500	9,300	26	173

Wortz & Kephart.															
Franklin,	2 drifts,..	Non-gas.	Natural,	....	T.	.....	.....	.....	2	11,200	11,200	.....	17	658
Anda & Co.															
Hope,	Drift,....	Non-gas.	Furnace,	....	T.	.....	.....	16	.....	3,900	3,900	5,000	20	195
Isaac Reese & Sons Coal Co.															
Reese Nos. 1 and 2,	Drift,....	Non-gas.	Natural,	.....	T.	.....	.....	.....	.....	10,000	10,000	.....	21	476
American Union Coal Co.															
Mt. Vernon No. 7,	Drift,....	Non-gas.	Furnace,	.....	¼	.....	.....	30	.....	9,600	9,000	10,500	22	409
Mt. Vernon No. 10,	Drift.....	Non-gas.	Natural,	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....

J. Names of mines using coal cutting machines, names of machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines during 1902.

	Kind of opening.	Gaseous or non-gaseous.	Name and number of machines in use.				Total machines used.	Power used by machines.	Geological and local name of seam.	Average thickness in inches.	Height of seam in inches.		Approximate number of tons produced by machines.
			Ingersoll.	Sullivan.	Harrison.	Morgan-Gardner.					Thickest.	Thinnest.	
Eureka No. 28,	Shaft,	Non-gas.	.....	10	.....	.....	10	Air,	B. Lower Kittanning,	4.9	5	4.6	60,000
Morrisdale No. 1,	Shaft,	Non-gas.	2	12	.....	.....	14	Air,	B. Lower Kittanning,	4.3	5.6	3	167,120
Morrisdale No. 2,	Shaft,	Non-gas.	2	9	.....	.....	11	Air,	B. Lower Kittanning,	4.3	5	3.6	88,635
Morrisdale No. 3,	Shaft,	Non-gas.	.....	2	.....	.....	2	Air,	B. Lower Kittanning,	3.9	4	3.6	5,555
Madera No. 1,	Drift,	Non-gas.	.....	2	.....	.....	2	Air,	B. Lower Kittanning,	3.6	3.8	3.4	300
Decatur No. 3,	Drift,	Non-gas.	.....	.....	.....	4	4	Electricity,	Lower Freeport,	5.1	5.8	4.6	49,000
Ogle No. 1,	Drift,	Non-gas.	10	.....	.....	.....	10	Air,	B. Lower Kittanning,	3.6	3.8	3.4	11,200
Summerville No. 8,	Drift,	Non-gas.	.....	.....	.....	4	4	Electricity,	B. Lower Kittanning,	3.6	3.8	3.4	90,241
Meadow Brook,	Drift,	Non-gas.	.....	.....	4	.....	4	Air,	B. Lower Kittanning,	3.2	4	2	9,610
Totals,			14	35	4	8	61			.....	.....	.....	481,661

A Description of Fatal Accidents that Occurred in and About the Mines.

The first accident that occurred during the year, caused the death of William Hill, a driver. He was walking between the mule and three loaded cars on a grade, against the loads, of two feet per one hundred, and on reaching No. 2 room the grade was in the opposite direction, and he stepped to one side to allow the first load to pass. In attempting to get between the two first loads he must have made a misstep, the cars catching him beside the heading pillar, crushing hi body and dislocating his neck.

The second accident was caused by a fall of roof in Red Jacket mine, resulting in the death of Hunes Hallabaugh, a miner. He was undermining coal in the cross cut in the pillar at the face of his room, and had props set within four feet of where he worked, when a piece of fire-clay and slate roof fell between the props and coal face on him. This mine has a very dangerous roof, having no visible slips, but becomes loose in all kinds of shapes the moment the coal is taken out and the air comes in contact with it.

The last accident occurred outside of the mine, killing Jesse Chapman, a boiler fireman. It seems he was attempting to put water in one of the boilers by means of an injector, but could not accomplish it, and so thinking the check valve on the boiler was stuck which caused the trouble, he began to pound the valve with a hammer, when in reality a globe valve had been shut, which he had failed to notice. At this time the connection with the boiler gave way and he was directly in line with the high pressure boiling water forced from it. He was severely scalded and survived the accident only six hours.

The following is a brief report of the condition of the mines as regards ventilation and drainage:

Berwind-White Coal Mining Co.

Atlantic No. 1, Eureka 5, 7, 16, 19, 22, 24, 27 and 28, have all been well ventilated and drained, the minimum quantity of air being three hundred cubic feet per minute per employe, and a maximum of eight hundred.

Eureka No. 28 mine promises to be the greatest coal producer in this district. Vast additions are already under way in the shape of another compressor, more mining machines, two electric generators, and thirteen ton locomotives for electric mine haulage. A modern stable has been built in the mine for any mules that it may be found necessary to use, which is built of brick with iron doors at inlet and outlet, so that in case of accident by fire in the stables, they can at once be shut off entirely from the rest of the mine.

Morrisdale Coal Mining Co.

Morrisdale No. 1 shaft is not too well ventilated, the capacity of the fan is not sufficient for the extent of the mine workings, and the amount of blasting material used in the mine. But relief was expected from these conditions by connecting No. 1 with No. 3 shaft, which, however, has been delayed by encountering faults and rolls in the strata above and below the coal in No. 3, also by the large volume of water to be handled coming from the broken strata of old workings in the Moshannon seam that was worked above, and it is only a question of time when they will be compelled to put in a fan of greater capacity.

No. 6 mine, also Troy Nos. 1, 2 and 4, and Mabel were in fair condition. The Madera No. 1 mine, a new operation, is to be worked on modern methods, with mining machines by compressed air, with a fan for ventilation.

Peale, Peacock & Kerr (Inc.).

Decatur Nos. 2, 4 and 6, and Ogle No. 5 have been fairly well ventilated and drained. But Decatur No. 3 mine has had an excessive number of men employed for the volume of air in circulation, and the same is true of Ogle No. 1 mine. A fan has been promised for the latter mine, of greater capacity than the present one.

Irish Brothers.

These mines have increased during the year to double the number formerly owned by this company, which are Baltic Nos. 1 and 2, Colorado Nos. 2, 3, 4 and 5, which was formerly Black Diamond, also Cuba Nos. 2 and 3, Guion, Gearhart and Red Jacket, all of which have been fairly well drained and ventilated during the year.

Cambria Coal Mining Co.

Leland Nos. 1, 2, 4, 5 and 6 have all had a sufficient volume of air in circulation, with a minimum of one hundred and forty-two, and a maximum of three hundred and sixty cubic feet of air per minute per employe in circulation, and they were fairly well drained.

Beech Creek Coal and Coke Co.

Forest Nos. 1 and 2, Kyler and Summerville No. 8 have been well ventilated and drained during the year, with the exception of a

local defect found on right side of Ogle No. 8 mine, but generally having one hundred and ninety-six to five hundred and sixty cubic feet of air per minute in circulation per employe.

W. A. Gould & Bro.

Henderson Nos. 4, 5, and Midvale Nos. 1 and 2 were kept fairly well ventilated, and while the drainage could have been better at times, the excess of water from broken strata and the soft nature of the strata below the coal, were the direct causes of defects, which were difficult to overcome.

H. Liveright.

Fairmount Nos. 2, 3, 4 and 5, and Phoenix mines were well drained and ventilated, having an excess of air over the volume at times needed, which kept the workings in a very healthful condition.

Victoria Mining Co.

Acme Nos. 2, 3, 5 and 6 were in very fair condition, the three last having been opened during the rush in the coal business.

J. Swires and Ophir Coal Co.

Ashman, Ghem and Ohpir No. 1 were well drained and ventilated.

Henrietta Coal Co.

Henrietta No. 1 had not sufficient air at all times, but from the numerous breaks in the strata above the coal seam in parts of the mine, the men were kept supplied with sufficient air, but the velocity could not be determined owing to the numerous openings. Friendship and Meridian mines were kept in very fair condition for the few men employed in them and were fair as to drainage.

Penn Collieries Co.

Falcon Nos. 1, 2 and 3 were fairly well drained and ventilated.

Moshannon Coal Co.

Moshannon Nos. 1, 2, 3 and Nos. 4 and 7 being new openings have not been excessively developed, but are all fairly well ventilated.

Brown and Dyer.

Union Nos. 3, 5 and 21 were kept in very fair condition.

Betz Coal Co. and Swope.

Betz Nos. 1, 2 and 18 were well ventilated and drained.

M. & F. Craig.

Sterling Nos. 2 and 3 were well ventilated and drained.

Blair Brothers.

Orient Nos. 2 and 3 were well ventilated and drained.

Thomas C. Heims & Co.

Electric and Lenore mines were not supplied with any excess of air, but were kept generally in a healthful condition; the former mine was fairly well drained, but the latter could have been improved.

Thomas Blythe.

Alexandra mine was fairly well ventilated and drained.

G. L. Whitehead Coal Co.

Standard Nos. 1 and 7 were fairly well ventilated and drained.

Todd Brothers.

Lane Nos. 1 and 2 were well ventilated and drained.

Harbison-Walker Co.

Plane and Varner mines were well drained and ventilated.

Lawton & Co.

White Oak No. 1 was well drained and ventilated.

Beaver Run was poorly ventilated on my last visit, and I ordered sections of the mine to be shut down until proper arrange-

ments could be made to supply the necessary volume of air, and to bring the mine up to the proper standard.

The following mines were found in very fair condition:

Ghent, Webster No. 4, Davis, Mapleton, Phoenix, West Moshannon, Meadowbrook, Reese, Royal, Alder Run, Coaldale No. 4, Powelton, Kentuck, Standard No. 4, Franklin, Mt. Vernon No. 7, Lancashire, Lee, Leader, Porter Run, Reading, Mt. Vernon No. 9, Hope, Mt. Vernon No. 10. But Troy and Ophir No. 2 could have been kept in better condition if the air had been properly conducted through the openings.

At the annual examination for mine foreman and fire bosses held in January, 1902, the following persons were successful:

Samuel Patterson, Charles McTaggart, W. H. Gates, W. B. Wilson, George Charlton, James Napier, W. P. Pilkington, Thomas Steed, Jonathan Taylor, William Purdon, Frank McGowan, M. Wayne, S. S. Packer and James Walker.

Board of Examiners: Joseph Knapper, A. S. R. Richards and Eli F. Townsend.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Eighth Bituminous District for the year 1902.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Berwind-White Coal Mining Co.						
Atlantic No. 1,	Clearfield,	Thomas Fisher,	Betz Bldg., Phila.,	A. S. R. Richards,	Osceola Mills,	Pennsylvania Railroad.
Eureka No. 5,	Clearfield,	Thomas Fisher,	Betz Bldg., Phila.,	A. S. R. Richards,	Osceola Mills,	Pennsylvania Railroad.
Eureka No. 7,	Clearfield,	Thomas Fisher,	Betz Bldg., Phila.,	A. S. R. Richards,	Osceola Mills,	Pennsylvania Railroad.
Eureka No. 16,	Clearfield,	Thomas Fisher,	Betz Bldg., Phila.,	A. S. R. Richards,	Osceola Mills,	Pennsylvania Railroad.
Eureka No. 18,	Clearfield,	Thomas Fisher,	Betz Bldg., Phila.,	A. S. R. Richards,	Osceola Mills,	Pennsylvania Railroad.
Eureka No. 19,	Clearfield,	Thomas Fisher,	Betz Bldg., Phila.,	A. S. R. Richards,	Osceola Mills,	Pennsylvania Railroad.
Eureka No. 22,	Clearfield,	Thomas Fisher,	Betz Bldg., Phila.,	A. S. R. Richards,	Osceola Mills,	Pennsylvania Railroad.
Eureka No. 24,	Clearfield,	Thomas Fisher,	Betz Bldg., Phila.,	A. S. R. Richards,	Osceola Mills,	Pennsylvania Railroad.
Eureka No. 27,	Clearfield,	Thomas Fisher,	Betz Bldg., Phila.,	A. S. R. Richards,	Osceola Mills,	Pennsylvania Railroad.
Eureka No. 28,	Clearfield,	Thomas Fisher,	Betz Bldg., Phila.,	A. S. R. Richards,	Osceola Mills,	Pennsylvania Railroad.
Morrisdale Coal Mining Co.						
Morrisdale No. 1,	Clearfield,	J. E. Hedding,	Morrisdale Mines,	Jas. Starford,	Morrisdale Mines,	New York Central R. R.
Morrisdale No. 2,	Clearfield,	J. E. Hedding,	Morrisdale Mines,	Jas. Starford,	Morrisdale Mines,	Pennsylvania Railroad.
Morrisdale No. 3,	Clearfield,	J. E. Hedding,	Morrisdale Mines,	Jas. Starford,	Morrisdale Mines,	New York Central R. R.
Morrisdale No. 6,	Clearfield,	J. E. Hedding,	Morrisdale Mines,	Jas. Starford,	Morrisdale Mines,	New York Central R. R.
Mabel,	Clearfield,	J. E. Hedding,	Morrisdale Mines,	Jas. Starford,	Morrisdale Mines,	Pennsylvania Railroad.
Troy No. 1 and 3,	Clearfield,	J. E. Hedding,	Morrisdale Mines,	Jas. Starford,	Morrisdale Mines,	New York Central R. R.
Troy No. 4,	Clearfield,	J. E. Hedding,	Morrisdale Mines,	Jas. Starford,	Morrisdale Mines,	New York Central R. R.
Madera No. 1,	Clearfield,	J. E. Hedding,	Morrisdale Mines,	Jas. Starford,	Morrisdale Mines,	Pennsylvania Railroad.
Peale, Peacock & Kerr, Inc.						
Decatur No. 1,	Clearfield,	Alex. Dunsmore,	Glen Richey,	John C. Dunsmore,	Philipsburg,	New York Central R. R.
Decatur No. 2,	Clearfield,	Alex. Dunsmore,	Glen Richey,	John C. Dunsmore,	Philipsburg,	New York Central R. R.
Decatur No. 3,	Clearfield,	Alex. Dunsmore,	Glen Richey,	John C. Dunsmore,	Philipsburg,	New York Central R. R.
Decatur No. 4,	Clearfield,	Alex. Dunsmore,	Glen Richey,	John C. Dunsmore,	Philipsburg,	New York Central R. R.
Decatur No. 6,	Clearfield,	Alex. Dunsmore,	Glen Richey,	John C. Dunsmore,	Philipsburg,	New York Central R. R.
Ogle No. 1,	Clearfield,	Alex. Dunsmore,	Glen Richey,	R. H. George,	Windburne,	New York Central R. R.
Olge No. 5,	Clearfield,	Alex. Dunsmore,	Glen Richey,	R. H. George,	Windburne,	New York Central R. R.
Ogle No. 7,	Clearfield,	Alex. Dunsmore,	Glen Richey,	R. H. George,	Windburne,	New York Central R. R.
Irish Bros.						
Baltic No. 1,	Clearfield,	Geo. Scott,	Philipsburg,	J. B. Scott,	Philipsburg,	P. & N. Y. C. R. R.
Colorado No. 2,	Clearfield,	Geo. Scott,	Philipsburg,	J. B. Scott,	Philipsburg,	P. & N. Y. C. R. R.
Colorado Nos. 3 and 4,	Clearfield,	Geo. Scott,	Philipsburg,	J. B. Scott,	Philipsburg,	New York Central R. R.
Colorado No. 5,	Clearfield,	Geo. Scott,	Philipsburg,	J. B. Scott,	Philipsburg,	New York Central R. R.
Cuba,	Clearfield,	Geo. Scott,	Philipsburg,	J. B. Scott,	Philipsburg,	New York Central R. R.
Gulon,	Clearfield,	Geo. Scott,	Philipsburg,	J. B. Scott,	Philipsburg,	Pennsylvania Railroad.
Gearhart,	Clearfield,	Geo. Scott,	Philipsburg,	J. B. Scott,	Philipsburg,	P. & N. Y. C. R. R.

Jefferson,	Clearfield,	Geo. Scott,	Philipsburg,	J. B. Scott,	Philipsburg,	P. & N. Y. C. R. R.
Red Jacket,	Clearfield,	Geo. Scott,	Philipsburg,	J. B. Scott,	Philipsburg,	Pennsylvania Railroad.
Cambria Coal Mining Co.						
Leland No. 1,	Clearfield,	E. S. Brubaker,	Smoke Run,			Pennsylvania Railroad.
Leland No. 2,	Clearfield,	E. S. Brubaker,	Smoke Run,			Pennsylvania Railroad.
Leland No. 3,	Clearfield,	E. S. Brubaker,	Smoke Run,			Pennsylvania Railroad.
Leland No. 4,	Clearfield,	E. S. Brubaker,	Smoke Run,			Pennsylvania Railroad.
Leland No. 5,	Clearfield,	E. S. Brubaker,	Smoke Run,			Pennsylvania Railroad.
Leland No. 6,	Clearfield,	E. S. Brubaker,	Smoke Run,			Pennsylvania Railroad.
Beech Creek Coal & Coke Co.						
Forest No. 1,	Clearfield,			J. L. Summerville,	Winburne,	New York Central R. R.
Forest No. 2,	Clearfield,			J. L. Summerville,	Winburne,	New York Central R. R.
Kyler,	Clearfield,			J. L. Summerville,	Winburne,	New York Central R. R.
Summerville No. 8,	Clearfield,			J. L. Summerville,	Winburne,	New York Central R. R.
Summerville No. 9,	Clearfield,			J. L. Summerville,	Winburne,	New York Central R. R.
W. A. Gould & Bro.						
Henderson No. 4,	Clearfield,	W. A. Gould,	Brisbin,	John Gould,	Brisbin,	Pennsylvania Railroad.
Henderson No. 5,	Clearfield,	W. A. Gould,	Brisbin,	Wm. Gates,	Brisbin,	Pennsylvania Railroad.
Midvale No. 1,	Clearfield,	W. A. Gould,	Brisbin,	Danl. Jones,	Brisbin,	Pennsylvania Railroad.
Midvale No. 2,	Clearfield,	W. A. Gould,	Brisbin,	Wm. Pilpington,	Brisbin,	Pennsylvania Railroad.
Loraine,	Clearfield,	W. A. Gould,	Brisbin,			Pennsylvania Railroad.
Goss Run,	Clearfield,	W. A. Gould,	Brisbin,	David Jones,	Brisbin,	Pennsylvania Railroad.
H. Liveright.						
Fairmont No. 2,	Clearfield,			Joseph Dugan,	Osceola Mills,	Pennsylvania Railroad.
Fairmont No. 3,	Clearfield,			John Gaffey,	Osceola Mills,	Pennsylvania Railroad.
Fairmont No. 4,	Clearfield,			James Logan,	McCartney,	Pennsylvania Railroad.
Phoenix,	Centre,			John Howard,	Osceola Mills,	Pennsylvania Railroad.
Fairmont No. 5,	Clearfield,			Martin Dugan,	Osceola Mills,	Pennsylvania Railroad.
Victoria Mining Co.						
Acme No. 1,	Clearfield,	J. C. Whitenburg,	11 Broadway, N. Y.	S. M. Miller,	Philipsburg,	New York Central R. R.
Acme No. 2,	Clearfield,	J. C. Whitenburg,	11 Broadway, N. Y.	S. M. Miller,	Philipsburg,	New York Central R. R.
Acme No. 3,	Clearfield,	J. C. Whitenburg,	11 Broadway, N. Y.	S. M. Miller,	Philipsburg,	New York Central R. R.
Acme No. 5,	Clearfield,	J. C. Whitenburg,	11 Broadway, N. Y.	S. M. Miller,	Philipsburg,	New York Central R. R.
Acme No. 6,	Clearfield,	J. C. Whitenburg,	11 Broadway, N. Y.	S. M. Miller,	Philipsburg,	New York Central R. R.
Ashman & Ophir Coal Co.						
Ashman,	Clearfield,	J. Swires,	Philipsburg,	J. Swires,	Philipsburg,	New York Central R. R.
Douglas,	Clearfield,	J. Swires,	Philipsburg,	J. Swires,	Philipsburg,	New York Central R. R.
Ghem,	Clearfield,	J. Swires,	Philipsburg,	J. Swires,	Philipsburg,	New York Central R. R.
Ophir No. 1,	Centre,	J. Swires,	Philipsburg,	J. Swires,	Philipsburg,	New York Central R. R.
Henrietta Coal Mining Co., Limited.						
Henrietta,	Clearfield,	Geo. Lobb,	Brisbin,			Pennsylvania Railroad.
Friendship,	Clearfield,	Geo. Lobb,	Brisbin,			Pennsylvania Railroad.
Meridian,	Clearfield,	Geo. Lobb,	Brisbin,			Pennsylvania Railroad.
Penn Colliery Co.						
Falcon No. 1,	Clearfield,			Frank Hess,	Philipsburg,	Pennsylvania Railroad

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Falcon No. 2,	Clearfield,			Frank Hess,	Philipsburg,	Pennsylvania Railroad.
Falcon No. 3,	Clearfield,			Frank Hess,	Philipsburg,	Pennsylvania Railroad.
Moshannon Coal Mining Co.						
Moshannon No. 1,	Clearfield,	C. H. Rowland,	Houtzdale,	J. M. Click,	Houtzdale,	Pennsylvania Railroad.
Moshannon No. 2,	Clearfield,	C. H. Rowland,	Houtzdale,	J. M. Click,	Houtzdale,	Pennsylvania Railroad.
Moshannon No. 3,	Clearfield,	C. H. Rowland,	Houtzdale,	J. M. Click,	Houtzdale,	Pennsylvania Railroad.
Moshannon No. 4,	Clearfield,	C. H. Rowland,	Houtzdale,	J. M. Click,	Houtzdale,	Pennsylvania Railroad.
Moshannon No. 7,	Clearfield,	C. H. Rowland,	Houtzdale,	J. M. Click,	Houtzdale,	A. & P. R. R.
G. L. Whitehead Coal Co.						
Standard No. 1,	Centre,	John Whitehead,	6 S. 51st st., Phila.,	Chas. W. Martin,	Houtzdale,	Pennsylvania Railroad.
Standard No. 2,	Centre,	John Whitehead,	6 S. 51st st., Phila.,	Chas. W. Martin,	Houtzdale,	Pennsylvania Railroad.
Standard No. 3,	Centre,	John Whitehead,	6 S. 51st st., Phila.,	Chas. W. Martin,	Houtzdale,	Pennsylvania Railroad.
Standard No. 5,	Clearfield,	John Whitehead,	6 S. 51st st., Phila.,	Chas. W. Martin,	Houtzdale,	Pennsylvania Railroad.
Standard No. 7,	Clearfield,	John Whitehead,	6 S. 51st st., Phila.,	Chas. W. Martin,	Houtzdale,	Pennsylvania Railroad.
Standard No. 9,	Clearfield,	John Whitehead,	6 S. 51st st., Phila.,	Chas. W. Martin,	Houtzdale,	Pennsylvania Railroad.
S. J. Mountz.						
Whiteside No. 1,	Clearfield,	S. J. Mountz,	Moran,			Pennsylvania Railroad.
Whiteside No. 2,	Clearfield,	S. J. Mountz,	Moran,			Pennsylvania Railroad.
Gulick,	Clearfield,	S. J. Mountz,	Moran,			Pennsylvania Railroad.
Moran,	Clearfield,	S. J. Mountz,	Moran,			Pennsylvania Railroad.
Jas. F. Stott.						
Ophir Nos. 2, 3, 4 and 5,	Centre,	Jas. F. Stott,	Philipsburg,	Jas. F. Stott,	Philipsburg,	New York Central R. R.
H. W. Wortz & Co.						
Franklin,	Clearfield,	H. W. Wortz,	Houtzdale,			Pennsylvania Railroad.
Arctic,	Clearfield,	H. W. Wortz,	Houtzdale,			Pennsylvania Railroad.
Dauntless,	Clearfield,	H. W. Wortz,	Houtzdale,			Pennsylvania Railroad.
Standard No. 8,	Clearfield,	H. W. Wortz,	Houtzdale,			Pennsylvania Railroad.
Betz Coal Mining Co., and Swoope Coal Co.						
Betz No. 1,	Clearfield,	H. B. Swoope,	Madera,	John Stevenson,	Belsena Mills,	Pennsylvania Railroad.
Betz No. 2,	Clearfield,	H. B. Swoope,	Madera,	Thos. Richardson,	Madera,	Pennsylvania Railroad.
Betz No. 18,	Clearfield,	H. B. Swoope,	Madera,	Geo. Granville,	Belsena Mills,	Pennsylvania Railroad.
L. Milton Wilson.						
Schwinn,	Clearfield,	L. Milton Wilson,	Houtzdale,			A. & P. R. R.
Union No. 4,	Clearfield,	L. Milton Wilson,	Houtzdale,			Pennsylvania Railroad.
Bear Run,	Centre,	L. Milton Wilson,	Houtzdale,			Pennsylvania Railroad.

H. M. Hughes.						
Leader No. 1,	Clearfield,	H. M. Hughes,	Drane,			Pennsylvania Railroad.
Leader No. 2,	Clearfield,	H. M. Hughes,	Drane,			Pennsylvania Railroad.
Logan Ridge,	Clearfield,	H. M. Hughes,	Drane,			Pennsylvania Railroad.
J. R. Brown.						
Osceola No. 3,	Centre,	J. R. Brown,	Osceola Mills,	Wm. Purdon,	Wigton,	Pennsylvania Railroad.
Royal,	Clearfield,	J. R. Brown,	Osceola Mills,	J. W. McAlarney,	Houtzdale,	Pennsylvania Railroad.
Niagara,	Clearfield,	J. R. Brown,	Osceola Mills,	J. R. Brown,	Osceola Mills,	Pennsylvania Railroad.
Thos. C. Helms & Co.						
Lenore,	Clearfield,	Thos. C. Helms,	Osceola Mills,	Wm. T. Todhunter,	West Moshannon,	Pennsylvania Railroad.
Electric,	Centre,	Thos. C. Helms,	Osceola Mills,	J. R. Summerville,	Osceola Mills,	Pennsylvania Railroad.
Thos. J. Lee.						
Lee colliery,	Clearfield,	L. J. Lee,	Philipsburg,	R. Lobb,	Philipsburg,	New York Central R. R.
Davis,	Clearfield,	L. J. Lee,	Philipsburg,	W. J. Davis,	Haws Run,	New York Central R. R.
M. & F. Craig.						
Sterling No. 1,	Clearfield,	M. Craig,	Brisbin,	M. Craig,	Brisbin,	Pennsylvania Railroad.
Sterling No. 2,	Clearfield,	M. Craig,	Brisbin,	M. Craig,	Brisbin,	Pennsylvania Railroad.
Harbison-Walker Co.						
Plane,	Clearfield,	H. H. Errett,	Woodland,	John M. Baker,	Woodland,	Pennsylvania Railroad.
Varner,	Clearfield,	H. H. Errett,	Woodland,	John M. Baker,	Woodland,	Private tram road.
Brown & Dyer.						
Union No. 5,	Centre,	A. Brown,	Osceola Mills,			Pennsylvania Railroad.
Union No. 6,	Centre,	A. Brown,	Osceola Mills,			Pennsylvania Railroad.
O. L. Schoonover.						
Forest No. 1,	Clearfield,	O. L. Schoonover,	Munsons,	O. L. Schoonover,	Munsons,	New York Central R. R.
Forest No. 2,	Clearfield,	O. L. Schoonover,	Munsons,	O. L. Schoonover,	Munsons,	New York Central R. R.
American Union Coal Co.						
Mt. Vernon No. 7,	Clearfield,	Geo. L. Cant,	Huntington,	Geo. L. Cant,	Huntington,	Pennsylvania Railroad.
Mt. Vernon No. 10,	Clearfield,	Geo. L. Cant,	Huntington,	Geo. L. Cant,	Huntington,	A. & P. C. R. R.
Ghem Coal Co.						
Ghem,	Centre,			Saml. Pfoutz,	Osceola Mills,	Pennsylvania Railroad.
Bulah Coal Co.						
Webster No. 4,	Clearfield,	Jas. H. Minds,	Ramey,	Jas. H. Minds,	Ramey,	Pennsylvania Railroad.
John J. & H. W. Todd.						
Lane Nos. 1, 2 and 3,	Clearfield,	John T. Todd,	Philipsburg,			New York Central R. R.
Elsworth & Dunham.						
Royal,	Clearfield,			J. Edward Horn,	Philipsburg,	New York Central R. R.
Adams & Co.						
Jefferson,	Clearfield,	Geo. B. Friday,	Windbur,	J. H. Friday,	Philipsburg,	Pennsylvania Railroad.

TABLE I—Continued

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Penn Iron Co., Ltd. Reading,	Clearfield,	C. H. Burrowes,	Lancaster,	C. Meagher,	Osceola Mills,	Pennsylvania Railroad.
Osceola Coal and Coke Co. Union No. 3,	Centre,	Albert S. Brown,	Osceola Mills,			Pennsylvania Railroad.
E. J. Walker & Co. Troy,	Clearfield,	E. J. Walker,	Brisbin,			Pennsylvania Railroad.
C. D. Loraine. West Moshannon,	Clearfield,	C. D. Loraine,	Philipsburg,	Benj. Badman,	Houtzdale,	A. & P. C. R. R.
Lawton & Cox. White Oak No. 1,	Clearfield,	E. E. Lawton,	Madera,	E. E. Lawton,	Madera,	Pennsylvania Railroad.
Clearfield Lumber Co. Alder Run,	Clearfield,			Guy Snyder,	Clearfield,	New York Central R. R.
W. F. Holt. Phoenix,	Clearfield,	W. F. Holt,	Philipsburg,	Edward Kelley,	Philipsburg,	New York Central R. R.
Stratton Bros. Kentuck,	Clearfield,	John Stratton,	Philipsburg,			Pennsylvania Railroad.
Brown & Reeves. Star No. 1,	Clearfield,	Albert S. Brown,	Osceola Mills,			Pennsylvania Railroad.
Meadowbrook Mining Co. Meadowbrook,	Clearfield,	Geo. H. Huddle,	519 & 521 N. Amer. Bldg., Phila.	R. M. Miller,	West Decatur,	Pennsylvania Railroad.
Hilling, Morgan & Co. Porter Run,	Clearfield,	Thos. H. Morgan,	McCartney,	Thos. H. Morgan,	McCartney,	Pennsylvania Railroad.
John Walton & Son. London,	Clearfield,	John Walton,	Philipsburg,	John Walton,	Philipsburg,	Pennsylvania Railroad.
J. M. Roberson. Roberson,	Clearfield,	J. M. Roberson,	Baccarla,			Pennsylvania Railroad.
Townsend & Milsom. Shoff No. 2,	Clearfield,	E. F. Townsend,	Philipsburg,	E. F. Townsend,	Philipsburg,	Pennsylvania Railroad.

Beaver Run Coal Co.						
Beaver Run,	Clearfield,	S. Nelson,	Philipsburg,	S. Nelson,	Philipsburg,	Pennsylvania Railroad.
J. R. Flenner & Co.						
Standard No. 4,	Clearfield,	Dani. Campbell,	Smoke Run,			Pennsylvania Railroad.
Mapleton Coal Co.						
Mapleton,	Clearfield,	Geo. S. Moyer,	Osceola Mills,			Pennsylvania Railroad.
Wm. Casker.						
Birds Eye,	Clearfield,	Wm. Casker,	Houtzdale,			
Stanley Coal Co.						
Stanley No. 2,	Clearfield,	T. W. Thompson,	Philipsburg,	T. W. Thompson,	Philipsburg,	Pennsylvania Railroad.
S. V. Davis & Co.						
Mt. Vernon No. 9,	Clearfield,	S. V. Davis,	Baccaria,	S. V. Davis,	Baccaria,	Pennsylvania Railroad.
Lincoln Coal Co.						
Lancashire No. 2,	Clearfield,	C. F. Frazier,	Altoona,	T. C. Harding,	Osceola Mills,	Pennsylvania Railroad.
W. G. Fishburn.						
Keyler,	Clearfield,	W. G. Fishburn,	Munsons,			New York Central R. R.
Douglas,	Clearfield,	W. G. Fishburn,	Munsons,			New York Central R. R.
Stott, Hill & Dale.						
Kentuck,	Clearfield,	Jas. F. Stott,	Philipsburg,	Jas. F. Stott,	Philipsburg,	Pennsylvania Railroad.
Thos. Blythe.						
Alexandra,	Clearfield,	Thos. Blythe,	Madera,	Thos. Blythe,	Madera,	Pennsylvania Railroad.
California,	Clearfield,	Thos. Blythe,	Madera,	Thos. Blythe,	Madera,	Pennsylvania Railroad.
Pennsylvania,	Clearfield,	Thos. Blythe,	Madera,	Thos. Blythe,	Madera,	Pennsylvania Railroad.
J. W. Hooten.						
Black Diamond,	Clearfield,	J. W. Hooten,	Munsons,	J. W. Hooten,	Munsons,	New York Central R. R.
Hearts Mine,	Clearfield,	J. W. Hooten,	Munsons,	John Hart,	Munsons,	New York Central R. R.
Anda Coal Co.						
Hope,	Clearfield,	Jonas Anda,	Brisbin,	Jonas Anda,	Brisbin,	Pennsylvania Railroad.
Coaldale Mining Co.						
Coaldale No. 4,	Clearfield,	R. L. Scott,	Philipsburg,	R. L. Scott,	Philipsburg,	Pennsylvania Railroad.
Powelton Coal Mfg. Co.						
Powelton No. 1,	Clearfield,	P. Gallagher,	Osceola Mills,	Thos. Duggan,	Osceola Mills,	Pennsylvania Railroad.
Isaac Reese Sons' Co.						
Reese Nos. 1 and 2,	Centre,			Chas. Rodden,	Brisbin,	Pennsylvania Railroad.
John Barnes & Sons.						
Lancashire Nos. 2 and 3,	Clearfield,	Jos. Barnes,	Philipsburg,	Jos. Barnes,	Philipsburg,	Pennsylvania Railroad.
John Tyler & Son.						
						Pennsylvania Railroad.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
John G. Platt & Co.						
Cuba Nos. 2 and 3,	Clearfield,	Wm. Powel, Jr.,	Philipsburg,			New York Central R. R.
Gulon,	Clearfield,	Wm. Powel, Jr.,	Philipsburg,			Pennsylvania Railroad.
Colorado Nos. 1 and 2,	Clearfield,	Wm. Powel, Jr.,	Philipsburg,			Pennsylvania Railroad.
Blair Bros.						
Orient Nos. 2 and 3,	Centre,	C. F. Blair,	Tyrone, P. A.,	L. B. Blair,	Powelton, P. A.,	Pennsylvania Railroad..
Samuel Styre.						
Black Diamond No. 2,	Clearfield,	Saml. Styre,	Philadelphia,			Pennsylvania Railroad.

TABLE II—Gives the total number of tons of coal mined and tons of coke produced in each colliery, number of days worked, number of employes, number of employes killed and injured, number of kegs of powder, etc., used in the Eighth Bituminous District for the year ending December 31, 1902.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Berwind-White Coal Mining Co.														
Atlantic No. 1,	Clearfield,	74,253	6,783	280	81 316	.....	.....	240	122	.....	1	39	7	12
Eureka No. 5,	Clearfield,	45,552	5,767	196	51,515	.....	.....	181	79	.....	.....	.....	.....	16
Eureka No. 7,	Clearfield,	104,793	3,986	524	109,303	.....	.....	208	156	.....	2	69	369	20
Eureka No. 16,	Clearfield,	38,610	226	60	38,896	.....	.....	186	62	.....	.....	65	231	18
Eureka No. 18,	Clearfield,	2,824	16	10	2,850	.....	.....	44	17	.....	.....	5	.....	10
Eureka No. 19,	Clearfield,	26,184	1,195	65	27,444	.....	.....	161	48	.....	.....	105	.....	.....
Eureka No. 22,	Clearfield,	88,742	2,238	192	91,172	.....	.....	221	123	.....	1	595	110	.....
Eureka No. 21,	Clearfield,	14,156	706	26	14,888	.....	.....	114	38	.....	1	.....	.....	7
Eureka No. 27,	Clearfield,	44,557	265	35	44,857	.....	.....	143	83	.....	.....	43	105	6
Eureka No. 28,†	Clearfield,	77,032	2,323	150	79,515	.....	.....	165	94	.....	.....	47	.....	16
Totals,	.....	516,703	23,515	1,538	541,756	.....	.....	166	822	.....	5	968	822	105
Morrisdale Coal Mining Co.														
Morrisdale No. 1,	Clearfield,	153,299	8,908	1,367	225,670	44,731	106	265	301	.....	1	1,621	1,800	33
Morrisdale No. 2,	Clearfield,	111,408	3,573	.....	114,981	.....	.....	240	122	.....	.....	1,206	360	11
Morrisdale No. 3,	Clearfield,	5,458	1,623	.....	7,081	.....	.....	67	56	.....	3	57	2,000	2
Morrisdale No. 6,	Clearfield,	11,128	.....	.....	11,128	.....	.....	234	21	.....	.....	117	25	2
Mabel,	Clearfield,	3,743	.....	.....	3,743	.....	.....	161	17	.....	.....	52	.....	2
Troy Nos. 1 and 3,	Clearfield,	18,275	.....	.....	18,275	.....	.....	175	19	.....	.....	251	.....	2
Troy No. 4,	Clearfield,	18,875	.....	.....	18,875	.....	.....	217	16	.....	.....	235	.....	2
Madera No. 1,†	Clearfield,	3,137	.....	.....	3,137	.....	.....	31	23	.....	.....	34	300	2
Totals,	.....	325,323	14,104	1,367	402 800	44,731	106	174	585	.....	4	3,573	4,125	56

*Totals in this column are averages. †New mine.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Peale, Peacock & Kerr, Inc.								*						
Decatur No. 1,	Clearfield,	47,478	.....	.....	47,478	.....	.....	236	58	.....	.....	.....	.....	6
Decatur No. 2,	Clearfield,	52,644	.....	.....	52,644	.....	.....	229	61	.....	.....	.....	.....	6
Decatur Nos. 3 and 6,	Clearfield,	169,763	609	329	170,701	.....	.....	240	221	.....	4	.....	.....	16
Decatur No. 4,	Clearfield,	25,732	.....	.....	25,732	.....	.....	216	34	.....	.....	.....	.....	4
Ogle No. 1,	Clearfield,	198,285	2,752	680	201,717	.....	.....	265	245	.....	.....	.....	.....	.....
Ogle No. 5,	Clearfield,	50,372	.....	.....	50,372	.....	.....	273	68	.....	.....	.....	.....	2
Totals,		544,074	3,361	1,009	548,444	.....	.....	243	690	.....	4	.....	.....	34
Beech Creek Coal and Coke Co.														
Summerville No. 8,	Clearfield,	223,349	1,795	1,263	226,407	.....	.....	272	243	.....	2	2,000	1,400	16
Kyler,	Clearfield,	87,852	.....	195	88,047	.....	.....	250	119	.....	.....	850	600	14
Forest Nos. 1 and 2,	Clearfield,	92,303	.....	.....	92,303	.....	.....	204	102	.....	.....	450	100	11
Totals,		403,504	1,795	1,458	406,757	.....	.....	244	464	.....	2	3,300	2,100	41
Henry Liveright.														
Fairmount No. 2,	Clearfield,	42,315	.....	60	42,375	.....	.....	242	73	.....	.....	204	.....	14
Fairmount No. 3,	Clearfield,	6,570	.....	.....	6,570	.....	.....	138	9	.....	.....	40	.....	2
Fairmount No. 4,	Clearfield,	20,151	.....	40	20,191	.....	.....	119	52	.....	.....	105	.....	5
Fairmount No. 5,†	Clearfield,	632	.....	.....	632	.....	.....	25	12	.....	.....	5	.....	1
Phoenix,	Centre,	26,201	.....	.....	26,201	.....	.....	315	36	.....	.....	125	.....	8
Totals,		95,869	.....	100	95,969	.....	.....	168	182	.....	.....	479	.....	30
Irish Bros.														
Baltic Nos. 1 and 3,	Clearfield,	52,020	.....	83	52,103	.....	.....	204	66	1	2	620	.....	18
Colorado Nos. 1 and 2,	Clearfield,	11,467	.....	.....	11,467	.....	.....	136	57	.....	.....	23	.....	6

†New mine.

*Totals in this column are averages.

								*						
Colorado Nos. 3 and 4,	Clearfield,	44,028	896	202	45,126			272	97			420		7
Colorado No. 5,	Clearfield,	64,779		95	64,874			194	151			384		8
Cuba Nos. 1 and 2,	Clearfield,	12,620			12,620			162	47			34		6
Gulon,	Clearfield,	12,570		27	12,597			118	61		1	82		6
Gearhart,	Clearfield,	42,894		11	42,905			176	86		1	500		7
Jefferson,	Clearfield,	2,800		7	2,807			49	35			16		4
Red Jacket,	Clearfield,	33,063		336	33,429			252	48	1	1	408		4
Totals,		273,271	896	761	277,928			174	648	2	5	2,487		66
Cambria Coal Mining Co														
Leland No. 1,	Clearfield,	40,701	226	1,344	42,271			201	143			500	350	11
Leland No. 2,	Clearfield,	9,318			9,318			119	33			29	15	2
Leland No. 5,†	Clearfield,	5,040			5,040			113	20			13	12	1
Leland No. 6,	Clearfield,	25,865			25,865			166	47			89	50	4
Totals,		80,924	226	1,344	82,494			149	243			631	427	18
W. A. Gould & Bro.														
Henderson No. 4,	Clearfield,	7,695		11	7,706			209	9					2
Henderson No. 5,	Clearfield,	12,220	22		12,242			238	20			76		3
Midvale No. 1,	Clearfield,	18,973	11	22	19,006			244	30			50		3
Midvale No. 2,	Clearfield,	15,489	17		15,506			224	26			75		5
Reakirt Bros. & Co., W. A. Gould, Contractor:														
Loraine,	Clearfield,	27,247		56	27,303			181	43			110		4
Goss Run,	Clearfield,	5,176			5,176			182	9					1
Totals,		86,800	50	89	86,939			213	137			311		18
Victoria Mining Co.														
Acme Nos. 1 and 2,	Clearfield,	146,051	4,001	272	150,324			242	174	1		735		27
Acme No. 3,	Clearfield,	623			623			83	4			40		
Acme No. 5,†	Clearfield,	824			824			99	37			50		
Acme No. 6,†	Clearfield,	344			344			25	9			15		
Totals,		147,842	4,001	272	152,115			112	224	1		840		27
Ashman & Ophir Coal Co.														
Ophir No. 1,	Centre,	54,304			54,304			237	56			400		10
Ashman,	Clearfield,	49,706			49,706			211	68			24		10
Ghem,	Clearfield	48,537	456	15	49,008			273	66			360	500	10
Royal,	Clearfield,	6,331	168		6,499			31	58					10
Totals,		158,878	624	15	159,517			183	248			784	500	40
Henrietta Coal Co., Ltd.														
Henrietta,	Clearfield,	39,088		112	39,200			258	61		1	43	75	12

*Totals in this column are averages. †New mine.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
								*						
Friendship,	Clearfield,	11,200	.....	.....	11,200	.....	.....	180	16	.....	.....	.....	.....	4
Meridian,	Clearfield,	296	.....	13	309	.....	.....	86	15	.....	.....	13	50	2
Totals,		50,584	.....	125	50,709	.....	.....	175	92	.....	1	56	125	18
Penn Collieries Co.														
Falcon No. 1,	Clearfield,	16,270	.....	.....	16,270	.....	.....	151	21	.....	.....	.....	.....	.....
Falcon No. 2,	Clearfield,	44,510	252	82	44,844	.....	.....	202	83	.....	.....	.....	.....	.....
Falcon No. 3,	Clearfield,	9,301	.....	8	9,309	.....	.....	238	34	.....	.....	.....	.....	.....
Totals,		70,081	252	90	70,423	.....	.....	197	138	.....	.....	.....	.....	.....
Moshannon Coal Mining Co.														
Moshannon No. 1,	Clearfield,	25,526	.....	.....	25,526	.....	.....	286	30	.....	.....	150	.....	6
Moshannon No. 2,	Clearfield,	13,569	.....	.....	13,569	.....	.....	280	15	.....	.....	100	.....	2
Moshannon No. 3,	Clearfield,	10,124	.....	.....	10,124	.....	.....	237	9	.....	.....	50	.....	2
Moshannon No. 4,	Clearfield,	3,423	.....	56	3,479	.....	.....	50	9	.....	.....	5	.....	2
Moshannon No. 7,†	Clearfield,	930	.....	.....	930	.....	.....	55	9	.....	.....	10	.....	2
Totals,		53,572	.....	56	53,628	.....	.....	182	72	.....	.....	315	.....	15
G. L. Whitehead Coal Co.														
Standard No. 1,	Centre,	27,317	.....	.....	27,317	.....	.....	246	42	.....	.....	236	625	4
Standard No. 2,	Centre,	5,023	.....	.....	5,023	.....	.....	150	11	.....	.....	32	.....	2
Standard No. 3,	Centre,	18,990	.....	.....	18,990	.....	.....	246	15	.....	.....	72	.....	3
Standard No. 5,	Clearfield,	540	.....	.....	540	.....	.....	31	10	.....	.....	17	.....	1

*Totals in this column are averages. †New mine.

Standard No. 7,	Clearfield,	6,885	.....	.....	6,885	.....	.....	189	28	.....	.....	67	276	2
Standard No. 9,	Clearfield,	2,248	.....	.....	2,248	.....	.....	171	11	.....	.....	12	.....	1
Totals,		61,003	.....	.....	61,003	.....	.....	172	117	.....	.....	436	901	13
S. J. Mountz.														
Whiteside No. 1,	Clearfield,	9,075	.....	.....	9,075	.....	.....	216	9	.....	.....	.....	.....	1
Whiteside No. 2,	Clearfield,	10,398	.....	.....	10,398	.....	.....	217	9	.....	.....	.....	.....	1
Gulick,	Clearfield,	8,353	.....	.....	8,353	.....	.....	223	9	.....	.....	.....	.....	1
Moran,	Clearfield,	5,696	.....	.....	5,696	.....	.....	168	9	.....	.....	.....	.....	1
Totals,		33,522	.....	.....	33,522	.....	.....	206	36	.....	.....	.....	.....	4
H. W. Wortz & Co.														
Franklin,†	Clearfield,	9,520	.....	.....	9,520	.....	.....	220	19	.....	.....	55	.....	4
Arctic,	Clearfield,	8,456	.....	.....	8,456	.....	.....	195	11	.....	.....	25	.....	3
Dauntless,	Clearfield,	2,688	.....	.....	2,688	.....	.....	150	8	.....	.....	.....	.....	1
Standard No. 8,	Clearfield,	2,016	.....	.....	2,016	.....	.....	90	8	.....	.....	30	.....	1
Totals,		22,680	.....	.....	22,680	.....	.....	164	46	.....	.....	110	.....	9
Betz Mining Co. and Swoope Coal Co.														
Betz colliery No. 1,	Clearfield,	54,940	40	13	54,993	.....	.....	156	105	.....	.....	611	.....	6
Betz colliery No. 2,	Clearfield,	31,923	30	27	31,980	.....	.....	241	81	.....	.....	489	.....	7
Betz colliery No. 18,	Clearfield,	22,778	13	28	22,819	.....	.....	126	47	.....	.....	89	.....	3
Totals,		109,641	83	68	109,792	.....	.....	174	233	.....	.....	1,189	.....	16
L. Milton Wilson.														
Schwinn,	Clearfield,	20,253	.....	32	20,285	.....	.....	215	32	.....	.....	65	.....	6
Union No. 4,	Clearfield,	2,693	.....	11	2,704	.....	.....	82	6	.....	.....	11	.....	2
Bear Run,	Centre,	12,686	.....	.....	12,686	.....	.....	156	28	.....	.....	.....	.....	4
Totals,		35,632	.....	43	35,675	.....	.....	151	66	.....	.....	76	.....	12
H. M. Hughes.														
Leader No. 1,	Clearfield,	12,442	.....	112	12,554	.....	.....	193	22	.....	.....	100	.....	3
Leader No. 2,	Clearfield,	6,160	.....	.....	6,160	.....	.....	139	6	.....	.....	10	.....	2
Logan Ridge,	Clearfield,	6,272	.....	.....	6,272	.....	.....	147	11	.....	.....	.....	.....	3
Totals,		24,874	.....	112	24,986	.....	.....	160	39	.....	.....	110	.....	8
J. R. Brown.														
Osceola No. 3,	Centre,	15,513	509	.....	16,022	.....	.....	157	40	.....	.....	.....	.....	6
Royal,	Clearfield,	2,990	228	.....	3,218	.....	.....	108	10	.....	.....	.....	.....	1
Niagara,	Clearfield,	2,946	156	.....	3,102	.....	.....	115	8	.....	.....	.....	.....	1
Totals,		21,449	893	.....	22,342	.....	.....	127	58	.....	.....	.....	.....	8

*Totals in this column are averages. †New mine.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Thos C. Heims & Co.														
Lenore,	Clearfield,	44,132	.....	.....	44,132	.....	.....	276	69	.....	.....	175	.....	10
Electric,	Centre,	71,571	.....	.....	71,571	.....	.....	266	88	.....	.....	300	.....	12
Totals,	.....	115,703	.....	.....	115,703	.....	.....	271	157	.....	.....	475	.....	22
Thomas J. Lee.														
Lee colliery,	Clearfield,	25,479	56	84	25,619	.....	.....	234	40	.....	.....	100	.....	3
Davis,	Clearfield,	27,759	.....	246	28,005	.....	.....	255	29	.....	.....	99	.....	3
Totals,	.....	53,238	56	330	53,624	.....	.....	244	69	.....	.....	199	.....	6
M. & F. Craig.														
Sterling No. 1,	Clearfield,	15,680	.....	.....	15,680	.....	.....	180	17	.....	.....	60	.....	1
Sterling No. 2,	Clearfield,	24,640	.....	.....	24,640	.....	.....	180	39	.....	.....	90	.....	2
Totals,	.....	40,320	.....	.....	40,320	.....	.....	180	56	.....	.....	150	.....	6
Harbison-Walker Co.														
Plane,	Clearfield,	15,344	94	.....	15,438	.....	.....	270	20	.....	.....	170	.....	2
Varner,	Clearfield,	18,914	494	.....	19,408	.....	.....	288	24	.....	.....	231	.....	2
Totals,	.....	34,258	588	.....	34,846	.....	.....	279	44	.....	.....	401	.....	4
Brown & Dyer.														
Union No. 5,	Centre,	13,583	.....	.....	13,583	.....	.....	185	25	.....	.....	.....	.....	5
Union No. 6,	Centre,	10,116	.....	.....	10,116	.....	.....	152	33	.....	.....	.....	.....	5
Totals,	.....	23,699	.....	.....	23,699	.....	.....	168	58	.....	.....	.....	.....	10

*Totals in this column are averages.

								*							
O. L. Schoonover.															
Forest No. 1,	Clearfield,	8,557	.....	134	8,691	.....	.....	82	92	.....	2	78	.....	5
Forest No. 2,	Clearfield,	7,149	.....	.....	7,149	.....	.....	76	81	.....	.....	64	.....	4
Totals,	.....	15,706	.....	134	15,840	.....	.....	79	173	.....	2	142	.....	9
American Union Coal Co.															
Mt. Vernon No. 7,	Clearfield,	11,169	.....	.....	11,169	.....	.....	282	24	.....	1	35	250	3
Mt. Vernon No. 10,†	Clearfield,	31	.....	.....	31	.....	.....	49	6	.....	.....	8	150	1
Totals,	.....	11,200	.....	.....	11,200	.....	.....	165	30	.....	1	43	400	4
W. G. Fishburn.															
Kyler,	Clearfield,	6,374	94	.....	6,468	.....	.....	26	124	.....	.....	27	.....	17
Douglas,	Clearfield,	2,981	18	.....	2,999	.....	.....	89	46	.....	.....	12	.....	2
Totals,	.....	9,355	112	.....	9,467	.....	.....	57	170	.....	.....	39	.....	19
Thomas Blythe.															
Alexander,	Clearfield,	35,594	224	102	35,920	.....	.....	253	49	.....	.....	240	.....	5
California,†	Clearfield,	336	.....	.....	336	.....	.....	41	9	.....	.....	12	.....	1
Pennsylvania,	Clearfield,	26,645	.....	.....	26,645	.....	.....	75	84	.....	1	100	.....	9
Totals,	.....	62,575	224	102	62,901	.....	.....	123	142	.....	1	352	.....	15
J. W. Hooten.															
Black Diamond,	Clearfield,	19,774	.....	51	19,825	.....	.....	64	63	.....	.....	300	.....	6
Hart's mine,†	Clearfield,	5,258	.....	.....	5,258	.....	.....	119	17	.....	.....	75	.....	2
Totals,	.....	25,032	.....	51	25,083	.....	.....	91	80	.....	.....	375	.....	8
John G. Platt.															
Cuba Nos. 2 and 3,	Clearfield,	1,299	.....	7	1,306	.....	.....	16	21	.....	.....	.....	.....	3
Guion,	Clearfield,	1,142	.....	6	1,148	.....	.....	20	15	.....	.....	.....	.....	4
Colorado Nos. 1 and 2,	Clearfield,	671	.....	.....	671	.....	.....	12	21	.....	.....	.....	.....	4
Totals,	.....	3,112	.....	13	3,125	.....	.....	16	57	.....	.....	.....	.....	11

*Totals in this column are averages.
†New mine.

Recapitulation.

Berwind-White Coal Mining Co.,	Clearfield,	516,703	23,515	1,538	541,756	.....	.....	166	822	.....	5	968	822	105
Morrisdale Coal Mining Co.,	Clearfield,	325,323	14,104	1,367	402,890	44,473	106	171	585	.....	4	3,573	4,425	56
Peale, Peacock & Kerr, Inc.,	Clearfield,	544,071	3,361	1,009	548,444	.....	.....	243	690	.....	4	.....	.....	34
Beech Creek Coal and Coke Co.,	Clearfield,	403,504	1,795	1,458	406,757	.....	.....	244	461	.....	2	3,300	2,100	41
Henry Liveright,	Clearfield & Centre,	95,869	.....	100	95,969	.....	.....	168	182	.....	.....	479	.....	30
Irish Bros.,	Clearfield,	276,271	896	761	277,928	.....	.....	174	648	2	5	2,487	.....	66

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds dynamite used.	Number horses and mules.
Cambria Coal Mining Co.,	Clearfield,	80,824	226	1,344	82,494	.....	.....	149	243	.....	.....	631	427	18
W. A. Gould & Bro. and Reakirt Bros. & Co.	Clearfield,	86,800	50	89	86,939	.....	.....	213	137	.....	.....	311	.....	18
Victoria Mining Co.,	Clearfield,	147,842	4,001	272	152,115	.....	.....	112	224	1	.....	840	.....	27
Ashman & Ohpir Coal Co.,	Clearfield & Centre,	158,878	624	15	159,517	.....	.....	183	248	.....	.....	784	500	40
Henrietta Coal Co., Ltd.,	Clearfield,	50,584	.....	125	50,709	.....	.....	175	92	.....	1	56	125	18
Penn Collieries Co.,	Clearfield,	70,081	252	90	70,423	.....	.....	197	138	.....	.....	.....	.....	.....
Moshannon Coal Mining Co.,	Clearfield,	53,572	.....	56	53,628	.....	.....	182	72	.....	.....	315	.....	15
G. L. Whitehead Coal Co.,	Clearfield & Centre,	61,003	.....	.....	61,003	.....	.....	172	117	.....	.....	436	901	13
S. J. Mountz,	Clearfield,	33,522	.....	.....	33,522	.....	.....	206	36	.....	.....	.....	.....	4
Jas. F. Stott,	Centre,	25,516	28	28	25,572	.....	.....	240	33	.....	.....	115	500	4
H. W. Wortz & Co.,	Clearfield,	22,680	.....	.....	22,680	.....	.....	164	46	.....	.....	110	.....	9
Betz Coal Mining Co. and Swoope Coal Mining Co.,	Clearfield,	109,641	83	68	109,792	.....	.....	171	233	.....	.....	1,189	.....	16
L. Milton Wilson,	Clearfield & Centre,	35,632	.....	43	35,675	.....	.....	151	66	.....	.....	76	.....	12
H. M. Hughes,	Clearfield,	24,874	.....	112	24,986	.....	.....	160	39	.....	.....	110	.....	8
J. R. Brown,	Clearfield & Centre,	21,449	893	.....	22,342	.....	.....	127	58	.....	.....	.....	.....	8
Thomas C. Helms & Co.,	Clearfield & Centre,	115,703	.....	.....	115,703	.....	.....	271	157	.....	.....	475	.....	22
Thos. J. Lee,	Clearfield,	53,238	56	330	53,624	.....	.....	244	69	.....	.....	199	.....	6
M. & F. Craig,	Clearfield,	40,320	.....	.....	40,320	.....	.....	180	56	.....	.....	150	.....	6
Harbison-Walker Co.,	Clearfield,	34,258	588	.....	34,846	.....	.....	279	44	.....	.....	401	.....	4
Brown & Dyer,	Centre,	23,699	.....	.....	23,699	.....	.....	168	58	.....	.....	.....	.....	10
O. L. Schoonover,	Clearfield,	15,706	.....	134	15,840	.....	.....	79	173	.....	2	142	.....	9
American Union Coal Co.,	Clearfield,	11,200	.....	.....	11,200	.....	.....	165	30	.....	1	43	400	4
Ghem Coal Co.,	Centre,	90,310	.....	134	90,444	.....	.....	257	115	.....	.....	326	.....	8
Bulah Coal Co.,	Clearfield,	74,133	278	269	74,680	.....	.....	139	117	.....	.....	385	1,900	20
John J. & H. W. Todd,	Clearfield,	74,486	.....	484	74,970	.....	.....	206	96	.....	.....	.....	.....	12
Elsworth & Dunham,	Clearfield,	41,334	746	80	42,160	.....	.....	196	125	.....	2	100	.....	13
Adams & Co.,	Clearfield,	34,186	.....	.....	34,186	.....	.....	211	60	.....	.....	150	.....	7
Penn Iron Co., Ltd.,	Clearfield,	23,146	162	62	23,370	.....	.....	254	29	.....	.....	153	.....	5
Osceola Coal and Coke Co.,	Centre,	21,158	.....	.....	21,158	.....	.....	180	45	.....	.....	.....	.....	4
E. J. Walker & Co.,	Clearfield,	17,564	112	.....	17,676	.....	.....	249	29	.....	.....	240	200	2
C. D. Loraine,	Clearfield,	16,192	.....	.....	16,192	.....	.....	157	34	.....	.....	.....	.....	4

Lawton & Cox,	Clearfield,	16,384	20	.....	16,401	.....	.....	168	29	.....	.....	150	300	6
Clearfield Lumber Co., Ltd.,	Clearfield,	14,951	71	47	15,069	.....	.....	226	28	.....	.....	97	10	2
W. F. Holt,	Clearfield,	11,274	.....	.....	11,274	.....	.....	156	19	.....	.....	.....	.....	5
Stratton Bros.,	Clearfield,	10,301	.....	28	10,329	.....	.....	187	13	.....	.....	90	.....	3
Brown & Reeves,	Clearfield,	9,835	113	20	9,968	.....	.....	60	51	.....	.....	.....	.....	11
Meadow Brook Mining Co.,	Clearfield,	8,960	538	112	9,610	.....	.....	299	30	.....	.....	40	.....	2
Hilling & Morgan,	Clearfield,	7,926	.....	22	7,948	.....	.....	198	10	.....	.....	75	.....	1
John Walton & Son,	Clearfield,	6,662	.....	22	6,684	.....	.....	201	9	.....	.....	20	.....	2
J. M. Roberson,	Clearfield,	6,227	.....	366	6,593	.....	.....	222	10	.....	.....	15	.....	1
Townsend & Milsom,	Clearfield,	7,125	.....	.....	7,125	.....	.....	224	10	.....	.....	15	.....	2
Beaver Run Coal Co.,	Clearfield,	5,722	.....	28	5,750	.....	.....	184	20	.....	.....	60	.....	3
J. R. Flenner & Co.,	Clearfield,	5,432	.....	.....	5,432	.....	.....	121	14	.....	1	20	25	1
Mapleton Coal Co.,	Clearfield,	5,600	.....	.....	5,600	.....	.....	189	12	.....	.....	.....	.....	5
Wm. Casker,	Clearfield,	5,040	123	84	5,247	.....	.....	75	56	.....	.....	10	.....	6
Stanley Coal Co.,	Clearfield,	3,960	50	3	4,013	.....	.....	19	53	.....	.....	.....	.....	9
S. V. Davis & Co.,	Clearfield,	3,150	1	.....	3,151	.....	.....	105	15	.....	.....	25	50	1
Lincoln Coal Co.,	Clearfield,	1,536	.....	.....	1,536	.....	.....	40	13	.....	.....	13	.....	4
W. G. Fishburn,	Clearfield,	9,355	112	.....	9,467	.....	.....	57	170	.....	.....	30	.....	19
Stott, Hill & Dale,	Clearfield,	5,600	.....	.....	5,600	.....	.....	43	28	.....	.....	30	3	3
Thos. Blythe and Penn'a Coal and Coke Co., ..	Clearfield,	62,575	224	102	62,901	.....	.....	123	142	.....	1	372	.....	15
J. W. Hooten,	Clearfield,	25,032	.....	51	25,083	.....	.....	91	80	.....	.....	375	.....	8
Anda & Co.,	Clearfield,	7,258	.....	1	7,259	.....	.....	82	22	.....	.....	2	.....	2
Coaldale Mining Co.,	Clearfield,	37,800	.....	.....	37,800	.....	.....	186	48	.....	.....	75	.....	7
Powelton Coal Mining Co.,	Centre,	17,980	.....	7	17,987	.....	.....	216	23	.....	.....	84	.....	3
Isaac Reese Son's Co.,	Centre,	19,510	.....	874	20,384	.....	.....	260	23	.....	.....	.....	.....	5
John Barnes & Sons,	Clearfield,	13,708	.....	.....	13,708	.....	.....	176	20	.....	.....	250	.....	3
John Tyler & Son,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
John G. Platt,	Clearfield,	3,112	.....	13	3,125	.....	.....	16	57	.....	.....	.....	.....	11
Blair Bros.,	Centre,	77,243	112	190	77,545	.....	.....	243	62	.....	.....	400	.....	8
Samuel Styre,	Clearfield,	8,961	.....	.....	8,961	.....	.....	185	17	.....	.....	.....	.....	3
Grand totals,	.....	4,245,594	53,134	11,938	4,376,762	44,731	106	162	7,494	3	28	20,781	12,688	828

TABLE II—Continued.

Names of Operators and Collieries.	County.	Number of Boilers.				Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.	Horse power.		Steam.	Air.	Electric.							
Berwind-White Coal Mining Co.,	Clearfield,	11	430	25	2,680	2,680	.....	.....	9	58	2,525	24	9,100	6,170	6	1
Morrisdale Coal Mining Co.,	Clearfield,	1	25	11	1,385	1,410	.....	.....	2	13	872	9	3,455	100	1	5
Peale, Peacock & Kerr, Inc.,	Clearfield,	.....	.....	4	525	525	.....	.....	5	4	825	.....	.....	.....	1	1
Beech Creek Coal and Coke Co.,	Clearfield,	.....	.....	5	620	620	.....	.....	3	4	475	9	1,650	1,350	.....	.....
Henry Liveright,	Clearfield & Centre,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Irish Bros.,	Clearfield,	.....	.....	2	160	.....	.....	.....	.....	2	160	1	200	100	.....	.....
Cambria Coal Mining Co.,	Clearfield,	.....	.....	2	100	100	.....	.....	.....	2	50	1	122	62	.....	.....
W. A. Gould & Bro. and Reakirt Bros. & Co.,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Victoria Mining Co.,	Clearfield,	5	50	1	50	300	.....	.....	.....	2	220	5	1,250	850	.....	.....
Ashman & Ophir Coal Co.,	Clearfield & Centre,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	75	75	.....	.....
Henrietta Coal Co., Ltd.,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Penn Collieries Co.,	Clearfield,	.....	.....	1	80	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Moshannon Coal Mining Co.,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
G. L. Whitehead Coal Co.,	Clearfield & Centre,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. J. Mountz,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jas. F. Stott,	Centre,	.....	.....	1	15	.....	.....	.....	.....	.....	.....	1	38	38	.....	.....
H. W. Wortz & Co.,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Betz Coal Mining Co. and Swoope Coal Mining Co.,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L. Milton Wilson,	Clearfield & Centre,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
H. M. Hughes,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
J. R. Brown,	Clearfield & Centre,	.....	.....	1	50	50	.....	.....	.....	1	50	1	200	100	.....	.....
Thos. C. Helms & Co.,	Clearfield & Centre,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Thos. J. Lee,	Clearfield,	.....	.....	1	35	35	.....	.....	.....	.....	.....	1	50	30	.....	.....
M. & F. Craig,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Harbison-Walker Co.,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brown & Dyer,	Centre,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
O. L. Schoonover,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
American Union Coal Co.,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ghem Coal Co.,	Centre,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Bulah Coal Co.,	Clearfield,			1	40	40				1	60						
John J. & H. W. Todd,	Clearfield,																
Elsworth & Dunham,	Clearfield,			2	30	60				1	60	1	330	330			
Adams & Co.,	Clearfield,																
Penn Iron Co., Ltd.,	Clearfield,																
Osceola Coal and Coke Co.,	Centre,																
E. J. Walker & Co.,	Clearfield,																
C. D. Loraine,	Clearfield,																
Lawton & Cox,	Clearfield,																
Clearfield Lumber Co., Ltd.,	Clearfield,																
W. F. Holt,	Clearfield,																
Stratton Bros.,	Clearfield,																
Brown & Reeves,	Clearfield,	2	40	1	100	180						3	480	480			1
Meadow Brook Mining Co.,	Clearfield,			1	100	160											
Hilling & Morgan,	Clearfield,																
John Walton & Son,	Clearfield,																
J. M. Roberson,	Clearfield,																
Townsend & Milsom	Clearfield,																
Beaver Run Coal Co.,	Clearfield,																
J. R. Fienner & Co.,	Clearfield,																
Mapleton Coal Co.,	Clearfield,																
Wm. Casker,	Clearfield,	1	40	1	30	70				1	8	2	2,250	2,250			
Stanley Coal Co.,	Clearfield,	2	65	1	100	165						3	1,260	1,200			
S. V. Davis & Co.,	Clearfield,																
Lincoln Coal Co.,	Clearfield,																
W. G. Fishburn,	Clearfield,																
Stott, Hill & Dale,	Clearfield,									1	16	2					
Thos. Blythe and Penn'a Coal and Coke Co.,	Clearfield,																
J. W. Hooten,	Clearfield,																
Anda & Co.,	Clearfield,																
Coaldale Mining Co.,	Clearfield,																
Powelton Coal Mining Co.,	Centre,																
Isaac Reese Son's Co.,	Centre,																
John Barnes & Sons,	Clearfield,																
John Tyler & Son,	Clearfield,																
John G. Platt,	Clearfield,																
Blair Bros.,	Centre,			2	80	160	1					1	60				1
Samuel Styre,	Clearfield,																
Grand totals,		22	650	63	6,120	6,405	1		20	90	5,261	65	20,520	13,135	11		9

TABLE III—Showing the number of each class of employes at each colliery in the Eighth Bituminous District during the year 1902.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.											Occupations of Persons Employed Outside.								Grand total inside and outside.
		Mine foremen.	Assistant mine foremen.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Bookkeepers and clerks.	All other employes.	Total outside.	
Berwind-White Coal Mining Co.																					
Atlantic No. 1,	Clearfield,	1	.....	91	.....	.....	.....	6	2	2	9	111	....	....	2	4	....	2	3	11	122
Eureka No. 5,	Clearfield,	1	.....	63	.....	.....	.....	3	.....	2	1	70	....	....	1	5	....	1	2	9	79
Eureka No. 7,	Clearfield,	1	.....	126	.....	.....	.....	7	4	7	.....	145	....	....	2	4	....	1	4	11	156
Eureka No. 16,	Clearfield,	1	1	49	.....	.....	.....	4	.....	1	2	58	....	....	1	1	....	1	1	4	62
Eureka No. 18,	Clearfield,	1	.....	12	.....	.....	.....	1	1	1	.....	16	....	....	1	....	....	....	.....	1	17
Eureka No. 19,	Clearfield,	1	.....	36	.....	.....	.....	2	1	1	2	43	....	....	1	1	....	1	2	5	48
Eureka No. 22,	Clearfield,	1	1	99	.....	.....	.....	5	1	2	3	114	....	....	2	2	....	2	3	9	123
Eureka No. 24,	Clearfield,	1	.....	31	.....	.....	.....	2	.....	1	.....	35	....	....	1	1	....	1	.....	3	38
Eureka No. 27,	Clearfield,	1	.....	75	.....	.....	.....	1	.....	1	2	80	....	....	1	....	....	1	1	3	83
Eureka No. 28,	Clearfield,	1	.....	.....	6	53	6	4	1	2	9	82	....	....	4	3	....	2	3	12	94
Totals,		10	2	582	6	53	6	35	10	20	30	754	....	....	16	21	....	12	19	68	822
Morrisdale Coal Mining Co.																					
Morrisdale No. 1,	Clearfield,	1	1	60	8	39	8	19	6	22	.....	224	1	1	5	9	40	6	15	77	301
Morrisdale No. 2,	Clearfield,	1	1	13	4	70	4	6	3	10	.....	112	....	1	3	4	....	....	2	10	122
Morrisdale No. 3,	Clearfield,	1	.....	.....	3	25	3	2	.....	12	1	47	....	....	3	4	....	....	2	9	56
Morrisdale No. 6,	Clearfield,	1	1	17	.....	.....	.....	1	.....	.....	.....	20	....	....	....	....	....	....	1	1	21
Mabel,	Clearfield,	1	.....	14	.....	.....	.....	1	.....	.....	.....	16	....	....	....	....	....	....	1	1	17
Troy Nos. 1 and 3,	Clearfield,	1	.....	14	.....	.....	.....	1	.....	2	.....	18	....	....	....	....	....	....	1	1	19
Troy No. 4,	Clearfield,	1	.....	12	.....	.....	.....	1	.....	.....	1	15	....	....	....	....	....	....	1	1	16
Madera No. 1,	Clearfield,	1	.....	20	.....	.....	2	.....	3	.....	.....	26	....	....	2	....	....	....	5	7	33
Totals,		8	3	150	15	194	17	21	12	46	2	478	1	2	13	17	40	6	28	107	585

Peale, Peacock & Kerr, Inc.																					
Decatur No. 1,	Clearfield,	1		48				3		1	2	55			1				2	3	58
Decatur No. 2,	Clearfield,	1		50				5	1	1	1	59							2	2	61
Decatur No. 3,	Clearfield,	1	1	185		3	3	8	3	6		210	1		2	3		1	7	14	224
Decatur No. 4,	Clearfield,	1		30				2		1		34									34
Decatur No. 6,	Clearfield,																				
Ogle No. 1,	Clearfield,	1		190	2	15	2	8	5	5	2	230	1		2	3		1	8	15	245
Ogle No. 5,	Clearfield,	1		60				1	1	2		65			1				2	3	68
Ogle No. 7,	Clearfield,																				
Totals,		6	1	563	2	18	5	27	10	16	5	653	2		6	6		2	21	37	699
Irish Bros.																					
Baltic Nos. 1 and 3,	Clearfield,	1		40				6	3	14		64			1	1				2	66
Colorado Nos. 1 and 2,	Clearfield,	1		32				4		19		56			1					1	57
Colorado Nos. 3 and 4,	Clearfield,	1		63				7	3	20		94			1	2				3	97
Colorado No. 5,	Clearfield,	1		120				8		15		144			1			6		7	151
Cuba Nos. 1 and 2,	Clearfield,	1		30				3		12		46			1					1	47
Gulon,	Clearfield,	1		38				6	1	14		60			1					1	61
Gearhart,	Clearfield,	1		62				4	2	16		85			1					1	86
Jefferson,	Clearfield,			24				2		6		33			1	1				2	35
Red Jacket,	Clearfield,	1		36				4		6		47			1					1	48
Totals,		9		445				44	9	122		629			9	4		6		19	648
Cambria Coal Mining Co.																					
Leland No. 1,	Clearfield,	1	1	125				3	3	5		138	1		1	2		1		5	143
Leland No. 2,	Clearfield,	1		30				2				33									33
Leland No. 3,	Clearfield,																				
Leland No. 4,	Clearfield,																				
Leland No. 5,	Clearfield,																				
Leland No. 6,	Clearfield,	1		18				1				20									20
		1		40				2	1	2		46			1					1	47
Totals,		4	1	213				8	4	7		237	1		2	2		1		6	243
Beech Creek Coal and Coke Co.																					
Forest No. 1,	Clearfield,	1		90				4		1		96			1				5	6	102
Forest No. 2,	Clearfield,																				
Keyler,	Clearfield,	1		95				7	2	3		108	1		2			1	7	11	119
Summerville No. 8,	Clearfield,	1	1	145	4	50	4	12	4	6		227	1		1	3		1	10	16	243
Summerville No. 9,	Clearfield,																				
Totals,		3	1	330	4	50	4	23	6	10		431	2		4	3		2	22	33	464
W. A. Gould & Co.																					
Henderson No. 4,	Clearfield,			8				1				9									9
Henderson No. 5,	Clearfield,	1		18				1				20									20
Midvale No. 1,	Clearfield,	1		26				3				30									30
Midvale No. 2,	Clearfield,	1		21				4				26									26
Lorraine,	Clearfield,	1		37				3		1		42			1					1	43
Cross Cut				8				1				9									9
Totals,		4		118				13		1		136			1					1	137

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.											Occupations of Persons Employed Outside.								Grand total inside and outside.
		Mine foremen.	Assistant mine foremen.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Bookkeepers and clerks.	All other employes.	Total outside.	
H. Liveright.																					
Fairmont No. 2,	Clearfield,	1	.....	62	.....	.....	.....	6	.....	1	.....	70	....	....	1	....	....	1	1	3	73
Fairmont No. 3,	Clearfield,	.....	.....	8	.....	.....	.....	.....	.....	.....	.....	8	....	1	....	....	....	....	.....	1	9
Fairmont No. 4,	Clearfield,	1	.....	47	.....	.....	.....	2	.....	.....	.....	50	....	....	1	....	....	....	1	2	52
Fairmont No. 5,	Clearfield,	1	.....	10	.....	.....	.....	.....	.....	.....	.....	11	....	....	....	....	....	....	1	1	12
Phœnix,	Centre,	1	.....	31	.....	.....	.....	3	.....	.....	.....	35	....	....	....	....	....	....	1	1	36
Totals,		4	.....	158	.....	.....	.....	11	.....	1	.....	174	....	1	2	....	....	1	4	8	182
Victoria Mining Co.																					
Acme Nos. 1 and 2,	Clearfield,	1	.....	138	.....	.....	.....	8	3	3	.....	153	1	....	6	6	....	2	6	21	174
Acme No. 3,	Clearfield,	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	4	....	....	....	....	....	....	.....	.....	4
Acme No. 5,	Clearfield,	1	.....	31	.....	.....	.....	2	.....	.....	.....	34	....	....	....	....	....	....	.....	.....	34
Acme No. 6,	Clearfield,	.....	.....	8	.....	.....	.....	1	.....	.....	.....	9	....	....	....	....	....	....	.....	.....	9
Totals,		2	.....	184	.....	.....	.....	11	3	3	.....	203	1	....	6	6	....	2	6	21	224
Ashman & Ophir Coal Co.																					
Ashman,	Clearfield,	1	.....	55	.....	.....	.....	4	1	1	.....	62	....	....	1	....	....	2	3	6	68
Boyal,	Clearfield,	1	.....	44	.....	.....	.....	.....	.....	4	.....	49	1	....	1	3	....	1	3	9	58
Ghem,	Clearfield,	1	.....	50	.....	.....	.....	5	.....	1	.....	57	1	....	1	2	....	2	3	9	66
Ophir No. 1,	Centre,	1	.....	45	.....	.....	.....	4	1	1	.....	52	....	....	1	....	....	2	1	4	56
Totals,		4	.....	194	.....	.....	.....	13	2	7	.....	220	2	....	4	5	....	7	10	28	248

Henrietta Coal Mfg. Co., Ltd.																							
Henrietta,	Clearfield,	1		50				4	1	1		57	1		1				2	4	61
Friendship,	Clearfield,	1		13				1	1			16									16
Meridian No. 1,	Clearfield,	1		11				1		1		14							1	1	15
Totals,		3		74				6	2	2		87	1		1				3	5	92
Penn Collieries Co.																							
Falcon No. 1,	Clearfield,	1		18				2				21									21
Falcon No. 2,	Clearfield,	1		69						8		78	1	1	1	1		1		5	83
Falcon No. 3,	Clearfield,	1		30				2		1		34									34
Totals,		3		117				4		9		133	1	1	1	1		1		5	138
Moshannon Coal Mining Co.																							
Moshannon No. 1,	Clearfield,	1		20				4	1	1		27			2			1		3	30
Moshannon No. 2,	Clearfield,	1		12				1			1	15									15
Moshannon No. 3,	Clearfield,			8				1				9									9
Moshannon No. 4,	Clearfield,			6				2		1		9									9
Moshannon No. 7,	Clearfield,			7				1		1		9									9
Totals,		2		53				9	1	3	1	69			2			1		3	72
G. L. Whitehead Coal Co.																							
Standard No. 1,	Centre,	1	1	34				2		1		39	1					1	1	3	42
Standard No. 2,	Centre,		1	6				1			1	9	1					1		2	11
Standard No. 3,	Centre,		1	10				1				12	1					1	1	2	15
Standard No. 5,	Clearfield,		1	5				1			1	8	1					1		2	10
Standard No. 7,	Clearfield,	1		23				2				26	1					1		2	28
Standard No. 9,	Clearfield,		1	7				1				9	1					1		2	11
Totals,		2	5	85				8		1	2	103	6					6	2	14	117
S. J. Mountz.																							
Whiteside No. 1,	Clearfield,			8				1				9									9
Whiteside No. 2,	Clearfield,			8				1				9									9
Gullick,	Clearfield,			8				1				9									9
Moran,	Clearfield,			8				1				9									9
Totals,				32				4				36									36
Jas. F. Stott.																							
Ophir Nos. 2, 3, 4 and 5,	Centre,	1	1	20				2		5		29	1		1	1		1		4	33
H. W. Wortz & Co.																							
Franklin,	Clearfield,	1		14				2				17						2		2	19
Arctic,	Clearfield,			8				1				9						2		2	11
Dauntless,	Clearfield,			5				1				6									8
Standard No. 8,	Clearfield,			5				1				6						2			8
Totals,		1		32				5				38						8		8	46

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.											Occupations of Persons Employed Outside.								Grand total inside and outside.
		Mine foremen.	Assistant mine foremen.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Bookkeepers and clerks.	All other employes.	Total outside.	
Betz Coal Mining Co. and Swoope Coal Co.																					
Betz No. 1,	Clearfield,	1	.....	89	.....	.....	.....	5	1	2	.....	98	1	....	1	....	....	1	4	7	105
Betz No. 2,	Clearfield,	1	.....	72	.....	.....	.....	4	.....	1	.....	78	1	....	1	....	....	....	1	3	81
Betz No. 18,	Clearfield,	1	.....	31	.....	.....	.....	2	.....	2	4	40	1	1	....	....	....	1	4	7	47
Totals,		3	.....	192	.....	.....	.....	11	1	5	4	216	3	1	2	....	....	2	9	17	233
L. Milton Wilson.																					
Schwinn,	Clearfield,	1	.....	26	.....	.....	.....	3	.....	.....	.....	30	1	....	1	....	....	....	.....	2	32
Union No. 4,	Clearfield,	.....	.....	5	.....	.....	.....	1	.....	.....	.....	6	....	....	....	....	....	....	.....	.....	6
Bear Run,	Centre,	1	.....	23	.....	.....	.....	2	.....	.....	.....	26	1	....	1	....	....	....	.....	2	28
Totals,		2	.....	54	.....	.....	.....	6	.....	.....	.....	62	2	....	2	....	....	....	.....	4	66
H. M. Hughes.																					
Leader No. 1,	Clearfield,	1	.....	19	.....	.....	.....	1	.....	.....	.....	21	....	....	....	....	....	....	1	1	22
Leader No. 2,	Clearfield,	.....	.....	5	.....	.....	.....	1	.....	.....	.....	6	....	....	....	....	....	....	.....	.....	6
Logan Ridge,	Clearfield,	.....	.....	8	.....	.....	.....	.....	.....	.....	.....	8	1	....	....	....	....	....	2	3	11
Totals,		1	.....	32	.....	.....	.....	2	.....	.....	.....	35	1	....	....	....	....	....	3	4	39
J. R. Brown.																					
Osceola No. 3,	Centre,	1	.....	25	.....	.....	.....	3	1	2	.....	32	1	....	2	....	1	....	4	8	40
Royal,	Clearfield,	1	.....	6	.....	.....	.....	1	.....	.....	.....	8	1	....	....	1	....	....	.....	2	10

Niagara,	Clearfield,			7				1				8											8
Totals,		2		38				5	1	2		48	2		2	1	1		4	10	58
Thos. C. Heims.																							
Lenore,	Clearfield,	1		59				5	1		2	68			1					1	69
Electric,	Centre,	1		75				6				82			1				5	6	88
Totals,		2		134				11	1		2	150			2				5	7	157
Thos. J Lee.																							
Lee Colliery,	Clearfield,	1		34				2		2		39	1							1	40
Davis,	Clearfield,	1		23				3		1		28	1							1	29
Totals,		2		57				5		3		67	2							2	69
M. & F. Craig.																							
Sterling No. 2,	Clearfield,	1		12				2				15	1					1		2	17
Sterling No. 3,	Clearfield,	1		33				2		1		37	1					1		2	39
Totals,		2		45				4		1		52	2					2		4	56
Harbison-Walker Co.																							
Plane,	Clearfield,	1		17				1				19						1		1	20
Varner,	Clearfield,	1		22				1				24									24
Totals,		2		39				2				43						1		1	44
Brown & Dyer.																							
Union No. 5,	Centre,	1		20				3				24	1							1	25
Union No. 6,	Centre,	1		27				3				31	1		1					2	33
Totals,		2		47				6				55	2		1					3	58
O. L. Schoonover.																							
Forest No. 1,	Clearfield,	1		75				4		6		86	1	1	1			1	2	6	92
Forest No. 2,	Clearfield,	1		70				3		5		79						1	1	2	81
Totals,		2		145				7		11		165	1	1	1			2	3	8	173
American Union Coal Co.																							
Mt. Vernon No. 7,	Clearfield,	1		16				2	1	2		22	1					1		2	24
Mt. Vernon No. 10,	Clearfield,			4								4	1					1		2	6
Totals,		1		20				2	1	2		26	2					2		4	30
Ghem Coal Co.																							
Ghem,	Centre,	1		102				7			3	113			1			1		2	115
Bulah Coal Co.																							
Webster No. 4,	Clearfield,	1		81				7	6	10		105	1		3	1		1	6	12	117
John J. & H. W. Todd.																							
Lane Nos. 1, 2 and 3,	Clearfield,	1		80				4	1		3	89	1		1			1	4	7	96

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.											Occupations of Persons Employed Outside.								Grand total inside and outside.
		Mine foremen.	Assistant mine foremen.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Bookkeepers and clerks.	All other employes.	Total outside.	
Elsworth & Dunham.																					
Royal,	Clearfield,	1	.....	109	.....	.....	.....	5	.....	3	.....	118	1	....	2	3	....	1	.....	7	125
Adams & Co.																					
Jefferson,	Clearfield,	1	.....	54	.....	.....	.....	2	.....	.....	.....	57	1	....	1	....	....	1	.....	3	60
Penn Iron Co., Ltd.																					
Reading,	Clearfield,	1	.....	21	.....	.....	.....	2	1	2	.....	27	1	....	1	....	....	....	.....	2	29
Osceola Coal and Coke Co.																					
Union No. 3,	Centre,	1	.....	37	.....	.....	.....	4	.....	2	.....	44	1	....	....	....	....	....	.....	1	45
E. J. Walker & Co.																					
Troy,	Clearfield,	1	.....	22	.....	.....	.....	2	.....	1	.....	26	1	....	1	....	....	1	.....	3	29
C. D. Loraine.																					
West Moshannon,	Clearfield,	1	.....	30	.....	.....	.....	2	.....	.....	.....	33	1	....	....	....	....	....	.....	1	34
Lawton & Cox.																					
White Oak No. 1,	Clearfield,	1	.....	20	.....	.....	.....	2	.....	2	2	27	1	....	....	....	....	1	.....	2	29
Clearfield Lumber Co., Ltd.																					
Alder Run,	Clearfield,	1	.....	25	.....	.....	.....	1	.....	.....	.....	27	1	....	....	....	....	....	.....	1	28
W. F. Holt.																					
Phoenix,	Clearfield,	1	.....	15	.....	.....	.....	2	.....	.....	.....	18	1	....	....	....	....	....	.....	1	19

Stratton Bros.																							
Kentuck,	Clearfield,...	1	.....	9	.....	.....	.....	1	.....	.....	.....	11	1	....	....	....	....	1	.....	2	13
Brown & Reeves.																							
Star No. 1,	Clearfield,...	1	.....	40	.....	.....	.....	5	.....	.....	.....	46	1	....	1	2	....	1	.....	5	51
Meadowbrook Mining Co.																							
Meadowbrook,	Clearfield,...	1	.....	.....	2	12	2	2	1	6	.....	26	1	1	1	1	....	....	.....	4	30
Hilling, Morgan & Co.																							
Porter Run No. 1,	Clearfield,...	.....	.....	8	.....	.....	.....	1	.....	.....	.....	9	1	....	....	....	....	....	.....	1	10
John Walton & Son.																							
London,	Clearfield,...	.....	.....	8	.....	.....	.....	1	.....	.....	.....	9	....	....	....	....	....	....	.....	.....	9
J. M. Roberson.																							
Roberson,	Clearfield,...	.....	.....	8	.....	.....	.....	1	.....	.....	.....	9	1	....	....	....	....	....	.....	1	10
Townsend & Millsom.																							
Shoff No. 2,	Clearfield,...	.....	.....	8	.....	.....	.....	1	.....	.....	.....	9	1	....	....	....	....	....	.....	1	10
Beaver Run Coal Co.																							
Beaver Run,	Clearfield,...	1	.....	16	.....	.....	.....	2	.....	.....	.....	19	1	....	....	....	....	....	.....	1	20
J. R. Flenner.																							
Standard No. 4,	Clearfield,...	1	.....	11	.....	.....	.....	1	.....	.....	.....	13	1	....	....	....	....	....	.....	1	14
Mapleton Coal Co.																							
Mapleton,	Clearfield,..	1	.....	8	.....	.....	.....	1	.....	.....	.....	10	1	....	....	....	....	....	1	2	12
William Casker.																							
Birds Eye,	Clearfield,...	1	.....	46	.....	.....	.....	4	.....	.....	2	53	....	....	....	2	....	....	1	3	56
Stanley Coal Co.																							
Stanley No. 2,	Clearfield,...	1	.....	41	.....	.....	.....	4	.....	2	.....	48	1	....	1	...	...	...	3	5	53
S. V. Davis & Co.																							
Mt. Vernon No. 9,	Clearfield,...	1	.....	12	.....	.....	.....	1	.....	.....	.....	14	1	....	....	....	....	....	.....	1	15
Lincoln Coal Co.																							
Lancashire No. 2,	Clearfield,...	1	.....	11	.....	.....	.....	1	.....	.....	.....	13	....	....	....	....	....	....	.....	.....	13
W. G. Fishburn.																							
Keyler,	Clearfield,...	1	1	87	.....	.....	.....	7	1	16	1	111	1	1	2	1	....	1	4	10	124
Douglas,	Clearfield,...	1	.....	38	.....	.....	.....	2	.....	1	.....	42	1	1	....	2	....	...	.....	4	46
Totals,	.....	2	1	125	.....	.....	.....	9	1	17	1	156	2	2	2	3	...	1	4	14	170
Stott, Hill & Dale.																							
Kentuck,	Clearfield,...	1	.....	19	.....	.....	.....	2	.....	4	.....	26	1	....	....	...	....	1	.....	2	28

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.											Occupations of Persons Employed Outside.								Grand total inside and outside.
		Mine foremen.	Assistant mine foremen.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total Inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Bookkeepers and clerks.	All other employes.	Total outside.	
Thomas Blythe.																					
Alexandra,	Clearfield,	1	.....	32	.....	.....	.....	3	1	8	.....	45	1	....	2	....	....	1	.....	4	49
California,	Clearfield,	.....	.....	8	.....	.....	.....	1	.....	.....	.....	9	....	....	....	....	....	....	.....	.....	9
Totals,		1	.....	40	.....	.....	.....	4	1	8	.....	54	1	....	2	....	....	1	.....	4	58
Pennsylvania Coal and Coke Co., Thos. Blythe, Contractor.																					
Pennsylvania No. 4,	Clearfield,	1	.....	75	.....	.....	.....	3	1	.....	.....	80	....	....	1	....	....	1	2	4	84
J. W. Hooten.																					
Black Diamond,	Clearfield,	1	.....	54	.....	.....	.....	3	.....	.....	.....	58	1	....	1	....	....	1	2	5	63
Harts Mine,	Clearfield,	1	.....	12	.....	.....	.....	1	.....	.....	.....	14	1	....	....	....	....	1	1	3	17
Totals,		2	.....	66	.....	.....	.....	4	.....	.....	.....	72	2	....	1	....	....	2	3	8	80
Anda Coal Co.																					
Hope,	Clearfield,	1	.....	18	.....	.....	.....	1	.....	.....	.....	20	1	....	....	....	....	1	.....	2	22
Coaldale Mining Co.																					
Coaldale No. 4,	Clearfield,	1	.....	38	.....	.....	.....	4	1	1	.....	45	....	1	1	....	....	1	.....	3	48
Powelton Coal Co.																					
Powelton No. 1,	Centre,	1	.....	20	.....	.....	.....	1	.....	.....	.....	22	1	....	....	....	....	....	.....	1	23

Isaac Reese Sons Co.																						
Reese Nos. 1 and 2,	Centre,	1		19				1				21							2	2	23	
John Barnes & Sons.																						
Lancashire Nos. 2 and 3,	Clearfield,	1		15				2	1			19						1		1	20	
John G. Platt.																						
Cuba Nos. 2 and 3,	Clearfield,	1		15				2				18	1					1	1	3	21	
Guion,	Clearfield,	1		10				1				12	1					1	1	3	15	
Colorado Nos. 1 and 2,	Clearfield,	1		16				2				19	1					1		2	21	
Totals,		3		41				5				49	3					3	2	8	57	
Blair Bros.																						
Orient Nos. 1, 2 and 3,	Centre,	1		50				4		4		59	1		1			1		3	62	
Samuel Styre.																						
Black Diamond No. 2,	Clearfield,	1		13				1				15	1					1		2	17	

Recapitulation.

Berwind White Coal Mining Co.,		10	2	582	6	53	6	35	10	20	30	754			16	21		12	19	68	822	
Morrisdale Coal Mining Co.,		8	3	150	15	194	17	31	12	46	2	478	1	2	13	17	40	6	28	107	585	
Peale, Peacock & Kerr, Inc.,		6	1	563	2	18	5	27	10	16	5	653	2		6	6		2	21	37	690	
Beech Creek Coal and Coke Co.,		3	1	330	4	50	4	23	6	10		431	2		4	3		2	22	33	464	
Henry Liveright,		4		158				11		1		174		1	2			1	4	8	182	
Irish Bros.,		9		445				44	9	122		629			9	4		6		19	648	
Cambria Coal Mining Co.,		4	1	213				8	4	7		237	1		2	2		7		6	243	
W. A. Gould and Bro., and Reakirt Bros. & Co.,		4		118				13		1		136			1					1	137	
Victoria Mining Co.,		2		184				11	3	3		203	1		6	6		2	6	21	224	
Ashman & Ophir Coal Co.,		4		194				13	2	7		220	2		4	5		7	10	28	248	
Henrietta Coal Co., Limited,		3		74				6	2	2		87	1		1				3	5	92	
Penn Collieries Co.,		3		117				4		9		133	1	1	1	1		1		5	138	
Mosbannon Coal Mining Co.,		2		53				9	1	3	1	69			2			1		3	72	
G. L. Whitehead Coal Co.,		2	5	85				8		1	2	103	6					6	2	14	117	
S. J. Mountz,				32				4				36									36	
Jas. F. Stott,		1	1	29				2		5		29	1		1	1		1		4	33	
H. W. Wortz & Co.,		1		32				5				38						8		8	46	
Betz Coal Mining Co., & Swoope Coal Co.,		3		192				11	1	5	4	216	3	1	2			2	9	17	233	
L. Milton Wilson,		2		54				6				62	2		2					4	66	
H. M. Hughes,		1		32				2				35	1						3	4	39	
J. R. Brown,		2		38				5	1	2		48	2		2	1	1		4	10	58	
Thos. C. Helms & Co.,		2		134				11	1		2	150			2			5		7	157	
Thos. J. Lee,		2		57				5		3		67	2							2	69	
M. & F. Craig,		2		45				4		1		52	2					2		4	56	
Harbison-Walker Co.,		2		39				2				43						1		1	44	
Brown & Dyer,		2		47				6				55	2		1					3	58	
O. L. Schoonover,		2		145				7		11		165	1	1	1			2	3	8	173	

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.											Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
American Union Coal Co.,		1	.....	20	.....	.....	.....	3	1	2	.....	26	.....	.....	.....	.....	.....	.....	.....	4	30
Ghem Coal Co.,		1	.....	102	.....	.....	.....	7	.....	.....	3	113	.....	.....	1	.....	.....	1	.....	2	115
Bulah Coal Co.,		1	.....	81	.....	.....	.....	7	6	10	.....	105	1	.....	3	1	.....	1	6	12	117
John J. and H. W. Todd,		1	.....	80	.....	.....	.....	4	1	.....	3	89	1	.....	1	.....	.....	1	4	7	96
Elsworth & Dunham,		1	.....	109	.....	.....	.....	5	.....	3	.....	118	1	.....	2	3	.....	1	.....	7	125
Adams & Co.,		1	.....	54	.....	.....	.....	2	.....	.....	.....	57	1	.....	1	.....	.....	1	.....	3	60
Penn Iron Co., Limited,		1	.....	21	.....	.....	.....	2	1	2	.....	27	1	.....	1	.....	.....	.....	.....	2	29
Osceola Coal and Coke Co.,		1	.....	37	.....	.....	.....	4	.....	2	.....	44	1	.....	.....	.....	.....	.....	.....	1	45
E. J. Walker & Co.,		1	.....	22	.....	.....	.....	2	.....	1	.....	26	1	.....	1	.....	.....	1	.....	3	29
C. D. Loraine,		1	.....	30	.....	.....	.....	2	.....	.....	.....	33	1	.....	.....	.....	.....	.....	.....	1	34
Lawton & Cox,		1	.....	20	.....	.....	.....	3	.....	2	2	27	1	.....	.....	.....	.....	1	.....	2	29
Clearfield Lumber Co., Limited,		1	.....	25	.....	.....	.....	1	.....	.....	.....	27	1	.....	.....	.....	.....	.....	.....	1	28
W. F. Holt,		1	.....	15	.....	.....	.....	2	.....	.....	.....	18	1	.....	.....	.....	.....	.....	.....	1	19
Stratton Bros.,		1	.....	9	.....	.....	.....	1	.....	.....	.....	11	1	.....	.....	.....	.....	1	.....	2	13
Brown & Reeves,		1	.....	40	.....	.....	.....	5	.....	.....	.....	46	1	.....	1	2	.....	1	.....	5	51
Meadowbrook Mining Co.,		1	.....	.....	2	12	2	2	1	6	.....	26	1	1	1	1	.....	.....	.....	4	30
Hilling & Morgan,		.....	.....	8	.....	.....	.....	1	.....	.....	.....	9	1	.....	.....	.....	.....	.....	.....	1	10
John Walton & Son,		.....	.....	8	.....	.....	.....	1	.....	.....	.....	9	.....	.....	.....	.....	.....	.....	.....	.....	9
J. M. Roberson,		.....	.....	8	.....	.....	.....	1	.....	.....	.....	9	1	.....	.....	.....	.....	.....	.....	1	10
Townsend & Milsom,		.....	.....	8	.....	.....	.....	1	.....	.....	.....	9	1	.....	.....	.....	.....	.....	.....	1	10
Beaver Run Coal Co.,		1	.....	16	.....	.....	.....	2	.....	.....	.....	19	1	.....	.....	.....	.....	.....	.....	1	20
J. R. Flenner & Co.		1	.....	11	.....	.....	.....	1	.....	.....	.....	13	1	.....	.....	.....	.....	.....	.....	1	14
Mapleton Coal Co.,		1	.....	8	.....	.....	.....	1	.....	.....	.....	10	1	.....	.....	.....	.....	.....	1	2	12
Wm. Casker,		1	.....	46	.....	.....	.....	4	.....	.....	2	53	.....	.....	.....	2	.....	.....	1	3	56
Stanley Coal Co.,		1	.....	41	.....	.....	.....	4	.....	2	.....	48	1	.....	1	.....	.....	.....	3	5	53
S. V. Davis,		1	.....	12	.....	.....	.....	1	.....	.....	.....	14	1	.....	.....	.....	.....	.....	.....	1	15

Lincoln Coal Co.,	1		11				1				13									13
W. G. Fishburn,	2	1	125				9	1	17	1	156	2	2	2	3			4	14	170
Stott, Hill & Dale,	1		19				2		4		26	1					1		2	28
Thomas Blythe and Pennsylvania Coal & Coke Co.,	2		115				7	2	8		134	1		3			2	2	8	142
J. W. Hooten,	2		66				4				72	2		1			2	3	8	80
Anda Coal Co.,	1		18				1				20	1					1		2	22
Coaldale Mining Co.,	1		38				4	1	1		45		1	1			1		3	48
Powelton Coal Mining Co.,	1		20				1				22	1							1	23
Isaac Reese Sons Co.,	1		19				1				21							2	2	23
John Barnes & Sons,	1		15				2	1			19						1		1	20
John Tyler & Son,																				
John G. Platt,	3		41				5				49	3					3	2	8	57
Blair Bros.,	1		50				4		4		59	1		1			1		3	62
Sam'l Styre,	1		13				1				15	1					1		2	17
Grand totals,	126	15	5,514	29	327	34	422	77	339	57	6,940	70	10	9	79	41	93	162	554	7,494

TABLE III—Continued.

Names of Operators and Collieries.	County.	Number of Days Worked in Each Month.											
		January.	February.	March.	April	May.	June.	July.	August.	September.	October.	November.	December.
Berwind-White Coal Mining Co.,		9.5	6.3	13.2	16.6	15.5	19.2	17.7	14.9	10.7	13.1	13.8	14.5
Morrisdale Coal Mining Co.,		15.2	7.6	10.3	14.5	15.6	13.1	16.8	16.5	15.3	17.8	15	15.8
Peale, Peacock & Kerr, Inc.,		20.8	11.8	18.6	23.1	23	16.4	22.5	23.2	21.2	25.3	17.7	19.5
Beech Creek Coal & Coke Co.,		8.3	14	14	20.3	22.3	20.5	24.6	24.6	23.1	26.6	23.1	23.1
Henry Liveright,		15.8	13.6	12.3	13.8	15.4	17	14.2	14.8	12.4	13.4	12.8	12.2
Irish Bros.,		6.6	8	9.3	8.1	13.2	15.3	17.3	17.3	18.4	19.4	17.6	22.2
Cambria Coal Mining Co.,		10.2	16	9	10.5	15	12.5	12.2	12.7	8	16	12	15.5
W. A. Gould & Bro., and Reakirt Bros. & Co.,		18.1	16.6	18.6	19.6	19	18.8	18.5	17	18.8	17.6	15.5	14.5
Victoria Mining Co.,		10.5	10	10.1	9.2	6.5	3.7	5.5	10.5	8.8	11.3	11.4	14.6
Ashman & Ophir Coal Co.,		15.5	11.2	16	20.6	22	19	21.6	22	20.6	21.6	19.6	20.6
Henrietta Coal Co., Ltd.,		11.6	11.6	11.6	10.6	10.2	9.3	9	12.3	21.3	22.3	21.6	22.6
Penn Collieries Co.,		16	10.8	12	18.6	16	16.6	15.6	18	15.2	22.3	16.8	16.8
Moshannon Coal Mining Co.,		15.4	11.8	14	13.8	14.6	13.8	11.6	13.8	13.2	16.4	21.8	21
G. L. Whitehead Coal Co.,		20	15.7	12.5	12	14.5	13.3	12.7	13.5	16.4	16	13	12.4
S. J. Mountz,		16	9.2	6	11.7	15	20.2	21.7	25.2	17.5	21	18.2	24
Jas. F. Stett,		20	20	20	20	20	20	20	20	20	20	20	20
H. W. Wortz & Co.,		15	12.7	12.7	12.7	12.7	12.7	12.7	12.7	14.7	13.7	15	15
Betz Coal Mining Co., and Swoope Coal Co.,		8.6	9.6	11	12.6	16.6	18.3	22.6	21.6	21.6	24.3	21.6	18.6
L. Milton Wilson,		7	9.3	8.3	12	16.3	15	15	16.6	13.3	16.6	11.3	10
H. M. Hughes,		4	5	3.3	10.6	13.3	18	19	19.3	17.3	21	14.6	14
J. R. Brown,		10.3	12	10.6	10.6	8.6	8.6	10	10.6	11.6	11.6	10	11.6
Thos. C. Helms & Co.,		24	21.3	14	23.7	23.5	23.5	25	24.7	24.5	23.5	22.5	21
Thos J. Lee,		23	18	17	14.5	24.5	19	24	25	22	25	15.6	17
M. & F. Craig,		16.5	11	19	12	18	11.5	16	13.5	16	14	13.5	16
Harbison & Walker Co.,		22.5	21.5	24.5	25	24.5	21.5	19.5	23	24.5	24	24	24.5
Brown & Dyer,		9	8.5	10	11	12	12	20.5	20.5	17	16	14	18
O. L. Schoonover,		22.5	20.5	22	14	.....	.....	.....	.....	.....	.....	.....	.....
American Union Coal Co.,		11	10	11 5	12	10.5	11.5	12	13	12.5	13	25.5	23
Ghem Coal Co.,		22	19.7	18	15	24.5	25	24	22.2	22	22	21	22.5
Bulah Coal Co.,		14.5	11	7.5	7.2	13.7	15.2	15.7	11	10	15.2	5.5	9.5
John J. & H. W. Todd,		12.5	3	15	21	19	15	23	20	24.5	23	15	15
Elsworth & Dunham,		.....	.....	.....	23	23	21	24	21	14	27	19	21
Adams & Co.,		21	20	20	20	24.5	21	25	25	23	12	.....	.....
Penn Iron Co., Ltd.,		26	17	13	25	24	19	18	22	22	26	18	24
Osceola Coal & Coke Co.,		.....	.....	.....	13	21	20	22	19	17	25	18	25

E. J. Walker & Co.,		18	19	15	21	25	20	22	22	24	23	22	18
C. D. Loraine,		17	12	15	19	16	11	12	13	17	17	8	.....
Lawton & Cox,		13	4	8.7	2	12.5	16.5	23.2	18.2	19.2	20.2	14.7	16.5
Clearfield Lumber Co., Ltd.,		22.2	17.5	16.5	17.5	19.7	18.2	22	17	20.2	21.7	17.5	16.7
W. F. Holt,		13	13	13	13	13	13	13	13	13	13	13	13
Stratton Bros.,		20	22	18	17	23	18	20	24	25	.....	.....	.....
Brown & Reeves,		.....	.....	.....	.....	.....	.....	.....	.....	10	26	24	.....
Meadowbrook Mining Co.,		21	25	24	25	25	25	25	25	24	26	26	25
Hilling & Morgan,		15	23	22	13	18	20	12	9	14	26	11	15
John Walton & Son,		15	14	10	11	14	16	16	19	20	22	21	23
J. M. Roberson,		23	15	20	19	20	18	19	17	18	19	15	19
Townsend & Milsom,		20	18	20	21	19	20	18	22	12	23	12	19
Beaver Run Coal Co.,		8	6	6	11	15	15	22	16	21	25	18	21
J. R. Flenner & Co.,		14	8	9	8	9	14	6	10	14	15	5	9
Mapleton Coal Co.,		18	9	11	21	21	11	22	17	12	20	8	19
Wm. Casker,		25	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stanley Coal Co.,		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19
S. V. Davis,		8	10	11	.....	.....	4	5	12	8	15	10	22
Lincoln Coal Co.,		.....	.....	.....	.....	.....	.....	.....	.....	.....	7	16	17
W. G. Fishburn,		18	8.2	9	12	8.5	.....	.....	.....	.....	.....	.....	.....
Stott, Hill & Dale,		.....	.....	.....	.....	.....	.....	.....	.....	2	15	10	10
Thomas Blythe and Pennsylvania Coal and Coke Co.,		7	6.6	6.3	7.3	7.3	7.3	6.3	8.3	12.6	16 6	17.6	19.3
J. W. Hooten,		10.5	4.5	10.5	6.5	.....	.....	4	11	11.5	12.5	19	11.5
Anda Coal Co.,		.....	.....	.....	.....	.....	.....	.....	12.2	17.5	16.5	12.2	23.5
Coaldale Mining Co.,		18	17	15	12	20	19	19	17	15	14	7	13
Powelton Coal Mining Co.,		18	18	18	18	18	18	18	18	18	18	18	18
Isaac Reese Sons Co.,		22	22	22	22	22	22	22	22	22	22	22	22
John Barnes & Sons,		17	17	15	17	11	16	21	20	23	12	7	.....
John Tyler & Sons,		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
John G. Platt,		6.6	2.3	1	3	.....	.....	.....	.....	.....	.....	.....	.....
Blair Bros.,		21	19	22	21	19	20	21	21	21	21	19	18
Saml. Styre,		26	14	17	19	22	23	14	26	16	8	.....	.....

TABLE IV—List of fatal accidents that occurred in and about the mines of the Eighth Bituminous District for the year ending December 31, 1902.

Date fo accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Feb. 19	William Hill, ...	American, .	Driver, ...	27	S.	....	....	Baltic No. 3, ...	Clearfield,...	Instantly killed by mine cars.
26	Himes Hallabugh, .	American, .	Miner, ...	48	M.	1	5	Red Jacket, ...	Clearfield,...	Fatally injured; body crushed and head squeezed by a fall of roof.
Sept. 23	Jesse Chapman, ...	American, .	Boiler tender,.	23	M.	1	....	Acme No. 2, ...	Clearfield,...	Scalded to death by bursting of connection of blow-off pipe.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Eighth Bituminous District for the year ending December 31, 1902.

Date of accident.		Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan.	2	Joseph C. Lester,	Scotch,	Miner,	38	S.	Standard No. 4,	Clearfield,	Injured by a fall of roof slate.
	2	Motdzel,	Pole,	Miner,	17	S.	Forest No. 1,	Clearfield,	Fracture of leg by a fall of bone coal.
	6	Robert Erickson,	Swede,	Miner boy,	14	S.	Summerville No. 8,	Clearfield,	Fracture of forearm in three places and back bruised; he fell between a trip of mine cars.
Feb.	25	John Tampo,	Pole,	Miner,	24	S.	Eureka No. 7,	Clearfield,	Fracture of arm by a fall of coal.
	27	Wm. Nicholas,	American,	Pumper,	14	S.	Eureka No. 22,	Clearfield,	Fracture of arm; caught between mine cars.
Mar.	29	Absolom Currey,	American,	Miner,	21	S.	Mt. Vernon No. 7,	Clearfield,	Slight contusion by a fall of roof slate.
April	8	Michael Cole, Jr.,	Slavonian,	Miner,	17	S.	Decatur No. 3,	Clearfield,	Hips injured; coal struck him.
	8	Joseph Danco,	Slavonian,	Miner,	40	S.	Decatur No. 3,	Clearfield,	Fracture of leg by a fall of coal.
	19	James Ashman,	English,	Miner,	48	M.	Baltic No. 3,	Clearfield,	Fracture of collar bone by a fall of coal.
May	28	Albert Brown,	English,	Miner,	36	M.	Gearhart,	Clearfield,	Fracture of collar bone by a fall of coal.
June	4	August Litkey,	German,	Miner,	30	S.	Summerville No. 8,	Clearfield,	Burned severely by the ignition of powder.
	28	John Hudnovish,	Slavonian,	Miner,	35	S.	Morrisdale No. 3,	Clearfield,	Head and shoulders slightly bruised by a fall of roof.
July	28	Richard Dukes,	English,	Miner,	65	M.	Decatur No. 3,	Clearfield,	Fracture of thigh by a fall of coal.
Aug.	27	William Wilson,	American,	Miner,	46	M	Morrisdale No. 1,	Clearfield,	Compound fracture of leg by a fall of slate.
	27	John Wankey,	German,	Driver,	24	M.	Forest No. 1,	Clearfield,	Compound fracture of hand and fingers by cars.
Sept.	16	John Cooney,	Irish,	Ry. car shifter,	65	M	Atlantic No. 1,	Clearfield,	Fracture of hip joint by cars.
Oct.	2	Fred Shirk,	American,	Driver's helper,	14	S.	Baltic No. 3,	Clearfield,	Injured by cars.
	15	William Himes,	English,	Miner,	28	M.	Decatur No. 3,	Clearfield,	Injured by fall of slate.
	16	P. Gorman,	Irish,	Miner,	56	M.	Powelton,	Centre,	Fracture of arm by a fall of slate.
	28	Andy Biers,	Hungarian,	Miner,	34	M	Red Jacket,	Clearfield,	Injured by a fall of coal.
	31	Albert Traveney,	German,	Miner,	30	M	Royal,	Clearfield,	Injured by a fall of bone coal.
	31	James Traveney,	German,	Miner,	28	M	Royal,	Clearfield,	
Nov.	6	David B. Patrick,	Canadian,	Mine foreman,	60	M	Guien,	Clearfield,	Injured by a fall of slate.
	24	Andrew Bahn,	Hungarian,	Miner,	46	M	Eureka No. 7,	Clearfield,	Injured by a fall of coal.
	25	Thomas Minto,	American,	Miner,	56	M	Eureka No. 24,	Clearfield,	Injured by a fall of coal.
Dec.	18	Benjamin Alexandra,	American,	Dumper,	25	S	Pennsylvania,	Clearfield,	Injured by cars.
	26	Washko Grasko,	Slavonian,	Miner,	40	M	Henrietta,	Clearfield,	Injured by fall of roof.

Ninth Bituminous District.

FAYETTE, ALLEGHENY, SOMERSET AND WESTMORELAND COUNTIES.

Connellsville, Pa., March 24, 1902.

Hon. Jas. W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.

Sir: I have the honor of herewith submitting my annual report as Inspector of Mines of the Ninth Bituminous District for the year ending December 31st, 1902. The quantity of coal mined was 10,159,916 tons, or 1,015,373 tons more than the production in 1901. The quantity of coke product was 2,961,734 tons, or 146,193 tons more than in 1901. This was a very prosperous year for mining. There were thirty-eight fatal accidents, or three less than last year, and seventy-one non-fatal ones, or twenty-nine more than last year. Twenty-four wives were made widows and sixty-four children orphaned by these casualties.

A brief description of the accidents is given, with their causes.

The mines are in fairly good condition, except a few in Somerset county, which were complained of in my last report. A description of all the mines in the district will be found, also the statistical tables in their respective places.

Respectfully submitted,
BERNARD CALLAGHAN,
Inspector.

Summary of Statistics for 1902.

Number of mines in district,	82
Number of mines in operation during 1902,	79
Number of tons of coal produced,	10,159,916
Number of tons shipped to market,	6,176,192
Number of tons sold at mines to local trade,	77,456
Number of tons consumed at mines in generating steam and heat,	209,670
Number of coke ovens in the district,	6,332
Number of coke ovens in operation during 1902,	5,932

Number of tons of coke produced,	2,961,734
Number of tons of coal used in manufacture of coke	3,696,604
Number of tons produced by pick mining,	7,171,378
Number of tons produced by compressed air machines,	336,836
Number of tons produced by electrical machines,	2,651,702
Number of persons employed inside the mines,	9,406
Number of persons employed outside, including coke workers,	3,163
Number of persons employed at manufacture of coke,	1,759
Number of fatal accidents inside the mines,	37
Number of tons produced for each fatal accident inside,	274,592
Number of persons employed per fatal accident inside,	254
Number of fatal accidents outside,	1
Number of persons employed per fatal accident outside,	3,163
Number of wives made widows by fatal accidents,	24
Number of children orphaned by fatal accidents,	64
Number of non-fatal accidents inside of mines,	71
Number of persons employed per non-fatal accident inside,	130
Number of non-fatal accidents outside,	2
Number of persons employed per non-fatal accident outside,	1,573
Number of compressed air locomotives used inside,	4
Number of electric motors used inside,	12
Number of fans used for ventilation,	42
Number of furnaces used for ventilation,	19
Number of gaseous mines in operation during 1902,	14
Number of non-gaseous mines in operation during 1902,	68
Number of new mines opened in 1902,	5
Number of old mines abandoned during 1902,	2

A. Production of Coal During the Year 1902.

Names of Companies.	Tons.
H. C. Frick Coke Co.,	1,868,362
W. J. Rainey Coke Co.,	980,548
Pittsburg Coal Co.,	2,423,820
Brown & Cochran,	315,000
J. R. Laughrey & Son,	211,000
Juniata Coke Co.,	200,754
Washington Coal and Coke Co.,	920,473
Cambria Steel Co.,	405,739
James Cochran Sons & Co.,	109,300

Dunbar Furnace Co.,	185,741
Marietta Coal Co.,	15,000
Marietta and Stillwagon Coal Co.,	48,000
Lang Sand and Coal Co.,	20,052
Lake Shore Gas Coal Co.,	140,493
James W. Ellsworth & Co.,	281,353
Blain Coal Co.,	4,800
Glassport Coal Co.,	19,970
Monongahela River Consolidated Coal and Coke Co.,	202,309
Somerset Coal Co.,	935,245
W. K. Niver Coal Co.,	106,964
Rockwood Coal Co.,	6,000
W. A. Merrill & Walker Coal Co.,	29,338
Ursina Coal Co.,	92,957
Fred. Rowie,	17,075
Berlin,	25,859
Merchants Coal Co. Nos. 1 and 2,	146,910
Pen Mar Coal Co.,	15,800
Grace Coal Co.,	39,386
John Meager,	53,800
Continental Coal Co.,	113,709
Fairview Coal Co.,	19,111
Kendall Coal Co.,	4,540
United Coal Co.,	185,357
Southern Coal Co.,	12,100
Viaduct Coal Co.,	3,051
Total,	10,159,916

B. Showing the number of fatal and non-fatal accidents inside and outside the mines; number of tons of coal produced per fatal and non-fatal accident inside the mines; number of persons employed inside and outside; and the number employed inside and outside for every fatal and non-fatal accident for each company during 1902.

Names of Companies.	Number of lives lost inside.	Number of lives lost outside.	Total number of lives lost.	Number severely injured inside.	Number severely injured outside.	Total number severely injured.	Tons of coal produced per each life lost inside.	Tons of coal produced per serious injury inside.	Number employes inside of mines.	Number employes outside of mines.	Total number employed.	Number of employes inside for each life lost.	Number of employes inside for each severe injury.	Number of employes outside for each life lost.	Number of employes outside for each severe injury.
Rockwood Coal Co.,	.....	.....	.....	1	.....	1	6,000	.....	15	4	19	.....	15	.....	4
Merrill & Walker Coal Co.,	1	.....	1	1	.....	1	29,338	29,338	95	7	102	95	95	7	7
Merchants' Coal Co. No. 2,	.....	.....	.....	3	.....	3	.....	48,967	139	18	157	.....	46	.....	6
Brown & Cochran,	1	.....	1	5	.....	5	315,000	63,000	188	105	293	188	37	105	21
J. R. Laughrey & Son,	.....	.....	.....	1	.....	1	.....	211,000	94	7	101	.....	101	.....	7
Juniata Coke Co.,	.....	.....	.....	1	.....	1	200,754	200,754	137	93	230	.....	137	.....	93
H. C. Frick Coke Co.,	8	.....	8	.....	.....	8	195,543	195,543	1,325	947	2,272	165	165	118	118
Lake Shore Gas Coal Co.,	1	.....	1	4	.....	4	140,493	35,123	115	5	120	115	28	5	1
Jas. W. Ellsworth & Co.,	.....	.....	.....	3	.....	3	97,117	97,117	232	32	264	77	77	10	10
Dunbar Furnace Co.,	2	.....	2	2	.....	2	92,870	92,870	128	56	184	64	64	28	28
Pittsburg Coal Co.,	11	.....	11	13	1	14	220,347	186,447	2,156	239	2,395	96	165	21	18
Somerset Coal Co.,	3	.....	3	14	1	15	311,748	66,803	1,200	152	1,352	400	85	50	10
Pan Mar Coal Co.,	1	.....	1	1	.....	1	122,764	122,764	288	61	349	288	288	61	61
Cambria Steel Co.,	1	.....	1	2	.....	2	405,739	202,869	330	265	595	330	165	265	132
Mon. River Consolidated Coal and Coke Co.,	2	1	3	2	.....	2	101,154	101,154	531	71	602	177	265	23	33
United Coal Co.,	1	.....	1	.....	.....	.....	185,357	185,357	156	17	173	156	156	17	17
W. J. Rainey,	3	.....	3	3	.....	3	326,849	326,849	707	578	1,285	235	235	192	192
Southern Coal Co.,	2	.....	2	1	.....	1	12,100	.....	28	3	31	14	28	2	3
Continental Coal Co.,	.....	.....	.....	1	.....	1	.....	113,709	151	17	168	.....	151	.....	17
Washington Coal and Coke Co.,	.....	.....	.....	1	.....	1	.....	920,473	871	332	1,203	.....	871	.....	332
Totals and averages,	37	1	38	69	2	71	274,592	147,245	9,413	3,163	12,576	254	136	3,163	1,581

C. Classification of Fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total Inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
January,	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
February,	.....	.....	1	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
March,	1	.....	5	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	.....	.....	.....	.....	.....	.....	8
April,	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
May,	1	3	.....	1	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	7
June,	1	3	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	6	.....	.....	.....	.....	.....	.....	6
July,	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
August,	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
September,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
October,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	.....	.....	.....	.....	1	1	3
November,	1	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
December,	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
Totals,	7	10	9	5	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	2	37	.....	.....	.....	.....	1	1	38

D. Classification of Non-fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total Inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
January,	.....	7	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	10	.....	.....	.....	.....	.....	.....	10
February,	.....	4	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	5
March,	.....	3	1	3	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	9	.....	.....	.....	.....	1	1	10
April,	.....	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
May,	.....	3	2	5	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	12	.....	.....	.....	.....	.....	.....	12
June,	2	2	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	5	.....	.....	.....	.....	.....	.....	5
July,	.....	2	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	1	.....	.....	.....	.....	1	5
August,	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	3	.....	.....	.....	.....	.....	.....	3
September,	1	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
October,	.....	2	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	6
November,	.....	3	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	5
December,	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
Totals,	3	30	12	18	.....	.....	1	.....	2	.....	.....	.....	.....	.....	3	69	1	.....	.....	.....	1	2	71

E. Occupations of Employes Killed or Fatally Injured Inside and Outside the Mines of the Ninth Bituminous District During 1902.

	Inside.														Outside.												
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	Grand total.
January,				1				1				2									2
February,				2				2				4									4
March,				1								1									1
April,				1						1		2									2
May,				1								1	1							1	2
June,				1								1									1
July,				1								1									1
August,				1								1									1
October,				1				1				2									2
November,				1								1									1
December,				1								1									1
Totals,				32				4		1		37	1							1	38

F. Occupations of Employes Severely Injured Inside and Outside the Mines of the Ninth Bituminous District During 1902.

	Inside.												Outside.								
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total Inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	Grand total.
January,				7				2		1		10									10
February,				5								5									5
March,				5	1			1		1		8				1				1	2
April,				2				1				3									3
May,				7				5				12									12
June,				5				2		1		9									9
July,				2				2				4							1	1	5
August,				2						1		3									3
September,				3				2				5									5
October,				4				1				5									5
November,				4								4									4
December,				1								1									1
Totals,				48	1			16		4		69				1			1	2	71

G. Nationality of Employes Killed or Fatally Injured Inside and Outside the Mines During 1902.

	Americans.	Welsh.	Germans.	Poles.	Hungarians.	Italians.	Slavs.	Austrians.	Russians.	Swedes.	Totals.
January,	.....	1	.....	.....	.....	.....	.....	.....	.....	1	2
February,	.....	.....	1	1	.....	.....	1	.....	.....	.....	3
March,	4	.....	.....	.....	.....	.....	4	.....	.....	.....	8
April,	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1
May,	3	.....	.....	.....	2	.....	3	.....	.....	.....	7
June,	1	.....	.....	1	2	1	1	.....	.....	.....	6
July,	.....	.....	1	.....	.....	.....	.....	1	.....	.....	2
August,	.....	.....	.....	1	.....	.....	.....	1	.....	.....	2
September,	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1
October,	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	2
November,	.....	.....	.....	.....	.....	.....	2	.....	1	.....	3
December,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Totals,	8	1	2	3	6	3	11	2	1	1	38

H. Nationality of Employes Severely Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Irish.	Germans.	Poles.	Hungarians.	Italians.	Slavs.	Austrians.	Russians.	Totals.
January,	6	.....	1	1	.....	.....	.....	1	1	.....	10
February,	.....	.....	.....	1	.....	.....	1	2	1	.....	5
March,	7	.....	.....	.....	1	.....	.....	1	.....	.....	9
April,	1	2	.....	.....	.....	.....	.....	.....	.....	.....	3
May,	6	.....	1	.....	2	.....	1	2	.....	.....	12
June,	2	1	2	.....	2	.....	1	1	.....	.....	9
July,	2	.....	.....	.....	.....	2	.....	1	.....	.....	5
August,	2	1	.....	.....	.....	.....	.....	.....	.....	.....	3
September,	2	.....	.....	.....	.....	.....	.....	1	.....	.....	3
October,	2	.....	.....	.....	.....	1	.....	2	.....	1	6
November,	1	.....	.....	.....	.....	.....	1	1	.....	2	5
December,	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1
Totals,	31	1	4	4	6	3	4	12	2	3	71

I. Giving names of operators and mines, kind of openings, type and size of fans; size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each employe per minute in Ninth Bituminous district for the year 1902.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Area of furnace oars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Somerset Coal Co.														
Pine Hill No. 1,	Drift,	Non-gas.	Fan,	12 x 6	1½	Brazil,	Steam,		2	25,200	18,000	23,960	140	128
Pine Hill No. 2,	Drift,	Non-gas.	Natural,						1	2,000	2,000	3,000	19	105
Allegheny,	Slope,	Non-gas.	Fan,	12 x 6	1	Brazil,	Steam,		1	31,000	15,000	32,000	75	200
Enterprise,	Drift,	Non-gas.	Fan,	12 x 6	1	Brazil,	Steam,		1	14,000	12,000	14,000	48	250
Casselman,	Slope,	Non-gas.	Fan,	12 x 6	1	Brazil,	Steam,		1	27,000	12,000	27,500	100	275
Summit,	Drift,	Non-gas.	Furnace,					8 x 8	2	61,600	24,240	61,000	185	120
Thomas,	Drift,	Non-gas.	Furnace,					3 x 4	1	1,800	1,000	2,000	45	44
Elk Lick No. 1,	Drift,	Non-gas.	Fan,	12 x 6		Brazil,	Steam,		3	58,800	28,800	48,000	240	200
Elk Lick No. 2,	Drift,	Non-gas.	Furnace,					5 x 8	1	17,000	17,000	17,920	45	398
Wilmoth,	Drift,	Non-gas.	Natural,						1	7,000	7,000	7,000	45	155
Hamilton,	Drift,	Non-gas.	Fan,	8 x 4		Brazil,	Steam,		2	31,200	20,100	32,000	103	195
Chapman No. 1,	Drift,	Non-gas.	Natural,						2	7,000	7,000	7,000	80	87
Chapman No. 2,	Drift,	Non-gas.	Fan,	8 x 4		Brazil,	Electricity,		1	12,000	8,000	12,200	35	228
Tub Mill Run,	Drift,	Non-gas.	Natural,						1	6,300	6,300	6,300	52	121
Pen Mar Coal Co.														
Pen Mar No. 1,	Drift,	Non-gas.	Fan,	8 x 4		Brazil,	Steam,		2	18,000	13,200	19,800	120	110
Pen Mar No. 2,	Shaft,	Non-gas.	*						1	8,500	7,000	8,000	40	175
Pen Mar No. 3,	Slope,	Non-gas.	*						1	12,500	12,500	12,500	15	833
Standard No. 1,	Drift,	Non-gas.	Furnace,					6 x 4	1	1,200	1,000	1,200	25	40
Standard No. 3,	Drift,	Non-gas.	Natural,						1	4,000	4,000	4,000	55	72
Washington Run Coal and Coke Co.														
Washington No. 1,	Drift,	Gaseous.	Fan,	25 x 8	2¾	Guibal,	Steam,		8	198,000	150,000	199,600	350	570
Washington No. 2,	Drift,	Gaseous.	Fan,	25 x 8	2½	Capell,	Steam,		6	128,000	100,000	131,000	280	357
Perry,	Slope,	Gaseous.	Fan,	20 x 8	2	Guibal,	Steam,		2	60,000	40,100	87,000	100	870

*None. Preparing one.

Cambria Steel Co.															
Mahoning,	Drift,	Gaseous,	Fan,	20 x 8	2½	Guibal,	Steam,		3	119,000	60,000	82,620	190	315
Atlas,	Drift,	Gaseous.	Fan,	20 x 8	2½	Guibal,	Steam,		2	50,000	31,200	52,800	91	231
Dunbar Furnace Co.															
Ferguson,	Drift,	Gaseous,	Fan,	16 x 8	2	Guibal,	Steam,		1	37,000	27,000	37,200	80	462
Furnace,	Drift,	Non-gas.	Fan,	12 x 6	1½	Brazil,	Steam,		1	25,000	17,000	27,200	40	425
Marietta Coal Co.															
Marietta,	Drift,	Non-gas.	Natural,						1	2,000	2,000	2,000	20	200
Lang Coal and Sand Co.															
Basil,	Slope,	Non-gas.	Natural,						1	4,500	4,500	4,500	10	450
Kendall Coal Co.															
Kendall,	Drift,	Non-gas.	Natural,						1	2,400	2,400	2,400	22	107
United Coal Co.															
United,	Drift,	Non-gas.	Furnace,					5 x 6	2	18,000	14,000	21,150	130	107
Ursina Coal Co.															
Ursina,	Drift,	Non-gas.	Furnace,					5 x 6	2	7,000	7,000	7,000	70	100
Southern Coal Co.															
Read,	Drift,	Non-gas.	Natural,						1	2,100	2,000	2,100	12	166
Southern,	Drift,	Non-gas.	Fan,	12 x 6	½	Brazil,	Steam,		1	23,650	20,000	22,000	25	800
Viaduct Mining Co.															
Darlington,	Drift,	Non-gas.	Natural,						1	1,000	400	1,000	9	44
W. J. Rainey.															
Grace,	Drift,	Non-gas.	Fan,	12 x 6	1½	Brazil,	Steam,		3	52,800	31,200		175	178
Paul,	Drift,	Gaseous.	Fan,	24 x 8	2½	Gulbal,	Steam,		4	150,000	92,720		220	170
Fort Hill,	Drift,	Gaseous	Fan,	12 x 6	2	Brazil,	Steam,		4	60,000	68,800	70,000	296	229
Elm Grove,	Slope,	Non-gas.	Fan,	20 x 8	2	Gulbal,	Steam,		2	26,000	23,800	23,280	80	297
Brown & Cochran.															
Nellie,	Shaft & drift,	Gaseous,	Fan,	12 x 6	1½	Brazil,	Steam,		3	28,500	17,000	40,000	200	140
J. R. Laughrey & Son.															
Victoria,	Drift,	Non-gas.	Fan,	16 x 8	1½	Connellsville,	Steam,		1	42,000	40,000	40,000	100	400
Juniata Coke Co.															
Juniata,	Shaft,	Non-gas.	Fan,	20 x 8	1½	Gulbal,	Steam,		2	53,500	38,100	52,000	100	280
H. C. Frick Coke Co.															
Adelaide,	Slope & shaft,	Gaseous,	Fan,	25 x 8	2½	Gulbal,	Steam,		4	101,000	61,000	132,800	220	305
Coal Brook,	Drift & slope,	Non-gas	Fan,	12 x 6	1½	Brazil,	Steam,		1	32,000	26,000	25,200	73	321
Davidson shaft,	Shaft,	Gaseous,	Fan,	21 x 8	2	Gulbal,	Steam,		3	63,000	37,800	64,200	200	189
Henry Clay	Shaft & slope,	Non-gas	Fan,	12 x 6	1	Brazil,	Steam,		2	18,300	25,000	18,000	64	200
Leisenring No. 1	Shaft,	Gaseous	Fan,	24 x 8	2½	Gulbal,	Steam,		4	90,400	70,000	93,100	250	250
Leisenring No. 3,	Shaft,	Gaseous	Fan,	25 x 8	2½	Gulbal,	Steam,		4	94,000	71,200	94,800	250	273
Trotter	Shaft,	Gaseous,	Fan,	25 x 8	2½	Gulbal,	Steam,		4	155,400	81,250	174,800	250	295

TABLE I—Continued.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Jas. Cochran Sons & Co.														
Clarissa,	Drift,	Non-gas.	Furnace,					8 x 6	2	14,000	12,000	14,000	50	240
Marietta & Stillwagon.														
B. & O.,	Slope,	Non-gas.	Fan,	10 x 5		Brazil,	Steam,		1	2,000	1,800	2,000	16	112
Pittsburg Coal Co.														
Painter and Corneil,	Drift,	Non-gas.	Furnace,					6 x 5	2	25,000	18,000	25,500	140	128
Ocean Nos. 3 and 4,	Drift,	Non-gas.	Fan,	12 x 8	2½	Capell,	Electricity,		2	26,200	19,200	26,500	140	137
Ocean No. 2,	Drift,	Gaseous.	Fan,	12 x 8	2¾	Capell,	Electricity,		4	65,720	36,280	66,240	250	145
Sarah,	Drift,	Non-gas.	Fan,	10 x 3		Clarke,	Electricity,		2	21,300	13,000	22,000	105	123
Ocean No. 5,	Drift,	Non-gas.	Furnace,					8 x 8	3	52,290	21,200	53,140	222	131
West Newton shaft,	Shaft,	Gaseous.	Fan,	12 x 6	1½	Brazil,	Steam,		3	41,500	30,000	42,000	200	150
Darr,	Drift,	Gaseous.	Fan,	24 x 8	2½	Gulbal,	Steam,		4	76,100	36,800	77,000	250	147
Banning No. 1,	Drift,	Gaseous.	Fan,	20 x 8	2½	Robinson,	Steam,		4	101,120	51,000	101,300	240	212
Banning No. 2,	Drift,	Gaseous.	Fan,	12 x 8	1½	Capell,	Electricity,		2	35,000	35,000	35,000	35	1,000
Wick Haven,	Slope & shaft,	Gaseous.	Fan,	8 x 6	2	Capell,	Steam,		4	72,500	41,000	73,280	205	200
Whittset,	Drift,	Gaseous.	2 fans,	8 x 6 8 x 3		Brazil, Clark,	Steam,		3	36,800	26,200	37,240	140	187
Monongahela River Con. Coal & Coke Co.														
Browns' No. 2,	Drift,	Gaseous.	Fur. & fan	12 x 6		Robinson,	Steam,	8 x 8	3	38,000	28,154	39,200	180	150
Lovedale	Drift,	Gaseous.	Fan,	12 x 6		Robinson,	Steam,		1	9,600	9,600	9,600	70	137
Belle Bridge,	Drift,	Non-gas.	Furnace,					4 x 6	2	13,000	12,000	15,230	140	85
Gospel,	Drift,	Gaseous.	Furnace,					8 x 8	2	30,000	22,400	30,000	80	280
Lake Shore Gas Coal Co.														
Dravo,	Drift,	Non-gas.	Furnace,					6 x 6	2	21,810	16,000	22,120	135	118
Jas. W. Ellsworth & Co.														
Forest Hill,	Drift,	Gaseous.	Fan,	8 x 6	2	Capell,	Steam.		4	71,000	36,000	72,000	225	160

Blaine Coal Co. Blaine,	Drift,	Non-gas.	None,											14	
Merrill & Walker Coal Co. Ponfelgh,	Drift,	Non-gas.	Fan,	12 x 6	1	Brazil,	Steam,		1	19,200	18,000	19,300	50	360	
John Meager. Grassy Run,	Drift,	Non-gas.	Natural,						1	7,200	7,200	7,200	60	120	
Rockwood Coal Co. Rockwood,	Drift,	Non-gas.	Natural,						1	1,200	1,200	1,200	15	80	
Galloway & Clayton Coal Co. Fairview,	Drift,	Non-gas.	Furnace,					6 x 4	1	1,890	1,890	1,890	30	63	
Fred Bowle. Mystic,	Drift,	Non-gas.	Natural,						1	2,000	2,000	2,000	28	71	
Stoner Coal Co. Berlin,	Drift,	Non-gas.	Natural,						1	3,840	3,000	3,840	31	124	
Grace Coal Co. Grace,	Drift,	Non-gas.	Furnace,					4 x 4	2	6,680	4,000	7,200	40	100	
Glassport Coal Co. Glassport,	Drift,	Non-gas.	Natural,						1	3,000	3,000	3,000	20	150	

J. Names of mines using coal cutting machines, names of machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines during 1902.

	Kind of opening.	Gaseous or non-gaseous.	Name and number of machines in use.			Total machines used.	Power used by machines.	Geological and local name of seam.	Average thickness in inches.	Height of seam in inches.		Approximate number of tons produced by machines.
			Sullivan.	Jeffrey.	Brown.					Thickest.	Thinnest.	
Painter & Cornell,	Drift,	Non-gas.	.....	3	.....	3	Electricity,	Pittsburg,	65	.....	.....	126,593
Ocean Nos. 3 and 4,	Drifts,	Gaseous,	.....	3	.....	3	Electricity,	Pittsburg,	65	.....	.....	126,175
Ocean No. 2,	Drift,	Gaseous,	.....	8	.....	8	Electricity,	Pittsburg,	65	.....	.....	324,259
Sarah,	Drift,	Non-gas.	.....	4	.....	4	Electricity,	Pittsburg,	65	.....	.....	97,565
Ocean No. 5,	Drift,	Non-gas.	.....	5	.....	5	Electricity,	Pittsburg,	65	.....	.....	138,933
West Newton shaft,	Shaft,	Gaseous,	.....	4	.....	4	Electricity,	Pittsburg,	65	84	60	220,016
Darr,	Drift,	Gaseous,	.....	8	.....	8	3 air, 5 electricity,	Pittsburg,	84	96	80	339,095
Banning No. 1,	Drift,	Gaseous,	.....	8	.....	8	Electricity,	Pittsburg,	84	96	80	304,061
Wick Haven,	Shaft & slope,	Gaseous,	.....	8	.....	8	3 air, 5 electricity,	Pittsburg,	84	96	80	215,685
Banning No. 2,	Drift,	Gaseous,	.....	2	.....	2	2 electricity,	Pittsburg,	84	96	80	26,976
Victoria,	Drift,	Gaseous,	2	.....	.....	2	Compressed air,	Pittsburg,	86	96	86	92,156
Washington Run Coal and Coke No. 1,	Drift,	Gaseous,	6	.....	.....	6	Compressed air,	Pittsburg,	86	96	82	39,000
Washington Run Coal and Coke No. 2,	Drift,	Gaseous,	6	.....	.....	6	Compressed air,	Pittsburg,	86	96	82	28,000
Washington Run Coal, Perry,	Slope,	Gaseous,	.....	6	.....	6	Electricity,	Pittsburg,	86	96	80	121,092
Pen Mar Nos. 1 and 3,	Slope,	Non-gas.	.....	6	.....	6	Electricity,	B,	60	48	66	69,602
Dravo,	Drift,	Non-gas.	.....	4	.....	4	Electricity,	B,	65	65	65	106,662
United,	Drift,	Non-gas.	.....	4	.....	4	Electricity,	Pittsburg,	60	65	60	179,854
Brown's No. 2,	Drift,	Gaseous,	.....	4	2	6	Electricity,	Pittsburg,	60	65	60	56,885
Lovedale,	Drift,	Non-gas.	.....	2	.....	2	Electricity,	Pittsburg,	60	65	60	14,000
Gospel,	Drift,	Gaseous,	.....	4	.....	4	Electricity,	Pittsburg,	60	65	60	90,360
Forrest Hill,	Drift,	Gaseous,	.....	6	.....	6	Electricity,	Pittsburg,	60	65	60	195,569
Allegheny,	Slope,	Non-gas.	4	.....	.....	4	Compressed air,	C, Prime,	48	.....	.....	30 000
Furnace mine,	Drift,	Non-gas.	2	.....	.....	2	Compressed air,	Upper Freeport,	50	62	48	12,000
Totals,	.....	.....	20	89	2	111	.....	.....	.....	.....	.....	2,988,538

Description of Fatal Accidents.

January 8th, John E. Carlson was instantly killed in his room at Whittset mine, by a fall of slate; he neglected to post it although he knew it was dangerous.

January 15th, W. H. Parker was fatally injured in his room in Ponfeigh mine by a fall of roof and died two days after the accident. This was an unavoidable accident as the roof did not show any sign of being dangerous.

February 7th, Mike Pete was instantly killed by a fall of roof while working on stumps; the roof fell rather suddenly, being in a narrow space.

February 22d, John Swickey was instantly killed by being run over by his loaded trip; in this case it seemed that he was walking along the side of his trip stirring up his team, and then tried to jump on front of trip, but missed his foot and fell with above result.

February 26th, Antonie Lemel was burned to death in Pen Mar mine. While looking down an air shaft while the mine was on fire, being close to the side of shaft, the ground slipped and threw him in.

March 3d, John Stemburg, was instantly killed by slipping off the front of his trip and being caught under it.

March 4th, James Marks was killed by a fall of roof coal. He commenced to knock out posts for a fall, and the first one he knocked out, a piece of roof coal fell on him.

March 4th, George Hibeck was instantly killed by a fall of roof that did not show any sign of danger. He was working a short distance from the entry and without any warning it fell on him.

March 14th, John Gidosh was killed by a fall of roof coal and slate. His work did not show any sign of carelessness.

March 17th, Steve Pohole, Elm Grove, was killed by a fall of coal.

March 17th, Martin Greglok, Trotter, was killed by a fall of roof. Everything in this case showed carelessness.

March 18th, Peter Cook, Elm Grove, was killed by a fall of coal and slate. He was in the act of taking back stumps. He was considered a very practical miner, but, in this case, it seemed that he risked too much.

March 27th, Robert Ezzet, Elm Grove No. 2, was fatally injured by his loaded trip, on account of him stepping off on wrong side; carelessness on his part.

March 14th, Guiseppe Menicardi, Ocean No. 2, was almost instantly killed by a fall of slate. This was a case of extreme carelessness.

May 1st, Mike Busenack was instantly killed by a fall of slate and coal. Bad judgment was the cause of this accident.

May 5th, Steve Cholekosky, Leisenring No. 3, was instantly killed by going under the cage instead of going around the manway.

May 16th, Mike Diens, Banning No. 1, was almost instantly killed by a fall of coal. He had fired a shot and went to see the outcome of it, and in going too close to the face, a piece fell on him with the above result. Died four hours after.

May 17th, Thomas H. McGown, was instantly killed by a fall of slate that did not seem very large while up, but when it fell it weighed 125 lbs.

May 24th, Charles Bondos, was instantly killed in Leisenring No. 1, with the motor. This person instead of walking out the manway, walked out on the empty car track, and meeting the motor had not enough of room to keep clear of it.

May 31st, Mike Stymar was instantly killed by a fall of slate. The place seemed safe, but fell suddenly.

May 31st, Sandy Miller, Summit, was fatally injured by falling down a shaft from one seam to the other, a distance of 40 feet. A loaded trip came in, and thinking it was coming too near the shaft he stepped too far and fell down. He died August 23d.

June 7th, George Santimyer, Superintendent Washington mine No. 1, was instantly killed by the cage at the bottom of the shaft. This happened rather strangely. He was in the mine with two mine foremen, and coming out he went to the shaft instead of going out the manway along with the mine forman and assistant. The hoisting of coal was over and everything still. The engineer was oiling the slides, and being through before Santimyer was across, he ran the cage up and down to spread the oil, and in doing so landed the cage on him.

June 10th, Tim Moloney was killed by a fall of slate while taking a pillar back. This was another case of carelessness.

June 10th, John Oswakas was instantly killed by a post being knocked out against him, while he was knocking out posts under slate.

June 19th, Daniel Poser was killed by a fall of slate in his room. Carelessness on his part.

June 26th, John Bososkie, was killed by a fall of coal and slate. He was just starting a room on the heading and did not see the danger, but it could have been seen by a practical miner. He had not been working long in the mine.

June 27th, John Lavalance was killed by electric shock. He was engaged to help the electrician to put up wires for machines, and while working alongside of main wire, 500 volts tore it down on top of him.

July 8th, Joseph Wagner was instantly killed by a fall of coal. He depended on the coal staying up and lost his life.

July 25th, Andy Liptoch was instantly killed by a fall of coal. He had an empty wagon in his room and had plenty of loose coal to load

it, but commenced to undermine a corner without spragging it, when it fell on him.

August 18th, Frank Lesar was fatally injured by a fall of slate. He died two weeks after the accident. Carelessness on his part.

August 28th, Joseph Shultz was instantly killed at Davidson shaft by a fall of roof. This place seemed to be well enough posted, but a large quantity fell over them while he was loading his wagon.

September 22d, Passlo Sena was instantly killed outside by the haulage rope slipping off the sheave; he had no business there.

October 15th, Charles Trumpoc, was instantly killed by a fall of coal. He lost his life through carelessness.

October 20th, John Noke, was instantly killed by the cage. He and another man came to the bottom of the shaft when the cager had left, the day's work being over, and after they signalled to hoist, Noke was too long getting on the cage and was caught between the cage and shaft.

November 5th, Michael Smith was instantly killed by a fall of coal. This man knew that he was risking his life because he was told by his partner and the tracklayer, but he did not heed them. The tracklayer went out to tell the mine foreman, and met him coming in, not over 500 feet from the place, but before he reached it the coal fell and killed him.

November 15th, Mike Makala was instantly killed by being caught between two loaded wagons. In stopping one wagon to go in a room for another, he was coming out in front of it and allowed himself to be caught between the two.

November 28th, Mike Kolnt was instantly killed by a fall of roof in his room.

December 11th, Enoch Johnston was killed by a fall of roof. He was changing his road and had some posts to change also, and while knocking out the first post the roof fell on him. This was a dangerous roof, and he was a very practical miner, but made a mistake on this occasion.

Mine Foreman, First Grade.

The following candidates passed the examination held for mine foreman and fire bosses, January 21, 22, 23, 1902.

Peter Lacy, Mt. Braddock; Samuel Cummings, Vanderbilt; John C. Carroll, Roscoe; Roger Rigby, Elizabeth; John Hobin, Oliver; John J. Hoover, Leisenring; Daniel Darby, Star Junction; David Muir, Mustard; Constantine McGregor, Bridgeville; John King, Ellsworth; Lewis Fuehrer, Leisenring No. 2; Joseph Hall, Star Junction; John Whitney, Elm Grove; William Herron, Hermanie; P. J. Callaghan, Mt. Pleasant; Daniel McCullough, Van Meter; George Nersh, Alver-

ton; John McClain, Whitney; Michael Callaghan, Opekiska; William Pegg, Wattersburg.

Second Grade.

Theodore Cramer, Connellsville; Charles F. Cochran, Elk Lick.

Fire Bosses.

William C. Keck, Bradford; James M. Callaghan, Pricedale; Robert Whitlaw, Banning; James Sweeny, Footdale; Nels G. Balling, Greensburg; Owan Murphy, Dunbar; Daniel Dougherty, Connellsville; Martin Boyle, Everson; Samuel R. Means, Vanderbilt; James Whalen, Lambert; Edward Bailey, Connellsville; Hugh Friel, Wick Haven; Patrick Cullen, Vanderbilt; John Keck, Broadford; Walter Snyder, Vanderbilt; Anthony Haley, Broadford; James Durkin, Latrobe; Luke Walheim, Blairsville; Joseph Malin, Leisenring; James Dunn, Wick Haven; Thomas T. Glenn, Edenborn; William Muir, Mustard; David E. Pritchard, Sutersville; George Lindsay, Mt. Pleasant; Jolins Schopsky, United; Thomas Wilkinson, Pleasant Unity; Thomas Londen, Connellsville; Thomas Hart, Trotter; Joseph Flanigan, Trotter; Peter McNulty, Trotter; John Maley, Leisenring; John McKenna, Lecrone; John Curry, Oliver.

Mines on the P. & L. E. R. R.

Adelaide has the same record as last year. Ventilation, drainage and other conditions are good.

Fort Hill.—This mine is opened under a large hill, and the front of it has been showing signs of a squeeze inside the opening for some time, and every cut-through was well cribbed with railroad ties. It seemed to have a good effect until one month ago, when the whole front slipped and knocked away the coal bins and closed the opening. This was caused by the hill slipping under the coal and limestone, but a new opening was made and they got to work again in a very short time without much cost, for a place of this kind. The ventilation and drainage are fairly good.

Paul is a large mine and controls a large output. The drainage and ventilation are good.

Nellie.—This mine is practically a new opening. The coal they used to hoist up the shaft is nearly all worked out, and they are working on the raise side of the coal measures, which gives them good drainage, good haulage and good ventilation, with a good new fan.

Clarissa is a mine with good natural conditions which makes easy work to keep in good order.

Kendall is a new opening made to an old one that was used for custom sale. They are now shipping coal with good results inside and outside.

Washington No. 1 would be hard to beat as to ventilation and a large coal production, which the accompanying tables will show.

Washington No. 2.—The same as No. 1.

Victory.—Although not as large an operation as Washington mines, can be credited with the same conditions.

Perry is in good condition in every respect.

Whittset is in good condition. The fans that were in each opening were too small for ventilation but they now have good supply from Banning No. 2.

Banning No. 2 will shortly be one of the model mines. The outside head frames show the amount of coal they intend to handle, and the inside will do the same. They have plenty of good ventilation, also quite a quantity of explosive gas.

Wick Haven is in fairly good condition in all respects. It is an extensive mine and well looked after.

Banning No. 1 is an extensive mine and can put out more coal than can be taken care of at the tipples. Ventilation and drainage are good.

Darr can now be considered in first class condition. No. 15 is through to daylight, which gives it another opening for ventilation. It is a very large mine and needed this advantage.

West Newton Shaft.—This would be a good mine if it had a larger hoisting shaft or slope and larger pit wagons and better air courses, with better overcasts. There is not much complaint of the quantity of ventilation in the headings, but there are too many persons in one continuous air current. Drainage and hauling roads are in good order.

Ocean No. 5.—Cost has not been spared in improving it for a large output. There is a large territory and some very unpleasant local swamps to overcome, and when they put in a good fan they will be in good condition. Furnace ventilation they have at present, which is fairly good.

Forrest Hill is in good condition as to ventilation, but they are having trouble with local swamps. They are showing the best system of mining machine in the district.

Sarah is being put in condition to make it a large mine. Although the ventilation is by fan it will soon have to be replaced by a better one. Ventilation and drainage at present are fairly good.

Ocean No. 2.—This mine was kept in good condition. It will not be in my district after this year, but I hope it will always continue the same.

Ocean No. 3 and 4.—These two mines can be considered only one,

as their coal is all dumped at same tipple and not so very extensive. Ventilation and drainage fairly good.

Painter & Cornell is on the decline unless they get more coal to operate. They have very little solid coal now. Ventilation is by two furnaces, which don't give too much.

Dravo is another mine ventilated by a furnace, and only that they have some openings to daylight and not very much solid coal, they would be very short in ventilation; drainage is not too good.

Browns Nos. 1 and 2.—These mines have been shipping by river. They now have siding of railroad to No. 2 and are going to have steady work. No. 1 has not done any work this year. The ventilation is by furnace and fan, and besides they have one entry through on Lavedale, which is a connection of one river to the other. Conditions all through are fairly good.

Mines on the Belle Vernon, P. & L. E. R. R.

Glassport.—This is a small mine used only for custom coal and doesn't come under the provisions of the mine law. Only in winter are conditions good.

Belle Bridge is in fairly good condition when it is working, but they ship by river, which doesn't give them constant work.

United is another furnace mine, which means that the ventilation is not too good. They have worked some of their headings to daylight, which helps them greatly. Drainage is good.

Lovedale will soon be a large mine. Great improvements are being made outside and inside. They are putting up a large Capell fan and electric dynamo and new tipple, by which coal can be loaded by river or railroad.

Gospel is in good condition, but will not be long so if they depend on a furnace for ventilation in a large territory.

Blaine.—This is entirely a new opening and by the appearance of the outside it will make a good showing for a large output.

Mines near Connellsville.

Henry Clay has a good record for ventilation and drainage.

Davidson Shaft.—This mine gives a large output, and the ventilation is well looked after, but small local swamps give them great trouble in the drainage.

Coal Brook.—The conditions of this mine are good in regard to ventilation. Their water is all pumped at Davidson shaft. Drainage also good.

Grace.—There are no complaints of this mine in regard to ventila

tion, drainage and accidents. While there is a large volume of water to pump, they are always able to overcome it.

Trotter needs no comment this year, other than what was said in last year's report. Conditions all good.

Leisenring No. 1.—A large mine and output, with two air locomotives; it is well up to the requirements of the mining law.

Leisenring No. 3.—Is good in ventilation and drainage, but they seem to have something to learn in the system of mining coal under a very heavy cover.

Juniata is good in ventilation and drainage. Their work at present is nearly all stumps and pillars.

Elm Grove.—By making some changes in the coal properties they are getting in first class condition regarding ventilation and output.

Wheeler and Morrell are both exhausted, and there is no description required.

Atlas and Mahoning.—Both being connected in ventilation and drainage can be described together. Their ventilation and drainage are good, but their volume of water is so great that they are almost overpowered.

Ferguson is fast on the retreat, having no solid coal to work. Ventilation and drainage give them very little trouble.

Furnace.—This mine is doing good from the improvements. The seam is the Freeport E. and is from 4 to 5½ feet in height; the pitch is about 15 per cent. against the lead, which gives them trouble.

Basil.—It is only in winter that this mine comes under the provisions of the mining law, and there is not much coal to mine. Drainage and ventilation are good.

Marietta.—This is an old mine. It was formerly used for domestic purposes, but they now are shipping the coal, and it comes under the provisions of the law.

B. & O.—Conditions all good. Only a small number of persons inside.

Mines in Somerset County, B. & O. R. R.

Ursina, formerly called Rosebud, is still having good thick coal in the barren measures. Conditions good in ventilation and drainage.

Reed.—This mine done very little work during the year. They have put up a new fan and are commencing to work more constantly. The pitch of the coal makes drainage easy.

Williams, now called Southern.—A new fan has been put in and is working in their new opening with excellent results in ventilation and drainage.

Rockwood is in fairly good condition, but will not last long in this way if they don't put up a fan or furnace.

Viaduct is making no attempt to have ventilation and there are few mines working that need it more. They are not yet under the mining law, but so near it, that I always visit them when I am at Rockwood.

Caselman.—Operator is improving the mine inside and outside, and it needs all it can get. The air current at the far end of the entries is so slack and the rooms so steep that there is very little for the diggers, although they have an apology for a fan.

Mines on the Berlin Branch.

Enterprise.—A fan has been installed which is giving fairly good results; drainage is all right.

Ponfeigh is working from a new opening. They have a new fan, which puts their mine in good condition. Drainage is also good.

Allegheny is in very good condition at present, but some improvements must be made so that all of their workmen will not be in one air current.

Standard No. 1.—This mine has been improved in ventilation by increasing the area of furnace outlet.

Standard No. 2 not working.

Standard No. 3.—Is a new operation with two openings of different seams on the barren measures. They are in good condition with natural ventilation.

Pine Hill, formerly called Lottie No. 1, is in fairly good condition as to ventilation and drainage. Their work is extending so fast that they will soon find that the air courses are too small to serve for the ventilation they will require.

Pine Hill No. 2.—This is a new opening. Conditions seem fairly good.

Berlin, formerly called Stoner, has good results from natural ventilation. This is helped greatly by the miners using sunshine instead of impure oil; also by not firing shots until the run is over.

Grace is a small mine and they have not much solid coal to work. They have furnace ventilation in the two openings, but better results are had from daylight openings, than from the furnace ventilation; drainage is only fair.

Pen Mar No. 2 is a new shaft, 372 feet deep. They are not very far extended from the shaft yet. They need plenty of pumps to keep the water out.

Pen Mar No. 3 is in the same territory, but is reached by a slope which has a pitch of 15 per cent. towards the shaft. This is a large coal territory, and a great deal of money has been spent on these operations, and a great deal more is required yet.

Salisburg Branch.

Pen Mar No. 1.—There was a great deal of trouble at the beginning of the year from a mine fire near the front opening which obliged them to go around the hillside for a new opening. They have not much more solid coal to work, and will soon be on the retreating pillars. They removed the fan to the far end part of the workings, which puts them in fairly good condition.

Tub Mill Run is on the retreating system for want of solid coal. The natural conditions give them good results in drainage and ventilation.

Merchants No. 2 is almost finished. No work has been done since October. While they have quite a territory of pillar work to take out, the mining rights on the surface have barred them at present. The same can be said of No. 2.

Merchants No. 3 has had trouble with regard to local swamps and changes in the quality of the coal for a long distance, but they are now getting over the worst of it, and it is in better condition for a large output.

Grassy Run is a mine with good natural conditions. There is a furnace for ventilation, but it is never lit on account of the difference of elevation of inlet and outlet. They are also very fortunate in not having mine accidents. I have only one complaint to make about this mine, that is I have never seen the mine foreman's report book to see what he enters in it. He doesn't seem to understand Article VI, Sections 1, 7, 8, but he soon will.

Chapman Nos. 1 and 2.—No. 1 has all of the solid coal worked and is now fetching back the pillars and stumps, with natural ventilation good from surface falls, and drainage also good. No. 2 is working the 4 feet seam above it, and has now a new fan for ventilation, which puts it in good condition.

Fairview now has a furnace at the far end of the workings, which gives some ventilation which they did not have before; the mine foreman at this mine forgot the mining law until I entered suit against him for violation of Article VI, Sections 1, 7 and 8.

Hamilton is in good condition, with a small amount of solid coal to work; ventilation and drainage are excellent.

Wilmott is a small mine with very little solid coal to work. The difference of elevation at inlet and outlet gives good natural ventilation, also drainage.

Glen Maclaren No. 1 is in the big seam with furnace ventilation which is poor, and the same can be said regarding the drainage. No. 2 is in 4 foot seam with fan ventilation which is well up to the requirements of the mining law.

Elk Lick No. 1, former name Shaws No. 1, is an extensive mine with electric motor for hauling the coal. They have fan ventilation, which

gives a good inlet current of air, but it seems to get tired before it reaches the working places, on account of small air courses and poor stopping. Drainage is favorable.

Elk Lick No. 2 is a new mine with furnace ventilation. Gives a good supply of air at present; drainage is also good.

Thomas is an old mine and has old ventilation, the kind that was in practice before the mining law was adopted; but there will soon have to be some change made. The furnace is built almost in the form of a Davy lamp, hanging up in an outlet called a drain.

Mystic.—This mine is well named, which means something hidden or sacred. In this case it means ventilation. It is well that it wont last long. This is another case of the mine foreman being ignorant of Article VI, Sections 1, 7 and 8. He is the operator also.

Summit, former name Cumberland.—They have built a splendid furnace which gives 61,600 cubic feet per minute and makes a great improvement in the mine; drainage is fairly good.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Ninth Bituminous District for the year 1902.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Pittsburg Coal Co.						
Painter,	Allegheny,	Geo. W. Schluederberg,	Pittsburg,	Thomas Whiteman,	Frank,	P. & L. E. R. R.
Ocean Nos. 3 and 4,	Allegheny,	Geo. W. Schluederberg,	Pittsburg,	Thomas Whiteman,	Frank,	P. & L. E. R. R.
Ocean No. 2,	Allegheny,	Geo. W. Schluederberg,	Pittsburg,	Thomas Whiteman,	Frank,	P. & L. E. R. R.
Sarah,	Allegheny,	Geo. W. Schluederberg,	Pittsburg,	W. H. Cornell,	Blythedale,	P. & L. E. R. R.
Ocean No. 5,	Allegheny,	Geo. W. Schluederberg,	Pittsburg,	W. H. Cornell,	Blythedale,	P. & L. E. R. R.
West Newton shaft,	Allegheny,	Geo. W. Schluederberg,	Pittsburg,	F. M. Fritchman,	West Newton,	P. & L. E. R. R.
Darr,	Allegheny,	Geo. W. Schluederberg,	Pittsburg,	Daniel Alsop,	Banning,	P. & L. E. R. R.
Banning No. 1,	Allegheny,	Geo. W. Schluederberg,	Pittsburg,	Daniel Alsop,	Banning,	P. & L. E. R. R.
Wick Haven,	Allegheny,	Geo. W. Schluederberg,	Pittsburg,	Daniel Alsop,	Banning,	P. & L. E. R. R.
Banning No. 2,	Allegheny,	Geo. W. Schluederberg,	Pittsburg,	Edward Sopplit,	Whittset,	P. & L. E. R. R.
Whittset,	Allegheny,	Geo. W. Schluederberg,	Pittsburg,	Edward Sopplit,	Whittset,	P. & L. E. R. R.
H. C. Frick Coke Co.						
Adelaide,	Fayette,	O. W. Kennedy,	Scottdale,	Jas. A. Childs,	Adelaide,	P. & L. E. R. R.
Coal Brook,	Fayette,	O. W. Kennedy,	Scottdale,	M. W. Head,	Moyer,	P. R. R. S. West.
Davidson shaft,	Fayette,	O. W. Kennedy,	Scottdale,	W. H. Hugus,	Connellsville,	P. R. R. S. West. & B & O.
Henry Clay,	Fayette,	O. W. Kennedy,	Scottdale,	W. C. Mullin,	Broad Ford,	B. & O. R. R.
Lelsenring No. 1,	Fayette,	O. W. Kennedy,	Scottdale,	Charles B. Franks,	Leisenring No. 1,	B. & O. R. R.
Lelsenring No. 3,	Fayette,	O. W. Kennedy,	Scottdale,	James Collins,	Leisenring No. 3,	B. & O. R. R.
Trotter,	Fayette,	O. W. Kennedy,	Scottdale,	P. J. Tormay,	Trotter,	B. & O. R. R.
Somerset Coal Co						
Pine Hill No. 1,	Somerset,	J. C. Brydon,	Somerset,	D. R. Phillips,	Garrett,	B. & O., Berlin B.
Pine Hill No. 2,	Somerset,	J. C. Brydon,	Somerset,	D. R. Phillips,	Garrett,	B. & O., Berlin B.
Allegheny,	Somerset,	J. C. Brydon,	Somerset,	D. R. Phillips,	Garrett,	B. & O., Berlin B.
Casselman,	Somerset,	J. C. Brydon,	Somerset,	D. R. Phillips,	Garrett,	B. & O.
Summit,	Somerset,	J. C. Brydon,	Somerset,	F. R. Lyon,	Meyersdale,	B. & O., Meyersdale B.
Thomas,	Somerset,	J. C. Brydon,	Somerset,	F. R. Lyon,	Meyersdale,	B. & O., Meyersdale B.
Elk Lick No. 1,	Somerset,	J. C. Brydon,	Somerset,	F. R. Lyon,	Meyersdale,	B. & O., Meyersdale B.
Elk Lick No. 2,	Somerset,	J. C. Brydon,	Somerset,	F. R. Lyon,	Meyersdale,	B. & O., Meyersdale B.
Wilmott,	Somerset,	J. C. Brydon,	Somerset,	F. R. Lyon,	Meyersdale,	B. & O., Meyersdale B.
Hamilton,	Somerset,	J. C. Brydon,	Somerset,	F. R. Lyon,	Meyersdale,	B. & O., Meyersdale B.
Chapman No. 1,	Somerset,	J. C. Brydon,	Somerset,	F. R. Lyon,	Meyersdale,	B. & O., Meyersdale B.
Chapman No. 2,	Somerset,	J. C. Brydon,	Somerset,	F. R. Lyon,	Meyersdale,	B. & O., Meyersdale B.
Tub Mill Run	Somerset,	J. C. Brydon,	Somerset,	F. R. Lyon,	Meyersdale,	B. & O., Meyersdale B.
Washington Coal & Coke Co						
Washington No. 1,	Fayette,	P. S. Newmyer,	Dawson,	[illegible]	Star Junction,	P. & L. E. & B. & O.
Washington No. 2	Fayette,	P. S. Newmyer,	Dawson,	[illegible]	Star Junction,	P. & L. E. & B. & O.
Perry,	Fayette,	P. S. Newmyer,	Dawson,	[illegible]	Star Junction,	P. & L. E. & B. & O.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Cambria Steel Co.						
Mahoning,	Fayette,	John N. Pott,	Dunbar,	J. Stoker,	Dunbar,	B. & O. & S. W. B. of P. R. R.
Atlas,	Fayette,	John N. Pott,	Dunbar,	J. Stoker,	Dunbar,	B. & O. & S. W. B. of P. R. R.
Wheeler,	Fayette,	John N. Pott,	Dunbar,	J. Stoker,	Dunbar,	B. & O. & S. W. B. of P. R. R.
Morrell,	Fayette,	John N. Pott,	Dunbar,	J. Stoker,	Dunbar,	B. & O. & S. W. B. of P. R. R.
W. J. Rainey.						
Grace,	Fayette,	T. J. Mitchel,	Connellsville,	Thomas Johms,	Moyer,	P. R. R., S. W.
Paul,	Fayette,	T. J. Mitchel,	Connellsville,	J. B. Henderson,	Vanderbilt,	P. & L. E.
Fort Hill,	Fayette,	T. J. Mitchel,	Connellsville,	J. B. Henderson,	Vanderbilt,	P. & L. E.
Elm Grove,	Fayette,	T. J. Mitchel,	Connellsville,	J. B. Henderson,	Vanderbilt,	B. & O. Short Line.
Monongahela River Con. Coal & Coke Co.						
Brown's No. 2,	Allegheny,	O. A. Blackburn,	Pittsburg,	G. W. Peterson,	Bunola,	P. & L. E. R. R.
Lovedale,	Allegheny,	O. A. Blackburn,	Pittsburg,	G. W. Peterson,	Bunola,	River.
Belle Bridge,	Allegheny,	O. A. Blackburn,	Pittsburg,	Thomas Jones,	Elizabeth,	River.
Gospel,	Allegheny,	O. A. Blackburn,	Pittsburg,	Ezra Connway,	Elizabeth,	River.
W. K. Niver Coal Co.						
Pen Mar No. 1,	Somerset,	John Lochrie,	Windber,	A. E. Davis,	Elk Lick,	Meyersdale Br., B. & O.
Pen Mar No. 2,	Somerset,	John Lochrie,	Windber,	T. D. Forsythe,	Berlin,	Berlin Br., B. & O.
Pen Mar No. 3,	Somerset,	John Lochrie,	Windber,	T. D. Forsythe,	Berlin,	Berlin Br., B. & O.
Dunbar Furnace Co.						
Ferguson,	Fayette,	S. G. Valentine,	Dunbar,	John W. Greaves,	Dunbar,	P. R. R., S. W. Branch, and B. & O.
Furnace mine,	Fayette,	S. G. Valentine,	Dunbar,	John W. Greaves,	Dunbar,	P. R. R., S. W. Branch, and B. & O.
Jas. W. Ellsworth Coal Co.						
Forrest Hill,	Allegheny,	A. A. Augustus,	Cleveland, Ohio,	James Henderson,	Suterville,	P. & L. E. R. R.
Merchants' Coal Co.						
Merchants' No. 2,	Somerset,	R. S. Garrett,	Elk Lick,			Meyersdale Br., B. & O.
Merchants' No. 3,	Somerset,	R. S. Garrett,	Elk Lick,			Meyersdale Br., B. & O.
United Coal Co.						
United,	Allegheny,	H. D. O'Neil,	McKeesport,	James D. O'Neil,	Elizabeth,	P. & L. E. R. R.

Lake Shore Gas Coal Co. Dravo,	Allegheny,	C. H. Weiser,	Robbins Station,	A. J. Weiser,	Robbins Station,	P. & L. E. R. R.
Brown & Cochran. Nellie,	Fayette,	J. R. Laughrey,	Dawson,	I. W. Knight,	Vanderbilt,	P. & L. E. R. R.
J. R. Laughrey & Son. Victoria,	Fayette,	J. R. Laughrey,	Dawson,	J. S. Laughrey,	Washington Run,	P. & L. E. R. R.
Juniata Coke Co. Juniata,	Fayette,	Adam Nicholson,	Juniata,			B. & O. Short Line.
Jas. Cochran Sons & Co. Clarissa,	Fayette,	N. A. Rist,	Dawson,			P. & L. E. R. R.
The Continental Coal Co. Glen Maclaren,	Somerset,	John Maurice,	Meyersdale,	Daniel T. McLaren,	Meyersdale,	Salsburg Br., B. & O.
Ursina Coal Mining Co. Ursina Nos. 1 and 2,	Somerset,	L. T. Huff,	Humbert,			Ursina Branch, B. & O.
Marietta & Stillwagon. B. & O.,	Fayette,	Clair Stillwagon,	Connellsville,			B. & O. R. R.
John Meager. Grassy Run,	Somerset,	John Meager,	Elk Lick,			Salsburg Br., B. & O.
Grace Coal Co. Grace,	Somerset,	E. F. Fisher,	Pittsburg,	T. J. Colburn,	Berlin,	Berlin Branch, B. & O.
Merrill & Walker. Ponfeigh,	Somerset,	W. A. Merrill,	Garrett,			Berlin Branch, B. & O.
Stoner Coal Co. Berlin,	Somerset,	John O. Stoner,	Berlin,			Berlin Branch, B. & O.
Galloway & Clayton. Fairview,	Somerset,	Thomas Rees,	Meyersdale,			Salsbury Br., B. & O.
Pen Mar Coal Co. Standard Nos. 1 and 2,	Fayette,	W. A. Merrill,	Garrett,			Berlin Branch, B. & O.
Lang Coal & Sand Co. Basil,	Fayette,	Robert Lang,	New Haven,			P. R. R., S. W. B.
Fred Rowle Mystic,	Somerset,	Fred Rowle,	Meyersdale,			Meyersdale Br., B. & O.
Marietta Coal Co. Marietta,	Fayette,	Wade Marietta,	Connellsville,			Custom coal.
Glassport Coal Co. Glassport,	Allegheny,	W. A. Wilson,	Glassport,			Custom coal.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Southern Coal Co.						
Southern No. 1,	Somerset,	F. H. Darby,	Rockwood,			B. & O. R. R.
Southern No. 2,	Somerset,	F. H. Darby,	Rockwood,			B. & O. R. R.
Rockwood Coal Co.						
Rockwood,	Somerset,	J. M. Wolfenberger,	Rockwood,			B. & O. R. R.
Kendall Coal Co.						
Kendall,	Fayette,	R. O. Thomas,	Connellsville,			P. & L. E. R. R.
Blaine Coal Co.						
Blaine,	Allegheny,	William Seddon,	Lock No. 3,			P. & L. E. R. R.
Viaduct Mining Co.						
Darlington,	Somerset,	E. H. Werner,	Rockwood,			B. & O. R. R.

TABLE II—Gives the total number of tons of coal mined and tons of coke produced in each colliery, number of days worked, number of employes, number of employes killed and injured, number of kegs of powder, etc., used in the Ninth Bituminous District for the year ending December 31, 1902.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Pittsburg Coal Co.														
Painter,	Allegheny,	141,970	1,660	99	143,729	.....	.....	225	153	.....	.....	1,200	.....	7
Ocean Nos. 3 and 4,	Allegheny,	165,317	4	618	165,939	.....	.....	220	181	.....	.....	1,000	.....	9
Ocean No. 2,	Allegheny,	351,592	31	187	351,810	.....	.....	256	326	1	1	2,000	.....	20
Sarah,	Allegheny,	106,942	2	119	107,063	.....	.....	248	125	.....	.....	250	.....	8
Ocean No. 5,	Allegheny,	178,662	65	124	178,851	.....	.....	233	236	.....	1	450	250	15
West Newton shaft,	Westmoreland,	237,824	4,256	859	243,033	.....	.....	261	234	1	6	1,000	540	23
Darr,	Westmoreland,	431,813	8,635	27	440,475	.....	.....	271	375	2	1	1,500	700	23
Banning No. 1,	Fayette,	306,173	12,244	5	318,422	.....	.....	262	279	1	2	1,366	600	23
Wick Haven,	Fayette,	235,456	9,749	901	246,106	.....	.....	276	205	2	2	1,150	500	20
Banning No. 2,	Fayette,	26,608	870	31	27,512	.....	.....	190	84	1	.....	300	8,000	5
Whitsett,	Fayette,	198,525	1,927	428	200,880	.....	.....	285	197	2	1	1,160	500	9
Totals,	.....	2,380,882	39,537	3,401	2,423,820	.....	.....	272½	2,395	10	13	11,376	11,090	162
H. C. Frick Coke Co.														
Adelaide,	Fayette,	48	4,458	3,112	304,018	197,000	375	307	346	.....	.....	.....	.....	41
Coal Brook,	Fayette,	9,240	1,880	1,408	102,685	60,100	120	285	107	1	.....	820	.....	14
Davidson shaft,	Fayette,	98,208	8,057	2,302	298,472	126,600	333	303	324	1	.....	.....	335	29
Henry Clay	Fayette,	8,323	3,774	2,782	165,565	60,400	120	285	119	.....	1	582	150	16
Leisenring No. 1,	Fayette,	19,963	5,748	3,228	359,360	220,000	500	279	451	1	1	.....	2,575	62
Leisenring No. 3,	Fayette,	.....	10,234	1,592	355,110	215,500	504	288	480	3	4	.....	3,825	62
Trotter,	Fayette,	.....	9,430	2,856	343,152	220,000	464	276	445	2	1	.....	200	55
Totals,	.....	137,752	43,621	17,280	1,868,362	1,094,600	2,416	289	2,272	8	7	1,402	7,085	279

*Totals in this column are averages

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Somerset Coal Co.								*						
Pine Hill No. 1,	Somerset,	78,469	757	57	79,283	.....	.....	197	111	.....	.....	658	.....	16
Pine Hill No. 2,	Somerset,	2,290	13	12	2,315	.....	.....	103	6	.....	.....	.....	.....	.....
Allegheny,	Somerset,	57,948	1,841	236	60,025	.....	.....	204	103	1	4	1,256	150	13
Enterprise,	Somerset,	31,800	43	31	31,874	.....	.....	196	59	.....	1	115	.....	5
Casselman,	Somerset,	83,427	2,325	500	86,252	.....	.....	333	123	.....	2	1,035	.....	15
Summit,	Somerset,	164,290	1,576	652	166,518	1,167	20	215	244	1	2	3,740	.....	24
Thomas,	Somerset,	21,650	.....	50	21,700	.....	.....	225	32	.....	.....	418	.....	3
Elk Lick No. 1,	Somerset,	213,193	36,680	1,504	251,377	26,649	75	207	343	.....	1	4,620	.....	22
Elk Lick No. 2,	Somerset,	16,177	70	56	16,303	.....	.....	167	93	1	3	1,320	.....	5
Willmoth,	Somerset,	36,089	30	46	36,165	.....	.....	186	54	.....	.....	484	200	3
Hamilton,	Somerset,	65,412	146	191	65,749	.....	.....	160	54	.....	1	792	.....	5
Chapman No. 1,	Somerset,	53,607	5	66	53,678	.....	.....	189	68	.....	1	814	.....	7
Chapman No. 2,	Somerset,	17,965	.....	23	17,988	.....	.....	200	27	.....	.....	176	.....	3
Tub Mill Run,	Somerset,	45,826	.....	192	46,018	.....	.....	160	35	.....	.....	594	.....	6
Totals,	.....	888,143	43,486	3,616	935,245	27,816	95	196	1,352	3	15	16,022	350	127
Washington Coal and Coke Co.														
Washington No. 1,	Fayette,	374,564	7,966	600	383,130	227,840	325	308	633	1	.....	2,708	12,213	57
Washington No. 2,	Fayette,	356,727	8,489	5,489	370,705	96,120	170	308	435	.....	1	2,700	12,100	43
Perry,	Fayette,	160,528	2,466	3,644	166,638	.....	.....	285	134	.....	1	1,016	3,125	11
Totals,	.....	891,819	18,921	9,733	920,473	323,960	495	300⅓	1,202	1	2	6,424	27,438	111
Cambria Steel Co.														
Mahoning,	Fayette,	8,092	11,804	1,452	130,005	83,596	160	311	159	.....	1	8	367	34
Atlas,	Fayette,	8,841	2,795	769	256,787	181,767	302	311	364	1	1	17	733	50

*Totals in this column are averages.

Wheeler,	Fayette,	.....	268	272	18,627	14,006	103	166	53	.....	.....	95	.....	6
Morrell,	Fayette,	.....	16	8	320	260	400	12	19	.....	.....	.....	.....	2
Totals,		16,933	14,823	2,501	405,739	279,569	965	200	595	1	2	120	1,100	92
W. J. Rainey Coke Co.														
Grace,	Fayette,	.....	2,437	.....	254,632	190,974	407	306	320	.....	.....	1,000	.....	32
Paul,	Fayette,	.....	4,538	2,269	359,957	264,863	489	311	441	.....	.....	.....	500	40
Fort Hill,	Fayette,	.....	4,015	1,800	250,959	188,220	369	311	306	.....	2	25	200	30
Elm Grove,	Fayette,	.....	3,493	450	115,000	110,000	218	297	218	3	1	250	300	27
Totals,		.....	14,483	4,519	980,548	754,057	1,483	306¼	1,285	3	3	1,275	1,000	129
Mon. River Con. Coal & Coke Co.														
Browns No. 2,	Allegheny,	59,047	2,014	824	61,885	.....	.....	77	236	3	2	176	.....	19
Lovedale,	Allegheny,	21,397	577	205	22,179	.....	.....	82	68	.....	2	68	.....	10
Belle Ridge,	Allegheny,	7,890	285	710	8,885	.....	.....	99	146	.....	4	24	.....	10
Gospel,	Allegheny,	107,784	1,086	490	109,360	.....	.....	212	138	.....	.....	312	.....	4
Totals,		196,118	3,962	2,229	202,309	.....	.....	117½	588	3	8	580	.....	43
W. K. River & Co.														
Pen Mar No. 1,	Somerset,	96,400	1,000	300	97,700	.....	.....	175	116	1	1	200	50	8
Pen Mar No. 2,	Somerset,	.....	2,560	.....	2,560	.....	.....	112	76	.....	.....	.....	9,000	.....
Pen Mar No. 3,	Somerset,	3,877	2,796	31	6,704	.....	.....	82	72	.....	.....	25	6,000	.....
Totals,		100,277	6,356	331	106,964	.....	.....	92¼	264	1	1	225	15,050	8
Dunbar Furnace Co.														
Ferguson,	Fayette,	57,987	6,378	2,261	149,704	54,553	220	309	144	1	.....	96	25	33
Furnace Mine,	Fayette,	28,261	495	7,281	36,037	.....	.....	309	40	1	2	288	.....	20
Totals,		86,248	6,873	9,542	185,741	54,553	220	309	184	2	2	384	25	53
Jas. W. Ellsworth Coal Co.														
Forrest Hill,	Allegheny,	278,059	2,972	322	281,353	.....	.....	263	264	.....	4	1,360	25	17
Merchant's Coal Co.														
Merchants No. 2,	Somerset,	71,915	850	.....	72,765	.....	.....	198	72	.....	3	550	.....	6
Merchants No. 3,	Somerset,	74,145	.....	.....	74,145	.....	.....	227	85	.....	.....	750	.....	8
Totals,		146,060	850	.....	146,910	.....	.....	212½	157	.....	3	1,300	.....	14
United Coal Co.														
United,	Allegheny,	182,566	791	1,976	185,357	.....	.....	230	173	1	....	900	.....	12
Lake Shore Gas Coal Co.														
Dravo,	Allegheny,	139,993	500	.....	140,493	.....	.....	242	120	1	1	260	.....	8
Brown & Cochran.														
Nellie,	Fayette,	.....	3,000	.....	315,000	210,000	300	308	293	1	5	.....	.....	40

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
J. R. Laughrey & Son. Victoria,	Fayette,	210,000	1,000	.....	211,000	.....	.....	308	100	.....	1	2,000	600	10
Juniata Coke Co. Juniata,	Fayette,	.....	2,807	898	200,754	146,379	250	310	230	.....	1	2,100	400	28
Jas. Cochran Sons & Co. Clarissa,	Fayette,	9,300	.....	1,300	109,300	65,800	108	308	114	.....	.....	300	.....	12
The Continental Coal Co. Glen Maclaren,	Somerset,	111,479	2,190	40	113,709	.....	.....	213	168	.....	1	1,500	10	18
Ursina Coal Mining Co. Ursina Nos. 1 and 2,	Somerset,	85,505	.....	7,452	92,957	.....	.....	248	147	.....	.....	75	700	17
Marietta & Stillwagon. B. & O.,	Fayette,	46,000	2,000	.....	48,000	.....	.....	365	20	.....	.....	.....	.....	1
John Meager. Grassy Run,	Somerset,	53,800	.....	.....	53,800	.....	.....	225	60	.....	.....	300	.....	8
Grace Coal Co. Grace,	Somerset,	39,000	386	.....	39,386	.....	.....	226	65	.....	.....	70	.....	5
Merrill & Walker Coal Co. Ponfeigh,	Somerset,	29,173	25	200	29,398	.....	.....	253	102	1	1	1,000	.....	8
Stoner Coal Co. Berlin,	Somerset,	25,859	.....	.....	25,859	.....	.....	260	35	.....	.....	125	.....	2

*Totals in this column are averages.

Galloway & Clayton.														
Fairview,	Somerset,	19,111	.....	.....	19,111	.....	.....	230*	41	.....	.....	200	.....	.....
Pen Mar Coal Co.														
Standard Nos. 1 and 3,	Somerset,	15,800	.....	.....	15,800	.....	.....	124	85	.....	.....	500	.....	7
Lang Coal and Sand Co.														
Basil,	Fayette,	15,010	622	4,420	20,052	.....	.....	308	10	.....	.....	302	200	2
Fred Rowle.														
Mystic,	Somerset,	17,015	.....	60	17,075	.....	.....	132	30	.....	.....	253	.....	2
Marietta Coal Co.														
Marietta,	Fayette,	14,880	.....	120	15,000	.....	.....	317	31	.....	.....	100	.....	2
Glassport Coal Co.														
Glassport,	Allegheny,	13,013	.....	6,957	19,970	.....	.....	306	23	.....	.....	.....	.....	2
Southern Coal Co.														
Southern No. 1,	Somerset,	11,060	.....	200	11,260	.....	.....	139	19	1	.....	29	.....	3
Southern No. 2,	Somerset,	840	.....	.....	840	.....	.....	54	12	1	.....	13	.....	1
Totals,	.....	11,900	.....	200	12,100	.....	.....	96½	31	2	.....	42	.....	3
Rockwood Coal Co.														
Rockwood,	Somerset,	6,000	.....	.....	6,000	.....	.....	280	19	.....	1	180	800	1
Kendall Coal Co.														
Kendall,	Fayette,	4,500	40	.....	4,540	.....	.....	57	22	.....	.....	.....	.....	2
Blaine Coal Co.														
Blaine,	Allegheny,	3,325	450	25	3,800	.....	.....	137	63	.....	.....	.....	.....	6
Viaduct Mining Co.														
Darlington,	Somerset,	2,717	.....	334	3,051	.....	.....	220	11	.....	.....	30	.....	3
Grand totals,	.....	6,176,261	209,695	77,456	10,158,976	2,961,734	6,382	235⅛	12,451	38	71	50,655	65,773	1,231

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Number of Boilers.				Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.	Horse power.		Steam.	Air.	Electric.							
Pittsburg Coal Co.,	Alle., West., Fay.	9	340	21	1,975	2,315	.....	.....	9	17	1,294	18	6,554	5,790	4	6
H. C. Frick Coke Co.,	Fayette,	10	466	37	3,950	4,416	13	4	.....	30	2,905	12	9,591	3,356	6	7
Somerset Coal Co.,	Somerset,	2	22	8	710	672	.....	.....	2	7	382	7	1,641	1,115	2	1
Washington Coal and Coke Co.,	Fayette,	.....	.....	15	1,775	2,220	.....	.....	3	11	1,425	7	2,726	1,500	2	3
Cambria Steel Co.,	Fayette,	4	200	18	1,446	1,646	1	.....	.....	14	745	2	1,300	800	.....	.....
W. J. Rainey Coke Co.,	Fayette,	.....	.....	12	980	1,020	.....	.....	3	10	705	12	3,475	1,475	.....	1
Monongahela River Con. Coal and Coke Co.,	Allegheny,	2	150	11	450	1,153	2	.....	.....	8	370	2	360	240	3	.....
W. K. Niver & Co.,	Somerset,	.....	.....	9	2,266	2,266	.....	.....	2	8	2,050	5	1,000	760	.....	4
Dunbar Furnace Co.,	Fayette,	.....	.....	10	600	600	.....	.....	.....	6	360	4	940	330	.....	1
Jas. W. Ellsworth Coal Co.,	Allegheny,	.....	.....	6	680	680	.....	.....	2	6	680	2	128	128	2	.....
Merchants' Coal Co.,	Somerset,	.....	.....	2	125	250	.....	.....	1	2	300	1	75	50	2	.....
United Coal Co.,	Allegheny,	.....	.....	1	150	150	.....	.....	1	1	50	.....	.....	.....	.....	.....
Lake Shore Gas Coal Co.,	Allegheny,	.....	.....	1	125	125	.....	.....	1	.....	.....	2	300	100	1	.....
Brown & Cochran,	Fayette,	.....	.....	.....	.....	.....	1	.....	.....	1	80	3	400	250	.....	.....
J. R. Laughrey & Son,	Fayette,	.....	.....	2	60	120	.....	.....	.....	.....	.....	1	300	150	.....	2
Juniata Coke Co.,	Fayette,	.....	.....	5	180	400	1	.....	.....	3	437	2	560	440	.....	.....
James Cochran Sons & Co.,	Fayette,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
The Continental Coal Co.,	Somerset,	2	200	.....	.....	.....	.....	.....	.....	2	95	1	68	68	.....	1
Ursina Coal Mining Co.,	Somerset,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marietta & Stillwagon,	Fayette,	.....	.....	1	125	125	.....	.....	.....	1	80	2	2,000	1,800	.....	.....
John Meager,	Somerset,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grace Coal Co.,	Somerset,	.....	.....	1	30	.....	.....	.....	.....	1	30	1	40	20	.....	.....
Merrill & Walker Coal Co.,	Somerset,	.....	.....	1	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stoner Coal Co.,	Somerset,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Galloway & Clayton,	Somerset,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pen Mar Coal Co.,	Somerset,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lang Coal and Sand Co.,	Fayette,	.....	.....	1	40	40	.....	.....	.....	1	30	.....	.....	.....	.....	.....
Fred Rowle,	Somerset,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Marietta Coal Co.,	Fayette,															
Glassport Coal Co.,	Allegheny,															
Southern Coal Co.,	Somerset,									1	30					
Rockwood Coal Co.,	Somerset,															
Kendall Coal Co.,	Fayette,			1	40	40				1	30					
Blaine Coal Co.,	Allegheny,			3	75	75				2	160				1	
Viaduct Mining Co.,	Somerset,															
Grand totals,		29	1,378	168	15,697	18,233	5	4	24	133	12,238	84	31,458	18,372	23	27

TABLE III—Showing the number of each class of employes at each colliery in the Ninth Bituminous district during the year 1902.

Name of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Bookkeepers and clerks.	All other employes.	Total outside.	
Pittsburg Coal Co.																						
Palnter,	Allegheny,..	1	....	1	34	3	78	3	7	1	12	.....	140	...	....	1	2	.....	1	9	13	153
Ocean Nos. 3 and 4,	Allegheny,..	1	....	1	56	5	74	5	9	.....	15	.....	166	...	....	3	.....	.....	1	11	15	181
Ocean No. 2,	Allegheny,..	1	1	3	74	8	166	8	18	3	23	.....	305	1	....	4	.....	.....	1	15	21	326
Sarah,	Allegheny,..	1	....	...	20	5	70	5	8	2	4	1	116	....	....	1	.....	.....	1	7	9	125
Ocean No. 5,	Allegheny,..	1	....	1	40	6	120	6	15	4	14	19	217	1	....	3	.....	.....	1	14	19	236
West Newton Shaft,	Westm'd,...	1	....	2	17	8	133	8	17	3	6	17	212	1	....	3	4	.....	2	12	22	234
Darr,	Westm'd,...	1	....	2	65	12	195	12	20	4	23	.....	334	1	1	6	10	.....	2	21	41	375
Banning No. 1,	Fayette,....	1	....	2	75	8	124	8	15	2	15	.....	250	1	1	5	8	.....	1	13	29	279
Banning No. 2,	Fayette,....	1	....	1	.....	3	36	3	4	2	7	.....	57	..	....	2	4	.....	.....	21	27	84
Wick Haven,	Fayette,....	1	....	2	67	6	61	6	17	6	14	.....	180	1	....	4	8	.....	1	11	25	205
Whittset,	Fayette,....	1	....	2	160	.....	.....	.....	11	2	3	.....	179	1	....	2	3	.....	1	11	18	197
Totals and averages,	.....	11	1	17	608	64	1,057	64	141	29	136	28	2,156	7	2	34	39	.....	12	145	239	2,395
H. C. Frick Coke Co.																						
Adelaide,	Fayette,....	1	....	3	157	.....	.....	.....	16	3	24	.....	204	1	2	5	6	78	1	49	142	346
Coal Brook,	Fayette,....	1	....	1	58	.....	.....	.....	5	.....	3	.....	68	1	1	1	1	28	.....	7	39	107
Davidson Shaft,	Fayette,....	1	....	2	156	.....	.....	.....	17	1	11	10	198	1	1	4	8	82	2	28	126	324
Henry Clay,	Fayette,....	1	....	1	52	.....	.....	.....	7	.....	8	.....	69	1	1	1	3	43	1	.....	50	119
Leisenring No. 1,	Fayette,....	1	1	4	200	.....	.....	.....	21	8	25	3	263	1	2	7	9	140	2	27	188	451
Leisenring No. 3,	Fayette,....	1	1	4	206	.....	.....	.....	23	8	10	22	284	1	2	7	11	141	2	32	196	480
Trotter,	Fayette,....	1	1	3	172	.....	.....	.....	22	4	.....	35	239	1	3	6	5	139	2	50	206	445
Totals and averages,	.....	7	3	18	1,001	.....	.....	.....	111	24	90	71	1,325	7	12	31	43	651	10	193	947	2,272

Somerset Coal Co.																						
Pine Hill No. 1,	Somerset,	1	...	....	91	.....	.....	.....	7	.....	.....	4	103	...	....	1	2	.....	.....	5	8	111
Pine Hill No. 2,	Somerset,	....	....	....	4	.....	.....	.....	1	.....	.....	.....	5	..	....	.....	.....	.....	.....	1	1	6
Allegheny,	Somerset,	1	....	....	76	3	.....	.....	8	2	.....	3	93	...	....	1	3	.....	.....	6	1	1 3
Enterprise,	Somerset,	1	....	....	47	.....	.....	.....	4	1	.....	1	54	...	....	1	1	.....	.....	3	5	59
Casselman,	Somerset,	1	1	....	89	.....	.....	.....	11	3	.....	5	110	1	....	1	4	.....	.....	7	13	123
Summit,	Somerset,	1	1	....	196	.....	.....	.....	16	1	.....	12	227	....	1	3	.....	3	.....	10	17	244
Thomas,	Somerset,	1	....	....	24	.....	.....	.....	3	1	.....	1	30	....	....	.....	.....	.....	.....	2	2	32
Elk Lick No. 1,	Somerset,	1	1	....	236	.....	.....	.....	19	5	.....	13	275	...	....	4	2	46	1	15	68	343
Elk Lick No. 2,	Somerset,	1	....	....	80	.....	.....	.....	5	5	.....	.....	91	...	....	1	.....	.....	.....	4	5	96
Wilmoth,	Somerset,	1	1	....	49	.....	.....	.....	5	1	.....	2	50	....	....	.....	.....	.....	.....	4	4	54
Hamilton,	Somerset,	1	....	....	35	.....	.....	.....	5	3	.....	2	46	....	1	1	1	.....	.....	5	8	54
Chapman No. 1,	Somerset,	1	....	....	56	.....	.....	.....	6	2	.....	4	63	....	....	.....	.....	.....	.....	4	5	68
Chapman No. 2,	Somerset,	....	....	....	.....	2	17	2	3	2	.....	.....	26	...	...	1	.....	.....	.....	1	1	27
Tub Mill Run,	Somerset,	1	....	....	21	.....	.. ...	.....	3	.....	.....	5	30	...	....	1	.....	.....	.....	4	5	35
Totals and averages,		12	4	...	989	5	17	2	96	26	.....	52	1,203	1	2	15	13	49	1	71	152	1,352
Washington Coal & Coke Co.																						
Washington No. 1,	Fayette,	1	1	3	266	7	29	7	36	1	15	31	397	1	7	9	6	210	3	.....	236	633
Washington No. 2,	Fayette,	1	....	3	250	6	30	6	25	....	12	24	357	....	2	5	5	66	.....	.....	78	435
Perry,	Fayette,	1	....	1	31	3	47	3	9	2	20	.....	117	...	1	1	4	.....	1	11	18	135
Totals and averages,		3	1	7	547	16	106	16	70	3	47	55	871	1	10	15	15	276	4	11	332	1 2 3
Cambria Steel Co.																						
Mahoning,	Fayette,	....	1	1	60	.....	.....	.....	11	1	6	15	95	1	1	2	5	35	2	18	61	179
Atlas,	Fayette,	1	....	2	120	.....	.....	.....	27	2	18	26	196	1	2	2	5	81	4	73	168	364
Wheeler,	Fayette,	1	....	....	20	.....	.....	.....	2	1	2	2	28	..	1	2	2	13	1	6	25	53
Morrell,	Fayette,	....	....	1	8	.....	.....	.....	1	.....	.....	1	11	...	....	.....	2	3	.....	3	8	19
Totals and averages,		2	1	4	208	.....	.....	.....	41	4	26	44	330	2	4	6	14	132	7	100	265	595
W. J. Rainey.																						
Grace,	Fayette,	1	....	....	150	.....	.....	.....	20	2	12	.....	185	1	1	3	6	110	1	13	135	320
Paul,	Fayette,	1	....	3	220	.....	.....	.....	25	1	.....	11	261	1	2	8	8	130	11	20	180	441
Fort Hill,	Fayette,	1	....	1	135	.....	.....	.....	17	.....	.....	5	159	1	1	2	5	100	5	33	147	306
Elm Grove,	Fayette,	1	....	1	80	.....	.....	.....	11	2	2	5	102	...	1	3	3	85	3	19	116	218
Totals and averages,		4	....	5	585	.....	.....	.....	73	5	14	21	707	3	5	16	22	425	21	85	578	1,285
Mon. River Con. Coal & Coke Co.																						
Browns No. 2,	Allegheny,	1	....	2	50	10	117	.....	20	2	13	12	227	..	..	4	4	.....	2	13	23	250
Lovedale,	Allegheny,	1	....	1	10	2	30	2	4	2	3	.....	55	1	....	2	2	.....	1	7	13	68
Belle Bridge,	Allegheny,	1	...	....	114	.....	.....	.....	9	3	3	.....	136	1	...	2	1	....	1	11	16	146
Gospel,	Allegheny,	1	...	1	20	6	70	6	8	3	....	4	119	1	....	2	4	.....	1	11	19	138
Totals and averages,		4	...	4	194	18	217	8	41	10	19	16	537	3	....	10	11	.....	5	42	71	602
W. K. Niver & Co.																						
Pen Mar No. 1,	Somerset,	1	...	....	.....	4	84	4	9	2	3	....	107	1	....	1	3	.....	1	3	9	116

TABLE III—Continued.

Name of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Bookkeepers and clerks.	All other employes.	Total outside.	
Pen Mar No. 2,	Somerset,	1	....	....	.....	2	.....	2	.....	.....	43	.....	48	....	1	1	8	.....	1	17	28	76
Pen Mar No. 3,	Somerset,	1	....	....	39	2	.....	2	4	.....	5	.....	53	....	....	1	4	.....	1	13	19	72
Totals and averages,		3	....	....	39	8	84	8	13	2	51	.....	208	1	1	3	15	.....	3	33	56	264
Dunbar Furnace Co.																						
Ferguson,	Fayette,	1	1	1	69	.....	.....	.....	8	.....	8	6	94	1	1	4	5	30	1	8	50	144
Furnace Mine,	Fayette,	1	1	1	16	.....	8	.....	6	.....	.....	2	35	....	....	2	2	.....	1	1	6	40
Totals and averages,		2	2	2	85	.....	8	.....	14	.....	8	8	129	1	1	6	7	30	2	9	56	184
Jas. W. Ellsworth Coal Co.																						
Forrest Hill,	Allegheny,	1	....	2	50	10	135	10	14	1	4	5	232	1	1	3	3	.....	2	22	32	264
Merchants Coal Co.																						
Merchants No. 2,	Somerset,	1	....	....	50	.....	.....	.....	6	.....	3	.....	60	1	....	1	3	.....	1	6	12	72
Merchants No. 3,	Somerset,	1	....	....	.....	6	50	6	7	2	7	.....	79	....	....	1	.....	.....	1	4	6	85
Totals and averages,		2	....	....	50	6	50	6	13	2	10	.....	139	1	....	2	3	.....	2	10	18	157
United Coal Co.																						
United,	Allegheny,	1	....	....	42	6	70	6	12	3	.....	16	156	1	....	2	2	.....	1	11	17	173
Lake Shore Gas Coal Co.																						
Dravo,	Allegheny,	1	....	....	92	4	.....	4	8	3	3	.....	115	1	....	2	1	.....	1	.....	5	120

Brown & Cochran. Nellie,	Fayette,	1	1	1	160	.....	.....	.....	13	2	10	.....	188	1	2	4	4	80	2	12	105	2.3
J. R. Laughrey & Son. Victoria,	Fayette,	1	....	....	75	2	4	2	7	1	2	.....	94	1	....	2	3	.....	1	.....	7	101
Junlata Coke Co Junlata,	Fayette,	1	....	1	105	.....	.....	.....	14	1	15	.....	137	1	1	3	3	84	1	.....	93	230
James Cochran Sons & Co., Clarissa,	Fayette,	1	1	1	60	.....	.....	.....	7	1	3	1	75	1	1	1	1	30	1	4	39	114
The Continental Coal Co. Glen Maclaren,	Somerset,	1	....	....	98	4	25	4	12	4	2	1	151	1	1	2	4	.....	1	8	17	168
Ursina Coal Mining Co. Ursina Nos. 1 and 2,	Somerset,	1	1	....	67	.....	.....	.....	14	1	24	.....	108	1	1	2	.....	.....	2	33	39	147
Marietta & Stillwagon. B. & O.,	Fayette,	1	....	....	15	.....	.....	.....	1	.....	1	.....	18	1	....	.....	1	.....	1	.....	3	21
John Meager. Grassy Run,	Somerset,	1	....	....	43	.....	.....	.....	10	2	.....	.....	56	....	....	1	.....	.....	3	.....	4	60
Grace Coal Co. Grace,	Somerset,	1	1	....	50	.....	.....	.....	4	1	2	.....	59	1	1	.....	1	.....	1	2	6	65
W. A. Merrill & Walker. Ponfeigh,	Somerset,	1	....	....	85	.....	.....	.....	5	2	2	.....	95	1	....	3	1	.....	1	1	7	102
Stoner Coal Co. Berlin,	Somerset,	1	....	....	30	.....	.....	.....	2	.....	.....	.....	33	1	1	.....	.....	.....	.....	.....	2	35
Galloway & Clayton. Fairview,	Somerset,	1	....	....	33	.....	.....	.....	3	.....	1	.....	38	1	....	1	....	.....	1	1	4	42
Pen Mar Coal Co. Standard Nos. 1 and 3,	Somerset,	1	1	....	66	.....	.....	.....	8	.....	4	.....	80	1	1	1	.....	.....	.....	2	5	85
Lang Coal and Sand Co. Basil,	Fayette,	1	...	....	8	.....	.....	.....	1	.....	.....	.....	10	..	...	.....	....	.....	1	1	2	12
Fred Rowle. Mystic,	Somerset,	1	1	....	22	.....	.....	.....	2	.....	2	.....	28	....	....	1	.....	.....	2	.....	2	70
Marietta Coal Co Marietta,	Fayette,	1	....	....	21	.....	.....	.....	2	.....	2	.....	26	1	1	.. ..	.....	.....	2	1	5	31
Glassport Coal Co. Glassport,	Allegheny,	1	....	....	15	.....	.....	.....	2	...	2	....	20	1	1	.....	.....	.....	1	....	3	23

TABLE III—Continued.

Name of Operators and Collieries.	County.	Occupations of Persons Employed Inside.													Occupations of Persons Employed Outside.									Grand total inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Bookkeepers and clerks.	All other employes.	Total outside.	
Southern Coal Co.																								
Southern No. 1,	Somerset,	1	....	...	15	.....	.....	.....	1	.....	.....	.....	17	....	....	1	.....	.....	.....	1	2	19
Southern No. 2,	Somerset,	....	....	....	10	.....	.....	.....	1	.....	.....	.....	11	....	....	1	.....	.....	.....	.....	1	12
Totals and averages,	Somerset,	1	....	...	25	.....	.....	.....	2	.....	.....	.....	28	...	....	2	.....	.....	.....	1	3	31
Rockwood Coal Co.																								
Rockwood,	Somerset,	1	....	....	12	.....	.....	.....	1	.....	1	.....	15	1	....	1	.....	.....	.....	2	4	19
Kendall Coal Co.																								
Kendall,	Fayette,	1	....	....	15	.....	.....	.....	2	.....	1	.....	19	....	1	1	.....	.....	1	.....	3	22
Blaine Coal Co.																								
Blaine,	Allegheny,	1	....	....	.....	2	14	.....	3	.....	4	.....	24	2	1	1	4	.....	1	30	39	63
Viaduct Mining Co.																								
Darlington,	Somerset,	1	....	....	7	.....	.....	.....	1	.....	.....	.....	9	1	....	.....	.....	.....	.....	1	2	11
Grand totals,		76	18	62	5,502	145	1,787	130	703	127	486	362	9,413	40	51	171	210	1,757	94	831	3,163	12,576

TABLE III—Continued.

Names of Operators.	County.	Number of Days Worked in Each Month.												
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Pittsburg Coal Co.,	Allegheny, Westmoreland and Fayette.	18.3	15	17	11.2	23.2	24	23.1	23	20	23.3	20.1	22	248
H. C. Frick Coke Co.,	Fayette,	23	21	23	23.5	25.5	25	27	26	26	25	22	23	289
Somerset Coal Co.,	Somerset,	.....	14.5	18.2	16	19.5	19	19	17	17.5	21	18	18.4	196
Washington Coal and Coke Co.,	Fayette,	25	23	25	25	27	24	25	25	24.1	26	25	25	300.33
Cambria Steel Co.,	Fayette,	23	24	26	26	27	25	21	26	26	27	25	26	266.33
W. J. Rainey,	Fayette,	25.5	22.5	25.5	26	26.3	25.5	26	26	25.25	27	24.1	25.5	308.25
Mon. River Con. Coal and Coke Co.,	Allegheny,	10	9.25	16.25	17	18.25	11	15	24	13	13.5	17	7	117.5
W. K. Niver & Co.,	Somerset,	19	12	.....	.....	17	20	14.5	16.5	17	22	22.1	17.1	184.5
Dunbar Furnace Co.,	Fayette,	26.5	24	26	26	26	25.5	26	26	26	27	24	26	309
Jas. W. Ellsworth Coal Co.,	Allegheny,	22	15	18	23	26	25	26	24	20	25	18	21	263
Merchants Coal Co.,	Somerset,	23	20	19	19.5	19.5	20	20	17	16	19	8	11.5	212.5
United Coal Co.,	Allegheny,	19	21	20	18	17	19	20	16	18	21	22	19	230
Lake Shore Gas Coal Co.,	Allegheny,	21	14	19	20	24	21	23	22	14	22	21	21	242
Brown & Cochran,	Fayette,	27	24	26	26	27	25	26	26	26	27	24	24	308
J. R. Laughrey & Son,	Fayette,	27	24	26	26	27	25	26	26	26	27	24	24	308
Juniata Coke Co.,	Fayette,	27	24	26	26	27	25	26	26	26	27	24	26	310
James Cochran Sons & Co.,	Fayette,	26	24	26	26	27	25	26	26	26	27	24	25	308
The Continental Coal Co.,	Somerset,	22	16	15	15	22	23	24	16	17	17	12	14	213
Ursina Coal Mining Co.,	Somerset,	21	20	6	23	23	21	21	24	22	23	21	23	248
Marietta & Stillwagon,	Fayette,	31	28	31	30	31	30	31	31	30	31	30	31	365
John Meager,	Somerset,	22	20	19	20	20	19	22	18	20	20	13	12	225
Grace Coal Co.,	Somerset,	21	13	14	21	22	20	16	20	24	21	18	19	229
W. A. Merrill & Walker,	Somerset,	23	14	20	25	21	24	21	20	24	20	19	19	253
Stoner Coal Co.,	Somerset,	25	3	15	24	24	25	23	25	23	24	24	25	260
Galloway & Clayton,	Somerset,	27	22	19	18	14	20	21	19	20	19	15	16	230
Pen Mar Coal Co.,	Somerset,	.....	.....	.....	.....	.....	.....	20	17	23	23	19	22	124
Lang Coal and Sand Co.,	Fayette,	26	24	26	26	27	25	26	26	25	26	25	26	308
Fred Rowle,	Somerset,	.....	.....	3	14	15	18	12	14	14	14	10	18	132
Marietta Coal Co.,	Fayette,	27	24	26	26	27	25	27	26	26	27	26	27	311
Glassport Coal Co.,	Allegheny,	25	24	26	24	23	26	26	26	26	25	23	26	300
Southern Coal Co.,	Somerset,	18	30	26	28	7	9	10	.....	.....	21	20	24	193

TABLE III—Continued.

Names of Operators.	County.	Number of Days Worked in Each Month.												
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Rockwood Coal Co.,	Somerset,	23	22	24	22	23	24	23	25	23	24	22	23	280
Kendall Coal Co.,	Fayette,	.....	.....	.....	.....	.....	.....	.....	.....	.....	15	21	21	57
Blaine Coal Co.,	Allegheny,	.....	.....	.....	.....	.....	.....	12	25	25	26	24	25	137
Viaduct Mining Co.,	Somerset,	18	8	22	13	17	22	15	20	20	24	18	23	220
Grand totals,	.....	1,501	2,607	2,371	2,742	901	800	1,225	470	369	618	2,727	2,023	*184.54

*Average 257.

TABLE IV—List of fatal accidents that occurred in and about the mines of the Ninth Bituminous District for the year ending December 31, 1902.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 8	John E. Carlson, ...	Swede, ...	Miner, ...	55	M.	1	2	Whittset, ...	Fayette,.....	Instantly killed by fall of slate.
15	W. H. Packer, ...	Welsh, ...	Miner, ...	55	S.	....	....	Ponfeigh, ...	Somerset,.....	Fatally injured by fall of roof in room; died two days after.
Feb. 7	Mike Pete, ...	Slav, ...	Miner, ...	26	S.	....	....	Trotter, ...	Fayette,.....	Instantly killed by fall of roof on stumps.
22	John Swickey, ...	German, ...	Driver, ...	33	M.	1	4	Wick Haven, ...	Fayette,.....	Instantly killed by being run over by cars.
26	Antonia Lemel, ...	Pole, ...	Miner, ...	35	M.	1	....	Pen Mar, ...	Somerset,.....	Killed by falling down furnace shaft.
Mar. 3	John Stemburg, ...	American, .	Driver, ...	18	S.	....	....	Darr, ...	Westmoreland,	Instantly killed by cars.
4	James Marks, ...	American, .	Miner, ...	31	M.	1	3	Coal Brock, ...	Fayette,.....	Killed by fall of roof coal.
4	George Hibek, ...	Slav, ...	Miner, ...	20	S.	....	....	Atlas, ...	Fayette,.....	Instantly killed by fall of roof.
14	John Gidosh, ...	Slav, ...	Miner, ...	37	M.	1	3	Leisenring No. 3.	Fayette,.....	Killed by a fall of roof coal and slate.
17	Steve Pahalo, ...	Slav, ...	Miner, ...	35	M.	1	2	Elm Grove, ...	Fayette,.....	Killed by a fall of coal.
17	Martin Greglak, ...	Slav, ...	Miner, ...	47	M.	1	....	Trotter, ...	Fayette,.....	Killed by a fall of roof.
18	Peter Cook, ...	American, .	Miner, ...	49	M.	1	4	Elm Grove, ...	Fayette,.....	Killed by a fall of coal and slate.
27	Robert Ezzet, ...	American, .	Driver, ...	20	S.	....	....	Elk Lick No. 2, .	Somerset,.....	Killed by cars.
April 24	Guiseppe Menncardi,	Italian, ...	Miner, ...	35	M.	1	2	Ocean No. 2, ...	Allegheny,.....	Killed by a fall of slate.
May 1	Mike Rusenack, ...	Slav, ...	Miner, ...	21	S.	....	....	Ferguson, ...	Fayette,.....	Killed by a fall of slate and coal
5	Steve Chalekoski, ..	Slav, ...	Cager, ...	20	S.	....	....	Leisenring No. 3.	Fayette,.....	Instantly killed by the cage while passing under it.
16	Mike Dienes, ...	Hungarian,	Miner, ...	32	S.	....	....	Banning No. 1, .	Fayette,.....	Killed by a fall of coal.
17	Thos. H. McGowen,.	American, .	Miner, ...	19	S.	....	....	Brown's No. 2, .	Allegheny,.....	Killed by a fall of slate.
24	Charles Bondas, ...	Hungarian,	Miner, ...	42	M.	1	5	Leisenring No. 1.	Fayette,.....	Killed by haulage motor.
31	Mike Stymar, ...	Slav, ...	Miner, ...	25	S.	....	....	Elm Grove, ...	Fayette,.....	Killed by a fall of slate.
31	Samuel Miller, ...	American, .	Miner, ...	29	M.	1	....	Summit, ...	Somerset,.....	Fatally injured by falling down shaft; died August 23.
June 7	George Sentimyer, ..	American, .	Superintendent,	44	M	1	7	Washington No. 1	Fayette,.....	Instantly killed at bottom of shaft by the cage.
10	Tim Maloney, ...	Italian, ...	Miner, ...	35	M.	1	....	Dravo, ...	Allegheny,.....	Killed by a fall of slate.
12	John Oswakas, ...	Pole, ...	Miner, ...	33	M.	1	1	Wick Haven, ...	Fayette,.....	Killed by a fall of slate.
19	Daniel Poser, ...	Hungarian,	Miner, ...	22	S.	....	....	Brown's No. 2, .	Allegheny,.....	Killed by a fall of slate.
26	John Bisoskie, ...	Hungarian,	Miner, ...	51	M.	1	2	Southern No. 2, .	Somerset,.....	Killed by a fall of coal and slate.
27	John Lavalance, ...	Slav, ...	Miner, ...	36	M.	1	5	Banning No. 2, ..	Fayette,.....	Killed by electric shock.
July 8	Joseph Wagner, ...	German, ...	Miner, ...	14	S.	....	....	Allegheny, ...	Somerset,.	Instantly killed by a fall of coal.
25	Andy Tipotach, ...	Austrian, ..	Miner, ...	38	M.	1	1	Furnace, ...	Fayette,.....	Instantly killed by fall of coal.

TABLE IV—Continued.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Aug. 18	Frank Cesar, ...	Austrian, ..	Miner, ...	42	M	1	2	W. Newton shaft,	Westmoreland,	Fatally injured by fall of slate.
28	Joseph Shultz, ...	Pole, ...	Miner, ...	42	M	1	5	Davidson shaft,..	Fayette,.....	Instantly killed by a fall of roof.
Sept. 22	Paselo Sena, ...	Italian, ...	Laborer, ...	49	S.	....	....	Brown's No. 2, .	Allegheny,.....	Instantly killed by a tail rope.
Oct. 15	Charles Trumpoc, ..	Hungarian,	Miner, ...	55	M	1	4	Whittset, ...	Fayette,.....	Instantly killed by a fall of coal.
20	John Noko, ...	Hungarian,	Miner, ...	30	M	1	2	Leisenring No. 3,	Fayette,.....	Instantly killed by the cage.
Nov. 5	Michael Smith, ...	Slav, ...	Miner, ...	35	M	1	1	Southern No. 1,..	Somerset,.....	Instantly killed by fall of coal.
15	Mike Kakala, ...	Slav, ...	Driver, ...	27	S.	....	....	Nellie, ...	Fayette,.....	Instantly killed between wagons.
28	Mike Kohut, ...	Russian, ...	Miner, ...	40	M.	1	5	United, ...	Allegheny,.....	Instantly killed by a fall of roof.
Dec. 12	Enoch Johnston, ...	American, .	Miner, ...	44	M	1	3	Darr, ...	Westmoreland,..	Instantly killed by a fall of slate.

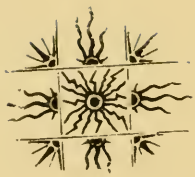
TABLE V—List of non-fatal accidents that occurred in and about the mines of the Ninth Bituminous District for the year ending December 31, 1902.

Date of accident.		Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan.	1	George Bayley,	American,	Miner,	35	S.	Whittset,	Fayette,	Leg broken by a fall of slate.
	6	Harry Bingman,	American,	Miner,	20	M.	Hamilton,	Somerset,	Leg and arm broken by a fall of slate.
	8	Martin Zardaric,	Austrian,	Miner,	33	M.	Brown's No. 2,	Allegheny,	Jaw bone broken by a fall of slate.
	10	Eugine Winterhalter,	German,	Driver,	22	S.	Henry Clay,	Fayette,	Injured by wagon against rib.
	14	Robert Phineeld,	American,	Driver,	18	S.	Casselman,	Somerset,	Injured by a fall of slate.
	15	Simon Elsher,	American,	Miner,	22	S.	Pinleigh,	Somerset,	Leg broken by a fall of roof.
	21	William Fairchild,	American,	Trip rider,	28	S.	Victoria,	Fayette,	Both legs broken by a rope; it slipped from sheave.
	25	John McDermett,	Irish,	Miner,	55	S	Forrest Hill,	Allegheny,	Arm broken by a fall of slate.
	30	William H Muse,	American,	Miner,	37	M	Summit,	Somerset,	Leg broken by a fall of slate.
	31	George Vilk,	Slav,	Miner,	30	M.	Allegheny,	Somerset,	Injured by a fall of slate.
Feb.	6	Lewis Barnallie,	Italian,	Miner,	45	M.	Forrest Hill,	Allegheny,	Leg broken by slate while knocking a post out.
	8	John Castrovia,	Austrian,	Miner,	20	S.	Southern No. 2,	Somerset,	Badly injured by a fall of slate.
	12	Fritz Selbt,	German,	Miner,	48	M.	Lovedale,	Allegheny,	Pelvis bone broken and otherwise injured by fall of slate.
	13	Peter Macelb,	Slav	Miner,	35	S.	Leisenring No. 1,	Fayette,	Leg broken and scalp wound by fall of roof
	15	Mike Shuron,	Slav	Miner,	30	M.	Fort Hill,	Fayette,	Leg broken by fall of coal and slate.
Mar.	7	Thomas Fair,	American,	Driver,	29	M.	Elk Lick No. 2,	Somerset,	Collar bone broken; caught between wagon and rib.
	10	Charles A Hubbs,	American,	Engineer,	72	S.	Juniata,	Fayette,	Leg broken by stepping from the cage before it landed
	17	Joseph Cobolinoka,	Pole,	Miner,	30	M.	Ocean No. 2,	Fayette,	Leg broken by a fall of slate.
	24	Andrew Nicolas,	American,	Miner,	20	S.	Glen Maclaren,	Somerset,	Leg broken by a fall of bone coal.
	26	Joseph Bouling,	American,	Ma hine man,	19	S.	Brown's No. 2,	Allegheny,	Leg and arm broken by cars.
	26	Archy Reed,	American,	Miner,	36	M	Furnace Mine,	Fayette,	Collar bone broken by being knocked off cars.
	26	Charles Suder,	American,	Miner	22	S	Belle Bridge,	Allegheny,	Body injured by a fall of slate.
	28	Dock Macraken,	American,	Miner,	45	M	Belle Bridge,	Allegheny,	Body injured by a fall of slate.
	31	John Holed,	Slav,	Fireman,	30	M	Wick Haven,	Fayette,	Leg broken by wagon knocking out a post on the dump, outside.
April	3	W H Hersh,	American,	Miner,	45	M.	Chapman,	Somerset,	Injured by a fall of horse-back roof
	10	Nat Hayes,	English,	Miner	30	M	Wick Haven,	Fayette,	Leg broken by a fall of slate.
	11	John Borass,	English,	Driver,	20	S.	Leisenring No. 3,	Fayette,	Arm broken by a wagon running over it.

TABLE V--Continued.

Date of accident.		Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
May	2	Charles Ritner, ...	American, .	Driver, ...	19	S.	Summit, ...	Somerset,.....	Badly injured by falling down shaft.
	6	John Mivotony, ...	Slav, ...	Miner, ...	25	M.	Perry, ...	Fayette,.....	Injured by a fall of slate.
	6	Thomas F. Morgan, ...	Irish, ...	Driver, ...	27	M.	Leisenring No. 3, ...	Fayette,.....	Hip dislocated by cars.
	8	John Trumpey, ...	American, .	Driver, ...	21	S.	Elk Lick No. 2, ...	Somerset,.....	Injured by being caught between wagon and rib.
	8	John Lindiman, ...	American, .	Miner, ...	38	S.	Elk Lick No. 2, ...	Somerset,.....	Burned by powder.
	12	Mike Zarina, ...	Slav, ...	Miner, ...	28	S.	West Newton shaft,	Westmoreland,.	Leg broken by a fall of slate.
	20	Mike Wassal, ...	Pole, ...	Miner, ...	32	S.	Allegheny, ...	Somerset,.....	Badly injured by fall of coal.
	20	Domenic Bease, ...	Italian, ...	Miner, ...	26	S.	Nellie, ...	Fayete,.....	Leg broken by cars.
	22	August Gurter, ...	American, .	Driver, ...	17	S.	West Newton shaft,	Westmoreland,.	Foot broken by cars.
	24	Joseph Samber, ...	Pole, ...	Miner, ...	22	S.	Merchants' No. 2, ..	Somerset,.....	Leg broken by fall of coal.
	27	Thomas Pill, ...	American, .	Miner, ...	20	S.	Enterprise No. 1, ...	Somerset,.....	Leg broken by fall of slate.
	29	Robert Thompson, ...	American, .	Driver, ...	50	S.	Nellie, ...	Fayette,.....	Leg broken by cars.
June	2	Robert Thompson, ...	English, ...	Driver, ...	50	M.	Nellie, ...	Fayette,.....	Leg broken by cars.
	6	Thomas F. Morgan, ...	Irish, ...	Driver, ...	27	M.	Leisenring No. 3, ...	Fayette,.....	Hip dislocated by cars running off the track.
	10	John Skovron, ...	Pole, ...	Miner, ...	27	S.	Rockwood, ...	Somerset,.....	Injured by a fall of slate.
	12	John Spodacini, ...	Italian, ...	Miner, ...	25	M.	Banning No. 1, ...	Fayette,.....	Leg broken by a fall of slate.
	13	Mike Jean, ...	Slav, ...	Miner, ...	29	M.	Forrest Hill, ...	Allegheny,.....	Head badly injured by a fall of slate.
	19	George Vercharki, ...	Pole, ...	Miner, ...	30	M.	Forrest Hill, ...	Allegheny,.....	Badly injured by fall of coal.
	19	Frank Livengood, ...	American, .	Miner, ...	27	M.	Merchants' No. 2, ..	Somerset,.....	Injured by fall of coal striking a post.
	23	Luke Cullen, ...	Irish, ...	Trip rider, ...	17	S.	Leisenring No. 3, ...	Fayette,.....	Hip dislocated by engine against rib.
	28	Mathew Fan, ...	American, .	Miner, ...	36	M.	Merchants' No. 2, ..	Somerset,.....	Arm broken by fall of coal.
July	3	Linton Mate, ...	Hungarian,	Miner, ...	25	S.	West Newton shaft,	Westmoreland,.	Three toes cut off by a fall of slate.
	18	Charles Gatehouse, ...	American, .	Driver, ...	24	M.	Pen Mar, ...	Somerset,.....	Arm broken by being caught under trip.
	19	Gomer Williams, ...	American, .	Laborer, ...	13	S.	Allegheny, ...	Somerset,.....	Spine dislocated by falling from car, outside.
	25	John Visey, ...	Hungarian,	Driver, ...	31	S.	Leisenring No. 3, ...	Fayette,.....	Arm and rib broken by two drivers colliding.
	28	Steve Clombaus, ...	Slav, ...	Miner, ...	21	S.	Nellie, ...	Fayette,.....	Leg broken by a fall of slate.
Aug.	18	Demetmus Bisil, ...	American, .	Miner, ...	56	M	Elk Lick No. 1 ,....	Somerset,.....	Scalp wound by a fall of coal.
	18	Thomas Harrison, ...	English, ...	Miner, ...	25	S.	Furnace, ...	Fayette,.....	Foot crushed off by fall of slate.
	28	Emmanuel Haugh, ...	American, .	Laborer, ...	28	M	Darr, ...	Westmoreland,.	Foot cut off by mining machine.
Sept.	4	Stephen Kocir, ...	Slav, ...	Miner, ...	21	S.	Atlas, ...	Fayette,.....	Thigh fractured by fall of coal.
	29	William Bach, ...	American, .	Miner, ...	37	M.	Lovedale, ...	Allegheny,.....	Arm broken by cars.

	30	Thomas Burke,	American,	Miner,	25	S.	Cassetman,	Somerset,	Collar bone broken by a piece of coal.
Oct.	16	Steve Brabec,	Slav,	Miner,	18	S.	Fort Hill	Fayette,	Leg broken by a fall of roof.
	20	John Babby,	Slav,	Miner,	25	S.	Banning No. 1,	Fayette,	Leg broken by a fall of slate.
	21	Fred Middleton,	American,	Driver,	23	S.	Elm Grove,	Fayette,	Collar bone dislocated by cars.
	21	Charles McIntyre,	American,	Driver,	19	S.	Trotter,	Fayette,	Injured by running against wagon.
	22	John Burglaurzlones,	Russian,	Miner,	42	M.	West Newton shaft,	Westmoreland,	Body badly injured by slate.
	28	John Vataha,	Hungarian,	Miner,	32	M.	Wash. Run No. 2,	Fayette,	Leg broken by a fall of roof.
Nov.	12	Michael Vana,	Slav,	Miner,	24	S.	Nellie,	Fayette,	Collar bone broken by fall of roof.
	13	William Harding,	American,	Driver,	23	S.	Mahoning,	Fayette,	Small bone of leg broken by a wagon.
	17	Harry Darenta,	Italian,	Miner,	27	M.	Dravo,	Allegheny,	Injured by a fall of slate.
	24	John Koski,	Austrian,	Miner,	15	S.	West Newton shaft,	Westmoreland,	Leg broken by a fall of slate.
	29	Andrew Plsko,	Austrian,	Miner,	43	M.	West Newton shaft,	Westmoreland,	Leg broken by a fall of slate.
Dec.	2)	Mark Omlan,	Pole,	Miner,	38	M.	Ocean No. 5,	Allegheny,	Arm broken by a fall of slate.



Tenth Bituminous District.

BEDFORD, BLAIR, CAMBRIA, HUNTINGDON AND INDIANA COUNTIES.

Altoona, Pa., March 24, 1903.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.

Sir: I have the honor of submitting my annual report for the year 1902. There were 121 mines in operation during the year; an increase of 14 over last year. So great was the demand for coal during the year that old mines which had been abandoned many years ago as being unprofitable, were again put in operation. Two mines were abandoned during the year, the coal having been worked out.

The total production of coal for 1902 was 6,680,786 tons, an increase of 1,658,441 over the preceding year.

The number of accidents that occurred during the year was 67. Of this number 24 were fatal; leaving 18 widows and 48 orphans. There were three accidents, each resulting in the loss of two lives. Four lives were lost in opening new mines before any coal was shipped from them. From careful investigation I find that 29 per cent. of the fatal accidents were unavoidable, while 71 per cent. were due to carelessness on the part of the victims themselves.

It is sad to think that men will risk their lives in disobeying the law which was enacted for their own protection; but such is the case, and to reduce the number of accidents, a more rigid discipline must be maintained by mine foremen in charge of the lives and safety of those employed in and about the mines.

The report includes the annual tables on production, classification of labor, accidents, machine mining, ventilations, etc.

All of which is respectfully submitted.

JOSEPH WILLIAMS,
Mine Inspector.

Summary of Statistics for 1902.

Number of mines in district,	121
Number of mines in operation during 1902,	121
Number of tons of coal produced,	6,680,786
Number of tons shipped to market,	5,829,220
Number of tons sold at mines to local trade,	42,645
Number of tons consumed at mines in generating steam and heat,	101,956
Number of coke ovens in the district,	1,767
Number of coke ovens in operation during 1902,	1,767
Number of tons of coke produced,	534,366
Number of tons of coal used in manufacture of coke,	748,112
Number of tons produced by pick mining,	3,611,212
Number of tons produced by compressed air machines,	1,814,001
Number of tons produced by electrical machines,	1,255,573
Number of persons employed inside the mines,	9,232
Number of persons employed outside, including coke workers,	1,561
Number of persons employed at manufacture of coke,	583
Number of fatal accidents inside the mines,	23
Number of tons produced for each fatal accident inside,	290,469
Number of persons employed per fatal accident inside,	401.4
Number of fatal accidents outside,	1
Number of persons employed per fatal accident outside,	1,561
Number of wives made widows by fatal accidents,	18
Number of children orphaned by fatal accidents,	48
Number of non-fatal accidents inside of mines,	40
Number of persons employed per non-fatal accident inside,	230.8
Number of non-fatal accidents outside,	3
Number of persons employed per non-fatal accident outside,	520.3
Number of electric motors used inside,	30
Number of fans used for ventilation,	57
Number of furnaces used for ventilation,	40
Number of gaseous mines in operation during 1902,	1
Number of non-gaseous mines in operation during 1902,	120
Number of new mines opened in 1902,	14
Number of old mines abandoned during 1902,	2

A. Production of Coal During the Year 1902.

Names of Companies.	Tons.
Beech Creek Coal and Coke Co.,	930,445
Webster Coal and Coke Co.,	793,425
Barnes & Tucker,	385,345
Altoona Coal and Coke Co.,	313,905
Rockhill Iron and Coal Co.,	227,248
Empire Coal Company,	204,023
Sterling Coal Co.,	196,200
Maderia Hill Coal Mining Co.,	188,505
Cresson and Clearfield Coal and Coke Co.,	185,808
Crescent Coal Mining Co.,	177,246
John Langdon,	125,609
Pennsylvania Coal and Coke Company,	225,543
W. H. Sweet,	81,376
Morrisdale Coal Co.,	57,075
Colonial Iron Co.,	122,213
Huntingdon Coal Company,	25,586
Jones & Tappan,	24,113
E. Eichelberger & Co.,	43,116
Walnut Run Coal Mining Co.,	63,545
Cymbria Coal Mining Co.,	85,044
Duncan & Spangler,	120,500
Clearfield Bituminous Coal Corporation,	236,915
Taylor & McCoy,	184,835
Vinton Colliery Co.,	95,095
Oak Ridge Coal and Coke Co.,	89,160
Black Lick Coal Mining Co.,	84,977
E. R. Jackman & Co.,	83,796
Glen White Lumber and Coal Co.,	63,075
Shreeves Run Coal Co.,	62,667
Allport Coal Co.,	117,000
American Union Coal Co.,	52,943
A. J. Black,	29,410
P. J. Gates & Bro.,	40,175
J J. McGonigal,	28,510
Spangler Coal and Coke Co.,	32,923
Rich Hill Coal Co.,	23,503
El Mora Coal Company,	55,100
Bradley & Reed,	50,060
Greenwich Coal and Coke Co.,	37,096
C. D. Reed,	16,136
Kelly & Flanagan,	13,173
Puritan Coal Mining Co.,	19,600

Lincoln Coal Mining Co.,	12,771
Patton Clay Manufacturing Co.,	10,535
S. V. Davis & Co.,	10,477
W. A. Gould & Bro.,	12,283
Coalport Coal Co.,	7,302
Ivory Hill Coal Co.,	6,406
Wm. Parsall,	1,109
Warner Coal Co.,	3,182
Lackawanna Coal and Coke Co.,	111,795
Rembrandt Peale,	274,853
Nant Y Glo Coal Mining Co.,	70,585
Jos. E. Thropp,	64,970
Saxton Furnace Co.,	50,329
Davis Spencer & Co.,	24,654
Deringer Bros.,	21,880
Daugherty Coal Co.,	5,651
Total,	6,680,786

B. Showing the number of fatal and non-fatal accidents inside and outside the mines; number of tons of coal produced per fatal and non-fatal accident inside the mines; number of persons employed inside and outside; and the number employed inside and outside for every fatal and non-fatal accident for each company during 1902.

Names of Companies.	Number of lives lost inside.	Number of lives lost outside.	Total number of lives lost.	Number severely injured inside.	Number severely injured outside.	Total number severely injured.	Tons of coal produced per each life lost inside.	Tons of coal produced per serious injury inside.	Number employes inside of mines.	Number employes outside of mines.	Total number employed.	Number of employes inside for each life lost.	Number of employes inside for each severe injury.	Number of employes outside for each life lost.	Number of employes outside for each severe injury.
Beech Creek Coal and Coke Co.,	2	.....	2	5	.....	5	465,222	186,089	1,159	88	1,247	579	233	.....	.....
Webster Coal and Coke Co.,	1	1	2	5	.....	5	793,425	158,685	937	402	1,339	937	187	402	.....
Barnes & Tucker,	1	.....	1	1	.....	1	385,345	385,345	540	28	568	540	540	.....	.....
Altoona Coal and Coke Co.,	1	.....	1	.....	.....	.....	313,905	.....	429	72	501	429	.....	.....	.....
Cresson and Clearfield Coal and Coke Co.,	1	.....	1	2	.....	2	185,808	92,904	246	13	259	246	123	.....	.....
Rockhill Iron and Coal Co.,	1	.....	1	.....	.....	.....	227,248	.....	316	38	354	316	.....	.....	.....
Sterling Coal Co.,	.....	.....	.....	1	.....	1	.....	196,200	431	25	456	.....	431	.....	.....
Maderia Hill Coal Mining Co.,	.....	.....	.....	2	.....	2	.....	94,252	153	17	210	.....	105	.....	.....
Crescent Coal Mining Co.,	1	.....	1	3	.....	3	177,246	59,082	261	29	290	261	87	.....	.....
John Langdon,	.....	.....	.....	1	.....	1	.....	125,669	138	15	153	.....	138	.....	.....
Pennsylvania Coal and Coke Co.,	2	.....	2	2	1	3	112,771	112,771	438	63	501	219	146	.....	63
W. H. Sweet,	.....	.....	.....	1	.....	1	.....	81,376	129	5	134	.....	129	.....	.....
Jones & Tappan,	2	.....	2	1	.....	1	12,056	24,113	48	6	54	21	48	.....	.....
E. Eichelberger & Co.,	1	.....	1	.....	.....	.....	43,116	.....	65	5	70	65	.....	.....	.....
Cymbria Coal Mining Co.,	.....	.....	.....	1	.....	1	.....	85,044	129	12	141	.....	129	.....	.....
Duncan & Spangler,	.....	.....	.....	1	.....	1	.....	120,500	149	10	159	.....	149	.....	.....
Clearfield Coal Corporation,	.....	.....	.....	1	.....	1	.....	236,915	250	30	280	.....	250	.....	.....
Oak Ridge Coal and Coke Co.,	1	.....	1	1	.....	1	95,095	95,095	79	44	123	.....	79	.....	.....
Black Lick Coal Mining Co.,	.....	.....	.....	.....	1	1	.....	84,377	126	21	147	.....	126	.....	21
E. R. Jackman,	.....	.....	.....	3	.....	3	.....	27,932	114	7	121	.....	38	.....	.....
Glen White Lumber and Coal Co.,	.....	.....	.....	2	.....	2	.....	31,537	88	38	126	.....	44	.....	.....
Shreeve Run Coal Co.,	1	.....	1	.....	.....	.....	62,667	.....	79	8	87	79	.....	.....	.....
Allport Coal Co.,	.....	.....	.....	2	.....	2	.....	58,560	83	7	.....	.....	41	.....	.....
American Union Coal Co.,	1	.....	1	1	.....	1	52,943	52,943	94	12	106	94	94	.....	.....
Greenwich Coal and Coke Co.,	.....	.....	.....	1	.....	1	.....	37,606	51	9	60	.....	51	.....	.....
Conlport Coal Co.,	3	.....	3	.....	.....	.....	7,302	.....	12	8	20	4	.....	.....	.....
Lackawanna Coal and Coke Co.,	4	.....	4	.....	.....	.....	27,904	.....	198	51	249	49	.....	.....	.....

TABLE B—Continued.

Names of Companies.	Number of lives lost inside.	Number of lives lost outside.	Total number of lives lost.	Number severely injured inside.	Number severely injured outside.	Total number severely injured.	Tons of coal produced per each life lost inside.	Tons of coal produced per serious injury inside.	Number employes inside of mines.	Number employes outside of mines.	Total number employed.	Number of employes inside for each life lost.	Number of employes inside for each severe injury.	Number of employes outside for each life lost.	Number of employes outside for each severe injury.
Rembrandt Peale,	.....	.....	.....	1	.....	1	.....	274,853	302	27	329	.....	302	.....	.....
Jos. E. Thropp,	.....	.....	.....	1	.....	1	.....	70,385	106	74	180	.....	106	.....	.....
Saxton Furnace Co.,	.....	.....	.....	.....	1	1	.....	21,880	68	56	124	.....	.....	.....	56
Deringer Bros.,	.....	.....	.....	1	.....	1	.....	.....	29	1	30	.....	29	.....	.....
Totals and averages,	23	1	24	40	3	43	240,469	167,020	9,232	1,561	10,793	401.4	230.8	1,561	520.3

C. Classification of Fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						Grand total.
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling Into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total Inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
February,			2													2							2
March,				1												1							1
April,	1															1							1
June,	1		1													2							2
July,			1													1							1
August,				1				1								2							2
October,			3	2												5							5
November,	2		1					3								6				1		1	7
December,			3													3							3
Totals,	4		11	4				4								23				1		1	24

D. Classification of Non-fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
January,	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
February,	1	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
March,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
April,	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
May,	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	4
June,	3	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	4
July	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
August,	3	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	1	2	.....	.....	.....	3	8
September,	2	1	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	5
October,	1	.....	3	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	7	.....	.....	.....	.....	.....	.....	7
November,	3	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	4
December,	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
Totals,	14	1	10	11	.....	.....	1	2	.....	.....	.....	.....	.....	.....	1	40	1	2	.....	.....	.....	3	43

E. Occupations of Employes Killed or Fatally Injured Inside and Outside the Mines of the Tenth Bituminous District During 1902.

Months.	Inside.												Outside.								Grand total.
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total Inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
February,	....	....	....	2	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....	....	2
March,	1	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	1
April,	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	1
June,	....	....	....	2	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....	....	2
July,	....	....	....	1	1	....	....	....	....	....	....	2	....	....	....	....	....	....	....	....	2
August,	....	1	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	1
October,	....	....	....	5	....	....	....	....	....	....	....	5	....	....	....	....	....	....	....	....	5
November,	....	....	....	6	....	....	....	....	....	....	....	6	....	....	....	....	....	....	....	....	6
December,	....	....	....	3	....	....	....	....	....	1	....	4	....	....	....	....	....	....	....	....	4
Totals	1	1	....	19	1	....	....	....	....	1	....	23	....	1	....	....	....	....	....	1	24

F. Occupations of Employes Severely Injured Inside and Outside the Mines of the Tenth Bituminous District During 1902.

Months.	Inside.												Outside.								Grand total.
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
January,				2								2									2
February,				2						1		3									3
March,				1								1									1
April,								2	1			3									3
May,				1				2	1			4									4
June,				3						1		4									4
July,				1								1									1
August,				2		2		1				5				2			1	3	8
September,				5								5									5
October,				4			1	1	1			7									7
November,				4								4									4
December,				2								2									2
Totals,				27		2	1	6	2	2		40				2			1	3	43

G. Nationality of Employes Killed or Fatally Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Irish.	Poles.	Hungarians.	Italians.	Slavs.	Lithuanians.	Russians.	Belgians.	Total.
February,									1	1	2
March,		1									1
April,							1				1
June,	1							1			2
July,	1										1
August,	1			1							2
October,		2	1		3						6
November,	2					2	2	1			5
December,	1			1							4
Totals,	6	3	1	2	3	2	3	2	1	1	24

H. Nationality of Employes Severely Injured Inside and Outside the Mines During 1902.

	Americans.	Welsh.	Scotch.	Irish.	Poles.	Italians.	Slavs.	Austrians.	Swedes.	French.	Totals.
January,	1						1				2
February,	2								1		3
March,					1						1
April,	1			1							2
May,	3							1			4
June,		1		1	1	1					4
July,						1					1
August,	5		1				1		1		8
September,	3						1	1			5
October,			3				2			2	7
November,	2	1					1				4
December,					1	1					2
Totals,	17	2	4	2	3	3	6	2	2	2	41

I. Giving names of operators and mines, kind of openings, type and size of fans; size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quanaity of air produced for each employe per minute in Tenth Bituminous District for the year 1902.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Beech Creek Coal and Coke Co.														
Pardee No. 3,	Drift,	Non-gas.	Fan,	7 x 2.5	1.00	Brazil,	Steam,		3	31,500	25,000	31,300	125	250
Pardee No. 4,	Drift,	Non-gas.	Fan,	7 x 1.5	.75	Stine,	Steam,			40,000		40,100	75	500
Pardee No. 5,	Slope,	Non-gas.	Fan,	7 x 1.5	.75	Stine,	Steam,		2	27,000	19,000	26,950	117	200
Pardee No. 6,	Drift,	Non-gas.	Fan,	7 x 1.5	.75	Stine,	Air,		2	21,000	17,000	20,990	76	220
Pardee No. 7,	Slope,	Non-gas.	Fan,	12 x 1.6	.85	Stine,	Steam,		2	46,400	35,000	47,000	128	300
Flanagan No. 8,	Drift,	Non-gas.	Fan,	7 x 1.5	.75	Stine,	Steam,		4	62,000	36,000	63,000	261	150
Columbia No. 12,	Drift,	Non-gas.	Fan,	7 x 1.5	.75	Stine,	Steam,			40 000		42,000	159	200
Moshannon No. 13,	Drift,	Non-gas.	Fan,	12 x 3.5	1.25	Brazil,	Steam,					20,300	142	150
Ashcroft No. 14,	Drift,	Non-gas.	Furnace,					20	2	8,400	2,080	18,000	76	50
Webster Coal and Coke Co.														
Webster No. 9,	Shaft,	Non-gas.	Fan,	8 x 3	1.00	Brazil,	Steam,			22,400		22,450	122	150
Webster No. 10,	Slope,	Non-gas.	Fan,	7 x 1.6 / 20 x 5	.75 / 2.5	Stine, / Guibal,	Electric,		4	80,000	50,000	75,000	325	150
Webster No. 11,	Drift,	Non-gas.	Fan,	7 x 1.6	.75	Stine,	Electric,		3	22,680	21,000	23,000	104	200
Webster No. 12,	Drift,	Non-gas.	Fan,	7 x 1.6	.75	Stine,	Electric,		2	32,500	32,000	32,000	149	200
Webster No. 13,	Slope,	Non-gas.	Fan,	7 x 1.6	.75	Stine,	Electric,			20,900		21,000	75	250
Webster No. 14,	Drift,	Non-gas.	Fan,	7 x 1.6	.75	Stine,	Steam,			14,236		23,840	63	200
Webster No. 7,	Drift,	Non-gas.	Fan,	7 x 1.6	.75	Stine,	Electric,			24,750		24,700	99	175
Cresson and Clearfield Coal and Coke Co.														
Dean No. 8,	Slope,	Non-gas.	Fan,	12 x 3.5	1.25	Brazil,	Steam,		2	29,740	22,000	29,560	140	180
Dean No. 9,	Drift,	Non-gas.	Furnace,										24	
Dean No. 10,	Drift,	Non-gas.	Fan,	12 x 3.5	1.00	Brazil,	Steam,			45,000		45,450	82	400

Barnes & Tucker.															
Lancashire No. 6,	Drift,	Non-gas.	Fan,	16 x 3.5	2.00	Brazil,	Steam,			28,500		28,450	56	300	
Lancashire No. 8,	Slope,	Non-gas.	Fan,						2	30,500	30,400	30,000	136	280	
Lancashire No. 9,	Drift,	Non-gas.	Furnace,					30					30		
Lancashire No 3,	Slope,	Non-gas.	Furnace,										86		
Lancashire No. 7,	Drift,	Non-gas.	Fan,	16 x 3.5	2.00	Brazil,	Electric,			32,000		31,920	144	220	
Lancashire No. 11,	Drift,	Non-gas.	Fan,							22,500		22,600	51	400	
Juniata,	Drift,	Non-gas.	Furnace,					38		16,500		18,500	30	500	
Altoona Coal and Coke Co.															
Delancy,	Drift,	Non-gas.	Fan,	15 x 4.5	2.00	Brazil,	Steam,		5	65,000	42,400	69,000	361	200	
Horseshoe,	Drift,	Non-gas.	Furnace,					45		20,000		20,400	68	200	
Rockhill Iron and Coal Co.															
Robertsdale slope,	Slope,	Non-gas.	Fan,	16 x 4.5	1.00	Brazil,	Steam,		2	63,000	60,000	63,500	201	300	
Woodvale shaft,	shaft,	Non-gas.	Fan,	16 x 4.5	1.00	Brazil,	Steam,		2	32,000	30,000	32,200	115	275	
Empire Coal Co.															
Empire,	Drift,	Non-gas.	Fan,	10 x 2		Stine,	Steam,		3	33,500	25,000	33,400	204	120	
Eclipse,	Drift,	Non-gas.	Furnace,					36		9,240		9,450	40	200	
Sterling Coal Co.															
Sterling No. 1,	Drift,	Non-gas.	Fan,	12 x 4	1.25	Butterman,				21,440		21,000	118	150	
Emma No. 3,	Drift,	Non-gas.	Fan,	7 x 1.5	.75	Stine,				16,000		15,850	144	100	
Emma No. 4,	Drift,	Non-gas.	Furnace,							9,280		9,900	106	450	
Emma No. 5,	Drift,	Non-gas.	Furnace,							20,000		20,050	63	300	
El Mora,	Drift,	Non-gas.	Fan,	7 x 1.5	.75	Stine,				16,450		16,500	83	170	
Crescent Coal Mining Co.															
Crescent No. 1,	Drift,	Non-gas.	Fan,	12 x 3.5	1.00	Brazil,	Steam,			18,600		18,000	67	220	
Crescent No. 2,	Drift,	Non-gas.	Fan,	12 x 3.5	1.00	Brazil,				19,410		19,000	96	200	
Crescent No. 3,	Drift,	Non-gas.	Furnace,					20		4,200		4,310	42	100	
Crescent No. 5,	Drift,	Non-gas.	Fan,							6,270		6,200	31	110	
Crescent No. 7,	Drift,	Non-gas.	Furnace,					15		4,800		3,690	25	130	
John Langdon															
Cambria No. 1,	Drift,	Non-gas.	Natural,							10,000		10,500	64	150	
Chevington No. 1,	Drift,	Non-gas.	Natural,							4,500		4,550	9	300	
Chevington No. 2,	Drift,	Non-gas.	Fan,	6 x 1.5		Disc,	Steam,			11,700		11,900	65	150	
Colonial Iron Co.															
Durham No. 1,	Slope,	Non-gas.	Natural,							10,600		10,300	54	200	
Durham No. 2,	Drift,	Non-gas.	Fan,	12 x 3	1.00	Pioneer,				12,500		12,400	76	110	
Judith,	Drift,	Non-gas.	Fan,	12 x 3	1.00	Pioneer,							40		
W. H. Sweet															
Ocean No. 1,	Drift,	Non-gas.	Natural,							3,000		3,500	15	200	
Ocean No. 2,	Drift,	Non-gas.	Natural,							9,000		9,000	27	300	
Ocean No. 3,	Drift,	Non-gas.	Furnace,					15		3,800		3,700	48	75	
Carbon,	Drift,	Non-gas.	Natural,							4,200		4,000	38	100	
Meyersdale Coal and Coke Co.															
Cunard No. 1,	Shaft,	Non-gas.	Fan,						2	10,800	10,500	10,900	62	160	
Cunard No. 2,	Slope,	Non-gas.	Furnace,	12 x 3	1.00	Pioneer,		25	2	7,800	7,800	7,820	37	200	

TABLE I—Continued.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Lackawanna Coal and Coke Co.														
Lackawanna No. 1,	Drift,	Non-gas.	Fan,	12 x 1.8	.75	Disc,	Electric,		2	28,000	1,700	27,000	91	180
Lackawanna No. 2,	Drift,	Non-gas.	Fan,	6 x 1	.75	Disc,	Electric,						26	
Lackawanna No. 3,	Slope,	Non-gas.	*							29,950		30,000	31	960
Lackawanna No. 4,	Slope,	Non-gas.	*							10,000		10,050	50	200
Oak Ridge Coal and Coke Co.														
Oak Ridge,	Slope,	Non-gas.	Fan,	6 x 2.5	2.5	Robinson,	Steam,			26,500		26,427	79	300
Black Lick Coal Mining Co.														
Big Bend,	Drift,	Non-gas.	Fan,	8 x 1.5	.75	Stine,	Steam,			11,000		9,500	126	75
Spangler Coal and Coke Co.														
Gussie,	Drift,	Non-gas.	Fan,	7 x 1.5	.75	Stine,	Steam,			17,325		17,500	41	400
Taylor & McCoy.														
Gallitzin shaft,	Shaft,	Non-gas.	Fan,	12 x 4	1.00	Brazil,	Steam,		3	30,000	27,000	27,300	223	130
Clearfield Coal Corporation.														
West Branch,	Drift,	Gaseous,	Fan,	10 x 5	3.5	Capell,	Steam,		4	52,000	39,000	53,000	250	200
Allport Coal Co.														
Allport No. 1,	Drift,	Non-gas.	Furnace,		1.00			72	3	22,500	19,400	22,500	83	240
Vinton Colliery Co.														
Vinton,	Drift,	Non-gas.	Fan,	12 x 1.3	.73	Stine,	Steam,			30,000		23,860	117	200
E. R. Jackman & Co.														
Mancher,	Drift,	Non-gas.	Fan,	7 x 1.5	.7	Stine,	Steam,			22,200		22,150	114	150
Glen White L. and C. Co.														
Glen White,	Slope,	Non-gas.	Fan,	10 x 3	1.00	Brazil,	Steam,			15,720		16,000	88	150

*Not installed.

Maderia Hill Coal Mining Co.																	
Manion,	Drift,	Non-gas.	Furnace,							35		17,500		17,400	70	240	
Spangler No. 1,	Drift,	Non-gas.	Furnace,							24		11,886		12,050	77	120	
Spangler No. 2,	Drift,	Non-gas.	Furnace,							45		11,250		11,200	46	200	
Pennsylvania Coal and Coke Co.																	
Pennsylvania No. 1,	Slope,	Non-gas.	Fan,	12	x 4		Brazil,	Steam,		2	47,350	37,300	47,300	153	250		
Pennsylvania No. 3,	Drift,	Non-gas.	Fan,	10	x 1.5	1.00	Stine,	Steam,			16,800		16,500	192	90		
Pennsylvania No. 5,	Drift,	Non-gas.	Fan,	10	x 3.5		Brazil,	Steam,		2	44,000	44,000	44,480	70	570		
Pennsylvania No. 6,	Drift,	Non-gas.	Fan,	7	x 1.4		Stine,	Electric,			23,000		25,000	23	1,000		
Duncan & Spangler.																	
Delta,	Drift,	Non-gas.	Fan,	6	x 3	.75	Pioneer,	Steam,		2	21,805	21,805	22,800	95	150		
Bluebaker,	Drift,	Non-gas.	Furnace,						35		22,000		22,750	54	300		
Cymbria Coal Co.																	
Cymbria No. 1,	Drift,	Non-gas.	Fan,	7	x 1.3	.75	Stine,	Steam,		2	20,900	18,000	21,000	99	200		
Cymbria No. 2,	Drift,	Non-gas.							40		12,600		13,380	28	400		
Rembrandt Peale.																	
Bloom Victor No. 2,	Drift,	Non-gas.	Fan,	7	x 1.3	.75	Stine,	Steam,		3	36,000	29,000	31,000	123	200		
Bloom Victor No. 3,	Drift,	Non-gas.	Furnace,						20		20,000		20,300	50	350		
Bloom Victor No. 4,	Drift,	Non-gas.	Furnace,						36		15,200		19,500	55	250		
Bloom Victor No. 12,	Drift,	Non-gas.	Furnace,						28		9,000		9,000	74	110		
Walnut Run Coal Mining Co.																	
Walnut Run No. 1,	Drift,								48		9,700		9,500	35	300		
Walnut Run No. 2,	Drift,								48		7,700		7,600	39	100		
Puritan Coal Mining Co.																	
Puritan No. 4,	Slope,	Non-gas.	Furnace,						24		7,150		7,100	31	200		
Lincoln Coal Co.																	
Lincoln,	Drift,	Non-gas.	Furnace,						42		11,120		11,100	24	400		
Patton Clay Manufacturing Co.																	
Patton Clay mine,	Shaft,	Non-gas.	Fan,	6	x 2.5		Brazil,							33			
Jos. E. Thropp.																	
Kearney No. 2,	Slope,	Non-gas.	Fan,	8	x 3		Butterman,				33,000		35,000	56	550		
Kearney No. 1,	Drift,	Non-gas.	Fan,								14,600		15,000	50	250		
Saxton Furnace Co																	
Melrose,	Drift,	Non-gas.	Furnace,						42		7,500		8,000	68	110		
Davis & Spencer																	
Van Ormer,	Drift.	Non-gas.	2 furn's						24 36		11,000		18,000	58	300		
Deringer Bros.																	
Susquehanna	Drift	Non-gas.	Furnace						42		7,150		7,100	29	200		
Colbert Coal Co.																	
Superior No. 2,	Drift	Non-gas.	Furnace,						36		10,850		10,870	17	170		

TABLE I—Continued.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Daugherty Coal Co.														
Daugherty,	Drift,	Non-gas.	Natural,							11,000		12,000	11	500
Ivory Hill Coal Mining Co.														
Ivory Hill No. 1,	Drift,	Non-gas.	Furnace,					25		6,500		6,000	31	150
Warner Coal Co.														
Duval,	Slope,	Non-gas.	Fan,	7 x 2.5									27	
Huntingdon Coal Co.														
Delaware No. 1,	Drift,	Non-gas.	Natural,	16 x 4		Brazil,				5,400		5,350	77	75
Delaware No. 2,	Drift,	Non-gas.	Natural,	†						5,400		5,350	42	75
Jones & Tappan.														
Hickes No. 2,	Drift,	Non-gas.	Fan,	6 x 2.5		Pioneer,	Steam,			16,666		16,600	35	500
Shreeve's Run Coal Co.														
Warner,	Drift,	Non-gas.	Furnace,					25		9,100		9,000	79	100
American Union Coal Co.														
Cambria No. 3,	Shaft,	Non-gas.	Fan,	10 x 3.5	1.00	Brazil,	Steam,			26,882		26,500	94	200
A. J. Black.														
Black's,	Drift,	Non-gas.	Furnace,					15		4,200		4,100	50	80
J. P. Gates & Bro.														
Fulton,	Slope,	Non-gas.	Fan,	6 x 2.5		Brazil,	Steam,			17,080		17,000	53	330
J. J. McGonigal.														
Patton No. 3,	Drift,	Non-gas.	Furnace,					30		10,500		10,450	31	250

†Being installed.

Rich Hill Coal Co.															
Rich Hill,	Drift,	Non-gas.	Furnace,					36		16,500		17,000	42	300	
Greenwich Coal and Coke Co.															
Greenwich No. 1,	Drift,	Non-gas.	Furnace,					48		7,700		7,010	46	150	
C. D. Reed.															
Benedict Nos. 1 and 2	Drift,	Non-gas.	Natural,							6,930		6,900	62	100	
Kelly & Flanagan.															
Kelly,	Drift,	Non-gas.	Furnace,					24		5,440		5,400	23	200	
Bradley & Reed.															
Bradley No. 1,	Drift,	Non-gas.	Furnace,					24		7,000		7,500	38	150	
Bradley No. 2,	Drift,	Non-gas.	Natural,							4,675		4,680	50	90	
Bradley No. 3,	Drift,	Non-gas.	Furnace,					30		5,000		5,200	30	100	
W. A. Gould & Bro.															
Black Diamond,	Drift,	Non-gas.	Furnace,					30		10,680		10,120	25	300	
E. Eichelberger & Co.															
Beacon,	Drift,	Non-gas.	Furnace,					42		4,300		5,700	33	150	
Fisher,	Drift,	Non-gas.	Furnace,					42		9,660		11,200	34	250	
S. V. Davis.															
Flinton,	Drift,	Non-gas.	Natural,							3,500		3,520	17	100	
Anderson Coal Co.															
Anderson No. 4,	Drift,	Non-gas.	Natural,							5,450		5,400	10	500	
Nant Y Glo Coal Co.															
Nant Y Glo No. 1,	Drift,	Non-gas.	Fan,	7						20,000		21,000	65	200	
Nant Y Glo No. 2,	Drift,		Furnace,					28		3,412		3,000	30	100	
Sterling No. 10,	Drift,	Non-gas.	Furnace,					24		5,380		5,000	11	300	

J. Names of mines using coal cutting machines, names of machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines during 1902.

	Kind of opening.	Gaseous or non-gaseous.	Name and number of machines in use.							Total machines used.	Power used by machines.	Geological and local name of seam.	Average thickness in inches.	Height of seam in inches.		Approximate number of tons produced by machines.
			Ingersol.	Sullivan.	Harrison.	Jeffrey.	Morgan-Gardner.	Goodman.	Link Belt.					Thickest.	Thinnest.	
Beech Creek Coal and Coke Co.																
Pardee No. 3,	Drift,	Non-gas.	....	....	8	....	....	....	....	8	Compressed air,	C, Prime,	50	54	46	114,000
Pardee No. 5,	Slope,	Non-gas.	....	....	5	....	....	....	....	5	Compressed air,	C, Prime,	42	48	36	71,000
Pardee No. 6,	Drift,	Non-gas.	....	....	3	....	....	....	....	3	Compressed air,	C, Prime,	45	54	36	74,000
Pardee No. 7,	Slope,	Non-gas.	....	....	6	....	....	....	....	6	Compressed air,	C, Prime,	53	54	52	54,000
Flanagan No. 8,	Drift,	Non-gas.	....	....	....	....	....	2	9	11	Compressed air,	C, Prime,	54	56	52	260,000
Columbia No. 12,	Drift,	Non-gas.	....	....	....	2	....	....	2	4	Electric,	C, Prime,	50	56	52	90,000
Moshannon No. 13,	Drift,	Non-gas.	....	....	5	....	....	....	....	5	Compressed air,	C, Prime,	46	50	42	10,000
Webster Coal and Coke Co.																
Webster No. 9,	Shaft,	Non-gas.	....	....	....	6	....	....	....	6	Electric,	E, or Lemon,	50	52	12	9,440
Webster No. 10,	Slope,	Non-gas.	....	....	....	10	3	....	....	13	Electric,	E, or Lemon,	50	54	48	335,087
Webster No. 11,	Drift,	Non-gas.	....	....	....	....	5	....	....	5	Electric,	E, or Lemon,	50	56	48	104,567
Webster No. 12,	Drift,	Non-gas.	....	....	....	....	5	....	....	5	Electric,	D, or Moshannon,	48	55	40	78,077
Webster No. 14,	Drift,	Non-gas.	3	6	....	....	....	....	....	9	Compressed air,	B, or Miller,	48	52	46	31,621
Webster No. 7,	Drift,	Non-gas.	....	....	....	6	....	....	....	6	Electric,	E, or Lemon,	50	54	48	99,770
Pennsylvania Coal and Coke Co.																
Pennsylvania No. 1,	Slope,	Non-gas.	....	....	....	....	4	....	....	4	Electric,	E, or Lemon,	48	50	46	51,359
Pennsylvania No. 3,	Drift,	Non-gas.	....	12	....	....	....	....	....	12	Compressed air,	D, or Moshannon,	50	54	46	101,214
Pennsylvania Nos. 5 and 6,	Drift,	Non-gas.	....	....	....	1	5	....	....	6	Electric,	D, or Moshannon,	44	48	42	8,318
Altoona Coal and Coke Co.																
Delaney,	Drift,	Non-gas.	12	....	....	....	....	....	....	12	Compressed air,	E, or Lemon,	47	46	48	29,778
Barnes & Tucker.																
Lancashire No. 3,	Slope,	Non-gas.	1	....	5	....	....	....	....	6	Compressed air,	D, or Moshannon,	48	52	54	52,525
Lancashire No. 6,	Drift,	Non-gas.	....	....	....	1	....	....	....	1	Electric,	D, or Moshannon,	52	54	50	9,455
Lancashire No. 8,	Slope,	Non-gas.	....	....	....	1	3	....	....	4	Electric,	D, or Moshannon,	52	56	48	85,103

Lancashire No. 7,	Drift,	Non-gas.	....	....	....	2	1	....	....	3	Electric,	D, or Moshannon,	52	56	48	79,298
Lancashire No. 11,	Drift,	Non-gas.	....	....	....	1	....	....	....	1	Electric,	D, or Moshannon,	50	56	45	15,033
Clearfield Coal Corporation.																
West Branch,	Drift,	Gaseous.	....	....	15	....	....	....	....	15	Compressed air,	D, or Moshannon,	48	50	46	202,607
Empire Coal Mining Co.																
Empire,	Drift,	Non-gas.	....	....	11	....	....	....	....	11	Compressed air,	D, or Moshannon,	54	56	52	161,163
Cresson and Clearfield Coal and Coke Co.																
Dean No. 8,	Slope,	Non-gas.	....	10	....	....	....	....	....	10	Compressed air,	E, or Lemon,	36	38	34	24,800
Oak Ridge Coal and Coke Co.																
Oak Ridge,	Slope,	Non-gas.	....	1	6	....	....	....	....	7	Compressed air,	D, or Moshannon,	51	54	48	85,160
Black Lick Coal Mining Co.																
Big Bend,	Drift,	Non-gas.	7	2	....	....	....	....	....	9	Compressed air,	B, or Miller,	46	48	36	43,000
Spangler Coal and Coke Co.																
Gussie,	Drift,	Non-gas.	....	....	6	....	....	....	....	6	Compressed air,	D, or Moshannon,	46	48	45	32,696
Taylor & McCoy.																
Gallitzin shaft,	Shaft,	Non-gas.	....	....	....	....	6	....	....	6	Electric,	E, or Lemon,	48	56	50	184,835
Allport Coal Co.																
Allport,	Drift,	Non-gas.	...	7	....	....	....	....	....	7	Compressed air,	D, or Moshannon,	54	54	54	50,000
Maderia Hill Coal Mining Co.																
Manlon,	Drift,	Non-gas.	....	1	4	....	....	....	....	5	Compressed air,	D, or Moshannon,	52	56	36	50,939
Sterling Coal Co.																
Sterling No. 1,	Drift,	Non-gas.	....	4	....	....	....	....	....	4	Compressed air,	B, or Miller,	39	41	36	65,000
Emma No. 3,	Drift,	Non-gas.	....	7	....	....	....	....	....	7	Compressed air,	B, or Miller,	42	54	36	70,000
Emma No. 5,	Drift,	Non-gas.	....	5	....	....	....	....	....	5	Compressed air,	B, or Miller,	39	42	36	20,000
El Mora Nos. 1 and 2,	Drift,	Non-gas.	....	4	....	....	....	....	....	4	Compressed air,	B, or Miller,	39	36	42	50,000
Delta,	Drift,	Non-gas.	....	7	....	....	....	....	....	7	Compressed air,	D, or Moshannon,	52	52	52	56,000
Cymbria No. 1,	Drift,	Non-gas.	....	....	....	2	....	....	....	2	Electric,	D, or Moshannon,	53	56	50	25,191
Victor No. 2,	Drift,	Non-gas.	1	....	....	....	....	....	....	1	Compressed air,	D, or Moshannon,	50	57	42	1,000
Lackawanna No. 1,	Drift,	Non-gas.	...	*1	....	3	....	*1	....	5	Electric,	B, or Miller,	48	50	46	80,000
Lackawanna No. 3,	Slope,	Non-gas.	2	....	1	....	....	....	....	3	Compressed air,	B, or Miller,	48	50	46	6,000
Lackawanna No. 4,	Slope,	Non-gas	4	....	....	....	....	....	....	4	Compressed air,	B, or Miller,	48	50	46	9,000
Vinton colliery,	Drift,	Non-gas.	2	6	2	*3	....	....	....	13	Compressed air,	B, or Miller,	42	54	3 9	95,095
Grand totals,			32	73	77	38	32	3	11	266						3,069,574

*Long wall

Remarks on Accidents.

February 20th, Frank Delaux was killed in Robertsdale slope by rock falling upon him. He put himself in a dangerous position to knock out a prop from under a large piece of rock and when the prop was struck out the rock fell upon him, killing him instantly.

February 10th, Carl Pereton was fatally injured in Dean No. 8 slope by a piece of slate falling upon him, on which he had been working in order to advance his roadway.

March 15th, James Highms was instantly killed by loaded cars breaking loose from the ascending trip on the slope in the Oak Ridge mine. Highms was in charge of the mine and was switching a loaded car off the slope, when the cars that broke loose ran over him.

April 22d, John Pallock was instantly killed in Flanigan No. 8 mine by a fall of coal which he was undermining. He was working near the crop. The space of his mining was not over six feet wide.

June 3d, Andrew L. Warring was instantly killed by a fall of slate. He was taking out a pillar between two haulage roads. The ripping had been taken down on each road, leaving the two sides and one end of the draw slate free. Warring worked the pillar from the point, a distance of 18 feet back, without putting any props to support the draw slate. His attention was called to his danger by the driver, who advised him before the accident occurred, to set some props under the slate, which he promised to do later. A miner working beside him also advised him to set props under the roof.

June 5th, Simon Plosta was fatally injured in Webster No. 13 mine by a fall of coal while undermining it. Plosta and his partner had finished the mining and taken the sprags out. His partner was preparing a hole to blast the coal down, when Plosta again went under the coal to do more mining, when it fell upon him. He died on July 24th.

July 23d, Ernest Monroe was instantly killed while sinking a slope in Lackawanna No. 4 mine. He was striking upon a drill, putting a hole in the bottoms, when a stone fell upon him. The same stone brushed the side of the man who works with him. At 7.30 A. M. they had tried to take the stone down, and again at 11 A. M. they tried and failed; the stone fell at 1.30 P. M.

August 2d, John Henchman was instantly killed while riding in a trip of cars down the slope in Pennsylvania No. 1 mine. He worked on the night turn, and the mine foreman noticed him, in company with some other night men, waiting outside the mine just before the day shift quit work. He went to them and told them that they were not allowed to ride in the cars down the slope. Fifteen minutes afterwards Henchman jumped into the trip; the cars jumped the

track, struck out three sets of timbers, burying Henchman in the car.

August 28th, John McIntyre was instantly killed in the Warner mine by an explosion of dynamite. A shaft was being sunk into the mine and about 15 feet of the distance had been driven up from inside. McIntyre went into this hole for the purpose of finding out if it was not about through, before leaving the mine. At that time a blast of two sticks of dynamite was fired from above the charge, which being but 2 feet from being through, killed McIntyre. He knew that the men worked above, and they had been warned that no one was to enter the place, so that the inquest placed the blame upon McIntyre.

October 1st, John Patton was instantly killed on the slope in Penn'a No. 1. He was descending the slope to his work, when a trip of empty cars was being pulled up the slope, which caught him. It was nearer for him to reach his place of work by going through the manway.

October 11th, Wm. Patterson was instantly killed in Delaney mine by a fall of rock. He was drawing pillars. The roof had fallen during the night, and when Patterson commenced to mine the face of his pillar, he liberated a large mass of roof that had been hanging after the fall. The accident was unavoidable.

October 11th, Mikeal Cowash and Charl Remish were instantly killed at the bottom of the hoisting shaft of Lackawanna No. 1 mine. There were five men employed at taking down rock. A hole had been drilled preparatory to blasting. There was much water coming down the sides of the shaft, making it difficult to discern any joint in the rock, and it sounded solid. While one of the men was preparing a blast, the two victims took out a prop, when the rock fell.

October 31st, Edward Lemin was fatally injured while riding between loaded cars in the Fisher mine. The driver had warned him not to ride on the cars, but he replied that he would take the risk. He was caught between the roof and the top of the car. Before he died he said there was no one to blame but himself.

November 7th, Paul Kasup was instantly killed in Superior No. 2 mine by a fall of coal while undermining. He failed to sprag the coal.

November 14th, Paul Hertell was fatally injured in Lackawanna mine by a blast of dynamite. He was charging a hole in the bottoms, and in putting the charge to the back of the hole, he used an iron tamping drill, exploding the charge. He claimed to be experienced in rock work, and held a miner's certificate from the Anthracite region.

November 15th, Geo. Andrisack was instantly killed in Moshannon

No. 13 mine by a slab of rock. A prop had been put under it with a tie placed under the prop parallel with the road, for the purpose of breaking the refuse bottom coal in the roadway. After the shot had been fired, the prop was taken out, no attention having been paid to the roof. It fell, breaking his neck.

November 21st, Patrick Kennedy and Michael Brenan were fatally burned by a blown out shot igniting coal dust in Hickes No. 2 mine. They had turned a room and were blasting the coal out of the solid. Several shots had been fired during the forenoon so that the heading men protested they were unable to work. Kennedy and Brenan had not long been working soft coal. They used a 3-inch drill to bore the holes, which they had brought from the Anthracite region. About noon they fired a shot in the corner of the face of the room, which was drilled at an angle of 30 degrees into the line of the rib on the solid into this hole; the heading men estimated there was placed about four pounds of powder. When the shot was fired, the heading men were 100 feet outside the room on the heading. Kennedy went inside the room on the heading, and Brenan outside the room. The face of the heading was 100 feet in advance of the room. The flames from the shot, fed by the fine dry coal dust, extended 100 feet outside the room along the heading, slightly burning one of the heading men at that point. Both Kennedy and Brenan were enveloped in flame. Kennedy died the same evening, and the following morning Brenan's suffering was ended by death. Explosive gas had never been known to be generated in this mine, but the coal dust is very dry.

November 24th, Mike Olear was killed in Lancashire No. 11 mine while undermining. No sprag could be found to have been used, and it is thought from the position in which he was found, that he was mining out a stump that had been left to support the coal, a method which so many miners prefer to setting sprags, but which increases the danger, because the sprags can always be taken out while the miner stands.

December 6th, Domnick and Francisco Derwitcher, brothers, were instantly killed in Superior No. 2 mine by a treacherous pot in the roof falling upon them. Francisco, who worked with his father in another part of the mine, was sent by him to his brother to borrow a shot of powder. He had gotten the powder, and was sitting upon a heap of coal, his brother and his brother's partner sitting beside him, when the stone fell upon the brothers, the third man escaping without injury. I found upon investigation, that a cutter ran along one side, while a slip ran along the other, which could not have been seen before the stone fell. The man who escaped injury, testified that he had tried the roof a short time before and found it solid. A cross-bar was at the outside which was an unsafe protection, the

place being only 8 feet wide and 7 feet from the cross-bar to the face, and the roof sounding strong, they could reasonably have believed themselves safe.

December 13th, Chas. Krebs was instantly killed by a boiler explosion at the boiler plant of Webster No. 12-13 mines. The accident occurred during the noon hour. He had just cleaned one side of the fires, and water was being put into the boiler. The boiler was cylindrical, 34 feet long, 36 inches diameter. The plate was 9.32 inches thick, with no evidence of blistering. The fracture was made around the shell as though a line had been drawn around it. The testimony given was that there was plenty of water in the boiler, and that the safety valve worked properly at 75 pounds. The boiler was made by the Scranton Manufacturing Co. in 1896, and had been in use at this plant about two years. It was insured by the American Casualty Co., and inspected by them.

December 22d, Wasel Hudah was instantly killed in Cambria No. 3 by a stone falling from the roof, breaking his neck. He was taking down a bad piece of roof on the roadway, and had loaded it into the car. The drivers were waiting for him to clear the road, but in his eagerness to commence, he failed to notice that the roof over the side was dangerous. When the drivers started their trips, Hudah stepped on the side directly under the bad roof. He was in a stooping posture when the stone fell.

Description of Mines in Bedford County.

Kearney Mines.—The ventilation in the Plane mine was poor during the latter part of the year. A shaft is being sunk at the face of the workings, which will improve the conditions.

The Slope mine was re-opened and found to be in good condition, the water having been pumped out.

Cambria No. 3 Mine.—The condition of this mine has been improved during the year by cleaning up and timbering about 1,400 feet of the manway, and re-laying the main haulage road with heavier rails.

Mines on Sandy Run.

Cambria No. 1 is now working the coal in the basin of a large trough. It was in fair condition during the year.

Crescent No. 1 was in a fair condition. Pillars are now being taken out.

Mines on Six Mile Run.

Judith is a new mine opened during the year. The inclination of the seam is from 25 degrees to 90 degrees and many different

methods are used to work the coal. It was in fair condition. Manholes along the roadway for the safety of the men were needed, and upon my request, were at once made. The fan from Durham No. 1 mine has been removed to this mine.

Durham No. 1.—This mine is nearly exhausted, there being but little pillar coal left. It was in good condition during the year.

Durham No. 2.—This mine was found to be in a fair condition. Ventilation and drainage fair.

Duval Mine.—During the latter part of the year the water was pumped out of this mine, and it is now in operation, after having been filled with water about 18 months.

Cunard shaft was upon one of my visits in poor condition, the ventilation and drainage were poor, caused by insufficient boiler power. A new boiler has been added, which puts the mine in a fair condition.

Cunard Slope.—The manway of this mine was not in condition for traveling. On one of my visits, at my request, the mine foreman had it put in fair condition. The drainage and ventilation are good.

Crescent No. 5 mine.—Is a new mine opened in the Fulton seam, the Barnet seam having been worked above it many years ago. Upon one of my visits it was found that the strata over the Barnet was weighing and crushing the roof over the Fulton. I requested that care be exercised in leaving sufficient pillars to protect the mine and employes. The rooms and entries are to be rooms 18 feet and entries 9 feet wide.

Crescent No. 2.—A 16-foot fan and a rope haulage system were installed at this mine during the year, which have greatly improved its condition.

Beacon mine was in a fair condition, except on one visit, when I found the air poor, and impure oil being used by the drivers. A letter was sent to each of the drivers from this office, threatening prosecution, which had the desired effect, and the ventilation was improved by making a connection with Cunard shaft.

Delaware Nos. 1 and 2 are old mines which were re-opened and are connected. A 16-foot Brazil fan is being installed to ventilate them.

Fulton mine was on each visit in a good condition.

Crescent No. 3 is working about 20 men, the operator is trying to get an outlet at the face of the work, which will put the mine in fair condition. On one of my visits the air needed improvement.

Warner mine has been improved during the year by a new shaft sunk near the face of the working. It was in very fair condition.

Mines in Huntingdon County.

Robertsdale slope was in a fair condition. The fire which existed more than a year in the old workings is extinguished. The carbonic

acid and the need of oxygen had the effect of smothering it. Much credit is due the management for the care taken.

Woodvale shaft was in fair condition, although it was idle part of the year from the water overpowering the pumps.

Black's mine was in fair condition. During the year a connection was made to another opening.

Carbon was in fair condition.

Fisher mine was improved by making a new air-course from the furnace to the face of the workings.

Ocean No. 2 was working only 28 men during the year and was in fair condition.

Ocean No. 3 was in a good condition, ventilation and drainage being good.

Ocean No. 1 worked 12 men and was in fair condition.

Benedict Nos. 1 and 2 were in a fair condition when inspected. They are old mines that have been re-opened during the year.

Melrose.—Ventilation and drainage were good during the year.

Hickes Nos. 1 and 2.—Number of men in No. 1 mine was reduced so that during the latter part of the year it did not come under the law. Number two has rope haulage, also a fan. A slope is being driven to the bottom of the basin. Ventilation is good and work was done to improve the drainage.

Mines in Blair County.

Glen White.—The old mine is now being worked in drawing the pillars; it was in very fair condition on each visit.

Horseshoe.—This mine was greatly improved during the year by driving a heading and straightening the long haulage road; the ventilation and drainage were fair.

Bradley Nos. 1, 2 and 3 were in a fair condition for the number of men employed.

Webster No. 11 was in a fair condition.

Pennsylvania No. 1 was in very fair condition. A new electric plant was installed, and the coal is being mined by an electric machine. Improvement has been made in the landing at the Tipple, also a safety appliance to guard against cars running down the slope.

Mines in Cambria County.

Delaney mine was in a good condition during the year. The hoisting engine was unable to do the work required, and a larger one has been installed.

Gallitzin shaft was improved in its ventilation, and in very fair condition when visited.

Webster No. 10.—A 20-foot Guibal fan was installed during the year, and the main air-way stoppings were cemented, which made great improvement in the ventilation.

Webster No. 9.—There has been considerable improvement in the renewing of the shaft timbers and head-frame, also the air-courses and haulage roads have been enlarged at a considerable cost, as the work had to be done in sand rock, and it is by no means completed yet.

Black Lick Branch.

Ivory Hill.—In addition to the drift, working the D seam, a slope has been put down to the B seam and a hoisting plant installed.

Webster No. 14 on my last visit was in a very fair condition. I requested a shaft be put down on the dip workings, which they have promised to do.

Nant Y Glo No. 1.—Ventilation and drainage were good, but there has been considerable irregularity in extracting pillars in rooms.

Lincoln.—A shaft has been sunk and a furnace put in, which has placed the mine in very fair condition.

Big Bend.—The ventilation is fair, but the drainage is poor.

Vinton Colliery.—A 12-foot Stine fan was installed during the year, and the mine is in a good condition.

Lackawanna No. 1 was in fair condition.

Lackawanna No. 2.—A 10-foot Stine fan has replaced the 6-foot fan, and the air-way from the fan to the back of the workings was enlarged, which improved the ventilation.

Lackawanna No. 3.—Is a new mine, opened in Indiana county, with two shafts and a slope. It is being opened with a view to be worked on the long wall system. The coal is mined by machines, loaded into the car by conveyers, and dumped from revolving tipples into two large bins at the bottom of the shaft to be hoisted up in a skiff.

Lackawanna No. 4 is opened in Indiana county upon the same principle as No. 3, but at this plant a washer has been erected that will receive the coal direct from the bins at the bottom of the shaft on a conveyer. The coal from No. 3 shaft will also be taken to this washer, which will have a capacity of 2,500 tons per day. The coal, after being washed, will be shipped to the company's coking plant at Buffalo, N. Y.

The inside workings of both mines are in a good condition, with large areas in road ways and air ways. The methods in use are a great departure from the general system of working, and are being carefully watched by those interested in mining.

Mines on the Susquehanna Branch.

Black Diamond is a small mine working the D seam. It was found in a fair condition.

ElMora.—The ventilation in this mine in some places was deficient. On my last visit, they were nearly through making a connection between Nos. 1 and 2 openings, near the face of the workings in No. 1, which would place the mine in good condition.

Nant Y Glo No. 2.—Trouble is being experienced in getting the second opening connected. Upon my last visit, I requested that the work be done without delay. The mine foreman, also the superintendent, informed me that they would use all efforts to have it done, which I have since learned they are doing.

Sterling No. 1.—On my last visit I found that they had gotten through the troublesome ground, and were opening up inside. The condition at the face was poor, but from what I learned, it would not be long before the conditions would be improved.

Emma No. 3 was in a fair condition.

Emma No. 4.—I found the grade inside the mine was dangerous, and as the traveling way was not according to law, I requested that proper means be provided for traveling, which were at once started.

Emma No. 5 was in good condition.

Bluebaker No. 13 was in fair condition during the year.

Susquehanna mine was in fair condition.

Victor No. 4 was in fair condition.

Mancher mine was in fair condition.

Victor Nos. 2 and 3 mines were in fair condition.

Eclipse mine was in fair condition, its rock roll having been passed and they were in good coal. Ventilation and drainage were good.

Spangler No. 1 was in fair condition during the year.

West Branch was in good condition. The mine has been improved by driving the fourth right heading outside, which makes two inlets. The ventilation and drainage were good.

Spangler No. 2 was found in good condition.

Delta Mine.—The ventilation was not up to the requirements of the law in all parts of the mine. There was sufficient volume produced by the fan, but the leakage was so great, that on my last visit I demanded that it be remedied, and sufficient air taken to the face of the workings, and the matter was taken up at once by the superintendent and mine foreman.

Walnut Run No. 1.—This mine has nearly finished working the D seam, and an opening has been made in the E seam, which will continue the operation. It was in fair condition during the year.

Cymbria No. 1 was in fair condition. An effort has been made for

some time to drive one of the headings outside, which will greatly improve the condition of the mine.

Cymbria No. 2 was worked during the last six months of the year, and was in fair condition for the number of men employed.

Manion mine was in good condition.

Allport No. 1 was in good condition.

Juniata.—About 30 men are at work drawing pillars; mine was in fair condition.

Lancashire No. 7 was improved during the year by a new opening driven across the face of the cross headings, and a 16-foot Brazil fan installed, which gives sufficient ventilation for Nos. 7 and 11 mines.

Lancashire No. 8 was improved during the year by repairing the stoppings. They promised on my last visit to divide the volume, so as to comply with the law, which will help the ventilation. Drainage was poor.

Lancashire No. 6 was in good condition.

Lancashire No. 9 worked only 22 men for a short time during the year, and was in fair condition.

Lancashire No. 4 is abandoned.

Lancashire No. 3 was in fair condition, except that on one visit I found that there was no pretence of conducting the air to the working faces, so I refused to allow several places to be worked until the law had been complied with.

Walnut Run No. 2 was found to be in a fair condition. The furnace was unable to do the work required and has since been enlarged, but the old working is so far in, that the only remedy is to put a shaft down near the face of the work.

Empire mine was in good condition.

Pennsylvania No. 5 is a new mine being opened in the D seam in an extensive tract of coal. Two openings, each on the three entry system which being connected, are ventilated by a 12-foot fan were in good condition.

Penn'a No. 6 is also a new mine being opened on the opposite side of the creek from No. 5, and is also working the D seam.

Greenwich Nos. 1 and 2 mines.—Number one is a drift, and was in very fair condition. Number two is a slope opened during the year. The opening is made just inside the Indiana county line, though the coal worked is in Cambria county.

Mines Near Patton.

Victor No. 12 is a new mine, which commenced shipping coal about the first of the year. It was in very fair condition.

Asheroft mine was in poor condition. The ventilation being deficient, I ordered two headings at the far end of the work to be shut

down until sufficient air should be circulated to put them in a healthful condition. I have since been informed by the Superintendent that a 12-foot Brazil fan had been ordered for this mine.

Columbia. This mine is now connected with Ashcroft on the left, and Flanigan No. 8 has worked the coal in front of it. It was in fair condition on my last visit.

Pardee No. 5 was in good condition.

Pardee No. 3 was in fair condition.

Patton Clay mine is now in a good condition. In the early part of the year I was requested by the men working in this mine to visit it. As the mining law does not include the inspection of clay mines, I visited the mine to learn if it came under the act. I found 22 persons employed inside this mine, 6 men being employed mining coal. I communicated my information to the Chief of the Bureau of Mines, upon which he decided that the mine came under the law. I then wrote the Superintendent requesting of him to put the mine in compliance with the act governing bituminous mines. In reply I received a letter protesting against being subject to the act; but upon consultation with their attorney, they decided to comply with the law, and a Brazil fan was installed, and doors and brattices were put up, placing the mine in a good condition.

Moshannon.—Considerable improvement has been made in this mine during the year. An air compressor for mining coal and preparation for electric haulage, and a 12-foot fan have been installed. On my last visit I found preparations being made to split the air so as to comply with the law, which when done, will put the mine in good condition.

Flanagan No. 8.—This mine has been improved during the year. A shaft was sunk at the face of the workings which improved the ventilation.

Flanagan No. 9 has been abandoned during the year.

Pardee No. 6 was in good condition.

Pardee No. 4 was in good condition.

Pardee No. 7 is a new slope mine. A 12-foot fan has been installed and is opened on the three entry system to work the C prime seam directly beneath the D, which is being worked by Pardee No. 4. The mine is in good condition.

Mines Near Hastings.

Puritan No. 4 is in a fair condition. A shaft has been put down which will improve its condition.

Penn'a No. 3 was improved during the latter part of the year by adding more boiler power to the plant. In the early part of the year the ventilation was not sufficient, and the mine now needs a larger

fan which will produce a larger volume of air and allow the air to be divided into two separate currents.

Rich Hill was in good condition.

Oak Ridge is now in good condition. A six foot Robinson fan has been installed during the year.

Webster No. 12 has been improved during the year by repairing the stoppings along the main road by facing them with cement.

The mine still needs improvement in ventilation. The operators have promised to get an opening outside, near the working faces. This would place the mine in good condition.

Webster No. 13.—This mine was improved by repairing the stopping along the main air-way, and was on my last visit in a fair condition.

Mines Along the C. & C. Division.

Webster No. 7.—Considerable improvement was made during the year at this mine. A new opening was made for motor haulage, doing away with the slope, and a new air-course is being constructed, a fan installed outside the mine, the tipple changed, and additional ovens being built. When this work is completed, the mine will be in good condition.

Superior No. 2.—This mine has been in a fair condition for the number of men employed. A new opening is being made to work the coal that cannot be reached by the old opening.

Dean No. 10 was in good condition.

Dean No. 9 was operated during the latter part of the year, and some pillar coal taken out for the ovens. I did not visit it.

Dean No. 8 was in fair condition during the year.

Van Ormer was in fair condition during the year.

Flinton was in a poor condition when visited; a shaft has since been put down at the face of the work.

Beaver Dam.—A small number of men worked during the last two months of the year, but I did not visit it.

Mines on the Beech Creek and Altoona R. R.

Kelley mine was found to be in a fair condition.

Daugherty mine was on my first visit in poor condition. On my last visit the condition had been improved.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Tenth Bituminous District for the year 1902.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent	P. O. Address	Railroad to Mine.
Beech Creek C. & C. Co.						
Pardee No. 3,	Cambria,	W. C. Lingle,	Patton,	W. C. Lingle,	Patton,	New York Central R. R.
Pardee No. 4,	Cambria,	W. C. Lingle,	Patton,	W. C. Lingle,	Patton,	New York Central R. R.
Pardee No. 5,	Cambria,	W. C. Lingle,	Patton,	W. C. Lingle,	Patton,	New York Central R. R.
Pardee No. 6,	Cambria,	W. C. Lingle,	Patton,	W. C. Lingle,	Patton,	New York Central R. R.
Pardee No. 7,	Cambria,	W. C. Lingle,	Patton,	W. C. Lingle,	Patton,	New York Central R. R.
Flanagan No. 8,	Cambria,	W. C. Lingle,	Patton,	W. C. Lingle,	Patton,	New York Central R. R.
Columbia, No. 12,	Cambria,	W. C. Lingle,	Patton,	W. C. Lingle,	Patton,	New York Central R. R.
Moshannon No. 13,	Cambria,	W. C. Lingle,	Patton,	W. C. Lingle,	Patton,	New York Central R. R.
Ashcroft, No. 14,	Cambria,	W. C. Lingle,	Patton,	W. C. Lingle,	Patton,	New York Central R. R.
Webster C. & C. Co.						
Webster No. 7,	Cambria,	E. T. Conner,	Cresson,	W. C. Shhiffer,	Gallitzin,	Pennsylvania Railroad.
Webster No. 10,	Cambria,	E. T. Conner,	Cresson,	W. C. Shhiffer,	Gallitzin,	Pennsylvania Railroad.
Webster No. 11,	Blair,	E. T. Conner,	Cresson,	W. C. Shhiffer,	Gallitzin,	Pennsylvania Railroad.
Webster Nos. 12 and 13,	Cambria,	E. T. Conner,	Cresson,	W. C. Shhiffer,	Gallitzin,	Pennsylvania Railroad.
Webster No. 14,	Cambria,	E. T. Conner,	Cresson,	W. C. Shhiffer,	Gallitzin,	Pennsylvania Railroad.
Webster No. 9,	Cambria,	E. T. Conner,	Cresson,	R. D. Mainwairing,	Cresson,	Pennsylvania Railroad.
Barnes & Tucker.						
Lancashire No. 6,	Cambria,	J. T. Slinger,	Barnesboro,	Richard Ashcroft,	Barnesboro,	Pennsylvania Railroad.
Lancashire No. 8,	Cambria,	J. T. Slinger,	Barnesboro,	Richard Ashcroft,	Barnesboro,	Pennsylvania Railroad.
Lancashire No. 7,	Cambria,	J. T. Slinger,	Barnesboro,	Richard Ashcroft,	Barnesboro,	Pennsylvania Railroad.
Lancashire No. 3,	Cambria,	J. T. Slinger,	Barnesboro,	Richard Ashcroft,	Barnesboro,	Pennsylvania Railroad.
Lancashire No. 9,	Cambria,	J. T. Slinger,	Barnesboro,	Richard Ashcroft,	Barnesboro,	Pennsylvania Railroad.
Lancashire No. 11,	Cambria,	J. T. Slinger,	Barnesboro,	Richard Ashcroft,	Barnesboro,	Pennsylvania Railroad.
Juniata,	Cambria,	J. T. Slinger,	Barnesboro,	Richard Ashcroft,	Barnesboro,	Pennsylvania Railroad.
Altoona C. & C. Co.						
Delaney,	Cambria,	John Lloyd,	Altoona,	John Munro,	Coupon,	Pennsylvania Railroad.
Horse Shoe,	Blair,	John Lloyd,	Altoona,	John Munro,	Coupon,	Pennsylvania Railroad.
Rockhill Iron & Coal Co.						
Robertsdale Slope,	Huntingdon,	L. L. Logan,	Robertsdale,	J. W. Bischoff,	Robertsdale,	East Broad Top R. R.
Woodvale Shaft,	Huntingdon,	L. L. Logan,	Robertsdale,	J. W. Bischoff,	Robertsdale,	East Broad Top R. R.
Empire Coal Co.						
Empire,	Cambria,	R. A. Shillingford,	Clearfield,			New York Central R. R.
Eclipse,	Cambria,	R. A. Shillingford,	Clearfield,			New York Central R. R.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent	P. O. Address	Railroad to Mine.
Sterling Coal Co.						
Sterling No. 3,	Cambria,	J. B. Reed,	El Mora,	T. H. Huddy,	El Mora,	Pennsylvania Railroad.
Sterling No. 4,	Cambria,	J. B. Reed,	El Mora,	T. H. Huddy,	El Mora,	Pennsylvania Railroad.
Sterling No. 5,	Cambria,	J. B. Reed,	El Mora,	T. H. Huddy,	El Mora,	Pennsylvania Railroad.
Sterling No. 1,	Cambria,	J. B. Reed,	El Mora,	T. H. Huddy,	El Mora,	Pennsylvania Railroad.
Maderia Hill Coal Mining Co.						
Mannion,	Cambria,	Fred Bettzs,	Clearfield,	Thos. Scollon,	Barnesboro,	Pennsylvania Railroad.
Spangler No. 1,	Cambria,	Fred Bettzs,	Clearfield,	John McCormick,	Barnesboro,	Pennsylvania Railroad.
Spangler No. 2,	Cambria,	Fred Bettzs,	Clearfield,	John McGowen,	Barnesboro,	Pennsylvania Railroad.
Cresson & Clearfield C. & C. Co.						
Dean No. 8,	Cambria,	P. H. Walls,	Philadelphia,	F. P. McFarland,	Frugality,	Pennsylvania Railroad.
Dean No. 9,	Cambria,	P. H. Walls,	Philadelphia,	F. P. McFarland,	Frugality,	Pennsylvania Railroad.
Dean No. 10,	Cambria,	P. H. Walls,	Philadelphia,	F. P. McFarland,	Frugality,	Pennsylvania Railroad.
Crescent Coal Mining Co.						
Crescent No. 1,	Bedford,	John Langdon,	Huntingdon,			H. & B. T. R. R.
Crescent No. 2,	Bedford,	John Langdon,	Huntingdon,			H. & B. T. R. R.
Crescent No. 3,	Bedford,	John Langdon,	Huntingdon,			H. & B. T. R. R.
Crescent No. 5,	Bedford,	John Langdon,	Huntingdon,			H. & B. T. R. R.
Crescent No. 7,	Bedford,	John Langdon,	Huntingdon,			H. & B. T. R. R.
John Langdon.						
Cambria No. 1,	Bedford,	John Langdon,	Huntingdon,			H. & B. T. R. R.
Chevington No. 1,	Bedford,	John Langdon,	Huntingdon,			H. & B. T. R. R.
Chevington No. 2,	Bedford,	John Langdon,	Huntingdon,			H. & B. T. R. R.
Pennsylvania C. & C. C.						
Pennsylvania No. 1,	Blair,	Wm. M. Smith,	Ebensburg,	M. B. Courtright,	Ebensburg,	Pennsylvania Railroad.
Pennsylvania No. 3,	Cambria,	Wm. M. Smith,	Ebensburg,	M. B. Courtright,	Ebensburg,	Pennsylvania Railroad.
Pennsylvania Nos. 5 and 6,	Cambria,	Wm. M. Smith,	Ebensburg,	M. B. Courtright,	Ebensburg,	Pennsylvania Railroad.
Colonial Iron Co.						
Durham No. 1,	Bedford,	Wm. Lauder,	Riddlesburg,	J. C. Allen,	Riddlesburg,	H. & B. T. R. R.
Durham No. 2,	Bedford,	Wm. Lauder,	Riddlesburg,	J. C. Allen,	Riddlesburg,	H. & B. T. R. R.
Judith,	Bedford,	Wm. Lauder,	Riddlesburg,	J. C. Allen,	Riddlesburg,	H. & B. T. R. R.
W. H. Sweet.						
Ocean No. 1,	Huntingdon,	W. H. Sweet,	Dudley,			H. & B. T. R. R.
Ocean No. 2,	Huntingdon,	W. H. Sweet,	Dudley,			H. & B. T. R. R.
Ocean No. 3,	Huntingdon,	W. H. Sweet,	Dudley,			H. & B. T. R. R.
Carbon No. 1,	Huntingdon,	W. H. Sweet,	Dudley,			H. & B. T. R. R.

Clear. Bit. Coal Corporation. West Branch,	Cambria,	R. A. Shillingford,	Clearfield,	Tim. McCarthy,	Barnesboro,	New York Central R. R.
Taylor & McCoy. Gallitzin shaft,	Cambria,	T. E. Dippner,	Gallitzin,			Pennsylvania Railroad.
Vinton Colliery Co. Vinton Colliery,	Cambria,	G. A. Ware,	Vintondale,			Pennsylvania Railroad.
Oak Ridge C. & C. Co. Oak Ridge,	Cambria,	H. J. VanDusen,	Hastings,			Pennsylvania Railroad.
Black Lick Coal Mining Co. Big Bend,	Cambria,			A. J. McHugh,	Expedit,	Pennsylvania Railroad.
E. R. Jackman & Co. Mancher,	Cambria,	E. R. Jackman,	Carrolltown,	E. C. Morris,	Carrolltown,	New York Central R. R.
Glen White L. & C. Co. Glen White,	Blair,	Val Eichellaub,	Glen White,			Pennsylvania Railroad.
Shreeve Run Coal Co. Warner,	Bedford,	Wm. M. Smith,	Ebensburg,	Jas. M. McIntyre,	Six Mile Run,	H. & B. T. R. R.
Allport Coal Co. Allport No. 1,	Cambria,	J. H. Allport,	Hastings,			Pennsylvania Railroad.
American Union Coal Co. Cambria No. 3,	Bedford,	Geo. I. Cant,	Huntingdon,			H. & B. T. R. R.
A. J. Black. Blacks,	Huntingdon,	A. J. Black,	Broad Top City,	Isaac Cook,	Broad Top City,	H. & B. T. R. R.
J. P. Gates & Bro. Fulton,	Bedford,	J. P. Gates,	Philadelphia,	Samuel Buckley,	Six Mile Run,	H. & B. T. R. R.
J. J. McGonigal. Patton No. 3,	Cambria,	J. J. McGonigal,	Carrolltown,			New York Central R. R.
Lack. Coal & Coke Co. Lackawanna Nos. 1 and 2,	Cambria,	C. R. Claghorn,	Wehrum,	W. P. Morgan,	Vintondale,	Pennsylvania Railroad.
Lackawanna No. 3,	Indiana,	C. R. Claghorn,	Wehrum,	G. R. Delamater,	Wehrum,	Pennsylvania Railroad.
Lackawanna No. 4,	Indiana,	C. R. Claghorn,	Wehrum,	G. R. Delamater,	Wehrum,	Pennsylvania Railroad.
Rembrandt Peale. Bloom Victor No. 2,	Cambria,	Alex. B. Dunsmore,	Glen Richy,	Arch. Dunsmore,	St Benedict,	New York Central R. R.
Bloom Victor No. 3,	Cambria,	Alex. B. Dunsmore,	Glen Richy,	Arch. Dunsmore,	St Benedict,	New York Central R. R.
Bloom Victor No. 4,	Cambria,	Alex. B. Dunsmore,	Glen Richy,	Arch. Dunsmore,	St. Benedict,	New York Central R. R.
Bloom Victor, No. 12,	Cambria,	Alex. B. Dunsmore,	Glen Richy,	Arch. Dunsmore,	St. Benedict,	New York Central R. R.
Jos. E. Thropp. Kearney Nos. 1 and 2,	Bedford,	Jos. E. Thropp, Jr.,	Evert,	R. H. Kay,	Kearney,	H. & B. T. R. R.
Saxton Furnace Co. Melrose,	Huntingdon,	A. C. Kloman,	Saxton,	John Morris,	Dudley,	H. & B. T. R. R.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent	P. O. Address	Railroad to Mine.
Davis, Spencer & Co. Van Ormer,	Cambria,	E. F. Spencer,	Van Ormer,			Pennsylvania Railroad.
Deringer Bros. Susquehanna,	Cambria,	W. Deringer,	Spangler,	W. Deringer,	Spangler,	Pennsylvania Railroad.
Coalport Coal Co. Superior No. 2,	Cambria,	A. A. Stevens,	Tyrone,	Geo. P. Bell,	Coalport,	Pennsylvania Railroad.
Daugherty Coal Co. Daugherty,	Cambria,	John W. Daugherty,	Altoona,			P. J. E. & E. R. R.
Wm. P. Parsall. Beaver Dam,	Cambria,	James E. Fitch,	Flinton,			Pennsylvania Railroad.
Warner Coal Mining Co. Duvall,	Bedford,	Gilbert McIntyre,	Six Mile Run,			H. & B. T. R. R.
Spangler C. & C. Co. Gussle,	Cambria,	James A. McLlain,	Spangler,			Pennsylvania Railroad.
Rich Hill Coal Co. Rich Hill,	Cambria,	E. W. Samuel, M. D.	Mt. Carmel,	H. M. McAlarney,	Hastings,	Pennsylvania Railroad.
El Mora Coal Co. El Mora Nos. 1 and 2,	Cambria,	John B. Reed,	El Mora,			Pennsylvania Railroad.
Greenwich C. & C. Co. Greenwich Nos. 1 and 2,	Cambria,	M. W. Saxman,	Latrobe,	Thos. Estep,	Garmans Mills,	Pennsylvania Railroad.
C. D. Reed. Benedict Nos. 1 and 2,	Huntingdon,	Warren Reed,	Dudly,			H. & B. T. R. R.
Kelly & Flanagan. Kelly No. 1,	Cambria,	Chas. H. Kelly,	Altoona,			P. J. E. & E. R. R.
Puritan Coal Co. Puritan No. 4,	Cambria,	C. F. Fraser,	Altoona,			Pennsylvania Railroad.
Lincoln Coal Mining Co. Lincoln,	Cambria,	C. F. Fraser,	Altoona,			Pennsylvania Railroad.

Patton Mfg. Co.						
Patton Clay Mine,	Cambria,	Geo. E. Pringle,	Patton,	Danl. McMuldrin,	Patton,	
S. V. Davis & Co.						
Flinton,	Cambria,	S. V. Davis,	Bacaria,			Pennsylvania Railroad.
W. A. Gould & Bro.						
Black Diamond,	Cambria,	W. A. Gould,	Oceola Mills,			Pennsylvania Railroad.
Coalport Coal Co.						
Superior No. 2,	Cambria,	A. A. Stevens,	Tyrone,	Geo. P. Bell,	Coalport,	Pennsylvania Railroad.
Ivory Hill Coal Co.						
Ivory Hill,	Cambria,	C. H. Barker,	Ebensburg,	John Madill,	Nant-Y-Glo,	Pennsylvania Railroad.
Bradley & Reed.						
Bradley No. 1,	Blair,	F. X. Bradley,	Gallitzin,			Pennsylvania Railroad.
Bradley No. 2,	Blair,	F. X. Bradley,	Gallitzin,			Pennsylvania Railroad.
Bradley No. 3,	Blair,	F. X. Bradley,	Gallitzin,			Pennsylvania Railroad.
Nant-Y-Glo Coal Mining Co.						
Nant-Y-Glo No. 1,	Cambria,			James Starford,	Morrisdale Mines,	Pennsylvania Railroad.
Nant-Y-Glo No. 2,	Cambria,			James Starford,	Morrisdale Mines,	Pennsylvania Railroad.
Morrisdale C. & C. Co.						
Cunard shaft,	Bedford,	James Denithorne,		Chas. B. Maxwell,	Six Mile Run,	H.& B. T. R. R.
Cunard slope,	Bedford,			Chas. B. Maxwell,	Six Mile Run,	H.& B. T. R. R.
Huntingdon Coal Co.						
Delaware No. 1,	Bedford,	James Denithorne,	Huntingdon,			H. & B. T. R. R.
Delaware No. 2,	Bedford,	James Denithorne,	Huntingdon,			H. & B. T. R. R.
E. Eichelberger & Co.						
Fisher,				E. Eichelberger,	Saxton,	H. & B. T. R. R.
Bacon,				E. Eichelberger,	Saxton,	H. & B. T. R. R.
Jones & Tappan.						
Hickes No. 1,	Huntingdon,	E. G. Jones,	Coalmont,			H. & B. T. R. R.
Hickes No. 2,	Huntingdon,	E. G. Jones,	Coalmont,			H. & B. T. R. R.
Walnut Run Coal Mining Co.						
Walnut Run No. 1,	Cambria,	C. F. Fraser,	Altoona,	Isaac Smith,	Spangler,	Pennsylvania Railroad.
Walnut Run No. 2,	Cambria,	C. F. Frasier,	Altoona,	Wm. Wood,	Barnesboro,	Pennsylvania Railroad.
Duncan & Spangler Coal Co.						
Delta,	Cambria,	R. B. Spangler,	Hastings,	R. B. Spangler,	Hastings,	Pennsylvania Railroad.
Bluebaker No. 13,	Cambria,	R. B. Spangler,	Hastings,	R. B. Spangler,	Hastings,	Pennsylvania Railroad.
Cymbria Coal Co.						
Cymbria No. 1,	Cambria,	D. E. Williams,	Philadelphia,	C. J. Paul,	Barnesboro,	Pennsylvania Railroad.
Cymbria No. 2,	Cambria,	D. E. Williams,	Philadelphia,	C. J. Paul,	Barnesboro,	Pennsylvania Railroad.

TABLE II—Gives the total number of tons of coal mined and tons of coke produced in each colliery, number of days worked, number of employes, number of employes killed and injured, number of kegs of powder, etc., used in the Tenth Bituminous District for the year ending December 31, 1902.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Beech Creek Coal & Coke Co.														
Pardee No. 3,	Cambria,	118,643	1,080	394	120,117	.....	.....	262	135	.....	.....	87	50	18
Pardee No. 4,	Cambria,	43,658	.....	45	43,703	.....	.....	191	85	.....	.....	159	50	3
Pardee No. 5,	Cambria,	77,781	1,530	180	79,491	.....	.....	253	125	.....	.....	63	100	8
Pardee No. 6,	Cambria,	77,793	.....	105	77,898	.....	.....	247	80	.....	1	132	.....	11
Pardee No. 7,	Cambria,	68,008	1,240	90	69,338	.....	.....	241	140	.....	.....	180	50	12
Flanagan No. 8,	Cambria,	286,092	2,350	310	288,752	.....	.....	250	277	1	3	170	100	30
Coumbia No. 12,	Cambria,	118,307	430	190	118,927	.....	.....	248	170	.....	.....	190	50	19
Moshannon No. 13,	Cambria,	85,114	650	191	85,955	.....	.....	232	155	1	1	205	50	20
Ashcraft No. 14,	Cambria,	46,210	.....	54	46,264	.....	.....	227	80	.....	.....	38	25	5
Totals,	.....	921,606	7,280	1,559	930,445	.....	.....	239	1,247	2	5	1,230	475	126
Webster Coal & Coke Co.														
Webster No. 7,	Cambria,	92,035	3,598	595	100,054	3,559	50	220.2	169	.....	.....	523	365	18
Webster No. 10,	Cambria,	167,357	5,517	6,794	335,097	117,733	347	261.8	493	.....	1	2,742	540	57
Webster No. 11,	Blair,	37,106	.....	516	104,567	47,337	100	238.9	167	.....	1	257	53	17
Webster Nos. 12 and 13,	Cambria,	39,218	3,315	539	161,966	87,267	152	286.1	317	2	1	2,127	2,050	32
Webster No. 14,	Cambria,	57,032	1,317	152	58,500	.....	.....	216.1	110	.....	.....	438	505	18
Webster No. 9,	Cambria,	29,115	3,189	907	33,241	.....	.....	214.2	83	.....	2	214	6,100	13
Totals,	.....	421,893	16,936	9,503	793,425	255,896	649	226.3	1,339	2	5	6,601	9,613	145
Barnes & Tucker.														
Lancashire No. 6,	Cambria,	49,519	.....	.....	49,519	.....	.....	221	58	.....	.....	350	.....	6
Lancashire No. 8,	Cambria,	107,816	500	.....	108,316	.....	.....	244	141	.....	.....	600	2	6

*Totals in this column are averages.

									*						
Lancashire No. 7,	Cambria,	110,843	1,600	1,000	112,843	.....	.....	245	154	.....	1	600	1	9
Lancashire No. 3,	Cambria,	53,837	500	.....	54,337	.....	.....	233	91	.....	.....	400	3	5
Lancashire No. 9,	Cambria,	12,093	.....	.....	12,093	.....	.....	147	30	.....	.....	50	.....	.....
Lancashire No. 11,	Cambria,	25,528	.....	.....	25,528	.....	.....	132	61	1	.....	150	.....	.....
Juniata Mine,	Cambria,	22,709	.....	.....	22,709	.....	.....	211	30	.....	.....	100	.....	.....
Totals,		382,345	2,000	1,000	385,345	.....	.....	205.1	568	1	1	2,250	6	26
Altoona Coal & Coke Co.														
Delaney,	Cambria,	273,044	1,787	1,118	275,949	.....	67	301	430	1	.....	2,500	360	36
Horse Shoe,	Blair,	36,838	1,118	.....	37,956	.....	.....	290	71	.....	.....	.....	1,400	7
Totals,		309,882	2,905	1,118	313,905	.....	67	295.5	501	1	.....	2,500	1,760	43
Rockhill Iron & Coal Co.														
Robertsdale slope,	Huntingdon,	154,785	2,036	4,314	161,135	.....	.....	281	223	1	.....	2,476	1,960	36
Woodvale shaft,	Huntingdon,	61,009	5,104	.....	66,113	.....	.....	236	131	.....	.....	1,253	3,400	19
Totals,		215,794	7,140	4,314	227,248	.....	.....	258.5	354	1	.....	3,729	5,360	55
Empire Coal Mining Co.														
Empire,	Cambria,	171,769	2,811	560	175,140	.....	.....	220	225	.....	.....	950	200	17
Eclipse,	Cambria,	28,781	40	62	28,883	.....	.....	236	43	.....	.....	350	150	5
Totals,		200,550	2,851	622	204,023	.....	.....	228	268	.....	.....	1,300	350	22
Sterling Coal Co.														
Sterling No. 3,	Cambria,	70,000	.....	.....	70,000	.....	.....	272	150	.....	.....	500	.....	5
Sterling No. 4,	Cambria,	33,000	.....	.....	33,000	.....	.....	207	112	.....	.....	300	.....	4
Sterling No. 5,	Cambria,	20,000	.....	.....	20,000	.....	.....	207	69	.....	.....	150	.....	3
Sterling No. 1,	Cambria,	70,000	3,000	200	73,200	.....	.....	274	125	.....	1	500	.....	6
Totals,		193,000	3,000	200	196,200	.....	.....	240	456	.....	1	1,450	.....	18
Maderia Hill Coal Mining Co.														
Mannion,	Cambria,	73,004	1,194	104	74,332	.....	.....	240	77	.....	.....	386	150	11
Spangler No. 1,	Cambria,	71,833	124	724	72,681	.....	.....	257	83	.....	1	277	100	10
Spangler No. 2,	Cambria,	41,328	84	80	41,492	.....	.....	212	50	.....	1	176	200	4
Totals,		186,195	1,402	908	188,505	.....	.....	236.3	210	.....	2	839	450	25
Cresson & Clearfield C. & C. Co.														
Dean No. 8,	Cambria,	92,100	2,574	25	94,699	.....	.....	248	145	1	2	750	112	8
Dean No. 9,	Cambria,	5,510	.....	.....	5,510	4,276	88	82	29	.....	.....	94	.....	2
Dean No. 10,	Cambria,	84,156	208	1,135	85,599	.....	.....	249	85	.....	.....	475	100	5
Totals,		181,766	2,882	1,160	185,808	4,276	88	193	259	1	2	1,319	212	15
Crescent Coal Mining Co.														
Crescent No. 1,	Bedford,	69,170	550	189	69,909	.....	.....	284	74	1	2	150	.....	10
Crescent No. 2,	Bedford,	66,639	.....	133	66,772	.....	.....	295	107	.....	1	400	.....	10

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Crescent No. 3,	Bedford,	23,396	.....	.....	23,396	.....	.....	218*	45	.....	.....	100	.....	4
Crescent No. 5,	Bedford,	13,419	.....	32	13,451	.....	.....	100	35	.....	.....	50	500	2
Crescent No. 7,	Bedford,	3,718	.....	.....	3,718	.....	.....	83	29	.....	.....	50	.....	2
Totals,		176,342	550	354	177,246	.....	.....	196	290	1	3	350	500	28
John Langdon.														
Cambria No. 1,	Bedford,	57,174	.....	473	57,647	.....	.....	296	71	.....	1	150	.....	8
Chevington, No. 1,	Bedford,	11,235	.....	33	11,268	.....	.....	276	9	.....	.....	50	.....	1
Chevington No. 2.	Bedford,	56,535	159	.....	56,694	.....	.....	296	73	.....	.....	150	.....	8
Totals,		124,944	159	506	125,609	.....	.....	272.6	153	.....	1	350	.....	17
Pennsylvania Coal & Coke Co.														
Pennsylvania No. 1,	Blair,	72,407	4,608	1,376	100,041	14,146	50	265.5	191	2	1	572	.....	14
Pennsylvania No. 3,	Cambria,	113,360	2,243	34	115,637	.....	.....	139.1	204	.....	2	553	150	21
Pennsylvania Nos. 5 and 6,	Cambria,	9,305	560	.....	9,865	.....	120	103	106	.....	.....	50	2,000	.....
Totals,		195,072	7,411	1,410	225,543	14,146	170	169.2	501	2	3	1,175	2,150	35
W. H. Sweet.														
Ocean No. 1,	Huntingdon,	9,828	.....	225	10,053	.....	.....	265	16	.....	1	120	900	2
Ocean No. 2,	Huntingdon,	20,783	.....	75	20,858	.....	.....	265	28	.....	.....	200	1,620	5
Ocean No. 3,	Huntingdon,	26,530	.....	.....	26,530	.....	.....	265	51	.....	.....	225	2,940	4
Carbon,	Huntingdon,	23,888	.....	50	23,938	.....	.....	265	39	.....	.....	200	3,280	6
Totals,		81,029	.....	350	81,379	.....	.....	265	134	.....	1	745	8,740	17

*Totals in this column are averages.

Morrisdale Coal Co.														
Cunard shaft,	Bedford,	32,842	1,812	166	34,820	.....	.....	278	73	.....	.....	1,000	1,000	11
Cunard slope,	Bedford,	13,646	33	6	22,285	6,648	18	289	38	.....	.....	400	450	2
Totals,		46,488	1,845	172	57,075	6,648	18	283.5	111	.....	.....	1,400	1,450	13
Colonial Iron Co.														
Durham No. 1,	Bedford,	50,019	1,983	1,094	53,096	45,331	128	290	112	.....	.....	108	.....	6
Durham No. 2,	Bedford,	54,751	452	.....	55,203	.....	.....	284	86	.....	.....	120	.....	8
Judith,	Bedford,	13,714	200	.....	13,914	.....	.....	152	48	.....	.....	50	.....	5
Totals,		118,484	2,635	1,094	122,213	45,331	128	275.3	246	.....	.....	278	.....	19
Huntingdon Coal Co.														
Delaware No. 1,	Bedford,	16,897	.....	25	16,922	.....	.....	103	86	.....	.....	700	100	12
Delaware No. 2,	Bedford,	8,664	.....	.....	8,664	.....	.....	80	48	.....	.....	450	125	4
Totals,		25,561	.....	25	25,586	.....	.....	91.5	134	.....	.....	1,150	225	16
Jones & Tappan.														
Hickes No. 1,	Huntingdon,	2,988	.....	27	3,015	.....	.....	136	14	.....	.....	36	50	4
Hickes No. 2,	Huntingdon,	21,095	.....	3	21,098	.....	.....	138	40	2	1	120	142	5
Totals,		24,083	.....	30	24,113	.....	.....	137	54	2	1	156	192	9
E. Eichelberger & Co.														
Fisher,	Huntingdon,	18,210	.....	100	18,310	.....	.....	293	33	1	.....	450	1,500	4
Bacon,	Bedford,	24,206	.....	100	24,306	.....	.....	291	37	.....	.....	260	100	5
Totals,		42,416	.....	200	42,616	.....	.....	292	70	1	.....	710	1,600	9
Walnut Run Coal Mining Co.														
Walnut Run No. 1,	Cambria,	35,224	.....	.....	35,224	.....	.....	239.1	38	.....	.....	196	.....	4
Walnut Run No. 2,	Cambria,	28,134	.....	187	28,321	.....	.....	206.7	43	.....	.....	177	.....	7
Totals,		63,358	.....	187	63,545	.....	.....	222.9	81	.....	.....	373	.....	11
Cymbria Coal Mining Co.														
Cymbria No. 1,	Cambria,	77,974	763	307	79,044	.....	.....	247	113	.....	1	2,930	50	10
Cymbria No. 2,	Cambria,	6,000	.....	.....	6,000	.....	.....	125	28	.....	.....	.....	.....	.....
Totals,		83,974	763	307	85,044	.....	.....	186	141	.....	1	2,930	50	10
Duncan & Spangler Coal Co.														
Delta,	Cambria,	76,000	1,500	.....	77,500	.....	.....	200	102	.....	.....	295	325	12
Bluebaker No. 13,	Cambria,	43,000	.....	.....	43,000	.....	.....	141	57	.....	1	251	251	10
Totals,		119,000	1,500	.....	120,500	.....	.....	170.5	159	.....	1	646	646	22
Clearfield Bit. Coal Corporation.														
West Branch,	Cambria,	216,927	4,787	694	222,408	.....	.....	268	280	.....	1	1,000	225	20

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Taylor & McCoy. Gallitzin shaft,	Cambria,	46,079	3,660	3,623	184,835	80,144	238	282*	315	.....	.....	940	.....	26
Vinton Colliery Co. Vinton,	Cambria,	93,875	1,170	50	95,095	.....	.....	234	144	.....	.....	735	700	8
Oak Ridge Coal & Coke Co. Oak Ridge,	Cambria,	54,720	2,028	300	89,160	26,387	50	216	123	1	1	690	110	7
Black Lick Coal Mining Co. Big Bend,	Cambria,	83,320	1,294	363	84,977	.....	.....	202	147	.....	1	550	50	6
E. R. Jackman & Co. Mancher,	Cambria,	83,676	96	24	83,796	.....	.....	250	121	.....	3	700	200	11
Glen White Lumber & Coal Co. Glen White,	Blair,	15,265	2,400	331	63,075	29,301	66	279	126	.....	2	425	.....	12
Shreeve Run Coal Co. Warner,	Bedford,	62,398	32	237	62,667	.....	.....	294	87	1	.....	663	1,200	7
Allport Coal Co. Allport No. 1,	Cambria,	166,500	500	.....	117,000	.....	.....	233	90	.....	2	1,000	500	15
American Union Coal Co. Cambria No. 3,	Bedford,	50,132	1,627	1,184	52,943	.....	.....	259	106	1	1	200	350	11

*Totals in this column are averages.

A. J. Black. Black's Mine,	Huntingdon,	28,210	.....	1,200	29,410	.....	.....	259	54	.....	.....	120	1,500	5
J. P. Gates & Bro. Fulton,	Bedford,	39,600	500	75	40,175	.....	.....	264	59	.....	.....	1,260	1,000	10
J. J. McGonigal. Patton No. 3,	Cambria,	28,150	.....	60	28,510	.....	.....	234	32	.....	.....	144	.....	4
Spangler Coal & Coke Co. Gussie,	Cambria,	31,709	958	56	32,723	.....	.....	275	48	.....	.....	120	.....	5
Rich Hill Coal Co. Rich Hill,	Cambria,	23,082	.....	421	23,503	.....	.....	114	44	.....	.....	88	210	5
El Mora Coal Co. El Mora Nos. 1 and 2,	Cambria,	55,000	.....	100	55,100	.....	.....	267	88	.....	.....	350	.....	8
Bradley & Reed. Bradley Nos. 1, 2 and 3,	Blair,	50,000	.....	60	50,060	.....	.....	180	125	.....	.....	120	.....	16
Greenwich Coal & Coke Co. Greenwich Nos. 1 and 2,	Cambria,	36,749	106	241	37,096	.....	.....	152	60	.....	1	360	.....	4
C. D. Reed. Benedict Nos. 1 and 2,	Huntingdon,	16,019	.....	137	16,156	.....	.....	253	67	.....	.....	212	750	4
Kelly & Flanagan. Kelly No. 1,	Cambria,	13,122	.....	51	13,173	.....	.....	224	27	.....	.....	100	.....	3
Puritan Coal Mining Co. Puritan No. 4,	Cambria,	16,066	322	3,212	19,600	.....	.....	231	35	.....	.....	85	.....	2
Lincoln Coal Mining Co. Lincoln,	Cambria,	12,771	.....	.....	12,771	.....	.....	150	26	.....	.....	95	.....	7
Patton Clay Mfg. Co. Patton Clay Mine,	Cambria,	.....	10,335	200	10,535	.....	.....	312	41	.....	.....	500	1,500	6
S. V. Davis & Co. Flinton,	Cambria,	10,427	.....	50	10,477	.....	.....	196	18	.....	.....	110	75	4
W. A. Gould & Bro. Black Diamond,	Cambria,	12,263	20	.....	12,283	.....	.....	121	34	.....	.....	60	.....	3
Coalport Coal Co. Superior No. 2,	Cambria,	7,102	.....	200	7,302	.....	.....	120	23	3	.....	50	300	3
Ivory Hill Coal Co. Ivory Hill,	Cambria,	6,350	50	.....	6,400	.....	.....	176	45	.....	.....	300	400	2

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Wm. Parsall.														
Beaver Dam,	Cambria,	1,000	.....	100	1,100	.....	.....	29	27	.....	.....	.....	.....	2
Warner Coal Co.														
Duval,	Bedford,	2,247	885	50	3,182	.....	.....	175	33	.....	.....	131	.....	1
Lackawanna Coal & Coke Co.														
Lackawanna Nos. 1 and 2,	Cambria,	94,378	.....	1,024	95,402	.....	.....	214.3	137	.....	.....	750	.....	2
Lackawanna No. 3,	Indiana,	3,112	3,112	250	6,478	.....	.....	.....	43	1	.....	360	.....	4
Lackawanna No. 4,	Indiana,	4,739	4,739	437	9,915	.....	.....	.....	69	3	.....	500	.....	4
Totals,	.....	102,229	7,851	1,711	111,795	.....	.....	214.3	249	4	.....	1,550	.....	10
Rembrandt Peale.														
Bloom Victor No. 2,	Cambria,	114,609	100	.....	111,709	.....	.....	245.2	137	.....	.....	1,012	50	12
Bloom Victor No. 3,	Cambria,	43,118	480	.....	43,598	.....	.....	242	56	.....	.....	486	125	4
Bloom Victor No. 4,	Cambria,	39,151	85	.....	34,236	.....	.....	211	59	.....	.....	384	50	6
Bloom Victor No. 12,	Cambria,	77,280	30	.....	77,310	.....	.....	274	77	.....	1	628	50	6
Totals,	.....	274,158	695	.....	274,853	.....	.....	243	329	.....	1	2,510	275	28
Nant Y Glo Coal Mining Co.														
Nant Y Glo Nos. 1 and 2,	Cambria,	70,385	200	.....	70,585	.....	.....	181	106	.....	.....	500	.....	10
Jos. E. Thropp.														
Kearney Nos. 1 and 2,	Bedford,	316	1,091	763	64,970	39,537	170	294	180	.....	1	848	200	20

*Totals in this column are averages.

Saxton Furnace Co.														
Melrose,	Huntingdon,	4,931	90	308	50,329	32,700	123	279	124	.....	1	300	2,900	12
Davis, Spencer & Co.														
Van Ormer,	Cambria,	23,454	.....	1,500	24,654	.....	.....	205	62	.....	.....	325	.....	4
Deringer Bros.														
Susquehanna,	Cambria,	21,780	.....	100	21,880	.....	.....	243	30	.....	1	300	500	3
Daugherty Coal Co.														
Daugherty,	Cambria,	5,426	.....	225	5,651	.....	.....	190	12	.....	.....	40	11	2
Grand totals,		5,829,229	191,956	42,615	6,781,865	534,366	1,767	222	10,793	21	43	48,837	45,685	987

*Totals in this column are averages.

TABLE II—Continued.

Name of Operators.	County.	Number of Boilers.				Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.	Horse power.		Steam.	Air.	Electric.							
Beech Creek Coal and Coke Co.,	Cambria,	2	50	15	1,080	1,130	.....	.....	2	16	635	28	1,248	1,248	2	4
Webster Coal and Coke Co.,	Cambria,	8	350	8	985	1,335	1	.....	7	10	1,535	2	688	320	3	1
Barnes & Tucker,	Cambria,	7	652	6	655	1,307	.....	.....	4	6	652	5	1,050	625	3	1
Altoona Coal and Coke Co.,	Cambria,	4	160	2	200	360	2	.....	.....	5	345	1	.....	.....	.....	2
Rockhill Iron and Coal Co.,	Huntingdon,	7	.....	7	.....	940	.....	.....	.....	4	350	3	2,800	2,100	.....	1
Empire Coal Mining Co.,	Cambria,	.....	.....	3	260	260	.....	.....	1	2	130	3	200	175	1	1
Sterling Coal Co.,	Cambria,	.....	.....	4	125	500	.....	.....	3	.....	.....	2	600	200	1	1
Maderia Hill Coal Mining Co.,	Cambria,	.....	.....	2	80	160	.....	.....	.....	1	.....	2	300	125	.....	1
Cresson and Clearfield Coal and Coke Co.,	Cambria,	.....	.....	5	110	380	1	.....	.....	5	.....	2	400	200	.....	1
Crescent Coal Mining Co.,	Bedford,	.....	.....	2	140	140	.....	.....	.....	.....	.....	1	980	500	.....	.....
John Langdon	Bedford,	.....	.....	1	80	80	.....	.....	.....	.....	.....	1	400	250	.....	.....
Pennsylvania Coal and Coke Co.,	Blair & Cam.	2	50	9	1,450	1,500	.....	.....	3	5	1,000	1	400	300	3	2
W. H. Sweet,	Huntingdon,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Morrisdale Coal Co.,	Bedford,	1	40	1	80	120	.....	.....	.....	4	225	1	330	165	.....	.....
Colonial Iron Co.,	Bedford,	.....	.....	4	300	300	.....	.....	.....	3	260	3	1,100	850	.....	.....
Huntingdon Coal Co.,	Bedford,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jones & Tappen,	Huntingdon,	.....	.....	1	85	85	.....	.....	.....	.....	.....	1	200	200	.....	.....
E. Eichelberger & Co.,	Huntingdon,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Walnut Run Coal Mining Co.,	Cambria,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cymbria Coal Mining Co.,	Cambria,	.....	.....	1	150	150	.....	.....	3	3	155	.....	.....	.....	1	.....
Duncan & Spangler Coal Co.,	Cambria,	.....	.....	3	260	260	.....	.....	.....	2	.....	3	.....	.....	.....	1
Clearfield Bit. Coal Corporation,	Cambria,	.....	.....	3	260	260	.....	.....	1	2	170	1	460	.....	1	2
Taylor & McCoy,	Cambria,	8	184	2	300	484	.....	.....	.....	2	390	.....	.....	.....	1	.....
Vinton Colliery Co.,	Cambria,	.....	.....	3	500	500	.....	.....	.....	3	350	.....	.....	.....	1	2
Oak Ridge Coal & Coke Co.,	Cambria,	.....	.....	3	50	150	.....	.....	.....	2	130	1	150	75	.....	1
Black Lick Coal Mining Co.,	Cambria,	.....	.....	3	240	240	1	.....	2	3	220	.....	.....	.....	1	2
E. R. Jackman & Co.,	Cambria,	.....	.....	1	35	35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Glen White Lumber and Coal Co.,	Blair,	4	100	1	40	140	1	.....	.....	3	140	2	800	450	.....	.....
Sheeve Run Coal Co.,	Bedford,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Allport Coal Co.,	Cambria,	.....	.....	2	100	200	.....	.....	.....	.....	.....	1	300	100	.....	1
American Union Coal Co.,	Bedford,	.....	.....	4	225	2 25	.....	.....	.....	3	130	1	850	450	.....	.....

A. J. Black,	Huntingdon,										2	40	1	80			
J. P. Gates & Bro.,	Bedford,	1	40														
J. J. McGonigal,	Cambria,			2	160	160							1	100	75		1
Spangler Coal and Coke Co.,	Cambria,																
Rich Hill Coal Co.,	Cambria,	1	100	1	100	100				1	50						
El Mora Coal Co.,	Cambria,																
Bradley & Reed,	Blair,																
Greenwich Coal and Coke Co.,	Cambria,																
C. D. Reed,	Huntingdon,																
Kelly & Flanagan,	Cambria,																
Puritan Coal Mining Co.,	Cambria,			1	50	50							1	300	100		
Lincoln Coal Mining Co.,	Cambria,									2	60	2	100	40			
Patton Clay Mfg. Co.,	Cambria,																
S. V. Davis & Co.,	Cambria,																
W. A. Gould & Bro.,	Cambria,																
Coalport Coal Co.,	Cambria,			1	80	80				1	80	1					
Ivory Hill Coal Co.,	Cambria,																
Wm. Parsall,	Cambria,			2	80	160				1	50	1	350	175			
Warner Coal Co.,	Bedford,			20	650	4,600			2	9	400	9		4,644	4	3	
Lackawanna Coal and Coke Co.,	Cambria,			3	55	85				1		1	150	100		1	
Rembrandt Peale,	Cambria,			1	40	40				1							
Nant Y Glo Coal Mining Co.,	Cambria,			2	180	180			2	2	275	2	530	260	1	1	
Jos. E. Thropp,	Bedford											1					
Saxton Furnace Co.,	Huntingdon,																
Davis, Spencer & Co.,	Cambria,																
Deringer Bros.,	Cambria,																
Daugherty Coal Co.,	Cambria,																
Grand totals,		45	1,576	129	9,185	16,696	4		30	106	7,772	82	19,406	14,117	23	31	

TABLE III—Showing the number of each class of employes at each colliery in the Tenth Bituminous District during the year 1902.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
Beech Creek Coal and Coke Co.																						
Pardee No. 3,	Cambria,	1	....	....	5	6	93	6	8	6	.....	.....	125	....	....	3	2	.....	.....	5	10	135
Pardee No. 4,	Cambria,	1	....	....	.....	4	56	4	6	4	.....	.....	75	....	....	1	4	.....	.....	5	10	85
Pardee No. 5,	Cambria,	1	....	....	5	8	83	8	6	6	.....	.....	117	....	....	1	2	.....	.....	5	8	125
Pardee No. 6,	Cambria,	1	....	....	4	5	51	5	5	5	.....	.....	76	....	....	1	.....	.....	.....	3	4	80
Pardee No. 7,	Cambria,	2	....	....	.....	9	92	9	8	8	.....	.....	128	....	....	2	2	.....	.....	8	12	140
Flanagan Run No. 8,	Cambria,	1	....	....	8	16	196	16	12	12	.....	.....	261	....	....	2	4	.....	.....	10	10	277
Columbia No. 12,	Cambria,	1	....	....	25	6	105	6	8	8	.....	.....	159	....	....	1	2	.....	.....	8	11	170
Moshannon No. 13,	Cambria,	1	....	....	10	10	97	10	8	6	.....	.....	142	....	....	1	4	.....	.....	8	13	155
Ashcroft No. 14,	Cambria,	1	....	....	70	.....	.....	.....	3	2	.....	.....	76	....	....	1	.....	.....	.....	3	4	80
Totals,		10	....	....	127	64	273	64	64	57	.....	.....	1,159	....	....	13	20	.....	.....	55	88	1,247
Webster Coal and Coke Co.																						
Webster No. 7,	Cambria,	1	....	....	10	9	62	9	12	3	13	3	122	....	1	2	4	28	1	11	47	169
Webster No. 10,	Cambria,	1	....	....	.....	15	218	15	21	13	40	2	325	....	1	8	6	127	1	25	168	493
Webster No. 11,	Blair,	1	....	....	.....	7	65	7	8	.....	16	.....	104	....	1	2	.....	50	1	9	63	167
Webster Nos. 12 and 13,	Cambria,	2	....	....	98	7	43	7	15	9	33	10	224	....	1	3	7	60	1	21	93	317
Webster No. 14,	Cambria,	1	....	....	27	4	28	4	11	7	15	2	99	....	....	3	2	.....	1	5	11	110
Webster No. 9,	Cambria,	1	....	....	15	3	14	3	8	3	13	3	63	....	....	2	5	.....	1	12	20	83
Totals,		7	....	....	150	45	430	45	75	35	130	20	937	....	4	20	24	265	6	83	402	1,339
Cresson & Clearfield C. & C. Co.																						
Dean No. 8,	Cambria,	1	....	....	94	5	20	5	10	3	2	.....	140	1	....	1	2	.....	1	.....	5	145
Dean No. 9,	Cambria,	....	....	....	21	.....	.....	.....	2	.....	1	.....	24	....	....	.....	.....	5	.....	.....	5	29

Dean No. 10,	Cambria,	1	....	....	73	.....	.....	.....	5	1	2	.....	82	....	....	1	2	.....	.....	.....	3	185
Totals,		2	....	....	188	5	20	5	17	4	5	.....	246	1	....	2	4	5	1	.....	13	259
Barnes & Tucker.																							
Lancashire No. 6,	Cambria,	....	1	....	49	.....	.....	.....	3	2	1	.....	56	....	1	1	.....	.....	.....	.....	2	58
Lancashire No. 8,	Cambria,	1	....	....	108	8	.....	8	7	2	2	.....	136	....	....	1	2	.....	2	3	8	144
Lancashire No. 7,	Cambria,	1	....	....	120	6	.....	6	3	2	6	.....	144	....	....	2	2	.....	.....	6	10	154
Lancashire No. 3,	Cambria,	1	....	....	62	8	.....	8	3	1	3	.....	86	....	....	1	2	.....	.....	2	5	91
Lancashire No. 9,	Cambria,	1	....	....	28	.....	.....	.....	1	.....	.....	.....	30	....	....	.....	.....	.....	.....	.....	.....	30
Lancashire No. 11,	Cambria,	1	....	....	48	2	.....	2	2	2	1	.....	58	....	1	.....	.....	.....	.....	2	3	61
Juniata mine,	Cambria,	....	1	....	28	.....	.....	.....	1	.....	.....	.....	30	....	....	.....	.....	.....	.....	.....	.....	30
Totals,		5	2	....	443	24	.....	24	20	9	13	.....	540	....	2	5	6	.....	2	13	28	568
Altoona Coal and Coke Co.																							
Delaney mine,	Cambria,	1	....	....	299	5	10	5	30	1	8	2	361	1	....	6	6	22	1	33	69	430
Horse Shoe mine,	Blair,	1	....	....	50	.....	.....	.....	10	5	2	.....	68	....	....	1	.....	.....	.....	2	3	71
Totals,		2	....	....	349	5	10	5	40	6	10	2	429	1	....	7	6	22	1	35	72	501
Rockhill Iron and Coal Co.																							
Robertsdale slope,	Huntingdon,	1	1	....	165	.....	.....	.....	18	5	9	2	201	1	1	2	3	.....	1	14	22	223
Woodvale shaft,	Huntingdon,	1	....	....	96	.....	.....	.....	10	1	6	1	115	1	1	2	5	.....	.....	7	16	131
Totals,		2	1	....	261	.....	.....	.....	28	6	15	3	316	2	2	4	8	.....	1	21	38	354
Empire Coal Co.																							
Empire,	Cambria,	1	1	....	10	13	130	13	6	2	.....	28	204	1	1	2	3	.....	1	13	21	225
Eclipse,	Cambria,	1	....	....	35	.....	.....	.....	1	.....	.....	3	40	....	....	1	.....	.....	.....	2	3	43
Totals,		2	1	....	45	13	130	13	7	2	.....	31	244	1	1	3	3	.....	1	15	24	268
Sterling Coal Co.																							
Sterling No. 3,	Cambria,	1	....	....	45	12	55	12	9	3	2	5	144	2	....	1	.....	.....	.....	3	6	150
Sterling No. 4,	Cambria,	1	....	....	50	6	30	6	6	2	2	3	106	2	....	1	.....	.....	.....	3	6	112
Sterling No. 5,	Cambria,	1	....	....	5	6	35	6	4	2	2	2	63	2	....	1	.....	.....	.....	3	6	69
Sterling No. 1,	Cambria,	1	....	....	55	6	35	6	6	3	3	3	118	2	....	2	.....	.....	.....	3	7	125
Totals,		4	....	....	155	30	155	30	25	10	9	13	431	8	....	5	.....	.....	.....	12	25	456
Maderia Hill Coal Mining Co.																							
Manlon,	Cambria,	1	....	....	10	5	40	5	5	3	1	.....	70	....	1	1	2	.....	.....	3	7	77
Spangler No. 1,	Cambria,	1	....	....	70	.....	.....	.....	4	1	1	.....	77	....	1	1	.....	.....	.....	4	6	83
Spangler No. 2,	Cambria,	1	....	....	40	.....	.....	.....	2	2	1	.....	46	....	1	1	.....	.....	.....	2	4	50
Totals,		3	....	....	120	5	40	5	11	6	3	.....	193	....	3	3	2	.....	.....	9	17	210
Crescent Coal Mining Co.																							
Crescent No. 1,	Bedford,	1	....	....	54	.....	.....	.....	6	3	2	1	67	1	....	1	1	.....	1	3	7	74
Crescent No. 2,	Bedford,	1	....	....	70	.....	.....	.....	7	3	4	2	96	1	....	2	2	.....	1	5	11	107
Crescent No. 3,	Bedford,	1	....	....	35	.....	.....	.....	3	1	1	1	42	....	....	1	....	.....	....	2	3	45

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
Crescent No. 5,	Bedford,	1	....	....	24	.....	.....	.....	2	1	1	2	31	....	....	1	.....	.....	.....	3	4	35
Crescent No. 7,	Bedford,	1	....	....	16	.....	.....	.....	2	1	4	1	25	....	....	1	.....	.....	.....	3	4	29
Totals,		5	....	....	208	.....	.....	.....	20	9	12	7	261	2	....	6	3	.....	2	16	29	290
John Langdon.																						
Cambria No. 1,	Bedford,	1	....	....	51	.....	.....	.....	6	3	2	1	64	1	1	1	.....	.....	1	3	7	71
Chevington No. 1,	Bedford,	....	....	....	8	.....	.....	.....	1	.....	.....	.....	9	....	....	.....	.....	.....	.....	.....	.....	9
Chevington No. 2,	Bedford,	1	....	....	50	.....	.....	.....	6	4	2	2	65	....	2	1	.....	.....	.....	5	8	73
Totals,		2	....	....	109	.....	.....	.....	13	7	4	3	138	1	3	2	.....	.....	1	8	15	153
Pennsylvania Coal and Coke Co.																						
Pennsylvania No. 1,	Blair,	1	1	....	53	3	75	3	10	1	6	.....	153	1	1	3	4	18	1	10	38	191
Pennsylvania No. 3,	Cambria,	1	1	....	.....	9	130	9	12	8	22	.....	192	1	....	4	6	.....	1	.....	12	204
Pennsylvania Nos. 5 and 6,	Cambria,	2	2	....	.....	6	75	6	.....	.....	2	.....	93	1	....	6	4	.....	2	.....	13	166
Totals,		4	4	....	53	18	280	18	22	9	30	.....	438	3	1	13	14	18	4	1 0	63	501
Colonial Iron Co.																						
Durham No. 1,	Bedford,	1	1	....	40	.....	.....	.....	6	2	3	1	54	1	....	2	4	46	.....	5	58	112
Durham No. 2,	Bedford,	1	....	....	60	.....	.....	.....	8	3	4	.....	76	....	....	2	2	.....	1	5	10	86
Judith,	Bedford,	1	....	....	30	.....	.....	.....	4	1	2	2	40	....	....	.....	2	.....	.....	6	8	48
Totals,		3	1	....	130	.....	.....	.....	18	6	9	3	170	1	....	4	8	46	1	16	76	246

W. H. Sweet.																						
Ocean No. 1,	Huntingdon,	1	....	....	12	.....	.....	.....	2	.....	.....	.....	15	....	....	1	.....	.....	.....	.....	1	16
Ocean No. 2,	Huntingdon,	1	....	....	20	.....	.....	.....	4	1	1	.....	27	....	....	1	.....	.....	.....	.....	1	28
Ocean No. 3,	Huntingdon,	1	....	....	43	.....	.....	.....	4	.....	1	.....	49	....	....	1	.....	.....	1	.....	2	51
Carbon,	Huntingdon,	1	....	....	32	.....	.....	.....	4	.....	1	.....	38	....	....	1	.....	.....	.....	.....	1	39
Totals,		4	....	....	107	.....	.....	.....	14	1	3	.....	129	....	....	4	.....	.....	1	.....	5	134
Morrisdale Coal and Coke Co.																						
Cunard shaft,	Bedford,	1	1	....	50	.....	.....	.....	5	2	3	.....	62	1	....	1	3	5	1	.....	11	73
Cunard slope,	Bedford,	1	....	....	30	.....	.....	.....	4	1	1	.....	37	....	....	1	.....	.....	.....	.....	1	38
Totals,		2	1	....	80	.....	.....	.....	9	3	4	.....	99	1	....	2	3	5	1	.....	12	111
Huntingdon Coal Co.																						
Delaware No. 1,	Bedford,	1	1	....	60	.....	.....	.....	9	2	4	.....	77	1	....	2	.....	.....	1	5	9	86
Delaware No. 2,	Bedford,	1	....	....	35	.....	.....	.....	3	1	2	.....	42	1	....	1	.....	.....	1	3	6	48
Totals,		2	1	....	95	.....	.....	.....	12	3	6	.....	119	2	....	3	.....	.....	2	8	15	134
Cymbria Coal Mining Co.																						
Cymbria No. 1,	Cambria,	1	....	....	60	2	25	2	1	2	8	.....	101	1	....	4	3	.....	1	3	12	113
Cymbria No. 2,	Cambria,	1	....	....	25	.....	.....	.....	.....	1	1	.....	28	.....	.....	.....	.....	.....	.....	.....	.....	28
Totals,		2	....	....	85	2	25	2	1	3	9	.....	129	1	....	4	3	.....	1	3	12	141
Duncan & Spangler.																						
Delta,	Cambria,	1	....	....	60	7	7	7	6	3	4	.....	95	1	....	1	3	.....	1	1	7	102
Bluebaker,	Cambria,	1	....	....	45	.....	.....	.....	6	1	1	.....	54	....	....	1	.....	.....	.....	2	3	57
Totals,		2	....	....	105	7	7	7	12	4	5	.....	149	1	....	2	3	.....	1	3	10	159
Lackawanna Coal and Coke Co.																						
Lackawanna No. 1,	Cambria,	1	....	....	30	4	19	4	9	.....	24	.....	91	1	....	3	4	.....	1	9	18	109
Lackawanna No. 2,	Cambria,	1	....	....	22	.....	.....	.....	1	.....	2	.....	26	....	....	.....	1	.....	.....	1	2	28
Lackawanna No. 3,	Indiana,	1	....	....	12	2	.....	2	1	.....	13	.....	31	....	....	2	4	.....	.....	6	12	43
Lackawanna No. 4,	Indiana,	1	....	....	4	4	19	4	2	.....	14	2	50	....	....	3	4	.....	.....	12	19	69
Totals,		4	....	....	68	10	38	10	13	.....	53	2	198	1	....	8	13	.....	1	28	51	249
Rembrandt Peale.																						
Bloom Victor No. 2,	Cambria,	1	....	....	109	.....	.....	.....	7	3	3	.....	123	1	....	2	1	.....	1	9	14	137
Bloom Victor No. 3,	Cambria,	1	....	....	43	.....	.....	.....	3	1	2	.....	50	.....	....	1	2	.....	.....	3	6	56
Bloom Victor No. 4,	Cambria,	1	....	....	48	.....	.....	.....	3	1	2	.....	55	.....	....	1	.....	.....	.....	3	4	59
Bloom Victor No. 12,	Cambria,	1	....	....	64	.....	.....	.....	4	3	2	.....	74	.....	....	1	.....	.....	.....	2	3	77
Totals,		4	....	..	264	.....	.....	.....	17	8	9	.....	302	1	....	5	3	.....	1	17	27	329
Jones & Tappan.																						
Hickes No. 1,	Huntingdon,	1	....	....	10	.....	.....	.....	2	.....	.....	.....	13	....	....	1	.....	.....	.....	.....	1	14
Hickes No. 2,	Huntingdon,	1	1	..	28	.....	.....	.....	4	1	.....	.....	35	1	....	2	1	.....	1	.....	5	40
Totals,		2	1	.	38	.....	.....	.....	6	1	.....	.....	48	1	....	3	1	.....	1	.....	6	54

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
Clearfield Coal Corporation. West Branch,	Cambria,	1	1	2	30	14	160	14	13	2	.....	13	250	....	1	2	6	.....	1	20	30	280
Taylor & McCoy. Gallitzin shaft,	Cambria,	1	1	....	.....	8	164	8	22	8	.....	11	223	....	1	4	8	78	1	.....	92	315
Vinton Colliery Co. Vinton colliery,	Cambria,	1	....	....	66	6	.....	6	7	.....	21	10	117	1	....	3	3	.....	1	19	27	144
Oak Ridge Coal and Coke Co. Oak Ridge,	Cambria,	1	....	....	.....	4	55	4	7	2	6	.....	79	1	....	1	3	16	1	22	44	123
Black Lick Mining Co. Big Bend,	Cambria,	1	1	....	79	2	19	2	9	3	8	2	126	1	1	4	4	.....	2	9	21	147
E. R. Jackman & Co. Mancher,	Cambria,	1	....	....	105	.....	.....	.....	4	2	2	.....	114	....	....	1	1	.....	.....	5	7	121
Glen White Coal & Land Co. Glen White,	Blair,	1	....	....	73	.....	.....	.....	8	3	3	.....	88	1	1	2	5	24	1	4	38	126
Shreeve Run Coal Co. Warner,	Bedford,	1	1	....	65	.....	.....	.....	8	1	2	1	79	1	....	2	.....	.....	1	4	8	87
Allport Coal Co. Allport No. 1,	Cambria,	1	1	....	60	5	.....	5	5	2	2	2	83	1	1	1	2	.....	1	1	7	90

American Union Coal Co. Cambria No. 3,	Bedford,	1	1	....	70	.....	.....	.....	10	2	10	.....	94	1	....	2	3	.....	1	5	12	106
A. J. Black. Black,	Huntingdon,	1	1	....	41	.....	.....	.....	5	1	1	.....	50	1	1	1	.....	.....	1	.....	4	54
J. P. Gates & Bro. Fulton,	Bedford,	1	....	....	40	.....	.....	.....	7	4	1	.....	53	....	1	1	1	.....	1	2	6	59
J. J. McGonigal. Patton No. 3,	Cambria,	1	1	....	27	.....	.....	.....	2	.....	.....	.....	31	1	....	.....	.....	.....	.....	.....	1	32
Spangler Coal and Coke Co. Gussie,	Cambria,	1	....	....	.....	3	30	3	2	.....	2	.....	41	1	....	1	2	.....	1	2	7	48
Rich Hill Coal Co. Rich Hill,	Cambria,	1	....	....	35	.....	.....	.....	4	1	1	.....	42	....	....	1	.....	.....	.....	1	2	44
El Mora Coal Co. El Mora Nos. 1 and 2,	Cambria,	1	....	....	70	.....	.....	.....	5	2	2	3	83	1	....	1	.....	.....	3	.....	5	88
Greenwich Coal and Coke Co. Greenwich No. 1,	Cambria,	1	1	....	40	.....	.....	.....	2	2	.....	.....	46	1	....	2	1	.....	1	1	6	52
Greenwich No. 2,	Indiana,	1	....	....	.....	.....	.....	.....	2	1	1	.....	5	....	....	.....	1	.....	1	1	3	8
Totals,		2	1	....	40	.....	.....	.....	4	3	1	.....	51	1	....	2	2	.....	2	2	9	60
C. D. Reed. Benedict Nos. 1 and 2,	Huntingdon,	1	....	....	45	.....	.....	.....	5	2	7	2	62	1	1	2	.....	.....	1	.....	5	67
Kelly & Flanagan. Kelly No. 1,	Cambria,	1	....	....	20	.....	.....	.....	2	.....	.....	.....	23	....	....	.....	.....	.....	1	3	4	27
Puritan Coal Mining Co. Puritan No. 4,	Cambria,	1	....	....	27	.....	.....	.....	1	.....	2	.....	31	1	....	1	1	.....	1	.....	4	35
Lincoln Coal Co. Lincoln,	Cambria,	1	....	....	18	.....	.....	.....	2	.....	3	.....	24	1	....	.....	.....	.....	1	.....	2	26
Patton Clay Mfg. Co. Patton Clay Mine,	Cambria,	1	....	....	10	.....	.....	.....	.....	10	12	.....	33	1	....	1	1	.....	1	4	8	41
Jos. E. Thropp. Kearney Nos. 1 and 2,	Bedford,	1	....	....	78	.....	.....	.....	16	5	4	2	106	1	1	3	3	54	1	11	74	180
Saxton Furnace Co. Melrose,	Huntingdon,	1	....	....	58	.....	.....	.....	9	.....	.....	.....	68	1	....	2	1	50	.....	2	56	124
Davis, Spencer & Co. Van Ormer,	Cambria,	1	....	....	50	.....	.....	.....	3	.....	3	1	58	1	....	.....	.....	.....	1	2	4	62
Deringer Bros. Susquehanna,	Cambria,	1	....	....	24	.....	.....	.....	1	.....	2	1	29	1	....	.....	.....	.....	.....	.....	1	30

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
Coalport Coal Co.																						
Superior No. 2,	Cambria,	1	....	....	12	.....	.....	.....	2	.....	.....	.....	15	1	....	1	.....	.....	.....	6	8	23
Daugherty Coal Co.																						
Daugherty,	Cambria,	1	....	....	9	.....	.....	.....	1	.....	.....	.....	11	1	....	.....	.....	.....	.....	.....	1	12
Ivory Hill Coal Co.																						
Ivory Hill,	Cambria,	1	....	....	25	.....	.....	.....	2	1	2	.....	31	2	....	3	2	.....	1	6	14	45
Warner Coal Co.																						
Duval,	Bedford,	1	....	....	.....	.....	.....	.....	1	.....	.....	25	27	1	....	1	3	.....	1	.....	6	33
Wm. Parsall.																						
Beaver Dam,	Cambria,	1	....	....	22	.....	.....	.....	1	.....	2	.....	26	1	....	.....	.....	.....	.....	.....	1	27
Bradley & Reed.																						
Bradley Nos. 1, 2 and 3,	Blair,	3	....	....	100	.....	.....	.....	10	3	6	.....	122	1	....	1	.....	.....	1	.....	3	125
W. A. Gould & Bro.																						
Black Diamond,	Cambria,	1	....	....	30	.....	.....	.....	2	.....	.....	.....	33	....	....	1	.....	.....	.....	.....	1	34
Walnut Run Coal Mining Co.																						
Walnut Run No. 1,	Cambria,	1	....	....	28	.....	.....	.....	1	2	3	.....	35	1	....	1	1	.....	.....	.....	3	38
Walnut Run No. 2,	Cambria,	1	....	....	31	.....	.....	.....	3	1	3	.....	39	1	....	1	.....	.....	.....	2	4	43
Totals,	.....	2	....	....	59	.....	.....	.....	4	3	6	.....	74	2	....	2	1	.....	.....	2	7	81

E. Eichelberger & Co.																								
Beacon,	Bedford,	1	....	....	30	.....	.....	.....	3	.....	.....	.....	34	1	....	1	.....	.....	1	.....	3	37
Fisher,	Huntingdon,	1	....	....	27	.....	.....	.....	3	.....	.....	.....	31	1	....	.....	.....	.....	1	.....	2	33
Totals,		2	....	....	57	.....	.....	.....	6	.....	.....	.....	65	2	....	1	.....	.....	2	.....	5	70
Nant Y Glo Coal Mining Co.																								
Nant Y Glo No. 1,	Cambria,	1	....	....	60	.....	.....	.....	6	2	1	.....	70	....	....	1	1	.....	1	3	6	76
Nant Y Glo N. 2,	Cambria,	1	....	....	25	.....	.....	.....	1	.....	1	.....	28	....	....	1	.....	.....	.....	1	2	30
Totals,		2	....	....	85	.....	.....	.....	7	2	2	.....	98	....	....	2	1	.....	1	4	8	106
S. V. Davis.																								
Flinton,	Cambria,	1	....	....	14	.....	.....	.....	2	.....	.....	.....	17	1	....	.....	.....	.....	.....	.....	1	18
Grand totals,		116	21	2	4,724	270	2,336	270	643	251	442	157	9,232	60	25	168	177	583	60	488	1,561	10,793

TABLE III—Continued.

Names of Operators and Collieries.	County.	Number of Days Worked in Each Month.												
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Beech Creek Coal and Coke Co.,	Cambria,	20.2	12.2	16.2	21.25	20.2	20.4	22.6	23.25	22.7	22.8	18.5	21.3	250.1
Webster Coal and Coke Co.,	Cam. & Blair	24	20.5	20	18.5	22.1	22.1	21.5	21	18.33	20	16.5	18	243
Cresson and Clearfield Coal and Coke Co.,	Cambria,	20	17	21	20.5	19.5	22.5	20.5	22	22	22.66	20.33	19	193
Barnes & Tucker,	Cambria,	20.1	13.66	19.2	17.1	23.1	21	23	20.33	15.5	18.33	20	16	205.1
Altoona Coal and Coke Co.,	Cam. & Blair	25	22.5	25.5	24.5	24.5	24.5	24.75	24.5	23.5	26.33	23.2	25	265
Rockhill Iron and Coal Co.,	Huntingdon,	26.5	23	25	12.5	12.5	19.5	23.5	23	24.5	24	22.5	22	258.5
Empire Coal Co.,	Cambria,	13	3	14	22.5	17	21.5	23.5	25	22	25.5	22	19	228
Sterling Coal Co.,	Cambria,	23	22	22	24	22.25	22.5	23.5	23.25	23.75	23.25	23.5	20.25	240
Maderia Hill Coal Mining Co.,	Cambria,	20.5	16	20.33	22.33	16.66	20.66	19	21	19.33	26	17.66	23.66	236.1
Crescent Coal Mining Co.,	Bedford,	19.33	21.33	24	22.66	22.66	21.66	22.66	23.33	20.3	24	20.3	22.1	194
John Langdon,	Bedford,	25.2	23	25	24.2	24.2	21.2	23.1	26	24	24.2	20.2	21.2	288
Pennsylvania Coal and Coke Co.,	Blair & Cam.	26	23	26	24	19	22.75	21.5	19.7	19.3	21.75	20.1	19.66	169
Colonial Iron Co.,	Bedford,	26	21	24.5	21.5	25	24.5	21	25.66	24.66	26.66	24	25	242
W. H. Sweet,	Huntingdon,	20	20	22	22	23	22	21	22	23	24	23	23	265
Morrisdale Coal and Coke Co.,	Bedford,	24.3	20.66	24.4	22.3	24	24	24	23	23	26	22.75	25	283.2
Huntingdon Coal Co.,	Bedford,	.....	.....	.....	.....	.....	.....	.....	.....	19.5	21	20.5	20	91.5
Cymbria Coal Mining Co.,	Cambria,	22	17	20	17	24	22	19	23	15	26	21	21	186
Duncan & Spangler,	Cambria,	14	10	15	12.5	17.5	15	16.5	16.5	16.5	15.5	12	9.5	170.5
Lackawanna Coal and Coke Co.,	Cam. & Ind.,	20.3	17.3	21.2	19.4	21.3	21.3	21.2	18	16	13.6	11.2	13.6	214.3
Rembrandt Peale,	Cambria,	20.25	16	19.25	23	20.5	20.5	21.33	22.7	19.25	23	18.2	20	243
Jones & Tappan,	Huntingdon,	.....	.....	.....	.....	.....	20	16	20	16.5	22.5	23	19	136.5
Clearfield Coal Corporation,	Cambria,	24	20	23	22	24	21	22	23	20	23	24	22	268
Taylor & McCoy,	Cambria,	26	22	24	23	24	25	25	24	24	27	22	20	286
Vinton Colliery Co.,	Cambria,	22	21	22	21.5	25	22	23.5	18	16	17	11	15	234
Oak Ridge Coal and Coke Co.,	Cambria,	26	16	18	18	20	21	18	17	15	18	15	14	216
Black Lick Mining Co.,	Cambria,	17.1	10.1	16.4	16.4	17	18.4	19.9	20.6	22.1	13	19.7	11.5	202.2
E. R. Jackman & Co.,	Cambria,	13	6	20	26	25	22	24	26	23	26	23	16	250
Glen White Coal and Land Co.,	Blair,	23	18	23	24	23	23	24	24	24	25	24	24	279
Shreeve Run Coal Co.,	Bedford,	26	23	24	24	24	22	25	25	25	27	24	25	294
Allport Coal Co.,	Cambria,	20	19	22	22	25	20	19	22	18	18	16	12	233
American Union Coal Co.,	Bedford,	19	20.5	22	21	17	18	24	24	25	26	21.5	21	259
A. J. Black,	Huntingdon,	26	18	18	23	20	20	20	22	22	23	23	24	259

J. P. Gates & Bro.,	Bedford,	22	20	23	22	23	21	22	23	24	22	22	20	264
J. J. McGonigal,	Cambria,	18	13	16	23	22	20	25	24	10	23	22	18	234
Spangler Coal and Coke Co.,	Cambria,	23	17	23	25	24	21	23	25	22	25	21	26	275
Rich Hill Coal Co.,	Cambria,	11.1	10.1	8	9.7	8	10.1	13.1	7	7	16	9	5	114.1
El Mora Coal Co.,	Cambria,	22	20	21	24	23	22	24	23	24	21	22	21	267
Greenwich Coal and Coke Co.,	Cam. & Ind.,	10	12	17	14	21	24	20	21	18	16.5	15.5	22.5	152.5
C. D. Reed,	Huntingdon,	17	16	21	22	20	23	22	24	23	22	23	21	256
Kelly & Flanagan,	Cambria,	14	6	23.5	19	13	7.5	15.5	26	26	26	23	24.5	224
Puritan Coal Mining Co.,	Cambria,	25.5	17.5	21.3	13.3	15.8	19.2	22.8	17.4	15.7	25.5	17 5	19.1	230.6
Lincoln Coal Co.,	Cambria,	13.2	9	9.9	10.6	16.8	16.7	19.1	16.4	10	12	7.1	8.9	149.7
Patton Clay Mfg. Co.,	Cambria,	27	24	26	26	27	25	27	26	26	27	25	26	312
Joseph E. Thropp,	Bedford,	27	24	22.5	22	24.5	25	24	24.5	24	26	25	25.5	294
Saxton Furnace Co.,	Huntingdon,	25	20	21	23	22	23	25	25	25	25	22	23	279
Davis, Spencer & Co.,	Cambria,	20	10	20	13	21	20	15	13	15	16	21	21	205
Deringer Bros.,	Cambria,	21	20	20	21	23	21	25	22	18	20	17	12	243
Coalport Coal Co.,	Cambria,	.....	3	9	14	10	11	13	15	18	7	11	9	120
Daugherty Coal Co.,	Cambria,	16	12	14	14	4	12	12	16	22	23	22	23	190
Warner Coal Co.,	Bedford,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	176
Wm. Parsall,	Cambria,	.....	.....	.....	.....	.....	26	26	25	24	25	25	24	175
Bradley & Reed,	Blair,	15	18	18	20	21	15	20	18	16	21	9	20	29
W. A. Gould & Bro.,	Cambria,	.....	.....	.....	.....	.....	15	16	20	16	19	23	20	225
Walnut Run Coal Mining Co.,	Cambria,	21	16.5	19.33	21	19.2	21	22	18.5	14.7	15	15	19.75	121
E. Eichelberger & Co.,	Bed & Hunt.	26 5	22.5	24.5	25	22	22.5	25	24.5	24.5	27	22.5	25.5	223 4
Nant Y Glo Coal Mining Co.,	Cambria,	20	16	11	15	19	21	18	15	11	14	12	12	292
S. V. Davis,	Cambria,	16	12	15	17	20	14	14	18	14	16	18	22	181
														196

TABLE IV—List of fatal accidents that occurred in and about the mines of the Tenth Bituminous District for the year ending December 31, 1902.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Feb. 15	Carl Pereton, ...	Russian, ...	Miner, ...	24	S.	....	....	Dean No. 8, ...	Cambria,....	Fatally injured by fall of slate, died May 2.
Feb. 20	Frank Delaux, ...	Belgian, ...	Miner, ...	50	M.	1	2	Robertsdale, ...	Huntingdon,	Instantly killed by fall of rock.
March 15	James Highms, ...	English, ...	Mine foreman, ..	41	M.	1	3	Oak Ridge, ...	Cambria,....	Instantly killed by cars.
April 22	John Patiuk, ...	Slav, ...	Miner, ...	36	M.	1	3	Flanagan No. 9, ..	Cambria,....	Instantly killed by a fall of coal.
June 3	Andrew L. Warring,	American, .	Miner, ...	47	M.	1	1	Crescent No. 1, ...	Bedford, ...	Instantly killed by a fall of roof.
5	Simon Piosta, ...	Lithuanian,	Miner, ...	40	M.	1	6	Webster No. 13, ...	Cambria,....	Fatally injured by a fall of coal, died July 24th.
July 2	Ernest Monroe, ...	Negro, ...	Miner, ...	21	S.	....	....	Lackawanna No. 4,	Indiana,.....	Instantly killed by a fall of rock.
Aug. 2	John Henchman, ...	Pole, ...	Machine runner,	34	M.	1	3	Mitchells No. 1, ...	Blair,.....	Insantly killed by cars, knocking the timbers out filling the car in which he was riding.
9	John McIntyre, ...	American, .	Ass't. foreman,..	35	M.	1	3	Warner, ...	Bedford, ...	Instantly killed by a blast.
Oct. 1	John Patton, ...	Irish, ...	Miner, ...	64	M.	1	....	Mitchells No. 1, ...	Blair,.....	Instantly killed by cars.
11	Wm. Patterson, ...	English, ...	Miner, ...	47	M.	1	5	Delaney, ...	Cambria,....	Instantly killed by a fall of roof.
11	Mikeal Covash, ...	Hungarian,	Miner, ...	50	M.	1	5	Lackawanna No. 4,	Indiana,.....	Instantly killed by a fall of roof.
11	Charl Remish, ...	Hungarian,	Miner, ...	30	M.	1	....	Lackawanna No. 4,	Indiana,.....	Instantly killed by a fall of roof.
31	Edward Lemin, ...	English, ...	Miner, ...	21	S.	....	....	Fisher, ...	Huntingdon,	Fatally injured while riding between cars.
Nov. 7	Paul Kasup, ...	Hungarian,	Miner, ...	31	M.	1	3	Superior No. 2, ...	Cambria,....	Instantly killed by a fall of coal.
14	Paul Hertell, ...	Slav, ...	Miner, ...	28	M.	1	....	Lackawanna No. 3,	Indiana,.....	Fatally injured by explosion of dynamite.
15	Geo. Andrisack, ...	Lithuanian,	Miner, ...	32	M	1	1	Moshannon No. 13,..	Cambria,....	Instantly killed by a fall of roof.
21	Patrick Kennedy, ...	American, .	Miner, ...	30	S.	....	....	Hickes No. 2, ...	Huntingdon,	Fatally burned by a blown out shot igniting coal dust.
21	Mikeal Brennen, ...	American, .	Miner, ...	28	M.	1	2	Hickes No. 2, ...	Huntingdon,	Fatally burned by a blown out shot igniting coal dust.
24	Mike O'Lear, ...	Slav, ...	Miner, ...	39	M.	1	8	Lancashire No. 11, ..	Cambria,....	Instantly killed by a fall of coal.
Dec. 6	Dominick Derverteher,	Italian, ...	Miner, ...	22	S.	....	....	Superior No. 2, ...	Cambria,....	Instantly killed by a fall of roof.
6	Francisco Derverteher,	Italian, ...	Miner, ...	16	S.	....	....	Superior No. 2, ...	Cambria,....	Instantly killed by a fall of roof.
13	Chas. Krebs, ...	American, .	Outside fireman,	29	M.	1	1	Webster Nos. 12-13,	Cambria,....	Instantly killed by a boiler explosion.
22	Wasel Hudah, ...	Pole, ...	Company man, ..	44	M.	1	2	Cambria No. 3, ...	Bedford, ...	Instantly killed by a fall of roof.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Tenth Bituminous District for the year ending December 31, 1902.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 3	Peter Wurm,	American,	Miner,	29	M.	Dean No. 18,	Cambria,	Leg broken by the roof falling on him.
20	Andy Mauchko,	Slav,	Miner,	27	S.	Webster No. 9,	Cambria,	Leg broken by mine cars.
Feb. 4	L. W. Mellott,	American,	Company man,	30	M.	Cambria No. 1,	Bedford,	Injured by fall of roof.
5	Paul Johnson,	Swede,	Miner,	34	M.	Mitchell's No. 1,	Blair,	Leg broken by fall of roof.
6	George White,	American,	Miner,	30	M.	Sterling No. 1,	Cambria,	Collar bone broken by fall of coal.
Mar. 29	Albert Sago,	Pole,	Miner,	23	S.	Mancher,	Cambria,	Hip bone broken by a fall of coal.
April 26	Harry Dodson,	American,	Driver,	32	M.	Crescent No. 1,	Bedford,	Arm broken by being caught between car and roof.
30	James Murry,	Irish,	Driver,	23	S.	Dean No. 8,	Cambria,	Leg broken by a car.
May 1	C. C. Edwards,	American,	Door boy,	13	S.	Crescent No. 2,	Bedford,	Laceration of the leg by a car.
6	Frank Conners,	American,	Driver,	29	M.	Cambria No. 3,	Bedford,	Squeezed between cars inside the mine.
10	George Dorosick,	Austrian,	Miner,	52	S.	Mancher,	Cambria,	Leg broken by car running over it.
24	Clyde Lucas,	American,	Driver,	23	S.	Moshannon No. 13,	Cambria,	Leg broken by a car.
June 6	Louis Regetta,	Italian,	Miner,	22	S.	Webster No. 11,	Blair,	Compound fracture of the arm by fall of roof.
11	John Ryan,	Irish,	Company man,	50	M.	Oak Ridge,	Cambria,	Leg broken by a fall of coal.
23	William Lawton,	Welsh,	Miner,	37	S.	West Branch,	Cambria,	Collar bone broken by a fall of coal.
23	Emery Cristoff,	Hungarian,	Miner,	36	M.	Flanagan No. 9,	Cambria,	Collar bone dislocated by a fall of coal.
July 19	Frank Fouchan,	Italian,	Miner,	50	M.	Susquehanna,	Cambria,	Arm broken by a fall of coal.
Aug. 1	Harry McHugh,	American,	Engineer,	27	S.	Big Bend,	Cambria,	Leg cut off by motor running over it.
5	James McMullen,	American,	Engineer,	35	M.	Mitchell's No. 3,	Cambria,	Both jaws broken and skull fractured by starting the air compressor with the relief post closed; the lever struck him.
13	Godfred Cedarholm,	American,	Loader,	14	S.	Flanagan No. 8,	Cambria,	Leg broken by coal rolling on it.
18	John Olsen,	Swede,	Miner,	32	S.	Mancher,	Cambria,	Leg broken by a fall of coal.
20	John Malmesgoot,	Slav,	Miner,	26	S.	Spangler No. 1	Cambria,	Leg broken by a fall of coal.
20	James Hunter,	American,	Driver,	26	M	Webster No. 10,	Cambria,	Leg broken while riding between cars.
29	Thomas Cassidy,	Scotch,	Loader,	49	M.	Flanagan No. 8,	Cambria,	Leg broken by fall of roof.
30	Howard Reed,	American,	Out com. man,	25	S	Melrose,	Huntingdon	Leg broken by car.
Sept. 4	Samuel Hicks,	American,	Miner,	25	M	Crescent No. 1,	Bedford	Injured by a fall of roof.
9	Robert Thompson,	American,	Miner,	28	M	Webster No. 9,	Cambria	Severely hurt by a blast
18	Edward Hughes,	American,	Miner,	23	M	Kearney No. 2,	Bedford	Injured by being caught between the car and roof.
22	Andy Frishart,	Austrian,	Miner,	20	M	Bluebaker No. 13,	Cambria	Severely injured by a fall of coal.

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Sept. 24	John Krisouk, ...	Slav, ...	Miner, ...	30	S.	Lancashire No. 7, ...	Cambria,....	Leg broken by fall of coal.
Oct. 1	David McNair	Scotch, ...	Miner, ...	60	S.	Victor No. 12, ...	Cambria,....	Leg broken by fall of roof.
2	Thomas Blake, Sr., ...	Scotch, ...	Miner, ...	46	M.	Allport No. 1, ...	Cambria,....	Injured by a fall of roof by drawing pillars.
2	Thomas Blake, Jr., ...	Scotch, ...	Miner, ...	16	S.	Allport No. 1, ...	Cambria,....	
13	Stephen Wininsky, ...	Slav, ...	Miner, ...	27	S.	Glen White, ...	Blair,.....	Collar bone fractured by a piece of coal falling on him.
20	Albert Gewsick, ...	Slav, ...	Mach. helper, .	22	M.	Cymbria No. 1, ...	Cambria,....	Leg cut off in a chain machine.
30	John Giel.	French, ...	Driver, ...	17	S.	Mitchell's No. 3, ...	Cambria,....	Squeezed between roof and loaded cars.
31	Alex. Turner, ...	French, ...	Helper, ...	14	S.	Webster No. 13, ...	Cambria,....	Leg broken; fell under a loaded car.
Nov. 6	John Williams, ...	Welsh, ...	Miner, ...	50	M.	Ocean No. 1, ...	Huntingdon,	Hand crushed by a fall of coal.
8	Denis Kirkpatrick, ...	American, .	Miner, ...	23	M.	Pardee No. 6, ...	Cambria,....	Injured by coal falling on him.
21	Thomas Davis, ...	American, .	Miner, ...	31	S.	Hickes No. 2, ...	Huntingdon,	Burned by blown out shot.
29	John Olexis, ...	Slav, ...	Miner, ...	36	M.	Greenwich No. 2, ...	Cambria,....	Collar bone broken by fall of coal.
Dec. 9	Sam Basile, ...	Italian, ...	Miner, ...	16	S.	Spangler No. 2, ...	Cambria,....	Burned by powder while making a cartridge.
23	Joseph Butwick, ...	Pole, ...	Miner, ...	25	S.	Glen White, ...	Blair,.....	Fracture of leg and injury to his spine by a fall of coal.

Eleventh Bituminous District.

WESTMORELAND, FAYETTE AND ALLEGHENY COUNTIES.

Scottdale, Pa., March 17, 1903.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.

Sir: In compliance with the provisions of the Act of Assembly, approved May 15, 1893, relating to the Bituminous coal mines of Pennsylvania, I herewith submit my annual report as Inspector of Mines for the Eleventh Bituminous District for the year ending December 31, 1902.

It contains all of the required statistical tables, together with a brief description of the mines, their condition, and the improvements completed during the year, and I am pleased to state that with but very few exceptions their general condition has been satisfactory. A detailed account is given in the description of mines; also a list of all accidents which proved fatal, with an explanation of the circumstances surrounding them. My judgment compels me to state that a very large majority of them could have been averted by the exercise of judgment and care on the part of the victims, as they were, with but very few exceptions, men who had years of experience as coal miners and should have been well qualified to care for their own safety. The number of fatal accidents for the year is thirty, twenty-nine inside and one outside, the non-fatal ones number seventy-nine, seventy-three inside and six outside.

Respectfully submitted,

W. J. MOLLISON,
Inspector.

Summary of Statistics for 1902.

Number of mines in district,	68
Number of mines in operation during 1902,	68
Number of tons of coal produced,	8,057,136

54—13—1902

Number of tons shipped to market,	1,463,158
Number of tons sold at mines to local trade,	116,501
Number of tons consumed at mines in generating steam and heat,	145,957
Number of coke ovens in the district,	9,026
Number of coke ovens in operation during 1902,	9,026
Number of tons of coke produced,	4,255,707
Number of tons of coal used in manufacture of coke,	6,331,520
Number of tons produced by pick mining,	7,085,978
Number of tons produced by compressed air machines,	82,650
Number of tons produced by electrical machines,	888,508
Number of persons employed inside the mines,	6,642
Number of persons employed outside, including coke workers,	4,189
Number of persons employed at manufacture of coke,	2,930
Number of fatal accidents inside the mines,	29
Number of tons produced for each fatal accident inside,	277,832.27
Number of persons employed per fatal accident inside,	229
Number of fatal accidents outside,	1
Number of persons employed per fatal accident outside,	4,189
Number of wives made widows by fatal accidents,	21
Number of children orphaned by fatal accidents,	64
Number of non-fatal accidents inside of mines,	73
Number of persons employed per non-fatal accident inside,	91
Number of non-fatal accidents outside,	6
Number of persons employed per non-fatal accident outside,	698.16
Number of compressed air locomotives used inside,	3
Number of electric motors used inside,	5
Number of fans used for ventilation,	50
Number of furnaces used for ventilation,	6
Number of gaseous mines in operation during 1902,	31
Number of non-gaseous mines in operation during 1902,	37
Number of new mines opened in 1902,	3
Number of old mines abandoned during 1902,	2

A. Production of Coal During the Year 1902.

Names of Companies.	Tons.
H. C. Frick Coke Co.,	3,941,635
Pittsburg Coal Co.,	1,006,455
South West Connellsville Coke Co.,	1,030,005

Hecla Coke Co.,	640,848
Continental Coke Co.,	288,559
Penn Gas Coal Co.,	178,734
W. J. Rainey,	184,500
Bessemer Coke Co.,	165,326
Penn Coke Co.,	57,411
Mt. Pleasant Coke Co.,	133,249
Veteran Coke Co.,	8,738
Amyville Youghiogheny Gas Coal Co.,	24,443
Keystone Coal and Coke Co.,	1,748
J. W. Overholt & Co.,	1,359
Pennsville Coke Co.,	59,118
Cochran Bros.,	42,473
B. F. Keister & Co.,	54,845
American Sheet Steel Co.,	26,549
J. R. Stauffer & Co.,	24,138
J. W. Shields,	169,298
Bowman Bros.,	17,705
Total,	8,057,136

Production of Each County.	Tons.
Westmoreland,	6,477,333
Fayette,	1,392,800
Allegheny,	187,003
Total,	8,057,136

B. Showing the number of fatal and non-fatal accidents inside and outside the mines; number of tons of coal produced per fatal and non-fatal accident inside the mines; number of persons employed inside and outside; and the number employed inside and outside for every fatal and non-fatal accident for each company during 1902.

Names of Companies.	Number of lives lost inside.	Number of lives lost outside.	Total number of lives lost.	Number severely injured inside.	Number severely injured outside.	Total number severely injured.	Tons of coal produced per each life lost inside.	Tons of coal produced per serious injury inside.	Number employes inside of mines.	Number employes outside of mines.	Total number employed.	Number of employes inside for each life lost.	Number of employes inside for each severe injury.	Number of employes outside for each life lost.	Number of employes outside for each severe injury.
H. C. Frick Coke Co.,	13	.....	13	7	.....	7	303,203	563,091	3,014	2,207	5,221	231.8	430.7	.....	.....
Pittsburg Coal Co.,	3	.....	3	1	1	2	335,485	1,006,455	971	220	1,191	379	1,191	.....	220
Southwest Connellsville Coke Co.,	6	.....	6	.....	.....	.....	171,668	.....	760	617	1,377	126.6	.....	.....	.....
Hecla Coke Co.,	5	.....	5	.....	.....	.....	128,170	.....	482	316	798	96.4	.....	.....	.....
Continental Coke Co.,	1	1	2	1	.....	1	144,280	288,559	243	167	410	243	243	167	.....
Penn Gas Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
W. J. Rainey,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bessemer Coke Co.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Penn Coke Co.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mt. Pleasant Coke Co.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Veteran Coke Co.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Amyville-Youghiogheny Gas Coal Co.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Keystone Coal and Coke Co.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pennsville Coke Co.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cochran Bros.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B. F. Keister & Co.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
American Sheet Steel Co.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
J. R. Stauffer & Co.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
J. W. Overholt & Co.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
J. W. Shields,	1	.....	1	1	.....	1	169,298	169,298	199	31	230	199	199	.....	.....
Bowman Bros.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals and averages,	29	1	30	10	1	11	277,832	805,714	6,642	4,189	10,731	299	664.2	4,189	418.9

C. Classification of Fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						
	By Falls of								By Falling into														
	Coal.	Slate	Roof.	By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	Shafts.	Slopes.	Manways, breasts, etc.	Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total Inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total
January		1	1													2							2
February			2													2							2
March		1	1						3							4							4
April		1	1	2												4							4
May			2	1												3							3
June			1													1							1
July			1													1							1
August			2	2												4							4
September																		1				1	1
October			3	1												4							4
November			2													2							2
December			1													1							1
Totals		3	17	6					3							29		1				1	30

D. Classification of Non-fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						Grand total.
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
January,	.....	1	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	1	1	5
February,	.....	.....	1	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	1	.....	.....	.....	.....	1	6
March,	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	3	.....	.....	.....	.....	1	1	4
April,	1	2	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	8	.....	.....	.....	.....	.....	.....	8
May,	.....	.....	1	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
June,	1	.....	3	5	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	10	.....	.....	.....	.....	1	1	11
July,	1	2	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	5
August,	.....	2	1	3	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	7
September,	.....	1	1	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	5
October,	.....	2	.....	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	.....	.....	.....	.....	.....	.....	10
November,	1	1	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	2	.....	.....	.....	.....	2	8
December,	1	2	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	7	.....	.....	.....	.....	.....	.....	7
Totals,	5	14	7	46	.....	.....	1	.....	.....	.....	3	.....	.....	.....	3	73	3	.....	.....	.....	3	6	79

E. Occupations of Employes Killed or Fatally Injured Inside and Outside the Mines of the Eleventh Bituminous District During 1902.

Months.	Inside.												Outside.								
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	Grand total.
January,				2								2									2
February,				2								2									2
March,				4		1						5									5
April,				3		1				1		4									4
May,				2				1				3									3
June,				1								1									1
July,				1								1									1
August,				3				1				4									4
September,															1					1	1
October,				3				1				4									4
November,				1						1		2									2
December,				1								1									1
Totals,				22		2		3		3		30			1					1	30

F. Occupations of Employes Severely Injured Inside and Outside the Mines of the Eleventh Bituminous District During 1902.

Months.	Inside.												Outside.								Grand total.
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
January,	.....	.....	.....	2	.....	.....	.....	2	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	1	1	5
February,	.....	.....	.....	4	.....	.....	.....	1	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	1	1	6
March,	.....	.....	.....	3	.....	.....	.....	1	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	1	1	5
April,	.....	.....	.....	4	.....	1	.....	3	.....	1	.....	8	.....	.....	.....	.....	.....	.....	.....	.....	8
May,	.....	.....	.....	1	.....	.....	.....	2	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	3
June,	.....	.....	.....	4	.....	1	.....	5	.....	.....	.....	10	.....	.....	.....	.....	.....	.....	1	1	11
July,	.....	.....	.....	3	.....	1	.....	1	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	5
August,	.....	.....	.....	3	.....	.....	.....	3	.....	1	.....	7	.....	.....	.....	.....	.....	.....	.....	.....	7
September,	.....	.....	.....	2	.....	.....	.....	3	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	5
October,	.....	.....	.....	4	.....	.....	.....	5	1	.....	.....	10	.....	.....	.....	.....	.....	.....	.....	.....	10
November,	.....	.....	.....	4	.....	.....	.....	2	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	2	2	8
December,	.....	.....	.....	2	.....	2	.....	1	1	.....	1	7	.....	.....	.....	.....	.....	.....	.....	.....	7
Totals,	.....	.....	.....	35	.....	5	.....	28	2	2	1	73	.....	.....	.....	.....	.....	.....	6	6	79

G. Nationality of Employes Killed or Fatally Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Scotch.	Germans.	Poles.	Hungarians.	Italians.	Slavs.	Austrians	Russians.	Totals
January,	1					1					2
February,									2		2
March,	1				1			3			5
April,				1			1	1		1	4
May,	1							2			3
June,					1						1
July,								1			1
August,	1	1				1	1				4
September,	1										1
October,	2				1			1			4
November,			1						1		2
December,								1			1
Totals,	7	1	1	1	3	2	2	9	3	1	30

H. Nationality of Employes Severely Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Welsh.	Germans.	Poles.	Hungarians.	Italians.	Slavs.	Austrians.	Swedes.	French.	Bohemians.
January,	2				1			1	1			
February,	2			1			1		1	1		
March,	3					1						
April,	1			3	1		1	2				
May,	1	1						1				
June,	3	1			1			5			1	
July,	1			2				2				
August,	1		1		1	1		1	1			1
September,			1		1		1	3				
October,	5			1	1		1	2				
November,	2	1			2	1		1	1			
December,	3	2			2							
Totals,	24	5	2	7	10	3	4	17	4	1	1	1

I. Giving names of operators and mines, kind of openings, type and size of fans; size of furnaces. volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each employe per minute in Eleventh Bituminous district for the year 1902.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—in inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
H. C. Frick Coke Co.														
Alverton No. 1,	Slope,	Non-gas.	Fur., fan	12 x 3½	.5	Brazil,	Steam,	20	3	64,000	24,820	66,225	134	185
Alverton No. 2,	Drift,	Non-gas.	Fan,	12 x 3½	.3	Brazil,	Steam,		2	18,200	1 3,500	22,000	46	292
Bessemer Nos. 1 and 2,	Drift,	Non-gas.	Fan,	12 x 3½	.2	Brazil,	Steam,		3	36,750	20,855	41,100	100	208
Buckeye,	Drift,	Gaseous,	Fan,	12 x 3½	.9	Brazil,	Steam,		2	30,000	30,720	41,400	176	173
Calumet,	Shaft,	Gaseous,	Fan,	20 x 7	1.2	Vulcan,	Steam,		4	103,620	66,170	105,000	184	339
Central,	Slope,	Gaseous,	Fan,	20 x 7	1	Vulcan,	Steam,		3	70 610	24,410	72,000	165	148
Diamond,	Drift,	Non-gas.	Natural,						1	8,990	6,240	9,000	27	231
Enterprise,	Drift,	Non-gas.	Natural,						1	10,080	7,830	11,270	26	301
Jimtown and Sterling No. 2,	Drift,	Non-gas.	Fan,	6 x 4 12 x 3½	.3 .15	Nameless, Brazil,	Steam,		2	62,000	16,315	66,900	82	198
Mammoth shaft,	Shaft,	Gaseous,	Fan,	25 x 8	.6	Vulcan,	Steam,		5	145,000	69,131	145,000	309	223
Mammoth slope,	Slope,	Gaseous,												
Mullin,	Drift,	Non-gas.	Fan,	12 x 3½	.15	Brazil,	Steam,		1	23,000	7,125	24,070	49	145
Mutual No. 2,	Drift,	Non-gas.	Fan,	5 x 2	.1	Dake,	Steam,		1	10,830	5,175	11,000	24	207
Mutual No. 3,	Drift,	Gaseous,	Fan,	12 x 3½	.35	Brazil,	Steam,		3	35,200	14,040	37,800	82	171
Mutual No. 4,	Drift,	Non-gas.	Fan,	12 x 3½	.15	Brazil,	Steam,		1	26,350	24,800	28,000	85	291
Painter,	Drift,	Non-gas.	Fan,	16 x 6	.8	Vulcan,	Steam,		2	53,200	28,310	55,000	111	255
Rist,	Slope,	Non-gas.	Fan,	16 x 6	.9	Vulcan,	Steam,		4	60,000	52,380	62,640	155	337
Rising Sun,	Drift,	Non-gas.	Natural,						1	9,225	9,225	11,400	29	461
Ruff,	Drift,	Non-gas.	Fan,	12 x 3½	.15	Brazil,	Steam,		1	19,200	6,950	15,510	71	97
Standard shaft,	Shaft,	Gaseous,	Fan,	25 x 9	1.35	Vulcan,	Steam,		5	186,550	77,200	195,000	489	157
Standard slope,	Slope,	Gaseous,	Fan,						2	36,110	31,350	38,000	121	159
Sterling No. 1,	Drift,	Non-gas.	Natural,										13	
Summit,	Drift,	Non-gas.	Fan,	12 x 3½	.25	Brazil,	Steam,		1	32,000	7,800	34,800	51	153
Tip Top,	Drift,	Non-gas.	Fan,	12 x 3½	.3	Brazil,	Steam,		3	39,000	15,970	40,800	59	270
United,	Shaft,	Gaseous,	Fan,	20 x 7	.6	Vulcan,	Steam,		5	75,200	49,560	78,000	223	222

Valley,	Drift,	Non-gas.	Fans,	12 x 3½	.4	Brazil, ...										
White,	Drift,	Non-gas.	Fan,	12 x 3½	.65	Brazil, ...	Steam,		4	70,000	48,110	71,580	127	378
				12 x 3½	.15	Brazil, ...	Steam,		3	37,000	18,380	39,500	85	216
Pittsburg Coal Co.																
Big Chief,	Drift,	Gaseous,	Fan,	9 x 7	1.5	Capell, ...	Electricity,		1	20,000	12,150	24,300	90	135
Guffey,	Drift,	Gaseous,	Fan,						1	27,000	12,600	28,500	99	127
				6 x 2	.15	Clark, ...	Electricity,							
Eureka,	Drift,	Non-gas.	Fans,	16 x 6	.6	Brazil, ...	Steam,		3	61,000	37,175	93,900	139	267
				6 x 2	.2	Clark, ...	Electricity,							
Euclid,	Shaft,	Gaseous,	Fan,	16 x 6	.8	Brazil, ...	Steam,		2	55,000	29,010	57,330	89	326
Ocean No. 1,	Drift,	Gaseous,	Fan,	8 x 6	1.2	Capell, ...	Electricity,		2	45,000	18,270	46,200	132	138
Port Royal No. 1,	Shaft,	Gaseous,	Fan,	26 x 8	1.7	Pollock, ...	Steam,		1	21,125	1 1,310	23 4 0	64	176
Port Royal No. 2,	Shaft,	Gaseous,	Fan,						1	40,000	15,400	43,100	33	466
Shaner slope,	Slope,	Gaseous,	Fan,	12 x 3½	.8	Brazil, ...	Electricity,		2	39,000	19,900	41,400	114	174
Waverly,	Shaft,	Non-gas.	Fan,	20 x 7	.5	Brazil, ...	Steam,		3	49,400	21,790	51,000	101	215
Yough slope,	Slope,	Gaseous,	Fan,	12 x 4	1.7	Irwin, ...	Steam,		3	49,000	36,180	51,000	110	328
South West Connellsville Coke Co.																
South West No. 1, A,	Shaft,	Gaseous,	Fan,	25 x 9	1.2	Vulcan, ...	Steam,		5	49,390	36,875	55,000	274	134
South West No. 1, B,	Shaft,	Gaseous,	Fan,						3	29,780	29,780	32,000	135	220
South West No. 2,	Slope,	Gaseous,	Fan,	18 x 6	.4	Vulcan, ...	Steam,		4	91,300	35,950	94,000	176	264
South West No. 3,	Drift,	Gaseous,	Fan,	20 x 7	.8	Vulcan, ...	Steam,		3	45,930	23,485	54,000	130	180
South West No. 4,	Drift,	Gaseous,	Fan,						2	43,300	26,210	45,000	85	308
Hecla Coke Co.																
Hecla No. 1,	Shaft,	Gaseous,	Fan,	18 x 6	.75	Vulcan, ...	Steam,		4	45,000	43,390	47,000	151	287
Hecla No. 2,	Shaft,	Gaseous,	Fan,	30 x 11	1	Vulcan, ...	Steam,		4	112,100	66,435	115,000	305	217
Hecla No. 3,	Shaft,	Gaseous,	Fan,	15 x 7	.....	Capell, ...	Steam,		.....	.....	.....	.....	26	.....
Continental Coke Co.																
Marguerite No. 1,	Drift,	Non-gas.	Furnace,	.....	.....	.....	.....		21	1	14,120	7,930	14,120	46	172
Marguerite No. 2,	Slope,	Gaseous,	Fan,	11 x 11	.45	Capell, ...	Steam,		4	79,300	60,905	82,000	197	309
Penn Gas Coal Co.																
Ayers Hollow,	Drift,	Gaseous,	Fan,	15 x 5	.5	Irwin, ...	Steam,		2	45,000	21,290	47,250	77	406
Penn Gas No. 3,	Slope,	Gaseous,	Fan,	15 x 5	.55	Irwin, ...	Steam,		2	27,000	27,000	28,560	117	238
Penn Gas No. 4,	Drift,	Gaseous,	Furnace,	.....	.....	.....	.....		42	3	23,000	22,850	24,150	80	285
W. J. Rainey																
Acme,	Shaft,	Gaseous,	Fan,	9 x 7	.4	Capell, ...	Steam,		3	71,900	38,680	74,000	101	382
Union,	Drift,	Non-gas.	Furnace,	.....	.....	.....	.....		15	1	11,080	8,680	12,220	32	271
Bessemer Coke Co.																
Empire,	Drift,	Non-gas.	Furnace,	.....	.....	.....	.....		20	1	22,000	12,000	23,680	82	146
Humphrey,	Drift,	Non-gas.	Fan,	16 x 5½	15	Brazil, ...	Steam,		2	22,800	10,965	25,000	70	176
Penn Coke Co.																
Clare,	Drift,	Non-gas	Fan,	8 x 3	.1	Nameless, ..	Steam,		1	14,240	9,800	15,000	29	337
Hester,	Drift,	Non-gas	Fan,	12 x 3½	.1	Brazil, ...	Steam,		1	15,200	5,000	16,000	30	186
Mt. Pleasant Coke Co.																
Boyer,	Drift,	Non-gas.	Fan,	12 x 3½	.18	Brazil, ...	Steam,		1	19,500	19,500	20,000	71	274
Veteran Coke Co.																
Veteran,	Drift,	Non-gas	Fan,						1	14,100	14,100	15,000	31	454

TABLE I—Continued.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Water gauge developed—In inches.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Amyville-Youghlogheny Gas Coal Co.														
Amyville,	Drift,	Non-gas.	Fan,	12 x 3½	.3	Brazil,	Steam,		1	18,000	7,835	10,000	86	91
Keystone Coal and Coke Co.														
Hunker,	Drift,	Non-gas.	Natural,						1	6,000	6,000	6,000	13	461
Pennsville Coke Co.														
Pennsville,	Drift,	Non-gas.	Fan,	12 x 3½	.15	Brazil,	Steam,		1	17,775	4,700	19,000	43	108
Cochran Bros.														
Spring Grove,	Drift,	Non-gas.	Natural,						1	5,400	5,400	6,675	29	186
B. F. Kelster & Co.														
Franklin,	Drift,	Non-gas.	Furnace,					16	1	9,856	9,856	12,650	24	410
American Sheet Steel Co.														
Scottdale,	Drift,	Non-gas.	Fan,	12 x 3½	.35	Kenny,	Steam,		1	26,000	10,560	27,890	25	422
J. R. Stauffer & Co.														
Dexter,	Drift,	Non-gas.	Furnace,					9	1	6,000	6,100	6,100	17	358
J. W. Shields.														
Osceola,	Drift,	Gaseous.	Fan,	16 x 6	1.2	Robinson,	Steam,		2	57,000	21,975	59,200	199	110
Bowman Bros.														
Bowman,	Drift,	Non-gas.	Natural,						1	3,000	7,280	3,333	14	525

J. Names of mines using coal cutting machines, names of machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines during 1902.

	Kind of opening.	Gaseous or non-gaseous.	Names and number of machines in use.				Total machines used.	Power used by machines.	Geological and local name of seam.	Average thickness in inches.	Height of seam in inches.		Approximate number of tons produced by machines
			Harrison.	Jeffrey.	Morgan-Gardner.	Link Belt.					Thickest.	Thinnest.	
Pittsburg Coal Co.													
Big Chief,	Drift,	Gaseous,	.....	.....	3	.....	3	Electricity, ...	Pittsburg Low, ...	5.6	.....	.....	68,925
Eureka,	Drift,	Non-gas.	.....	.....	4	.....	4	Electricity, ...	Pittsburg High, ...	7.0	.....	.....	102,947
Euclid,	Shaft,	Gaseous,	.....	5	.....	.....	5	Electricity, ...	Pittsburg High, ...	7.0	.....	.....	91,601
Guffey,	Drift,	Gaseous,	.....	4	.....	.....	4	Electricity, ...	Pittsburg Low, ...	5.6	.....	.....	78,600
Ocean No. 1,	Drift,	Gaseous,	.....	4	.....	.....	4	Electricity, ...	Pittsburg Low, ...	5.6	7.0	5.6	120,293
Port Royal No. 1,	Shaft,	Gaseous,	4	2	.....	.....	6	Compressed air, ..	Pittsburg High, ...	6.6	.....	.....	54,510
Port Royal No. 2,	Shaft,	Gaseous,	.....	6	.....	.....	6	Compressed air, ..	Pittsburg High, ..	7.0	.....	.....	20,370
Shaner slope,	Slope,	Gaseous,	.....	3	.....	.....	3	Electricity, ...	Pittsburg Low, ...	5.6	.....	.....	66,381
Waverly,	Shaft,	Non-gas.	.....	.....	3	.....	3	Electricity, ...	Pittsburg High, ..	6.6	.....	.....	93,954
Yough slope,	Slope,	Gaseous,	.....	.....	.....	3	3	Electricity, ...	Pittsburg Low, ...	6.0	.....	.....	10,422
J. W. Shields.													
Osceola,	Drift,	Gaseous,	....	.....	5	.....	5	Electricity.....	Pittsburg Low, ...	5.6	.....	.....	133,385
Penn Gas Coal Co.													
Penn Gas No. 3,	Slope,	Gaseous,	.....	4	.....	.....	4	Compressed air,..	Pittsburg Low, ...	5.6	.....	.....	7,770
Grand totals,	.....	.....	4	28	15	3	50	.....	.....	.....	.....	.....	971,158

Description of Fatal Accidents which Occurred in and About the Mines of the Eleventh Bituminous District During the Year 1902.

January 17, Bert Nix killed instantly by falling slate; victim was employed in company with an older brother and their father. The father had been in the place on the morning of above date and had taken down all slate. A short time after, the father went into the place and discovered the boy under the slate dead. Evidently he had taken a pick and gone under the slate for the purpose of undermining coal.

January 27, George Fischer killed instantly by a fall of roof; victim was employed drawing a rib, and while he was drawing the posts for the purpose of causing a fall of roof, an unforseen horseback slip caused the roof to break suddenly and he was caught.

February 17, George Gurickski killed instantly by a fall of roof and slate; victim was employed drawing heading stumps, and had mined out considerable coal from each side of the heading, making the space about fifteen feet in width, but neglected to place any posts for protection.

February 24, George Pensock killed instantly by falling coal and slate. Victim was employed mining coal in a room twelve feet wide, and the last post was placed twelve feet from the coal face, but several unseen slips in the slate traversed the unsupported space, causing it to break.

March 4, Samuel Slavinski, Andrew Shultz and Moses Valdenso, miners, killed instantly by falling from the cage down the shaft. Victims were ascending the shaft on the cage in company with eleven other persons, none of whom knew that an accident had occurred, except one who testified that the last of the three grasped at him. It is not known which one was caught first, or how it occurred that he was caught, but it seems probable that he was standing carelessly, without holding the hand bar, and he staggered, catching the man next to him, and he catching the third man, and all were hurled to the bottom. Coroner of Westmoreland county held an inquest, when the jury rendered the following verdict:

"The jury further finds that the laws and rules regulating bituminous mines were fully complied with, and no blame whatsoever for said accident attaches to said company."

March 11, Leo Hagedon was fatally injured by falling slate; victim was employed loading coal from a room, and while so engaged slate fell on him, inflicting injuries which resulted fatally two hours later.

March 8, Andrew Stanislov killed instantly by a fall of horseback roof; victim was employed drawing a rib when a large horseback slip which traversed the place, caused the roof to break suddenly.

April 2, Fred Hass killed instantly by a fall of roof; victim was employed drawing a rib and had drawn all of the posts, but the same did not fall. Men working in the next place heard the roof fall, and upon going into the place they discovered his coat and dinner bucket, and gave the alarm, and a force of workmen began to remove the fall, which took several hours, when the body was recovered about seven feet from the corner of the pillar. A pick was found with the body, which indicated that he had gone into the interior end of the fall for the purpose of cutting the coal stump.

April 5, Michael Sehanik fatally injured by mine cars. Victim was employed as assistant eager and gave the engineer a signal to cut off the steam from the dilly engines, but failed to give the signal in due time, and the line was detached under a great strain, causing the same to bound forward, the chain striking him and knocking him down in front of the trip, several of the cars passing over him. He was removed to his home and from there to the Connellsville Cottage Hospital, at which place he died on the following day.

April 18, Michalletto Batiste killed instantly by falling slate; victim was employed loading coal from a room; he was pulling down coal under the slate without having it properly posted, and in falling it caught him.

April 25, Michael Hericzkovion fatally injured by mine cars. The statement made by the driver Joseph O'Grodney was that he was coupling cars at the mouth of the butt entry and heard some person spreak in front of the horse, and called to him to get out of the road; he heard some person answer, but did not understand what he said; he started the horse and directly the trip stopped, and victim was caught between the cars and the pillar.

May 9, Michael Danchak fatally injured by a fall of coal and slate; victim was employed drawing a split rib. He had not cut any coal, but was merely sounding the roof, when suddenly the stump crushed down and the roof coal and slate falling caught him, covering him completely, except his head; he was extricated and died one hour later.

May 21, John Rubisna killed instantly by a fall of coal and slate; victim was employed drawing a rib in company with Andrew Christian; they were starting at an old crosscut in the room pillar, where the roof was somewhat cracked and drawn, and it appeared to have been reasonably well posted, but they were just starting the shift in the morning and did not make any examination of the roof. Victim was kneeling down in the roadway cleaning some dirt from the rails, when suddenly the roof fell.

May 21, Alexander Ramsey fatally injured by mine cars; victim was employed as driver and was coming out with a trip of loaded

cars, and tripping he fell in front of the cars, and died five hours later.

June 2, Thomas Doll killed almost instantly by a fall of roof. Victim was employed drawing stumps and chain pillar, and while attempting to draw the first one the roof coal and slate broke and a portion falling caught him and held him fast, and in a very short space of time and before he could be extricated, a fall of the upper roof occurred, covering him completely, killing him instantly.

July 23, Michael Yaczko, killed instantly by a fall of roof. Victim was employed drawing a rib, and had drawn out enough of coal to cause a fall of roof, but the posts should have been withdrawn on the evening previous, but he did not do so, and on the fatal morning the place was crushing and breaking the posts, but it was not falling quickly enough to suit victim, and taking an axe he went under the roof for the purpose of cutting some of the posts, and while doing so the roof broke and caught him.

August 4, W. L. Kerfoot fatally injured by mine cars. Victim was employed driving a horse and the track being down grade, the trip was running at a high rate of speed, and he was riding upon the front end of the front car, and upon reaching No. 3 room the cars turned into the parting of the same, the horse continuing on straight up the heading. The cars were thrown from the track and he was caught between them and the room pillar, receiving injuries which proved fatal eleven days later.

August 22, James Robinson fatally injured by mine cars. Victim was returning from work and was walking upon the electric motor haulage way, and was at a point about two hundred feet outside of No. 2 butt entry; the motorman saw a light ahead, turned off the power, applied the brake, but was unable to stop on account of the grade. The motor passed by without injuring him, merely touching his clothing, but the applying of the brake had thrown some of the cars from the track, and the cars coming along next to the pillar caught the victim. David Jones, mine foreman, was riding upon the motor also, and upon reaching the end of the grade got off, and returning back along the track discovered the cars off the track and victim standing between two of them. He was removed to his home, a physician was summoned who made an examination and stated that a compound fracture of one arm, and one knee injured were all the injuries that he could discover, but death resulted five hours later.

August 27, Joseph Senenete, miner, killed instantly by a fall of roof. Victim was employed drawing a rib and at time of accident was making the first fall of the rib and had drawn all of the posts except two, which had been left standing in near to the face of the room, and as the roof did not fall immediately, victim went around

into next room to crosscut, and attempted to draw two posts, and the roof falling suddenly he was caught.

August 29, John Hrenyo, miner, fatally injured by fall of slate and horseback. Victim was employed cutting coal from the side of the pillar for the purpose of making room to cut a drain alongside of the track. This point was directly opposite the entrance of an old butt heading, at which place the roof coal and slate had fallen out some time previous, but it must have been cracked a short distance in over the coal, and as victim removed the coal, a portion of the roof fell, inflicting injuries which proved fatal two hours later.

September 13, Nelson Nichols, carpenter, fatally injured by a piece of wood thrown from a circular saw. Victim was employed in the mine repair shop, and was engaged ripping some pieces of wood at a circular saw, and one of them was caught by the saw and thrown violently, striking him upon the breast and jaw; he was removed to his home where he died about thirty minutes later.

October 2, Andrew Williams killed instantly by falling coal and slate. Victim had mined several carloads of coal and had one post placed under the roof, which would have been sufficient to support it if the place had not been in such a crushed condition.

October 10, James Jones killed almost instantly by fall of coal and slate. Victim was employed drawing a rib in company with his two sons. They had drawn enough of space to cause another fall of roof, but had not drawn any of the posts. They had just loaded a car, when a piece of roof coal fell and caught him. He was extricated very soon, but died twenty minutes later.

October 27, John Shober killed instantly by falling roof; victim was engaged drawing entry stumps; the place was crushing, especially on one side. Wm. Gramlick and Frank Leister, roadmen, were present waiting to remove the track. They warned victim to be careful, but he went into the crushed side to shovel some loose coal, when the roof fell and caught him.

October 31, Charles Gratche fatally injured by mine cars; victim was employed driving a string team of two horses, and was coming out with a trip of cars, riding upon the front end of the front car, and upon reaching a point on the haulingway where the track made a curve, he had gotten caught by the cars, but had extricated himself. He was found by John Budner, the driver next behind him; he was conscious and made the statement that upon reaching the curve the hook of his riding iron slipped from the car and he fell upon the track and the front car ran upon him. He was removed to his home where he died twelve hours later.

November 4, Julius Demyon killed instantly by falling coal and slate; victim was employed drawing heading stumps. Thomas Easton, mine foreman, had visited the place about forty minutes

previous to occurrence, and had instructed him that he should not remove any more coal from the stump on the right side, and he started to work on the left side, and immediately the roof coal and slate fell and caught him.

November 4, James Fullerton killed instantly by falling coal and slate. Victim was engaged in placing posts near to where the pillars were being removed. A portion of the roof coal and slate had fallen, and he was placing a post under the portion which still remained up, when the roof fell and caught him with result as stated.

December 4, Stephen Budner was fatally injured by fall of coal and slate; victim was placing a row of posts alongside of the track; the last post was placed five and a half feet from the coal face which was somewhat crushed, a large slip in the slate traversed the place a few inches in advance of the crushed coal face, and as he mined away the coal the roof fell and he was caught; his injuries were not considered of a serious nature as he walked home unassisted, but proved fatal twenty hours later.

Special.

The following does not come under the head of regular mine accidents, therefore according to instructions received from the Bureau of Mines, it is reported under the head of specials:

Hecla Mine No. 3 main hoisting shaft was being opened by the firm of Patterson & McNeil, contractors, the shaft had reached the destination and a swinging scaffold had been constructed and upon it were working three men, Nicholas Vandeloo, foreman, German, Herbert Alexander and Joseph Hicks, colored, laborers. They were hoisted and lowered by means of a wire rope and a small sinking engine, and were engaged in straightening up the lagging and removing all debris from the framing timbers. They had completed one compartment and were descending upon the other side, and upon reaching a point about one hundred and twenty feet from the top a pump was arranged supported by chains, to pass which it was necessary to list the scaffold to one side, and in so doing the wire rope which supported the scaffold had slipped to one side upon the hook of the main hoisting rope, and after passing the pump the scaffold remained listed, and in attempting to right it Vandeloo and Alexander fell from the scaffold to the bottom of the shaft, a distance of about one hundred and seventy feet, being instantly killed. The accident was certainly caused by carelessness on the part of the victims, as there were four wire ropes, one supporting each corner, which they could have held to, as did the other person.

Coroner of Westmoreland county held an inquest upon the result, when the following verdict was rendered.

The jury find that the accident was due to carelessness on the part of the victims in not exercising more care under such dangerous circumstances.

Description of mines located in the Eleventh Bituminous District, with a report of general condition, together with the improvements during the year 1902:

Mines Located on and Near the Main Line of the Baltimore and Ohio Railroad.

Osceola.—Drift opening, Pittsburg low seam. On each visit the ventilation has been fair, with drainage satisfactory. In computing the table giving the average number cubic feet of air furnished per each employe, I have used the number given in the operators annual statement, which is much greater than the number reported to me upon any of my visits, which is due to the fact that a large percentage of the employes are engaged at night in a different air current, which explains the difference between the inspection and annual reports.

Big Chief, Guffey and Shaner Slope mines.—The two former drift openings and the latter a slope. These three mines have been ventilated by means of one fan, and the result has not been satisfactory. The difficulty has been sometimes in one mine and sometimes in the other. But since my last visit another fan has been installed in Shaner slope mine, to ventilate that separately, giving the entire power of the other fan to ventilate Big Chief and Guffey mines, and I am informed that the result is very satisfactory. The drainage of Big Chief and Guffey has been satisfactory, but somewhat defective in Shaner slope.

Ocean No. 1.—Drift opening, Pittsburg low seam. On some visits I have found satisfactory ventilation for the number of persons employed, and on others I have found it defective, the conditions being governed greatly by the number of persons employed; drainage fair.

Ayers Hollow.—Drift opening, Pittsburg low seam; ventilation and drainage satisfactory.

Amyville.—Drift opening, Pittsburg low seam. The original opening of this mine underwent the experience of a mine fire, and as predicted in last report, the operator was compelled to abandon the original opening and enter the territory by means of the opening of the old Republic (or Candy mine, main heading). A force fan has been placed, which tends to force the fire towards the original openings, while the pillars are retreating from the same. Upon my last visit the ventilation was very fair, but according to the number of employes returned by the operators annual statement, it will appear that the register taken at the time would be somewhat inadequate at present, if the quantity has not been increased, which

result is due to the employment of a greater number of persons since my last visit. Drainage fair.

Penn Gas No. 4.—Drift opening; ventilation satisfactory, but drainage somewhat defective.

Penn Gas. No. 3.—Slope opening. This is an old mine re-opened, was formerly opened by means of a shaft, but had not been in operation for twenty years or more. The equipment consists of steam plant, three West Point tubular boilers, 100 horse power each. Hoisting plant consists of a double train of endless sprocket chains, driven by a Huston Stanwood engine 14″ by 30″. The coal is mined by Jeffrey compressed air machines; the power is generated by two Ha'l compressors, diameter of cylinders, steam 23″, air low 22″, high 14″, stroke 18″. The pumping plant consists of two Hall double acting pumps.

Yough slope.—Slope opening. Ventilation satisfactory. Drainage satisfactory when the pumps are kept running constantly. A reaction of a former creep developed, which closed No. 1 butt entry North side, and for a time threatened the main tunnel, but with extra efforts and timber it has been arrested for the present. During the year the tipple was pulled down by a B. & O. R. R. train, and it has been replaced by a more modern structure.

Euclid.—Shaft opening. On each visit the ventilation has been satisfactory for number of persons employed. Drainage satisfactory.

Port Royal No. 1.—Shaft opening. On each visit the ventilation has been satisfactory for number of persons employed. Drainage satisfactory.

Port Royal No. 2.—Shaft opening. On each visit the ventilation has been satisfactory for the number of persons employed; drainage adequate. The No. 5 and 6 face section, in which the explosion occurred on June 10, 1901, has not been put in active operation since that time, owing to the falling in of Nos. 24 and 25 butt entries, which prevented the proper ventilating of the same; but at the close of the year Nos. 28 and 29 butts were almost connected, which will remove that difficulty. Those two mines continue to be worked with the use of locked safety lamps, and I am highly pleased to state that not a single accident has been reported from either mine during the year 1902, while all of the adjoining mines where open lights are used have had occasional accidents, as will be observed by table on accidents.

Waverly.—Shaft opening. On each visit the ventilation and drainage has been in fair condition.

Eureka.—Drift opening. Ventilation and drainage satisfactory upon all visits.

Spring Grove.—Drift opening, Connellsville seam; ventilation and drainage satisfactory.

Jimtown.—Drift opening. Retreating with ribs, stumps and pillars, and owing to the system of conducting the mine in former years, it is very difficult to keep the ventilation up fully to the standard at all times. On some inspections I have found it perfectly satisfactory, while on others it has been somewhat defective in some portions, but generally as good as could be expected under the circumstances.

Sterling No. 1.—Drift opening. An old opening which was operated about three months during the year, and has been exhausted, and when visited the employes were all working very near to the entrance, and the condition was satisfactory. There is still remaining some unmined coal in connection with this plant, which at some future date will be removed by means of another opening.

Mines Located on and Near the Mt. Pleasant Branch of the B. & O. Railroad.

Rist.—Slope opening; ventilation and drainage satisfactory.

White.—Drift opening. An air shaft has been opened during the year which has improved the ventilation to some extent, and during the year the ventilation and drainage have been fair.

Summit.—Drift opening; retreating with ribs, stumps and pillars; condition of ventilation and drainage fair.

Franklin.—Drift opening; ventilation and drainage satisfactory.

Tip top.—Drift opening; Connellsville coking seam; ventilation and drainage have been fair.

Scottdale.—Drift opening; ventilation and drainage satisfactory.

Dexter.—Drift opening. During the early portion of the year the ventilation was not altogether satisfactory, but later an air shaft was opened near the face of the present workings, which provides ample ventilation; drainage satisfactory.

Painter.—Drift opening; ventilation and drainage satisfactory.

Diamond.—Drift opening; withdrawing with ribs, stumps and pillars; ventilation and drainage fair.

Mullin.—Drift opening; ventilation and drainage fair.

Mines Located on and Near the Scottdale Branch of the P. R. R.

Rising Sun.—Drift opening; retreating with stumps and pillars; ventilation and drainage fair.

Bessemer Nos. 1 and 2.—Drift openings; retreating with ribs, stumps and pillars; ventilation fair; drainage somewhat defective in some portions.

South West No. 2.—Slope opening. Connellsville coking seam; condition of ventilation satisfactory, and drainage fair on all inspections.

South West No. 1 B.—Shaft opening; ventilation and drainage fair.

South West No. 1 A.—Shaft opening. Ventilation and drainage satisfactory. Improvements installed are three tubular boilers, re-

placing cylinder boilers, a large extension to the underground pump room, built of masonry, one Janesville duplex pump 15″x20″x36″, three Lepley pumps, 15″x20″x36″, and the extension of the main haulage for a distance of 2,200 feet.

Acme.—Shaft opening; ventilation and drainage fair.

Buckeye.—Drift opening. Ventilation satisfactory, with the exception of a few minor details, and drainage fair.

Standard Shaft and Slope.—These two mines are directly connected and have been ventilated by one fan, and while the ventilation has been improved somewhat during the year, yet in some portions it has not come up fully to the requirements, but as stated in my report of 1901, it was decided by the company to place an additional fan, which I am pleased to state has been done, but on my last inspection for the year it had not been put in operation, but since that time I have been officially notified that it has been put in operation, and I judge the result will be such as will bring the ventilation fully up to the requirements. Drainage has been satisfactory.

Mines Located on and Near the South West Branch of the P. R. R.

Pennsville.—Drift opening. Ventilation and drainage fair.

Valley.—Drift opening. Ventilation has been excellent and drainage satisfactory. A reaction of a former creep or squeeze took place during the year, which resulted in the closing of a portion of the South West main haulage and suspended operations in that portion of the mine for several days, but it has been reopened and timbered in a safe and satisfactory manner, and operations continued as usual.

Enterprise.—Drift opening. Ventilation and drainage fair.

Union.—Drift opening. Ventilation fair with but a few minor exceptions. Drainage satisfactory.

Alverton No. 1.—Slope opening. Ventilation satisfactory in some parts, and fair in the others; drainage satisfactory.

Alverton No. 2.—Drift opening. Ventilation in the early portion of the year was somewhat defective, but since that time a fan has been installed, displacing the furnace formerly in use, and on my last inspection the ventilation and drainage were satisfactory.

South West No. 4.—Drift opening. With but a few minor exceptions the ventilation and drainage satisfactory.

South West No. 3.—Drift opening. Ventilation and drainage satisfactory.

Ruff.—Drift opening. On some inspections the ventilation was not fully up to the requirements in all portions, but the mine has been abandoned. The remaining coal will be taken out by the way of South West mine No. 3.

Central.—Slope opening. Ventilation has been fair and drainage satisfactory on each inspection during the year. Extensive improve-

ments have been completed by installing more boiler power. A new slope has been completed with new main haulage to the interior of the mine, parallelled by a new traveling way throughout, with the system of ventilation entirely remodeled. Large new bins have been erected and a large powerful hauling plant. The changes had not taken place at the date of my last inspection, but I am satisfied that they will verify the prediction made in my annual report of 1901, and will place the mine amongst the best mines in the district.

Empire.—Drift opening. With but few exceptions the ventilation and drainage has been satisfactory.

Hunker.—Drift opening. New mine located one-fourth mile south of Hunker station on the line of the South West Branch P. R. R.. When inspected the ventilation and drainage were satisfactory, but as the mine was not developed to any great extent, it cannot yet be determined what degree of success will be accomplished in mining the seam at this point, as at present they are experiencing considerable difficulty in the way of faults and rolls.

Mines Located on and Near the Sewickley Branches of the P. R. R.

Boyer.—Drift opening. During the early portion of the year I had cause to complain of the ventilation caused by the delay in having the fan placed, but since on inspection I have found the ventilation and drainage perfectly satisfactory.

Hecla No. 1.—Shaft opening. Ventilation has been satisfactory, with drainage fair.

Hecla No. 3.—Shaft opening. New mine located one-half mile south of the village of Hecla. Opened and equipped as follows: Hoisting shaft, size 10′.4″x24′.4″. Depth from surface to bottom of coal 268 feet. Steel head frame, height 92′. Pulleys, diameter 10′. Hoisting cable, diameter 1½″. Cages, self dumping. Hoisting engines, size of cylinders, 24″x48″. Drums, conical diameter, large end 10′, small end 8′. Boiler house, brick, size 40′x106′. Boilers, tubular, three horse power 150 each. Blacksmith and repair shop, brick, 36x100. Air shaft, size 10′x4″x16′x4″. Depth from surface to bottom of coal, 282′. Capell fan, diameter 15′, width 7′. Lamp house, brick, 16′x18′. Oil house, brick, size 16′x18′.

Hester.—Drift opening. Ventilation and drainage satisfactory. A tail rope haulage has been installed, and a twelve-foot Brazil fan has replaced a four-foot Stine fan formerly used.

Mutual No. 4.—Drift opening; ventilation and drainage excellent.

Calumet.—Shaft opening. The ventilation and drainage have been very much improved during the year, and on my last inspection the ventilation was excellent throughout the entire mine, except in the

old No. 5 butt west, where it was fair, with drainage satisfactory A new extension of the endless rope haulage has been completed.

Mammoth Slope.—Slope opening. Ventilation and drainage satisfactory. A double track gravity plane has been arranged inside, for the purpose of dropping the loads down and pulling the empty cars up from one flat to the other, there being an average grade of 9 per cent., which proves to be a great advantage under prevailing conditions.

Mammoth Shaft.—Shaft opening. With but few minor exceptions the ventilation and drainage has been satisfactory. The main dip haulage has been extended, which has increased the haulage facilities.

United.—Shaft opening.—The ventilation has been satisfactory during the year. The underground pumping plant has been improved and the air motor haulage extended.

Hecla No. 2.—Shaft opening. The ventilation was excellent in some portions, while it has been somewhat defective in others, but as a whole may be considered fair and drainage satisfactory.

Clare.—Drift opening. Upon visiting this mine on May 31st, I discovered that the ventilation was defective, and also that there was not a certificated mine foreman in service as required by law, but by inquiry from the man in charge, I learned that the foreman had resigned a day or two previously and that the Superintendent, M. L. Painter, had informed him that a foreman had been engaged, who would report for duty in a day or two, and that they would have a fan in operation in a short time, and as they were engaged in opening a shaft on which the fan could be placed, I considered that they were making an effort to comply with the requirements of the law. On visiting the mine again on July 24th, I learned that during the entire time since my last visit they did not have a legal mine foreman, neither did they have any means of ventilation, and very little progress had been made in that direction since my previous visit, but again I was informed that those in charge were expecting a foreman, and fan also, at any moment. But on returning to my office, I prepared the following letter and forwarded it to the company:

Scottdale, Pa., July 26, 1902.

Penn Coke Co., Successors to Painter & Fogg, Greensburg, Pa.

Dear Sirs: Upon visiting your Claire mine on July 24th, I discovered that you were operating said mine without the employment of a certificated mine foreman, as required by Article six, Section one, of the Bituminous Mine Act of 1893. Also that you have not provided any means of ventilation as required by Article four, Section one of said Act, and that the ventilation of said mine is inadequate in almost all portions of the same. Also that you are opening rooms in

the third right level or heading in advance of the air current, which is in violation of Article six, Section three, of said Act. Therefore I request that you take such action as will put the condition of your mine in compliance with the requirements of said Act. First, by employing a certificated mine foreman, and stopping all rooms that are being opened in advance of the air currents. Second, by providing some mechanical means of ventilation. I shall again visit your mine in the near future, and I hope that I shall find the conditions more favorable; if not, my official position demands that I take such action as will accomplish that end.

Very respectfully yours,

W. J. MOLLISON,
Mine Inspector.

August 26, I again visited said mine and discovered the same conditions existing. I had the employes withdrawn from all parts of the mine where the requirements of the law were not complied with, and upon the following date August 27, at Greensburg, Pa., I entered legal proceedings against the Penn Coke Co., Painter & Fogg, as operators and superintendents.

Charges as follows: For violation of Article six, Section one, also Article four, Section one, also Article six, Section three, Bituminous Mine Act, 1893.

A short time after a fan was placed at the mine, a mine foreman employed, and operations were resumed in full, and upon my next inspection the conditions were perfectly satisfactory.

November 6, I received from John E. Kunkle, my attorney in the proceedings, a letter setting forth the facts that Painter & Fogg, through their attorneys, had informed him that they, Painter & Fogg, had sold out their interests in the said Penn Coke Co., and were now out of the business, and were desirous to have the case non-prossed.

I forwarded the following reply:

Scottdale, Pa., Nov. 8, 1902.

Messrs. Robbins & Kunkle,
Greensburg, Pa.

Dear Sirs: Yours of the 6th inst. at hand and contents noted, and in reply I will state, that in view of the fact that Painter & Fogg have sold out their interests in the Clare & Hester mines, and have ceased the management of the same, that I will agree to have the proceedings against them non-prossed. Providing that they shall agree to pay all costs in connection with the case, including all fees paid

and due you, providing that the same shall be satisfactory to you. If this proposition is not acceptable, then the case must go to trial. Please communicate the result of the above as early as possible.

Very truly yours,

W. J. MOLLISON,
Mine Inspector.

November 12, I received a reply stating that the proposition had been accepted, all costs paid by the defendants, and the case nol-prossed.

Mutual No. 2.—Drift opening. Ventilation fair and drainage satisfactory. This mine is retreating with main pillars and is almost exhausted.

Mutual No. 3.—Drift opening. Ventilation fair and drainage satisfactory.

Humphrey.—Drift opening. Ventilation and drainage fair. The mine fire which developed in this mine in the year 1900, a description of which was given in the annual report of Inspector Ross of that year, has not developed any serious results during the past year, and prevailing opinion was that the same was entirely extinguished, having been closed up air-tight for a period of almost two years, but a spell of wet weather during the year has dispelled that hope, for it was discovered that when the water reached a higher point than usual, that it was discharged from the workings at an exceedingly high temperature demonstrating the fact that fire still existed, above the ordinary level of the water, but gives no indication of any danger to the mine.

Maguerite No. 1.—Drift opening. Ventilation fair and drainage satisfactory. Retreating with main pillars, and but a small portion of solid coal to be removed; will probably be exhausted during the coming year.

Marguerite No. 2.—Slope opening. The ventilation was somewhat defective in some portions of the mine during the early part of the year, but on my last inspection, the ventilating and drainage were perfectly satisfactory. The condition of the mine was greatly improved during the year, as relates to ventilation, drainage and haulage. A new underground pump house, and two substantial overcasts, were among the improvements installed.

Bowman.—Drift opening. The ventilation has always been found satisfactory, until my last inspection December 24, when there was an unusually large number of persons employed, and the greater number of them were located on the dip side, and there being no mechanical means of ventilation, it was in very unsatisfactory condition. So on December 30, I prepared the following letter and forwarded to the company:

Scottdale, Pa., December 30, 1902.

Bowman Coal Co., Bowman Mine,

Mr. S. M. Bowman, Supt., McKeesport, Pa.:

Dear Sir: Upon making an inspection of your Bowman mine on December 24, 1902, I observed that the ventilation in some portions of the same is inadequate, and in all other portions it is very irregular, therefore I request that you comply with the Bituminous Mine Act of 1893, Article two, which reads as follows: "And all mines where more than ten men are employed shall be provided with a fan, furnace or other artificial means to produce ventilation." Hoping that you will comply with the above as early as possible, I am

Yours very respectfully,

W. J. MOLLISON,
Mine Inspector.

As the above mine was transferred on Janaury 1, 1903, from this into the Fourteenth district, my power for any further action ceases.

Annual Examination for Mine Foreman and Fire Boss Certificates.

The examination was held in Scottdale, January 21st, 22d and 23d, by the Board of Examiners, W. J. Mollison, Mine Inspector, John Stevenson, Superintendent; James H. Absalom, Mine Foreman.

Thirty-five applicants presented themselves for examination, namely, ten for mine foreman and twenty-five for fire boss, of which number three were successful and received certificates as follows:

Mine Foreman, First Grade.

Wm. Gray, Mt. Pleasant; Allen S. Snyder, Summit Mines; A. N. Price, Mt. Pleasant; Andrew Laing, Summit Mines; Archibald Snedden, Tarr.

Fire Boss.

Wm. Davis, Suterville; George McPhail, United; Joseph Spirke, Mammoth; James A. Baldwin, Mt. Pleasant; Charles H. Nedley Dawson; John McCarthy, Mt. Pleasant; Frank Rehanek, Mt. Pleasant; Alexander B. Gray, Calumet; Charles Tahaney, Fitzhenry, and Allen S. Snyder, Summit Mines.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Eleventh Bituminous District for the year 1902.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
H. C. Frick Coke Co.						
Alverton No. 1,	Westmoreland,	O. W. Kenedy,	Scottdale,	D. R. Deprist,	Alverton,	S. W. P. R. R.
Alverton No. 2,	Westmoreland,	O. W. Kenedy,	Scottdale,	D. R. Deprist,	Alverton,	S. W. P. R. R.
Bessemer Nos. 1 and 2,	Westmoreland,	O. W. Kenedy,	Scottdale,	James Devlin,	Mt. Pleasant,	Scottdale Br. P. R. R.
Buckeye,	Westmoreland,	O. W. Kenedy,	Scottdale,	J. M. Whitlaw,	Stauffer,	Scottdale Br. P. R. R.
Calumet,	Westmoreland,	O. W. Kenedy,	Scottdale,	John Stevenson,	Mammoth,	Sewickley Br. P. R. R.
Central,	Westmoreland,	O. W. Kenedy,	Scottdale,	A. H. Pollins,	Feree,	South West B. P. R. R.
Diamond,	Fayette,	O. W. Kenedy,	Scottdale,	R. M. Cook,	Scottdale,	Mt. Pleasant Br. B. & O. R. R.
Enterprise,	Westmoreland,	O. W. Kenedy,	Scottdale,	Andrew Neish,	Alverton,	South West Br. P. R. R.
Jimtown and Sterling No. 2,	Fayette,	O. W. Kenedy,	Scottdale,	J. F. Pickard,	Dawson,	B. & O. R. R.
Mammoth shaft,	Westmoreland,	O. W. Kenedy,	Scottdale,	John Stevenson,	Mammoth,	Sewickley Br. P. R. R.
Mammoth slope,	Westmoreland,	O. W. Kenedy,	Scottdale,	John Stevenson,	Mammoth,	Sewickley Br. P. R. R.
Mullin,	Westmoreland,	O. W. Kenedy,	Scottdale,	J. M. Whitlaw,	Stauffer,	Mt. Pleasant Br. B. & O. R. R.
Mutual No. 2,	Westmoreland,	O. W. Kenedy,	Scottdale,	Robt. Ramsey,	United,	Sewickley Br. P. R. R.
Mutual No. 3,	Westmoreland,	O. W. Kenedy,	Scottdale,	Robt. Ramsey,	United,	Sewickley Br. P. R. R.
Mutual No. 4,	Westmoreland,	O. W. Kenedy,	Scottdale,	Robt. Ramsey,	United,	Sewickley Br. P. R. R.
Painter,	Fayette,	O. W. Kenedy,	Scottdale,	R. M. Cook,	Scottdale,	Mt. Pleasant Br. B. & O. R. R.
Rist,	Fayette,	O. W. Kenedy,	Scottdale,	W. C. Mullin,	Broad Ford,	Mt. Pleasant Br. B. & O. R. R.
Rising Sun,	Westmoreland,	O. W. Kenedy,	Scottdale,	James Devlin,	Mt. Pleasant,	Scottdale Br. P. R. R.
Ruff,	Westmoreland,	O. W. Kenedy,	Scottdale,	A. H. Pollins,	Feree,	South West Br. P. R. R.
Standard shaft,	Westmoreland,	O. W. Kenedy,	Scottdale,	J. S. Mack,	Mt. Pleasant,	South West Br. P. R. R.
Standard slope,	Westmoreland,	O. W. Kenedy,	Scottdale,	J. S. Mack,	Mt. Pleasant,	South West Br. P. R. R.
Sterling No. 1,	Fayette,	O. W. Kenedy,	Scottdale,	Jas. A. Childs,	Adelaide,	B. & O. R. R.
Summit,	Fayette,	O. W. Kenedy,	Scottdale,	W. C. Mullin,	Broad Ford,	B. & O. R. R.
Tip Top,	Fayette,	O. W. Kenedy,	Scottdale,	James Lynch,	Everson,	Mt. Pleasant Br. B. & O. R. R.
United,	Westmoreland,	O. W. Kenedy,	Scottdale,	Robt. Ramsey,	United,	Sewickley Br. P. R. R.
Valley,	Fayette,	O. W. Kenedy,	Scottdale,	James Lynch,	Everson,	Mt. Pleasant Br. B. & O. R. R.
White,	Fayette,	O. W. Kenedy,	Scottdale,	W. C. Mullin,	Broad Ford,	Mt. Pleasant Br. B. & O. R. R.
Pittsburg Coal Co.						
Big Chief,	Westmoreland,	G. W. Schluederberg,	Pittsburg,	W. A. Calverly,	Scotthaven,	B. & O. R. R.
Eureka,	Westmoreland,	G. W. Schluederberg,	Pittsburg,	J. K. McDonald,	Smithton,	B. & O. R. R.
Euclid,	Westmoreland,	G. W. Schluederberg,	Pittsburg,	A. W. Swaney,	Fitzhenry,	B. & O. R. R.
Guffey,	Westmoreland,	G. W. Schluederberg,	Pittsburg,	W. A. Calverley,	Scotthaven,	B. & O. R. R.
Ocean No. 1,	Westmoreland,	G. W. Schluederberg,	Pittsburg,	W. A. Calverley,	Scotthaven,	B. & O. R. R.
Port Royal No. 1,	Westmoreland,	G. W. Schluederberg,	Pittsburg,	A. W. Swaney,	Fitzhenry,	B. & O. R. R.
Port Royal No. 2,	Westmoreland,	G. W. Schluederberg,	Pittsburg,	A. W. Swaney,	Fitzhenry,	P. & L. E. R. R.
Shaner slope,	Westmoreland,	G. W. Schluederberg,	Pittsburg,	W. A. Calverley,	Scotthaven,	B. & O. R. R.
Waverly,	Westmoreland,	G. W. Schluederberg,	Pittsburg,	J. K. McDonald,	Smithton,	B. & O. R. R.
Yough slope,	Westmoreland,	G. W. Schluederberg,	Pittsburg,	F. M. Fritchman,	West Newton,	B. & O. R. R.

South West Connellsville Coke Co.						
South West No. 1, A,	Westmoreland,	W. O. Kenedy,	Scottdale,	W. S. Ramsey,	Mt. Pleasant,	Scottdale Br. P. R. R.
South West No. 1, B,	Westmoreland,	W. O. Kenedy,	Scottdale,	W. S. Ramsey,	Mt. Pleasant,	Scottdale Br. P. R. R.
South West No. 2,	Westmoreland,	W. O. Kenedy,	Scottdale,	Jno. Q. Finch,	Mt. Pleasant,	Scottdale Br. P. R. R.
South West No. 3,	Westmoreland,	W. O. Kenedy,	Scottdale,	E. S. Wolfersberger.	Tarr,	South West P. R. R.
South West No. 4,	Westmoreland,	W. O. Kenedy,	Scottdale,	E. S. Wolfersberger.	Alverton,	South West P. R. R.
Hecla Coke Co.						
Hecla No. 1,	Westmoreland,	Thomas Laird,	South West,	Thomas Laird,	South West,	South West P. R. R.
Hecla No. 2,	Westmoreland,	Thomas Laird,	South West,	Thomas Laird,	South West,	South West P. R. R.
Hecla No. 3,	Westmoreland,	Thomas Laird,	South West,	Thomas Laird,	South West,	South West P. R. R.
Continental Coke Co.						
Marguerite No 1,	Westmoreland,	O. W. Kenedy,	Scottdale,	C. E. Jones,	Pleasant Unity,	South West P. R. R.
Marguerite No. 2,	Westmoreland,	O. W. Kenedy,	Scottdale,	C. E. Jones,	Pleasant Unity,	South West P. R. R.
Penn Gas Coal Co.						
Ayers Hollow,	Westmoreland,	T. Frank Wolf,	Irwin,	E. V. Williams,	Irwin,	B. & O. R. R.
Penn Gas No. 3,	Westmoreland,	T. Frank Wolf,	Irwin,	E. V. Williams,	Irwin,	Youghiogheny Br. P. R. R
Penn Gas No. 4,	Westmoreland,	T. Frank Wolf,	Irwin,	E. V. Williams,	Irwin,	B. & O. R. R.
W. J. Rainey.						
Acme,	Westmoreland,	T. J. Mitchell,	Connellsville,	Hugh Ross,	Mt. Pleasant,	S. W. P. R. R.
Union,	Westmoreland,	T. J. Mitchell,	Connellsville,	Wm. Duncan,	Alverton,	S. W. P. R. R.
Bessemer Coke Co.						
Empire,	Westmoreland,	R. L. Martin,	Pittsburg,	S. Billheimer,	Ruffsdale,	S. W. P. R. R.
Humphrey,	Westmoreland,	R. L. Martin,	Pittsburg,	O. M. Lewellen,	Humphrey,	S. W. P. R. R.
Penn Coke Co.						
Clare,	Westmoreland,	M. L. Painter,	Greensburg,	C. E. Ankney,	Welty,	S. W. P. R. R.
Hester,	Westmoreland,	M. L. Painter,	Greensburg,	C. E. Ankney,	Welty,	S. W. P. R. R.
Mt. Pleasant Coke Co.						
Boyer,	Westmoreland,	W. A. Wilson,	Greensburg,	Jno Sterling,	South West,	S. W. P. R. R.
Amyville-Youghiogheny Gas Coal Co						
Amyville,	Westmoreland,	R. B. Macintosh	Pittsburg,	James Hardy,	Creek	B. & O. R. R.
Veteran Coke Co.						
Veteran,	Westmoreland,	W. A. Wilson	Greensburg,	M. E. Strickler,	South West,	S. W. P. R. R.
Keystone Coal and Coke Co.						
Hunker,	Westmoreland,			H. H. Null Jr.,	Greensburg,	S. W. P. R. R.
Pennsville Coke Co.						
Pennsville,	Fayette,	J. D. Sherrick	Pennsville,	J. D. Sherrick,	Pennsville,	S. W. P. R. R.
Cochran Bros.						
Spring Grove	Fayette,	H. T. Cochran	Dawson,	H. T. Cochran,	Dawson,	B. & O. R. R.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
B. F. Keister & Co. Franklin,	Fayette,	B. F. Keister,	Scottdale,	B. F. Keister,	Scottdale,	Mt. Pleasant Br. B. & O. R. R.
American Sheet Steel Co. Scottdale,	Fayette,	Robert Skemp,	Scottdale,	H. J. Suttle,	Everson,	Mt. Pleasant Br. B. & O. R. R.
J. R. Stauffer & Co. Dexter,	Fayette,	J. R. Stauffer,	Scottdale,	S. R. Fairchild,	Scottdale,	Mt. Pleasant Br. B. & O. R. R.
J. W. Overholt & Co. Emma,	Westmoreland,	J. W. Overholt,	Scottdale,	J. W. Overholt,	Scottdale,	S. W. P. R. R.
J. W. Shields. Osceola,	Allegheny,	J. W. Shields,	Pittsburg,	H. C. Jones,	Emblem,	B. & O. R. R.
Bowman Bros. Bowman,	Allegheny,	S. M. Bowman,	McKeesport,	S. M. Bowman,	McKeesport,	Second Ave. Traction R. R.

TABLE II—Gives the total number of tons of coal mined and tons of coke produced in each colliery, number of days worked, number of employes, number of employes killed and injured, number of kegs of powder, etc., used in the Eleventh Bituminous District for the year ending December 31, 1902.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
H. C. Frick Coke Co.,														
Alverton No. 1,	Westmoreland,	.....	1,403	1,283	175,248	115,000	252	260	241	....	1	.....	.....	23
Alverton No. 2,	Westmoreland,	.....	147	83	70,702	46,900	104	262	89	1	....	.....	.....	19
Bessemer Nos. 1 and 2,	Westmoreland,	.....	1,146	1,716	152,255	100,000	197	284	183	2	12	100	8,000	33
Buckeye,	Westmoreland,	.....	5,550	1,627	203,962	131,000	306	280	242	....	12	.....	.....	32
Calumet,	Westmoreland,	.....	6,133	3,532	204,608	130,000	260	276	313	....	4	.....	240	33
Central,	Westmoreland,	.....	8,000	3,654	168,633	107,331	202	283	250	1	....	1,600	783	34
Diamond,	Fayette,	.....	95	97	43,659	28,000	66	286	51	.....	.....	336	1,680	5
Enterprise,	Westmoreland,	.....	47	63	29,566	19,500	51	269	42	....	.....	.....	.....	12
Jimtown and Sterling No. 2,	Fayette,	1,155	2,589	3,534	108,972	68,000	204	284	156	1	....	1,200	.....	19
Mammoth shaft,	Westmoreland,	.....	12,227	2,277	231,423	147,600	306	276	312	....	....	.....	50	34
Mammoth slope,	Westmoreland,	.....	2,000	.....	154,288	98,400	264	276	205	....	1	.....	.....	22
Mullin,	Westmoreland,	.....	1,571	1,308	60,193	38,000	82	287	82	....	2	.....	.....	9
Mutual No. 2,	Westmoreland,	31,052	.....	1,480	31,213	.....	.....	277	39	....	.....	.....	.....	5
Mutual No. 3,	Westmoreland,	.....	1,535	.....	102,640	68,500	197	277	157	....	2	.....	.....	15
Mutual No. 4,	Westmoreland,	79,400	144	11	88,130	5,710	60	292	108	1	....	.....	.....	10
Painter,	Fayette,	.....	750	1,046	154,808	102,000	228	281	212	....	3	868	4,320	26
Rist,	Fayette,	.....	2,707	5,508	315,646	204,000	447	307	228	2	....	2,608	50	41
Rising Sun,	Westmoreland,	.....	.....	.....	30,455	20,000	40	284	36	....	1	20	1,620	7
Ruff,	Westmoreland,	.....	508	.....	84,317	53,666	101	283	110	....	1	800	392	10
Standard shaft,	Westmoreland,	2,042	10,477	4,904	558,299	360,840	721	287	321	4	5	.....	.....	78
Standard slope,	Westmoreland,	.....	2,619	1,226	130,574	90,200	180	286	207	....	1	.....	.....	19
Sterling No. 1,	Fayette,	173	.....	.....	2,288	1,940	20	75	25	.....	.....	.....	.....	1
Summit,	Fayette,	3,559	103	1,658	104,516	66,600	143	266	102	.....	.....	625	.....	20
Tip Top,	Fayette,	30,682	126	374	102,857	40,000	121	279	102	.....	.....	.....	100	23
United,	Westmoreland,	2,019	6,238	2,006	267,422	171,000	350	279	379	.....	.....	.....	.....	43

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coke in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Valley,	Fayette,	31,124	1,537	1,470	205,410	114,000	251	281	220	1	1	2,400	250	25
White	Fayette,	.....	382	2,722	141,591	94,000	200	285	163	....	....	1,015	100	33
Totals and averages,		181,176	68,194	38,579	3,941,635	2,430,510	5,382	274	5,221	13	26	11,058	17,525	638
Pittsburg Coal Co.														
Big Chief,	Westmoreland,	95,306	217	109	95,722	.....	.....	196.7	101	....	....	588	.....	6
Eureka,	Westmoreland,	140,313	2,350	79	142,742	.....	.....	225	158	1	4	450	450	16
Euclid,	Westmoreland,	90,792	2,021	330	104,721	8,433	25	187.5	122	....	3	575	200	8
Guffey,	Westmoreland,	106,635	.....	.....	106,635	.....	.....	186	110	....	4	372	.....	7
Ocean No. 1,	Westmoreland,	137,103	8,154	992	146,249	.....	.....	214.5	153	2	1	642	.....	10
Port Royal No. 1,	Westmoreland,	11,794	3,146	618	54,868	26,053	61	273	104	....	....	500	200	6
Port Royal No. 2,	Westmoreland,	23,588	1,573	.....	27,434	.....	.....	273	41	....	....	250	.....	4
Shaner slope,	Westmoreland,	93,037	3,230	312	96,579	.....	.....	160.8	128	....	....	400	.....	7
Waverly,	Westmoreland,	84,056	2,649	1,047	113,930	18,688	61	249	143	....	5	300	400	16
Yough slope,	Westmoreland,	105,049	2,526	.....	117,575	.....	.....	209.5	131	....	....	450	250	14
Totals and averages,		887,763	25,866	3,487	1,006,455	52,574	147	217.7	1,191	3	17	4,527	1,500	94
South West Connellsville Coke Co.														
South West No. 1, A,	Westmoreland,	.....	10,158	5,535	336,318	213,333	425	297	484	1	....	.....	.....	37
South West No. 1, B,	Westmoreland,	.....	5,079	2,768	168,159	106,667	200	297	239	1	1	.....	.....	18
South West No. 2,	Westmoreland,	.....	2,171	3,220	209,713	176,000	252	296	247	4	2	.....	3,100	40
South West No. 3,	Westmoreland,	.....	4,235	36,934	196,285	163,400	205	299	243	....	1	.....	500	23
South West No. 4,	Westmoreland,	.....	571	1,926	199,530	78,000	151	300	164	....	....	.....	80	18
Totals and averages,		.....	22,214	50,383	1,030,005	637,000	1,233	297.8	1,377	6	4	.....	3,680	133

Totals in this column are averages.

Hecla Coke.														
Hecla No. 1,	Westmoreland,	....	5,788	2,819	288,366	167,160	272	287	259	....	1	....	150	39
Hecla No. 2,	Westmoreland,	....	6,492	4,068	412,182	301,373	500	287	499	5	3	....	50	72
Hecla No. 3,	Westmoreland,	....	....	....	....	....	....	78	40	....	....	....	....	....
Totals and averages,		....	12,280	6,887	640,848	468,533	772	287.3	798	5	4	....	200	111
Continental Coke Co.														
Marguerite No. 1,	Westmoreland,	....	....	....	57,712	37,058	80	293	80	....	1	....	400	10
Marguerite No. 2,	Westmoreland,	938	5,067	4,617	230,847	148,232	320	293	230	2	8	....	1,600	44
Totals and averages,		938	5,067	4,617	288,559	185,290	400	293	310	2	9	....	2,000	54
Penn Gas Coal Co.														
Ayers Hollow,	Westmoreland,	84,133	1,014	355	85,482	....	....	237	99	....	1	237	....	12
Penn Gas No. 3,	Westmoreland,	7,390	302	78	7,770	....	50	31	158	....	....	50	....	11
Penn Gas No. 4,	Westmoreland,	84,133	1,014	335	85,482	....	....	237	103	....	5	237	....	13
Totals and averages,		175,656	2,330	768	178,734	....	50	236.1	360	....	6	524	....	36
W. J. Ramey.														
Acme,	Westmoreland,	....	2,220	638	154,570	101,140	200	306	194	....	2	....	....	10
Union,	Westmoreland,	....	202	405	29,930	19,549	70	313	54	....	1	24	210	8
Totals and averages,		....	2,422	1,043	184,500	120,689	270	309.5	248	....	3	24	210	18
Bessemer Coke Co.														
Empire,	Westmoreland,	....	250	160	86,400	68,164	120	288	162	....	3	....	....	12
Humphrey,	Westmoreland,	3,600	1,575	500	78,926	53,201	100	284	150	....	1	....	....	18
Totals and averages,		3,600	1,825	680	165,326	121,365	220	286	312	....	4	....	....	30
Penn Coke Co.														
Clare,	Westmoreland,	1,123	120	125	28,861	18,140	50	266	56	....	....	....	....	5
Hester,	Westmoreland,	2,165	110	220	28,550	17,350	50	266	57	....	....	....	....	5
Totals and averages,		3,787	230	345	57,411	35,490	100	266	113	....	....	....	....	10

Totals in this column are averages.
Note. All single mines operated by companies or individuals, will be found in the recapitulation.

Recapitulation.

H. C. Frick Coke Co.,	West'd & Fay.,	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6,221	13	26	11,068	[illegible]	638
Pittsburg Coal Co.,	Westmoreland,	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	117	[illegible]	1,191	3	17	4,527	[illegible]	94
South West Connellsville Coke Co.,	Westmoreland,		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6	4		[illegible]	[illegible]
Hecla Coke Co.,	Westmoreland,		[illegible]	6,887	640,848	468,533	[illegible]	[illegible]	[illegible]	[illegible]	4		[illegible]	111
Continental Coke Co.,	Westmoreland,	[illegible]	[illegible]	4,617	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9		[illegible]	[illegible]
Penn Gas Coal Co.,	Westmoreland,	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		6	[illegible]		[illegible]

56—13—1902

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coke in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
W. J. Rainey,	Westmoreland,	.....	2,422	1,043	184,500	120,680	270	309.5	248	....	3	24	210	18
Bessemer Coke Co.,	Westmoreland,	3,600	1,825	600	165,326	121,365	220	286	312	....	4	.....	.....	30
Penn Coke Co.,	Westmoreland,	3,587	260	345	57,411	35,490	100	266	113	....	....	.....	.....	10
Mt. Pleasant Coke Co.,	Westmoreland,	.....	400	480	133,249	83,240	120	285	138	....	2	.....	.....	14
Veteran Coke Co.,	Westmoreland,	.....	85	65	8,738	5,316	64	79	61	....	....	.....	.....	5
Amyville-Youghiogheny G. C. Co.	Westmoreland,	23,843	600	.....	24,443	.....	.....	256	96	....	....	.....	.....	10
Keystone Coal and Coke Co.,	Westmoreland,	1,740	.....	8	1,748	.....	.....	153	14	....	....	5	350	4
Pennsville Coke Co.,	Fayette,	.....	1,736	684	59,118	43,351	92	272	80	....	....	203	.....	4
Cochran Bros.,	Fayette,	.....	183	254	42,473	28,025	50	284	50	....	....	125	.....	4
B. F. Keister & Co.,	Fayette,	18,000	65	225	54,845	23,833	50	309	41	...	...	75	.....	4
American Sheet Steel Co.,	Fayette,	.....	.....	.....	26,549	.....	.....	295	28	....	1	.....	.....	8
J. R. Stauffer & Co.,	Fayette,	.....	.....	179	24,138	19,166	40	284	27	....	....	.....	.....	3
J. W. Overholt & Co.,	Westmoreland,	.....	.....	192	1,359	1,325	36	23	15	....	....	.....	75	9
J. W. Shields,	Allegheny,	166,855	2,430	.....	169,298	.....	.....	271	230	1	3	1,000	.....	11
Bowman Bros.,	Allegheny,	.....	.....	17,705	17,705	.....	.....	311	18	....	....	.....	.....	2
Grand totals and averages,		1,463,158	145,957	126,501	8,057,133	4,255,707	9,026	280.5	10,731	30	79	17,641	25,540	1,205

TABLE II—Continued.

Names of Operators.	County.	Number of Boilers.				Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.	Horse power.		Steam.	Air.	Electric.							
H. C. Frick Coke Co.,	West'd & Fay.,	60	2,160	49	5,080	7,240	22	2	.....	71	4,560	37	17,376	10,508	5	8
Pittsburg Coal Co.,	Westmoreland,	3	140	26	2,270	2,410	.....	1	5	28	2,076	10	2,112	1,637	1	2
South West Connellsville Coke Co.,	Westmoreland,	6	260	21	1,794	2,054	6	.....	.....	15	1,559	7	7,200	4,800	1	2
Hecla Coke Co.,	Westmoreland,	4	100	11	1,280	1,380	1	.....	.....	9	635	11	8,000	3,100	.....	.....
Continental Coke Co.,	Westmoreland,	.....	.....	6	480	480	1	.....	.....	4	270	1	600	300	.....	.....
Penn Gas Coal Co.,	Westmoreland,	2	44	7	642	686	.....	.....	.....	9	605	2	772	250	.....	.....
W. J. Rainey,	Westmoreland,	1	20	3	300	320	1	.....	.....	5	168	3	890	330	.....	1
Bessemer Coke Co.,	Westmoreland,	2	150	3	60	210	.....	.....	.....	5	120	1	236	190	.....	.....
Penn Coke Co.,	Westmoreland,	.....	.....	3	240	240	.....	.....	.....	1	40	1	35	10	.....	.....
Mt. Pleasant Coke Co.,	Westmoreland,	.....	.....	1	60	60	.....	.....	.....	3	20	.....	.....	.....	.....	.....
Veteran Coke Co.,	Westmoreland,	1	50	1	30	80	.....	.....	.....	2	38	1	100	10	.....	.....
Amyville-Youghiogheny G. C. Co.,	Westmoreland,	.....	.....	1	100	100	.....	.....	.....	1	120	1	300	100	.....	.....
Keystone Coal and Coke Co.,	Westmoreland,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pennsville Coke Co.,	Fayette,	.....	.....	2	100	100	1	.....	.....	2	40	2	150	75	.....	.....
Cochran Bros.,	Fayette,	.....	.....	2	65	65	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B. F. Keister & Co.,	Fayette,	.....	.....	1	10	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
American Sheet Steel Co.,	Fayette,	.....	.....	.....	.....	.....	.....	.....	.....	1	20	.....	.....	.....	.....	.....
J. R. Stauffer & Co.,	Fayette,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
J. W. Overholt & Co.,	Westmoreland,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
J. W. Shields,	Allegheny,	4	400	2	300	700	.....	.....	.....	3	140	1	200	20	1	.....
Bowman Bros.,	Allegheny,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand totals,		83	3,324	138	12,811	16,135	32	3	5	159	10,411	78	37,871	21,370	14	18

TABLE III—Showing the number of each class of employes at each colliery in the Eleventh Bituminous District during the year 1902.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total Inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
H. C. Frick Coke Co.																						
Alverton No. 1,	Westmoreland,	1	....	....	106	.....	.....	.....	11	1	15	.....	134	1	1	3	5	68	1	28	107	241
Alverton No. 2,	Westmoreland,	1	....	....	34	.....	.....	.....	5	1	5	.....	46	1	1	1	1	30	1	8	43	89
Bessemer Nos. 1 and 2,	Westmoreland,	1	....	....	75	.....	.....	.....	12	1	.....	11	100	1	1	2	3	65	1	10	83	183
Buckeye,	Westmoreland,	1	....	1	124	.....	.....	.....	14	3	27	6	176	1	3	3	7	64	1	27	106	282
Calumet,	Westmoreland,	1	....	2	138	.....	.....	.....	21	2	19	1	184	1	1	4	5	114	1	3	129	313
Central,	Westmoreland,	1	....	2	117	.....	.....	.....	15	1	17	12	165	1	1	4	7	53	2	17	85	250
Diamond,	Fayette,	1	....	....	20	.....	.....	.....	3	.....	.....	3	27	1	1	1	.....	21	1	2	27	54
Enterprise,	Westmoreland,	1	....	....	18	.....	.....	.....	5	.....	2	.....	26	1	1	.....	.....	12	.....	2	16	42
Jimtown and Sterling No. 2,	Fayette,	1	1	....	54	.....	.....	.....	7	1	7	11	82	1	1	2	2	42	1	25	74	156
Mammoth shaft,	Westmoreland,	1	....	3	133	.....	.....	.....	18	7	.....	24	186	1	1	5	6	93	1	19	126	312
Mammoth slope,	Westmoreland,	1	....	1	88	.....	.....	.....	12	4	2	15	123	....	1	3	4	61	1	12	82	205
Mullin,	Westmoreland,	1	....	....	36	.....	.....	.....	3	.....	8	1	49	1	1	1	.....	17	1	12	33	82
Mutual No. 2,	Westmoreland,	1	....	....	20	.....	.....	.....	2	.....	1	.....	24	....	....	.....	1	.....	.....	4	5	29
Mutual No. 3,	Westmoreland,	1	....	1	60	.....	.....	.....	8	2	7	3	82	1	1	3	4	51	1	14	75	157
Mutual No. 4,	Westmoreland,	1	....	....	73	.....	.....	.....	5	3	.....	3	85	1	1	2	2	12	1	4	23	108
Painter,	Fayette,	1	....	....	81	.....	.....	.....	9	1	.....	19	111	1	1	4	.....	84	1	10	101	112
Rist,	Fayette,	1	....	1	126	.....	.....	.....	18	.....	.....	9	155	1	3	7	4	153	2	3	173	328
Rising Sun,	Westmoreland,	1	....	....	15	.....	.....	.....	2	.....	.....	2	20	....	....	1	.....	13	.....	2	16	36
Ruff,	Westmoreland,	1	....	....	58	.....	.....	.....	4	.....	5	3	71	....	1	1	2	27	.....	8	39	110
Standard shaft,	Westmoreland,	1	1	6	392	.....	.....	.....	42	10	37	.....	489	1	2	10	11	263	2	56	345	834
Standard slope,	Westmoreland,	1	....	1	98	.....	.....	.....	10	2	9	.....	121	....	....	2	3	66	1	14	86	207
Sterling No. 1,	Fayette,	....	....	1	8	.....	.....	.....	1	.....	.....	3	13	1	1	.....	.....	6	1	3	12	25
Summit,	Fayette,	1	....	....	39	.....	.....	.....	8	.....	.....	3	51	1	1	1	.....	46	1	1	51	102
Tip Top,	Fayette,	1	....	....	47	.....	.....	.....	8	.....	.....	3	59	1	1	1	.....	28	1	11	43	102
United,	Westmoreland,	1	....	2	166	.....	.....	.....	15	7	15	17	223	1	1	5	8	120	1	20	156	379

Valley,	Fayette,	1	....	1	93	.....	.....	.....	11	5	.....	16	127	1	1	3	4	65	1	18	93	220
White,	Fayette,	1	....	....	68	.....	.....	.....	10	.....	.....	6	85	1	1	2	1	70	1	2	78	163
Totals,		26	2	22	2,287	.....	.....	.....	279	51	176	171	3,014	22	29	71	80	1,644	26	335	2,267	5,221
Pittsburg Coal Co.																						
Big Chief,	Westmoreland,	1	....	1	28	3	41	3	7	2	.....	4	90	....	1	2	1	.....	.....	7	11	101
Eureka,	Westmoreland,	1	....	....	38	4	71	4	12	3	1	5	139	....	....	2	3	.....	1	13	19	158
Euclid,	Westmoreland,	1	....	1	9	4	46	4	10	2	5	7	89	....	....	2	5	11	1	14	33	122
Guffey,	Westmoreland,	1	....	1	23	4	50	4	10	3	.....	3	99	....	1	2	.....	.....	.....	8	11	110
Ocean No. 1,	Westmoreland,	1	....	1	26	4	65	4	13	3	.....	15	132	1	1	3	.....	.....	3	13	21	153
Port Royal No. 1,	Westmoreland,	1	....	1	10	3	31	2	6	1	3	6	64	1	....	1	8	23	1	6	40	104
Port Royal No. 2,	Westmoreland,	....	1	....	5	2	1 6	1	3	1	1	3	33	. .. .		1	4	.....	.....	3	8	41
Shaner slope,	Westmoreland,	1	....	2	35	4	45	4	8	3	.....	12	114	....	1	3	1	.....	.....	9	14	128
Waverly,	Westmoreland,	1	....	....	19	4	52	4	9	2	1	9	101	1	1	2	5	21	1	11	42	143
Yough slope,	Westmoreland,	1	....	1	5	5	69	5	13	2	5	4	110	1	....	3	5	.....	1	11	21	131
Totals,		9	1	8	198	·37	486	35	91	22	16	68	971	4	5	21	32	55	8	95	220	1,191
South West Connellsville Coke Co.																						
South West No. 1, A,	Westmoreland,	1	1	2	213	.....	.....	.....	20	5	32	.....	274	1	1	4	10	161	2	31	210	484
South West No. 1, B,	Westmoreland,	1	....	1	106	.....	.....	.....	9	2	16	.....	135	....	1	2	5	80	1	15	104	239
South West No. 2,	Westmoreland,	1	....	1	106	.....	.....	.....	13	1	2	12	136	1	1	2	3	99	2	12	111	247
South West No. 3,	Westmoreland,	1	....	1	99	.....	.....	.....	13	.....	7	9	120	1	1	2	5	80	1	23	113	243
South West No. 4,	Westmoreland,	1	....	1	70	.....	.....	.....	7	1	3	2	85	1	1	1	2	60	1	13	79	164
Totals,		5	1	6	594	.....	.....	.....	62	9	60	23	760	4	5	11	25	471	7	94	617	1,377
Hecla Coke Co.																						
Hecla No. 1,	Westmoreland,	1	....	1	108	.....	.....	.....	20	8	11	2	151	1	2	5	8	82	2	8	168	279
Hecla No. 2,	Westmoreland,	1	....	2	231	.....	.....	.....	19	11	15	6	305	....	4	7	7	158	2	16	194	499
Hecla No. 3,	Westmoreland,	1	....	1	15	.....	.....	.....	.....	.....	1	8	26	....	1	1	5	.....	1	6	14	40
Totals,		3	....	4	354	.....	.....	.....	59	19	27	16	482	1	7	13	20	240	5	30	376	798
Continental Coke Co.																						
Marguerite No. 1,	Westmoreland,	1	.....	.....	36	.....	.....	.....	4	.....	3	2	46	....	1	2	1	19	1	10	34	80
Marguerite No. 2,	Westmoreland,	1	....	2	143	.....	.....	.....	19	6	16	10	197	1	1	5	5	76	3	42	133	330
Totals,		2	...	2	179	.....	.....	.....	23	6	19	12	243	1	2	7	6	95	4	52	167	410
Penn Gas Coal Co.																						
Ayer's Hollow,	Westmoreland,	....	1	1	54	.....	.....	.....	8	1	12	.....	77	...	1	2	4	.....	1	14	22	9
Penn Gas No. 3,	Westmoreland,	1	....	1	5	8	50	8	6	4	30	.. ....	113	....	1	2	5	.....	1	36	45	198
Penn Gas No. 4,	Westmoreland,	1	....	2	54	.....	.....	.....	9	1	13	.....	80	1	...	2	5	.. ....	1	14	23	103
Totals,		2	1	4	113	8	50	8	23	6	55	.....	270	1	2	6	14	.....	3	64	90	360
W J Italney																						
Acme,	Westmoreland,	1		1	82	.....	.....	...	8		9	.. ..	101	....	1	2	3	82	5	...	93	194
Union,	Westmoreland	1	1	...	35	.....	.....	.....	3	....	2	....	42	1	1	1	1	17	1	....	22	64
Totals,		2	1	1	117	.....	.....	.....	11	....	11	...	143	1	2	3	4	99	6	...	115	248

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
Bessemer Coke Co.																						
Empire,	Westmoreland,	1	....	....	60	.....	.....	.....	7	2	3	9	82	1	1	1	2	74	1	.....	80	162
Humphrey,	Westmoreland,	1	....	....	55	.....	.....	.....	5	.....	9	.....	70	1	2	4	3	70	.....	.....	80	150
Totals,		2	....	....	115	.....	.....	.....	12	2	12	9	152	2	3	5	5	144	1	.....	160	312
Penn Coke Co.																						
Clare,	Westmoreland,	1	....	....	21	.....	.....	.....	3	.....	.....	4	29	....	1	1	1	15	1	8	27	56
Hester,	Westmoreland,	1	....	....	22	.....	.....	.....	4	.....	.....	3	30	....	1	1	2	14	1	8	27	57
Totals,		2	....	....	43	.....	.....	.....	7	.....	.....	7	59	....	2	2	3	29	2	16	54	113

Note.—All single mines operated by companies or individuals will be found in the Recapitulation.

Recapitulation.

H. C. Frick Coke Co.,		26	2	22	2,287	.....	.....	.....	279	51	176	171	3,014	22	29	71	80	1,644	26	335	2,207	5,221
Pittsburg Coal Co.,		9	1	8	198	37	486	35	91	22	16	68	971	4	5	21	32	55	8	95	220	1,191
S. W. Connellsville Coke Co.,		5	1	6	594	.....	.....	.....	62	9	60	23	760	4	5	11	25	471	7	94	617	1,377
Hecla Coke Co.,		3	....	4	354	.....	.....	.....	59	19	27	16	482	1	7	13	20	240	5	30	316	798
Continental Coke Co.,		2	....	2	179	.....	.....	.....	23	6	19	12	243	1	2	7	6	95	4	52	167	410

Penn Gas Coal Co.,		2	1	4	113	8	50	8	23	6	55	.....	270	1	2	6	14	.....	3	64	90	360
W. J. Rainey,		2	1	1	107	.....	.....	.....	11	.....	11	.....	133	1	2	3	4	99	6	.....	115	248
Bessemer Coke Co.,		2	....	....	115	.....	.....	.....	12	2	12	9	152	2	3	5	5	144	1	.....	160	312
Penn Coke Co.,		2	....	....	43	.....	.....	.....	7	.....	.....	7	59	....	2	2	3	29	2	16	54	113
Mt. Pleasant Coke Co.,		1	1	....	58	.....	.....	.....	7	2	2	.....	71	1	1	2	2	58	1	2	67	138
Veteran Coke Co.,		1	....	....	25	.....	.....	.....	4	.....	1	.....	31	1	....	2	1	28	1	.....	33	64
Amyville-Youghlogheny Gas Coal Co.,		1	....	....	75	.....	.....	.....	8	2	.....	.....	86	1	1	2	2	.....	1	3	10	96
Keystone Coal and Coke Co.,		1	....	....	9	.....	.....	.....	2	.....	.....	.....	12	1	....	.....	.....	.....	.....	1	2	14
Pennsville Coke Co.,		1	....	....	32	.....	.....	.....	3	.....	7	.....	43	1	1	1	3	30	1	.....	37	80
Cochran Bros.,		1	....	....	21	.....	.....	.....	3	.....	4	.....	29	1	1	1	1	15	1	1	21	50
B. F. Kelster & Co.,		1	....	....	19	.....	.....	.....	3	.....	1	.....	24	1	1	.....	.....	10	.....	5	17	41
American Sheet Steel Co.,		1	....	....	18	.....	.....	.....	4	.....	.....	2	25	1	....	.....	.....	.....	.....	2	3	28
J. R. Stauffer & Co.,		1	....	....	13	.....	.....	.....	2	.....	.....	1	17	1	....	.....	.....	9	.....	.....	10	27
J. W. Overholt & Co.,		1	....	....	5	.....	.....	.....	1	.....	.....	.....	7	1	1	.....	.....	3	1	2	8	15
J. W. Shields,		1	1	2	44	9	111	9	12	2	7	1	199	1	....	4	5	.....	4	17	31	230
Bowman Bros.,		1	....	....	11	.....	.....	.....	2	.....	.....	.....	14	1	1	.....	.....	.....	.....	2	4	18
Grand totals,		65	8	49	4,320	54	647	52	618	121	398	310	6,642	48	64	151	203	2,930	72	721	4,189	10,831

TABLE III—Continued.

Names of Operators and Collieries.	Number of Days Worked in Each Month.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
H. C. Frick Coke Co.,	21.3	19	20.8	21.5	24.7	24.1	27	26	25.7	25	19.9	19	274
Pittsburg Coal Co.,	17.3	14.7	15.7	18.9	18.2	20.6	17	17.2	17.4	23.6	17.8	19.3	217.7
South West Connellsville Coke Co.,	26.4	20.6	25.6	24.6	26.6	25	27	26	26	27	22	20.8	297.8
Hecla Coke Co.,	21 5	18	20.5	21.5	25.5	25	26	26	26	26.7	21.6	26	287.3
Continental Coke Co.,	25	23	23	26	27	25	27	26	26	27	18	20	293
Penn Gas Coal Co.,	23	14	17	22	25.5	22	22	16	23	18.5	14.4	18.7	236.1
W. J. Rainey,	25.5	23.5	26	26	27	25.5	26	26	26	27	25	26	309.5
Bessemer Coke Co.,	22.5	14.5	23	22	26.5	26.5	25	26.5	26	25	23.5	25	286
Penn Coke Co.,	22	20	20.5	19.5	22	24	24	23	25	27	20	19	266
Mt. Pleasant Coke Co.,	23	20	23	22	27	26	25	27	26	23	22	21	285
Veteran Coke Co.,	.....	.....	.....	.....	.....	.....	.....	.....	13	23	22	21	79
Amyville-Youghiogheny Gas Coal Co.,	27	22	26	26	27	25	23	9	.....	24	23	24	256
Keystone Coal and Coke Co.,	.....	.....	.....	.....	.....	.....	25	26	26	27	26	23	153
Pennsville Coke Co.,	20	19	20	21	23	25	25	26	26	25	23	19	272
Cochran Bros.,	22	20	22	23	25	25	26	26	23	25	23	24	284
B. F. Kelster & Co.,	27	24	26	26	26	26	26	25	26	27	24	26	309
American Sheet Steel Co.,	26	23	26	25	26	25	18	24	25	27	24	26	295
J. R. Stauffer & Co.,	21	20	21	20	25	24	27	26	26	27	24	23	284
J. W. Overholt & Co.,	23	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	23
J. W. Shields,	4	20	25	25	26	24	26	26	25	27	20	23	271
Bowman Bros.,	27	25	26	26	27	25	26	26	26	27	25	25	311
Averages,	22.3	20	22.6	23.1	25.3	24.6	24.6	23.9	23.2	25.4	22.1	22.4	280.5

TABLE IV—List of fatal accidents that occurred in and about the mines of the Eleventh Bituminous district for the year ending December 31, 1902.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 17	Bert Nix, ...	American, .	Miner, ...	15	S.	....	....	Ocean No. 1, ...	Westmoreland,.	Killed instantly by falling slate.
27	George Fischer, ...	Hungarian,..	Miner, ...	26	S.	....	....	Central, ...	Westmoreland,.	Killed instantly by a fall of roof.
Feb. 17	George Gurickski, ..	Austrian, ..	Miner, ...	39	M.	1	4	South West No. 2, ...	Westmoreland,.	Killed instantly by a fall of roof and slate.
24	George Pensock, ...	Austrian, ..	Miner, ...	50	M.	1	1	Alverton No. 2, ...	Westmoreland,.	Killed instantly by a fall of coal and slate.
Mar. 4	Samuel Slavinski, ..	Slav, ...	Miner, ...	26	S.	....	....	Standard shaft, ...	Westmoreland,.	Killed instantly by falling from cage and down shaft.
4	Andrew Shultz, ...	Pole, ...	Miner, ...	46	M.	1	6	Standard shaft, ...	Westmoreland,.	
4	Moses Valdenso, ...	Slav, ...	Miner, ...	48	M.	1	6	Standard shaft, ...	Westmoreland,.	
11	Leo Hagedon, ...	American, .	Mach. loader,	38	M.	1	3	Osceola, ...	Allegheny,.....	Fatally injured by fall of slate.
8	Andrew Stanislov, .	Slav, ...	Miner, ...	28	M.	1	....	Hecla No 2, ...	Westmoreland,.	Killed instantly by a fall of roof.
April 2	Fred Hass, ...	German, ...	Miner, ...	40	M.	1	7	South West No. 1, A,	Westmoreland,.	Killed instantly by a fall of roof.
5	Michael Schanik, ...	Slav, ...	Co. man, ...	18	S.	....	....	South West No. 1, B,	Westmoreland,.	Fatally injured by mine cars.
18	Michaeletto Batiste,	Italian, ...	Mach loader,	51	M.	1	5	Eureka, ...	Westmoreland,.	Killed instantly by fall of slate.
25	Michael Hiczkovion,	Russian, ...	Miner, ...	26	M	1	....	Marguerite No. 2, ...	Westmoreland,.	Fatally injured by mine cars.
May 9	Michael Danchak, ..	Slav, ...	Miner, ...	52	M.	1	3	Hecla No. 2, ...	Westmoreland,.	Fatally injured by fall of coal and slate.
21	John Rubisna, ...	Slav, ...	Miner, ...	35	M.	1	3	Standard shaft, ...	Westmoreland,.	Killed instantly by fall of coal and slate.
21	Alexander Ramsey, .	American, .	Driver, ...	32	M.	1	2	South West No. 2, ...	Westmoreland,.	Fatally injured by mine cars.
June 2	Thomas Dell, ...	Pole, ...	Miner, ...	30	S.	....	....	Rist, ...	Fayette,.....	Killed almost instantly by a fall of roof.
July 23	Michael Yaczko, ...	Slav, ...	Miner, ...	32	M.	1	..	Hecla No. 2, ...	Westmoreland,.	Killed instantly by a fall of roof.
Aug. 22	James Robinson, ...	English, ...	Miner, ...	64	M	1	....	Ocean No. 1, ...	Westmoreland,.	Fatally injured by mine cars.
27	Joseph Senento, ...	Italian, ...	Miner, ...	28	M.	1	1	Mutual No. 4, ...	Westmoreland,.	Killed instantly by a fall of roof.
29	John Hrenyo, ...	Hungarian,..	Miner, ...	31	S.	....	....	Hecla No. 2, ...	Westmoreland,.	Fatally injured by fall of coal and slate.
4	W L Kerfoot, ...	American, .	Driver	40	M	1	6	Rist, ...	Fayette,.....	Fatally injured by mine cars
Sept. 13	Nelson Nichols, ...	American, .	Carpenter, ...	42	M	1	2	Marguerite No. 2, ..	Westmoreland,.	Fatally injured by a piece of wood flying from circular saw.
Oct. 2	Andrew Williams, ..	American .	Miner, ...	22	S	....	....	Jimtown, ...	Fayette,.....	Killed instantly by fall of coal and slate
10	James Jones, ...	American, .	Miner, ...	59	M	1	4	South West No. 2, ...	Westmoreland,	Killed almost instantly by fall of coal and slate

TABLE IV—Continued.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Oct. 27	John Shober, ...	Slav, ...	Miner, ...	42	M.	1	3	Valley, ...	Fayette,.....	Killed instantly by a fall of roof.
31	Charles Gratche, ...	Pole, ...	Driver, ...	17	S.	....	....	Bessemer No. 2, ...	Westmoreland,.	Fatally injured by mine cars.
Nov. 4	Julias Demyon, ...	Austrian, ..	Miner, ...	20	S.	....	....	South West No. 2, ...	Westmoreland,.	Killed instantly by fall of coal and slate.
4	James Fullerton, ...	Scotch, ...	Co. man, ...	54	M.	1	1	Hecla No. 2, ...	Westmoreland,.	Killed instantly by fall of coal and slate.
Dec. 4	Stephen Budner, ...	Slav, ...	Miner, ...	47	M.	1	7	Bessemer No. 2, ...	Westmoreland,.	Fatally injured by fall of coal and slate.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Eleventh Bituminous district for the year ending December 31, 1902.

Date of accident.		Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan.	3	Dracz Waleryan,	Pole,	Miner,	33	M.	Standard shaft,	Westmoreland,	Injured by fall of slate and a post.
	17	John Sayarns,	Slav,	Driver,	18	S.	Marguerite No. 2,	Westmoreland,	Arm fractured by mine cars.
	23	John Milligan,	American,	Driver,	30	M.	Painter,	Fayette,	Leg fractured by mine cars
	23	Calvin Finley,	American,	Tipple hand,	35	M.	Waverly,	Westmoreland,	Scull fractured by falling from coal tipple.
	25	George Palchock,	Austrian,	Miner,	27	M.	Calumet,	Westmoreland,	Leg injured by mine cars.
Feb.	3	Toney Sandori,	Italian,	Miner,	35	M.	Mullin,	Westmoreland,	Leg and jaw fractured by mine cars.
	4	Carroll Gustafson,	Swede,	Miner,	25	S.	Penn Gas No. 4,	Westmoreland,	Hand lacerated by mine cars.
	17	Bert Swift,	American,	Trip runner,	26	M.	Painter,	Fayette,	Injured by dinkey locomotive and mine cars.
	17	John Benda,	Austrian,	Miner,	36	M.	South West No. 2,	Westmoreland,	Injured by fall of coal and slate.
	22	Chauncey Frown,	American,	Driver,	20	S.	Hecla No. 2,	Westmoreland,	Thigh fractured by mine cars
	27	William Lowe,	German,	Miner,	15	S.	Union,	Westmoreland,	Thigh fractured by mine cars
March	17	Roy Dayton,	American,	Tipple hand,	15	S.	Hecla No. 2,	Westmoreland,	Arm fractured by falling over stone wall.
	17	William Bankhart,	American,	Miner,	16	M.	Penn Gas No. 4,	Westmoreland,	Leg and arm lacerated by flying post.
	21	Bert Fry,	American,	Driver,	24	S.	Mammoth slope,	Westmoreland,	Leg fractured by mine cars.
	23	Joseph Erogni,	Hungarian,	Miner,	29	M.	Marguerite No. 1,	Westmoreland,	Leg fractured by fall of slate.
April	4	Franzesko Simmozzle,	Italian,	Miner,	16	S.	Guffey,	Westmoreland,	Foot crushed by fall of slate
	3	Arthur Brunning,	German,	Driver,	25	M.	Alverton No. 1,	Westmoreland,	Leg crushed, necessitating amputation, by mine cars
	5	Henry Schubert,	German,	Mach. loader,	50	M.	Eureka,	Westmoreland,	Thigh fractured and head injured by fall of slate.
	14	John Garland,	American,	Driver,	22	S.	Mutual No. 3,	Westmoreland,	Leg fractured by mine cars.
	15	Frank Forner,	German,	Miner,	40	M.	Euclid,	Westmoreland,	Collar bone fractured by fall of coal.
	16	Joseph Uliceny,	Slav,	Company man,	27	S.	Bessemer No. 2,	Westmoreland,	Leg lacerated by mine cars
	18	Ignats Congaleski,	Pole,	Miner,	2	S.	Standard shaft,	Westmoreland,	Skull fractured by post falling
	24	Joseph Shinleck,	Slav,	Miner,	28	M.	Marguerite No. 2,	Westmoreland,	Rib fractured by mine car
May	5	Anthony Love,	English,	Driver,	1	S.	Valley,	Fayette,	Leg fractured by [illegible] on the track
	13	William McClain,	American,	Driver,	53	M.	Mullin,	Westmoreland,	Thigh lacerated by mine cars
	26	Stephen Findura,	Slav,	Miner,	46	M.	Mutual No. 3,	Westmoreland,	Shoulder bruised and head wound by fall of coal
June	6	Michael Otshall,	Slav,	Driver,	40	M.	Ayers Hollow,	Westmoreland,	Injured by mine cars
	13	William Drury,	English,	Driver,	26	M.	Humphrey,	Westmoreland,	Leg fractured by mine cars

TABLE V—Continued.

Date of accident.		Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
June	14	Michael Polak, ...	Slav, ...	Miner, ...	47	M.	Standard shaft, ...	Westmoreland,...	Thigh fractured by fall of coal and slate.
	14	Jack Fergish, ...	Slav, ...	Miner, ...	33	M.	Empire, ...	Westmoreland,...	Three ribs fractured by mine cars.
	14	David Campbell, ...	American, ...	Lamp boy, ...	14	S.	Marguerite No. 2, ..	Westmoreland,...	Injured by explosion of empty naptha barrel, outside.
	17	C. W. Keffer, ...	American, ...	Miner, ...	30	S.	Rising Sun, ...	Westmoreland,...	Leg fractured by fall of coal and slate.
	17	Jesse Reynolds, ...	American, ...	Extra driver,..	19	S.	Empire, ...	Westmoreland,...	Hip bruised by mine cars.
	22	Joseph Rocker, ...	Slav, ...	Driver, ...	26	M.	Marguerite No. 2, ..	Westmoreland,...	Arm fractured by falling.
	23	John Marchick, ...	French, ...	Mach. loader,..	40	M.	Guffey, ...	Westmoreland,...	Compound fracture of leg by fall of coal.
	23	Michael Toblat, ...	Slav, ...	Driver, ...	21	S.	Guffey, ...	Westmoreland,...	Ankle bruised by mine cars.
	23	John Smith, ...	Pole, ...	Miner, ...	45	M.	Painter, ...	Fayette,.....	Injured by fall of coal and slate.
July	9	John Oleas, ...	Slav, ...	Miner, ...	45	M.	Hecla No. 1, ...	Westmoreland,...	Leg fractured by fall of slate.
	9	Valentine Bladnick, ...	German, ...	Mach. loader,..	30	S.	Guffey, ...	Westmoreland,...	Scalp wound by fall of slate.
	15	John Genshifstni, ...	German, ...	Miner, ...	47	M.	Ocean No. 1, ...	Westmoreland,...	Ankle sprained by fall of coal.
	18	James Coughanour, ...	American, ...	Driver, ...	38	M.	Calumet, ...	Westmoreland,...	Leg bruised by mine cars.
	30	Michael Hodock, ...	Slav, ...	Miner, ...	23	S.	Ruff, ...	Westmoreland,...	Burned by a blast of powder.
Aug.	6	George Vrable, ...	Slav, ...	Driver.	30	M.	Acme, ...	Westmoreland,...	Ribs fractured by mine cars.
	8	Charles Koleskie, ...	Hungarian, ..	Company man,	38	M.	Marguerite No. 2, ..	Westmoreland,...	Body bruised by fall of slate.
	12	Joseph Hondvose, ...	Austrian, ...	Miner, ...	32	M.	Euclid, ...	Westmoreland,...	Head and shoulder bruised by fall of slate.
	14	Chauncey Frown, ...	Welsh, ...	Driver, ...	19	S.	Hecla No. 2, ...	Westmoreland,...	Thigh fractured by falling while running after a horse.
	16	John Persinkey, ...	Pole, ...	Miner, ...	24	S.	Standard slope, ...	Westmoreland,...	Ribs fractured and finger crushed by mine cars.
	20	Mathew Ceplicha, ...	Bohemian, ...	Miner, ...	51	S.	Standard shaft, ...	Westmoreland,...	Leg fractured by fall of roof coal and slate.
	25	Harry Pritchett, ...	American, ...	Driver, ...	20	S.	Waverly, ...	Westmoreland,...	Contusion of foot by mine cars.
Sept.	1	John Kolaski, ...	Pole, ...	Miner, ...	23	S.	Acme, ...	Westmoreland,...	Body bruised and back lacerated by fall of coal and slate.
	4	Michael Olrahal, ...	English, ...	Driver, ...	30	M.	Penn Gas No. 4, ...	Westmoreland,...	Four ribs fractured by mine cars.
	4	Stephen Franko, ...	Slav, ...	Driver, ...	29	M.	South West No. 1, B,	Westmoreland,...	Injured by fall of slate.
	23	John Courtee, ...	Slav, ...	Miner, ...	37	M.	Eureka, ...	Westmoreland,...	Contusion of hip by mine cars.
	23	Richard Ford, ...	Italian, ...	Driver, ...	29	M.	Buckeye, ...	Westmoreland,...	Body bruised by mine cars.

Oct.	7	Peter Breamer, ...	German, ...	Miner, ...	55	M.	Osceola, ...	Allegheny,.....	Hand crushed necessitating amputation of finger by fall of slate.
	8	Frank Snitnopky, ...	Slav, ...	Extra driver,..	17	S.	Standard shaft, ...	Westmoreland,...	Injured, necessitating amputation of hand by mine cars.
	14	Grant Rose, ...	American, ...	Driver, ...	30	M.	Boyer, ...	Westmoreland,...	Foot bruised by mine cars.
	15	L. W. Brothers, ...	American, ...	Driver, ...	22	S.	Scottdale, ...	Fayette,.....	Foot bruised by mine cars.
	16	Albert Lancaster, ...	American, ...	Driver, ...	24	M.	Eureka, ...	Westmoreland,...	Contusion of leg by mine cars.
	17	Joseph Anonia, ...	Italian, ...	Miner, ...	32	M.	Waverly, ...	Westmoreland,...	Thigh fractured by fall of slate.
	21	George Downs, ...	American, ...	Helper, ...	15	S.	Calumet, ...	Westmoreland,...	Jaw dislocated by mine cars.
	23	Jacob Sager, ...	American, ...	Driver, ...	22	S.	Waverly, ...	Westmoreland,...	Ankle bruised by mine cars.
	23	Andrew Jarisek, ...	Pole, ...	Miner, ...	35	M.	Empire, ...	Westmoreland,...	Collar bone fractured by mine cars.
	31	August Dishlow, ...	Slav, ...	Miner, ...	15	S.	Buckeye, ...	Westmoreland,...	Leg fractured by mine cars.
Nov.	2	William Frame, ...	English, ...	Driver, ...	30	S.	Marguerite No. 2, ...	Westmoreland,...	Thumb crushed by mine cars.
	3	Christopher Watson, ...	American, ...	Trip runner, ..	18	S.	Marguerite No. 2, ...	Westmoreland,...	Leg bruised by mine cars.
	7	John Strecko, ...	Slav, ...	Coke hand, ...	41	M.	Waverly, ...	Westmoreland,...	Hip dislocated by falling from railroad car.
	11	John Ononfrey, ...	Hungarian, ..	Miner, ...	43	M.	Boyer, ...	Westmoreland,...	Ankle injured by fall of slate.
	12	Felrie Olekson, ...	Austrian, ...	Miner, ...	45	M.	Calumet, ...	Westmoreland,...	Arm and ribs fractured by mine cars.
	15	Norris Murray, ...	American, ...	Laborer, ...	16	S.	Eureka, ...	Westmoreland,...	Injured by railroad car.
	19	Michael Bocher, ...	Pole, ...	Miner, ...	35	S.	Marguerite No. 2, ...	Westmoreland,...	Collar bone fractured and finger crushed.
	29	James Jinkowski, ...	Pole, ...	Miner, ...	38	M.	South West No. 2, ..	Westmoreland,...	Scalp wound and ankle bruised by fall of coal.
Dec.	1	William O. Donnell, ...	English, ...	Driver, ...	19	S	Penn Gas No. 4, ...	Westmoreland,...	Back and side injured by mine cars.
	1	James Stevenson, ...	American, ...	Mach. loader,..	22	M.	Osceola, ...	Allegheny,.....	Leg fractured by falling slate.
	5	Charles Marcus, ...	American, ...	Helper, ...	14	S.	Euclid, ...	Westmoreland,...	Leg fractured by mine cars.
	8	Charles Wingfield, ...	English, ...	Miner, ...	35	M.	Pen Gas No. 4, ...	Westmoreland,...	Back and foot injured by fall of slate.
	12	Peter Behalt, ...	American, ...	Mach. loader,..	21	S.	Osceola, ...	Allegheny,.....	Leg fractured by mine cars.
	18	John Nup, ...	Pole, ...	Miner, ...	39	M.	Bessemer No. 2, ...	Westmoreland,...	Leg injured by fall of coal.
	24	Stephen Najeski, ...	Pole, ...	Coke hand, ...	19	S.	South West No. 3, ..	Westmoreland,...	Fracture of leg by cage at shaft bottom.

Twelfth Bituminous District.

ARMSTRONG, JEFFERSON, CLEARFIELD, CAMBRIA AND INDIANA COUNTIES.

Punxsutawney, Pa., March 6th, 1903.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg.

Dear Sir: In compliance with the provisions of the Bituminous Mine Law, I herewith submit the annual report of this district for the year ending December 31st, 1902.

The report contains the usual tables, together with a description of the condition of the mines, and a description of the fatal accidents during the year. It will be noted that there has been a considerable increase in the production of coal for the year, and the quantity mined by machines is very much in excess of that of last year. The mines have worked very well during the year, and the number of accidents, fatal and non-fatal, are respectively nineteen and eighty-six, and many of these were entirely due to negligence on the part of the victims themselves. A summary of statistics and the usual tables will be found in their appropriate places in the report.

Respectfully yours,

R. HAMPSON,
Inspector.

Summary of Statistics for 1902.

Number of mines in district,	75
Number of mines in operation during 1902,	74
Number of tons of coal produced,	6,838,985
Number of tons shipped to market,	5,587,106
Number of tons sold at mines to local trade,	19,123
Number of tons consumed at mines in generating steam and heat,	148,038
Number of coke ovens in the district,	1,627
Number of coke ovens in operation during 1902,	1,627

Number of tons of coke produced,	571,875
Number of tons of coal used in manufacture of coke,	1,061,637
Number of tons produced by pick mining,	2,641,347
Number of tons produced by compressed air machines,	4,106,437
Number of tons produced by electrical machines,	91,191
Number of persons employed inside the mines,	7,697
Number of persons employed outside, including coke workers,	1,271
Number of persons employed at manufacture of coke,	529
Number of fatal accidents inside the mines,	18
Number of tons produced for each fatal accident inside,	379,943
Number of persons employed per fatal accident inside,	427
Number of fatal accidents outside,	1
Number of persons employed per fatal accident outside,	1,271
Number of wives made widows by fatal accidents,	10
Number of children orphaned by fatal accidents,	16
Number of non-fatal accidents inside of mines,	84
Number of persons employed per non-fatal accident inside,	91
Number of non-fatal accidents outside,	2
Number of persons employed per non-fatal accident outside,	635
Number of electric motors used inside,	23
Number of fans used for ventilation,	30
Number of furnaces used for ventilation,	42
Number of gaseous mines in operation during 1902,	7
Number of non-gaseous mines in operation during 1902,	67
Number of new mines opened in 1902,	7

A. Production of Coal During the Year 1902.

Names of Companies.	Tons.
Rochester and Pittsburg Coal and Iron Co.,	3,155,860
Berwind-White Coal Mining Co.,	504,572
John McLeavy & Co.,	123,520
Jefferson and Clearfield Coal and Iron Co.,	48,000
H. A. Bowers & Bro.,	42,873
S. A. Rinn,	18,000
Kurtz & Rinn,	135,600
Williams Coal Co.,	2,015
Gaskill Coal Co.,	37,590
Clearfield Bituminous Coal Corporation,	472,705
Urey Ridge Coal Co.,	144,350

Glenwood Coal Co.,	139,273
Indiana Coal Co.,	144,559
Beech Creek Coal and Coke Co.,	206,622
Clearfield and Cush Creek Coal and Coke Co.,	29,294
Reakirt Bros. & Co.,	47,840
Logan Coal Co.,	30,550
Gipsy Coal Co.,	1,200
Ellsworth-Dunham Coal Co.,	56,082
Cowanshannock Coal Co.,	606,282
Burnside Coal Co.,	62,093
Clearfield and Cambria Coal and Coke Co.,	24,012
Mosher & Jose,	6,890
Coalport Coal Co.,	14,256
Weaver & Ettla,	17,794
Pennsylvania Coal and Coke Co.,	71,434
Irvona Coal Co.,	161,148
Blaine Run Coal Co.,	81,343
S. Hegarty's Sons,	81,446
Peale, Peacock & Kerr,	157,045
Potts Run Land Co.,	1,568
Andrew Kennedy,	1,620
Alpha Coal Co.,	4,000
Gresmer & Co.,	598
Glasgow Coal Co.,	5,939
Joseph Schmittle,	14,254
Beccaria Coal Co.,	42,090
Fred. Bland,	38,242
Harbison-Walker Co.,	23,746
Bellwood Coal Co.,	60,828
Max Frick,	51,852
Total,	6,838,985

B. Showing the number of fatal and non-fatal accidents inside and outside the mines; number of tons of coal produced per fatal and non-fatal accident inside the mines; number of persons employed inside and outside; and the number employed inside and outside for every fatal and non-fatal accident for each company during 1902.

Names of Companies.	Number of lives lost inside.	Number of lives lost outside.	Total number of lives lost.	Number severely injured inside.	Number severely injured outside.	Total number severely injured.	Tons of coal produced per each life lost inside.	Tons of coal produced per serious injury inside.	Number employes inside of mines.	Number employes outside of mines.	Total number employed.	Number of employes inside for each life lost.	Number of employes inside for each severe injury.	Number of employes outside for each life lost.	Number of employes outside for each severe injury.
Rochester and Pittsburg Coal and Iron Co.,	8	.....	8	51	1	52	394,482	60,689	2,975	743	3,718	372	58	.....	743
Berwind-White Coal Mining Co.,	2	1	3	10	1	11	168,191	45,870	601	58	659	300	60	58	58
John McLeavy & Co.,	1	.....	1	1	.....	1	123,520	123,520	138	12	150	138	138	.....	.....
Jefferson and Clearfield Coal and Iron Co.,	1	.....	1	1	.....	1	48,000	48,000	560	62	622	560	560	.....	.....
Gaskill Coal Co.,	.....	.....	.....	2	.....	2	.....	18,795	43	5	48	.....	22	.....	.....
Clearfield Bituminous Coal Corporation,	.....	.....	.....	1	.....	1	.....	472,705	560	62	622	.....	560	.....	.....
Glenwood Coal Co.,	1	.....	1	.....	.....	.....	139,273	.....	190	18	208	190	.....	.....	.....
Indiana Coal Co.,	.....	.....	.....	1	.....	1	.....	114,559	174	13	187	.....	174	.....	.....
Cowanshannock Coal Co.,	2	.....	2	7	.....	7	303 141	86,611	562	66	622	281	80	.....	.....
Burnside Coal Co.,	1	.....	1	.....	.....	.....	62,093	.....	75	8	83	75	.....	.....	.....
Pennsylvania Coal and Coke Co.,	1	.....	1	1	.....	1	71,434	71,434	82	46	128	82	82	.....	.....
Irvona Coal Co.,	.....	.....	.....	5	.....	5	.....	32,229	208	53	261	.....	42	.....	.....
Blaine Run Coal Co.,	1	.....	.....	.....	.....	.....	81,343	.....	135	11	146	135	.....	.....	.....
S. Hegarty's Sons,	.....	.....	.....	1	.....	1	.....	81,446	118	11	129	.....	118	.....	.....
Peale, Peacock & Kerr,	.....	.....	.....	1	.....	1	.....	157,045	190	16	206	.....	190	.....	.....
Max Frick,	.....	.....	.....	2	.....	2	.....	25,924	.....	.....	.....	.....	.....	.....	.....
Totals,	18	1	19	84	2	86	379,943	81,416	7,697	1,271	8,968	428	92	1,271	635

C. Classification of Fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						
	By Falls of			By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	By Falling into			Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
	Coal.	Slate.	Roof.						Shafts.	Slopes.	Manways, breasts, etc.												
January		1														1							1
February															1	1					1	1	2
March		1														1							1
May	1				1											2							2
July				3											1	4							4
August		2														2							2
September		2														2							2
October			1													1							1
November			1	1												2							2
December		2														2							2
Totals	1	8	2	4	1										*2	18					1	1	19

*Electric shock.

D. Classification of Non-fatal Accidents for the Year 1902.

	Inside of Mines.																Outside of Mines.						
	By Falls of								By Falling into														
	Coal.	Slate.	Roof.	By mine cars.	By explosion of gas.	Smothered by gas.	Powder and dynamite.	By blasts, etc.	Shafts.	Slopes.	Manways, breasts, etc.	Crushed at batteries.	By mules.	Suffocated by coal, etc.	Miscellaneous causes.	Total inside.	By cars.	By machinery.	By suffocation.	By boiler explosions.	Miscellaneous causes.	Total outside.	Grand total.
January,	.....	3	.....	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	6
February,	1	2	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	4
March,	5	1	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	11	.....	.....	.....	.....	.....	.....	11
April,	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	3	.....	.....	.....	.....	.....	.....	3
May,	2	2	1	2	3	2	.....	.....	.....	.....	.....	.....	.....	.....	1	13	.....	.....	.....	.....	.....	.....	13
June,	1	2	.....	5	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	9	.....	.....	.....	.....	.....	.....	9
July,	.....	1	.....	3	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	2	10	1	.....	.....	.....	.....	1	11
August,	1	.....	.....	3	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	5	.....	.....	.....	.....	.....	.....	5
September,	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	4
October,	1	.....	1	2	1	.....	.....	1	.....	.....	.....	.....	.....	.....	1	7	.....	.....	.....	.....	.....	.....	7
November,	.....	1	2	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....	.....	.....	.....	1	1	7
December,	3	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	6	.....	.....	.....	.....	.....	.....	6
Totals,	14	13	4	30	6	2	4	3	.....	.....	.....	.....	1	.....	7	84	1	.....	.....	.....	1	2	86

E. Occupations of Employes Killed or Fatally Injured Inside and Outside the Mines of the Twelfth Bituminous District During 1902.

Months.	Inside.												Outside.								Grand total.
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Boss-keepers and clerks.	All other employes.	Total outside.	
January,				1								1									1
February,							1					1							1	1	2
March,				1								1									1
May,				1			1					2									2
July,				3				1				4									4
August,				1						1		2									2
September,				2								2									2
October,										1		1									1
November,																					
December,																					
Totals,				13			2	1		2		18							1	1	19

F. Occupations of Employes Severely Injured Inside and Outside the Mines of the Twelfth Bituminous District During 1902.

Months.	Inside.												Outside.								Grand total.
	Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
January,	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	2	6	.....	.....	.....	.....	.....	.....	.....	.....	6
February,	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	1	4	.....	.....	.....	.....	.....	.....	.....	.....	4
March,	.....	.....	.....	5	.....	1	1	1	.....	2	1	11	.....	.....	.....	.....	.....	.....	.....	.....	11
April,	.....	.....	.....	2	.....	.....	.....	1	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	3
May,	.....	.....	.....	8	.....	.....	1	2	.....	2	.....	13	.....	.....	.....	.....	.....	.....	.....	.....	13
June,	.....	.....	.....	7	.....	.....	.....	1	.....	1	.....	9	.....	.....	.....	.....	.....	.....	.....	.....	9
July,	.....	.....	.....	6	.....	.....	.....	1	2	1	.....	10	.....	.....	.....	.....	.....	.....	1	1	11
August,	.....	.....	.....	4	.....	.....	.....	1	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	5
September,	.....	.....	.....	3	.....	.....	.....	1	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	1	1	4
October,	.....	.....	.....	6	.....	.....	.....	.....	.....	1	.....	7	.....	.....	.....	.....	.....	.....	.....	.....	7
November,	.....	.....	.....	1	.....	1	.....	1	1	2	.....	6	.....	.....	.....	.....	.....	.....	1	1	7
December,	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	1	1	6
Totals,	.....	.....	.....	53	.....	2	2	9	3	9	4	82	.....	.....	.....	.....	.....	.....	4	4	86

G. Nationality of Employes Killed or Fatally Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Irish.	Germans.	Poles.	Hungarians.	Italians.	Slavs.	Swedes.	Totals.
January,	.....	.....	1	.....	.....	.....	.....	.....	.....	1
February,	.....	.....	.....	1	.....	.....	1	.....	.....	2
March,	.....	1	.....	.....	.....	.....	.....	.....	.....	1
May,	.....	1	.....	.....	.....	.....	.....	1	.....	2
July,	.....	.....	.....	.....	.....	.....	4	.....	.....	4
August,	.....	1	.....	.....	.....	.....	.....	1	.....	2
September,	.....	.....	.....	.....	.....	1	.....	1	.....	2
October,	.....	.....	.....	.....	.....	.....	.....	.....	1	1
November,	.....	.....	.....	.....	1	.....	.....	.....	.....	1
December,	1	.....	.....	.....	1	1	.....	.....	.....	3
Totals,	1	3	1	1	2	2	5	3	1	19

H. Nationality of Employes Severely Injured Inside and Outside the Mines During 1902.

	Americans.	English.	Welsh.	Scotch.	Irish.	Germans.	Poles.	Hungarians.	Italians.	Slavs.	Russians.	Swedes.	Finns.	Totals.
January,	4	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	6
February,	3	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
March,	2	5	1	2	.....	.....	1	.....	.....	.....	.....	.....	.....	11
April,	1	.....	.....	.....	1	.....	.....	1	.....	.....	.....	.....	.....	3
May,	3	3	.....	2	.....	.....	1	.....	1	2	.....	1	.....	13
June,	3	2	.....	.....	.....	.....	.....	.....	2	1	1	.....	.....	9
July,	4	.....	.....	1	.....	.....	1	1	1	3	.....	.....	.....	11
August,	3	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	5
September,	1	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	4
October,	4	1	.....	.....	.....	.....	.....	.....	1	.....	.....	1	.....	7
November,	1	1	1	.....	.....	1	.....	.....	1	.....	.....	2	.....	7
December,	1	.....	1	.....	.....	.....	1	.....	2	.....	1	.....	.....	6
Totals,	30	12	3	6	2	1	4	3	12	6	2	4	1	86

I. Giving names of operators and mines, kind of openings, type and size of fans; size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each employe per minute in Twelfth Bituminous District for the year 1902.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Rochester and Pittsburg Coal and Iron Co.													
Walston No. 1,													
Walston No. 3,	Slope,	Gaseous,	Fan,	25	Guibal,	Steam,		3	80,000	80,000	80,000	410	195
Walston No. 4,	Drift,	Non-gas.	Fan,	7	Stine,	Steam,		1	20,000	20,000	20,000	71	281
Walston No. 6,	Drift,	Non-gas.	Fan,	20	Guibal,	Steam,		2	35,000	35,000	35,000	102	343
Elk Run shaft,	Shaft,	Gaseous,	Fan,	20	Guibal,	Steam,		2	80,000	80,000	80,000	349	221
Adrian,	Slope,	Gaseous,	Fan,	25	Guibal,	Steam,		5	95,000	95,000	95,000	619	153
Florence No. 1,	Slope,	Gaseous,	Fan,	20	Guibal,	Steam,		6	80,000	80,000	80,000	776	141
Florence No. 2,	Drift,	Non-gas.	Fan,	6	Stine,	Steam,		1	30,000	30,000	30,000		
Eleanora No. 1,	Drift,	Non-gas.	Furnace,	5 x 5					6,000	6,000	6,000	18	333
Eleanora No. 2,	Slope,	Gaseous,	Fan,	25	Guibal,	Steam,		5	114,000	114,000	114,000	520	219
Eleanora No. 3,	Drift,	Non-gas.	Fan,	20	Guibal,	Steam,		2	53,000	53,000	53,000	210	257
Berwind-White Coal Mining Co.													
West Eureka No. 4,	Slope,	Non-gas.	Fan,	20	Guibal,	Steam,			100,000	100,000	100,000	176	568
West Eureka No. 6,	Slope,	Gaseous,	Fan,	20	Guibal,	Steam,			48,000	48,000	48,000	323	215
West Eureka No. 7,	Slope,	Gaseous,	Fan,	8	Stine,	Steam,		1					
West Eureka No. 10,	Drift,	Non-gas.	Furnace,	6 x 6	Furnace,				20,000	20,000	20,000	120	166
West Eureka No. 11,	Drift,	Non-gas.	Furnace,	8 x 6				1	12,000	12,000	12,000	148	260
West Eureka No. 13,	Drift,	Non-gas.	Furnace,	8 x 6				2	25,000	25,000	25,000	34	735
John McLeavy & Co.													
Conrad,	Drift,	Non-gas.	Furnace,	6 x 6				1	10,000	10,000	10,000	27	370
Shollar,	Slope,	Gaseous,	Fan,	12	Capell,			2	60,000	60,000	60,000	111	540
Clearfield Bituminous Coal Corporation.													
Canoe Ridge No. 1,	Drift,	Non-gas.	Furnace,	6 x 5			30	3	20,000	20,000	20,000		
Canoe Ridge No. 2,	Drift,	Non-gas.	Fan,	8				3	20,000	20,000	20,000	460	121
Canoe Ridge No. 3,	Drift,	Non-gas.	Fan,	8				2	16,000	16,000	16,000		

Gazzam,	Drift,	Non-gas.	Fan,	8				2	22,000	22,000	22,000	100	220
Urey Ridge Coal Co.													
Urey No. 1,	Drift,	Non-gas.	Furnace,	7 x 6				2	20,000	20,000	20,000	56	357
Urey No. 2,	Drift,	Non-gas.	Furnace,	7 x 6				1	5,000	5,000	5,000	27	185
Urey No. 3,	Drift,	Non-gas.	Furnace,	7 x 6				2	25,000	25,000	25,000	78	320
Glenwood Coal Co.													
Glenwood No. 10,	Drift,	Non-gas.	Fan,	10	Stine,	Steam,		2	20,000	20,000	20,000	54	370
Glenwood No. 11,	Drift,	Non-gas.	Fan,	10	Brazil,	Steam,		1	25,000	25,000	25,000	136	183
Indiana Coal Co.													
Indiana No. 1,	Slope,	Non-gas.	Fan,	8	Stine,	Steam,		2	14,000	14,000	14,000	109	128
Indiana No. 2,	Drift,	Non-gas.	Furnace,	5 x 6			30	1	6,000	6,000	6,000	.....	.....
Indiana No. 3,	Drift,	Non-gas.	Furnace,	6 x 6			36	1	20,000	20,000	20,000	54	370
Indiana No. 4,	Drift,	Non-gas.	Furnace,	6 x 6			36	.....	5,000	5,000	5,000	11	454
Beech Creek Coal and Coke Co.													
Arcadia No. 1,	Drift,	Non-gas.	Furnace,	7 x 6				2	20,000	20,000	20,000	142	140
Arcadia No. 2,	Drift,	Non-gas.	Furnace,	6 x 6				2	18,000	18,000	18,000	151	119
Arcadia No. 3,	Drift,	Non-gas.	Furnace,	6 x 6				1	6,000	6,000	6,000	39	153
Cush Creek Coal and Coke Co.													
Cush Creek No. 1,	Drift,	Non-gas.	Furnace,	6 x 6				1	12,000	12,000	12,000	35	342
Cush Creek No. 2,	Drift,	Non-gas.	Furnace,	4 x 5				1	6,000	6,000	6,000	11	545
Pennsylvania Coal and Coke Co.													
National No. 1,	Drift,	Non-gas.	Furance,	6 x 6				1	10,000	10,000	10,000	82	219
National No. 2,	Drift,	Non-gas.	Furnace,	8 x 6				1	8,000	8,000	8,000		
Irvona Coal Co.													
Irvona No. 3,	Drift,	Non-gas.	Fan,	10	Stine,	Steam,		3	45,000	45,000	45,000	208	216
Irvona No. 4,	Drift,	Non-gas.	Furnace,	6 x 6									
Blaine Run Coal Co.													
Blaine Run No. 1,	Drift,	Non-gas.	Fan,	20	Brazil,	Steam,		2	30,000	30,000	30,000	101	291
Blaine Run No. 2,	Drift,	Non-gas.	Furnace,	6 x 6				1	16,000	16,000	16,000	34	441
S. Hegarty's Sons.													
Oakland No. 1,	Drift,	Non-gas.	Fan,	10	Stine,	Steam,			9,000	9,000	9,000	24	375
Oakland No. 2,	Drift,	Non-gas.	Furnace,	6 x 6					29,000	29,000	29,000	94	308
Peale, Peacock & Kerr.													
Bloomington Nos. 3 and 4,	Drift,	Non-gas.	Fan,	20	Brazil,	Steam,		2	22,000	22,000	22,000	77	285
Bloomington No. 5,	Slope,	Non-gas.	Fan,	10	Stine,	Steam,		2	35,000	35,000	35,000	113	309
S. A. Rinn.													
Walston No. 1,	Drift,	Non-gas.	Natural,					1	7,000	7,000	7,000	55	127
Kurtz & Rinn.													
Walston No. 5,	Drift,	Non-gas.	Fan,	7 5	Stine, Stine,	Steam, Steam,		2	22,000	22,000	22,000	152	144
Williams Coal Co.													
Williams,	Slope,	Non-gas.	Furnace,	3 x 3				1	3,500	3,500	3,500	30	116

TABLE I—Continued.

Names of Operators and Mines.	Kind of opening.	Gaseous or non-gaseous.	Method of ventilation.	Diameter and width of fan in feet.	Name of fan.	Power used.	Area of furnace bars in square feet.	Number of air splits of air currents.	Number of cubic feet of air per minute entering the mine at inlet.	Total quantity of air per minute circulating in all the splits in cubic feet.	Number of cubic feet per minute passing out at outlet.	Number of persons employed inside.	Average number of cubic feet per minute provided for each person.
Gaskill Coal Co.													
Penn No. 2,	Slope,...	Non-gas.	Furnace,	6 x 6	.....	.....	36	1	12,000	12,000	12,000	43	279
Jefferson and Clearfield Coal and Iron Co.													
Sykes shaft,	Shaft,...	Non-gas.	Fan,.....	8	Stine, ...	Steam,...	.....	1	25,000	25,000	2 5,000	44	568
H. A. Bowers & Bro.													
Hillman,	Drift,...	Non-gas.	Furnace,	8 x 6	.....	.....	48	.....	12,000	12,000	12,000	70	170
Reakirt Bros. & Co.													
Penn,	Drift,...	Non-gas.	Furnace,	8 x 6	.....	.....	48	2	12,000	12,000	13,000	55	236
Logan Coal Co.													
Fuller Run,	Drift,...	Non-gas.	Furnace,	7 x 6	.....	.....	42	1	10,000	10,000	11,000	65	1 70
Gipsy Coal Co.													
Gipsy,	Drift,...	Non-gas.	Natural,	.....	.....	.....	.....	.....	.....	.....	.....	11	.....
Ellsworth-Dunham Coal Co.													
Victor No. 11,	Drift,...	Non-gas.	Fan,.....	10	Stine, ...	Steam,...	.....	2	22,000	22,000	22,000	128	171
Cowanshannock Coal Co.													
Yatesboro No. 1,	Drift,...	Non-gas.	Fan,.....	13	Capell, ...	Steam,...	.....	8	120,000	120,000	120 000	} 562	225
Yatesboro No. 2,	Drift,...	Non-gas.	Fan,.....	20	Robinson, ..	Steam,...	.....	1	7,000	7,000	7,000		
Burnside Coal Co.													
Burnside,	Drift,...	Non-gas.	Furnace,	7 x 6	.....	.....	42	2	18,000	18,000	18,000	75	240
Clearfield and Cambria Coal and Coke Co.													
Clearfield,	Drift,...	Non-gas.	Furnace,	7 x 6	.....	.....	42	3	33,000	33,000	33,000	55	600

Mosher & Jose.													
Wilson Run,	Drift,....	Non-gas.	Furnace,	4 x 5	.....	.....	20	1	8,000	8,000	8,000	18	444
Coalport Coal Co.													
Superior,	Drift,....	Non-gas.	Furnace,	5 x 6	.....	.....	30	.....	6,000	6,000	6,000	19	315
Weaver & Ettla.													
O'Shanter,	Drift,....	Non-gas.	Furnace,	8 x 6	.....	.....	48	.....	12,000	12,000	12,000	33	363
Glasgow Coal Co.													
Glasgow,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19	.....
Joseph Smittle.													
Pleasant Hill,	Drift,....	Non-gas.	Furnace,	7 x 6	.....	.....	42	.....	11,000	11,000	11,000	28	392
Beccaria Coal Co.													
Mountaindale,	Drift,....	Non-gas.	Furnace,	7 x 6	.....	.....	42	.....	13,000	13,000	13,000	70	185
Fred Bland.													
Blands,	Drift,....	Non-gas.	Furnace,	7 x 6	.....	.....	42	.....	5,000	5,000	5,000	41	121
Harbison-Walker Co.													
Harbison-Walker,	Drift,....	Non-gas.	Furnace,	5 x 6	.....	.....	30	.....	12,000	12,000	12,000	27	440
Bellwood Coal Co.													
Great Bend,	Drift,....	Non-gas.	Furnace,	5 x 6	.....	.....	30	1	10,000	10,000	10,000	70	142
Max Frick.													
Frick,	Drift,....	Non-gas.	Furnace,	7 x 6	.....	.....	42	2	12,000	12,000	12,000	64	187
Potts Run Land Co.													
Potts Run,	Drift,....	Non-gas.	.....	.....	.....	.....	.....	.....	3,000	3,000	3,000	15	200
Andrew Kennedy.													
Berwindale,	Drift,....	Non-gas.	Furnace,	5 x 6	.....	.....	30	1	3,000	3,000	3,000	10	300
Alpha Coal Co.													
Alpha,	Drift,....	Non-gas.	Furnace,	4 x 4	.....	.....	16	1	2,500	2,500	2,500	12	208
Turner Run Coal Co.													
Turner Run,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gresmer & Co.													
Cheston,	Drift,....	Non-gas.	Furnace.	3 x 4	.....	.....	12	1	3,000	3,000	3,000	16	187

J. Names of mines using coal cutting machines, names of machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines during 1902.

	Kind of opening.	Gaseous or non-gaseous.	Name and number of machines in use.				Total machines used.	Power used by machines.	Geological and local name of seam.	Average thickness in inches.	Height of seam in inches.		Approximate number of tons produced by machines.
			Ingersol.	Sullivan.	Harrison.	Morgan-Gardner.					Thickest.	Thinnest.	
Rochester & Pittsburg Coal & Iron Co.,	Slopes,... Shafts,... Drifts,...	Gaseous, and Non-gas.	52	59	52	.....	163	Compressed air,...	Lower Freeport, ..	66	7.6	3.6	2,988,529
Berwind-White Coal Mining Co.,	Slope,...	Gaseous,	.....	5	12	.....	17	Compressed air,...	Lower Freeport, ..	72	7.0	5.0	115,670
Clearfield Bituminous Coal Corporation, ..	Drift,...	Non-gas.	.....	.....	25	.....	25	Compressed air,...	Lower Freeport, ..	48	4.0	.....	357,371
Beech Creek Coal and Coke Co.,	Drift,...	Non-gas.	.....	.....	6	.....	6	Compressed air,...	Lower Freeport, ..	44	3.8	.....	83,685
Cowanshannock Coal Co.,	Slope,...	Non-gas.	.....	40	.....	.....	40	.....	.....	48	4.0	.....	.....
Glenwood Coal Co.,	Drift,...	Non-gas.	.....	.....	.....	3	3	Electricity,.....	Upper Freeport, ..	48	4.0	.....	51,691
Urey Ridge Coal Co.,	Drift,...	Non-gas.	.....	.....	.....	2	2	Electricity,.....	Lower Freeport, ..	48	4.0	.....	39,500
Jefferson and Clearfield Coal and Iron Co.,	Shaft,...	Non-gas.	4	2	2	.....	8	Compressed air,...	Lower Freeport, ..	60	5.0	.....	48,000
Totals,	.....	.....	56	106	97	5	264	.....	.....	.....	.....	.....	4,197,628

Description of Accidents.

Michael Malone was instantly killed by a fall of rock in his working place, Walston 3, January 2d. The machine men were making a cut at the face of the room, and Malone was sitting near the neck of the room, when without any warning the stone fell upon him. The accident was unforeseen.

William Beckenstine was killed by falling into a shaft at the compressor and pumping station, on the night of Feb. 10th. He and some other employes were at work hoisting coal from the mine for boilers, and instead of hoisting the cage that was at the bottom of the shaft to the surface, he called to one of the men on top to help him push the empty car as he supposed on to the cage, but instead they pushed it into the open shaft, and he fell down with the car and was killed.

Joseph Murrel was killed by electric shock in Florence mine February 24th. The machine cutter had finished cutting in a room, and asked the scraper to go up the heading and into the next room to see if it was ready for cutting, and he started off, but failing to come back the cutter went to look for him, and found him lying on the heading in front of the next room, and from his appearance he must have accidentally struck against the wire, as there was a mark on his temple. He had been accustomed to going in and out of the rooms in the performance of his work, and knew the danger from the wire.

James Parks, a boy aged 14, was killed by a fall of slate in Yatesboro mine March 22d. He and his brother were loaders, and they had fired a shot in the coal when a slab of slate fell on both of them, killing the younger boy. The place was ten feet in width and this was about the fourth cut they were taking out. The slate above the coal is full of slips, but they did not think it was dangerous, so had not set any props, and in this respect they were a little careless, but thought that the place being so narrow, the slate would not fall.

Nelson Knapp, scraper, was killed by a fall of coal in West Eureka No. 6 mine May 23d. The machine cutter was taking a skip off the side of the room, and had started work at a cross cut and so had a loose end, and they had no sprags under the coal at this loose end, and as they were cutting the third board, the coal fell away from a slip, and caught Knapp. This accident was due to the men's own carelessness, as the coal at this point was eight feet thick.

Andy Katsmarick, Slav, was fatally burned by an explosion of gas in Eleanora No. 2 mine, May 27th. A short time before, gas had been found in a hole in the roof near the face of the heading, and as the men who were working in this heading had gone away, they put an obstruction across the heading; but on this morning after Katsmarick and his butty, who worked in a room not far away, had loaded

their first car, Katsmarick went out on the heading, and crawled over the obstruction and ignited the gas and was so badly burned and overcome with the after damp that his life was lost. This accident would not have occurred had he not gone past the danger barrier that was placed across the heading.

Dominic Micala and Joseph Basil, Italians, were killed by mine cars on Walston No. 3 slope. The men were going into the mine to work on night shift, and instead of going by the traveling road, they went on slope at the time a loaded trip was being hoisted, and as the trip was pulling over the knuckle, a drawbar broke, and the drag failed to hold the cars, which ran down the slope and caught the men. This accident was due to their own carelessness in not going on the traveling way.

Peter Shivot, Italian, was so seriously injured by a bolt on mine car striking him on the temple that he died two days afterwards. He was employed as driver in Shollar mine, and was bringing a loaded car through the crosscut, and as the mule balked, he put a block of wood on the rail to hold the car, and as the mules again started up the car swung around, and a bolt on the end of the car struck him on the temple fracturing his skull.

Dominick Melack, Italian, in Florence mine, July 31st, died from electric shock. He and some more miners were coming down the heading, and the motorman had left a part of his trip standing on the heading, while he had gone up a cross heading for the balance of the trip, and this man instead of keeping on the right side of trip, where he would have been safe, took to the left side, and had to climb between the cars to get on the right side of the heading, and in doing so his head came in contact with the trolley wire, and he was dead when he was taken from between the cars. This accident was due to his own carelessness, as he would have been safe had he kept on same side of trip as his companions.

George Wesley was killed by a fall of rock in West Eureka No. 10 mine, August 23d. He had finished his day's work, and was collecting his tools when a rock fell from a slip and killed him. This accident was due to his own carelessness, as he knew the rock was loose, but had set no props under it to secure it.

Michael Miney was killed by a fall of slate in Adrian mine August 24th. A squeeze had come on one of the headings and the assistant foreman had a gang of men at work trying to stop it by putting up cribs and props, and as Miney was measuring for the length of a prop, a slab of slate fell upon him, fatally injuring him.

John Hicha was killed in Burnside mine, September 15th. He had started a room just inside a clay vein, and to make the loading easier had knocked out two props that were set there, and he was fixing his track when a flag of slate fell on him. The accident was

due to his own carelessness, as he had been warned by one of his fellow workmen not to knock out the props, as the roof was not safe.

Steve Harnata was killed by a fall of slate in Yatesboro mine, September 30th. He was working in the main slope heading and they had loaded the coal from under the slate, and were trimming up the rib side when a piece of slate fell from a slip and struck him. He was sent to the hospital but died on October 5th.

Peter Johnson was killed by fall of roof in Eleanora mine October 11, 1902. He and a companion were taking down some roof in the heading, and he was instructed to use dynamite to break down some cross bars, and while his companion was fixing up a cartridge, Johnson took an axe and cut the bottom of the prop to a feather edge, and while they were putting the dynamite on top of the timber it fell, and Johnson was caught under the fall and killed.

Anthony Cunaraxah was killed by a fall of slate in Sykes shaft November 11th, 1902. I had been in the room at 8 o'clock that morning and told the machine man to set a prop which he did. The miner shot the coal and knocked out the prop, and while loading his car a large piece of slate fell upon him injuring him so that he died in a few hours. The accident was due to his own carelessness as his companion told him not to knock out the prop, but if he did, then to take down the slate, but he was in too big a hurry.

Dem Palina was killed by a car in Glenwood mine November 11th, 1902. As the mine is such a long distance from the tipple, the mine foreman had been in the habit of giving the miners an empty car so they could ride down the tramroad and through the tunnel to the tipple. On this evening he had given them an empty car, but when they got to the tunnel mouth they changed this for another one that would run easier, but which had a defective brake, and as they were going through the tunnel they could not control the car, and all the men but Palina managed to get out, but before he could do so the car left the track and he was caught between the car and roof, and injured so that he died a few hours later. The men were to blame for if they had used the car they started out with, they would have gotten safely through to the tipple.

Vincent Molysock was killed by a fall of slate in National No. 1 mine, December 1st, 1902. He and his companion had cleaned up the slate from the side of a heading stump, but had failed to pull down some of the slate above the coal that was loose, and while they were loading the mine car a piece of slate fell from a slip and caught the boy injuring him so that he died the same day. The accident was due to the man's carelessness, as he should have taken down the loose slate.

Herbert Harris was killed by a fall of slate in Blaine Run No. 1 mine, December 16th. He and his brother were turning a room from

the heading, and had pushed the partly loaded car back so they could take down some ripping, and as the ripping fell a piece must have struck his foot, for he fell backward, striking his head on the iron bumper of a car and his skull was fractured.

Condition of Mines—Jefferson County.

The Rochester and Pittsburg Coal and Iron Co. has the largest number of mines, and the largest production of coal in this county, and at the present time they are operating the following mines. Walston Nos. 3, 4 and 6, Elk Run shaft, Adrian, Florence Nos. 1 and 2 and Eleanora Nos. 1, 2 and 3.

Walston No. 3 is a slope mine and is very extensive, and they have much trouble with clay veins and pinch outs, and it makes it a difficult mine to work properly, but during the past year its general condition was good. The fan is of good capacity, and on my last visit they had shortened the intake very much and were bringing the air current very much nearer the face of the workings. A new water ditch was completed during the year, and the water drained in to the Elk Run shaft workings.

Walston No. 4 mine has not had very much solid coal to work during the year, and they are pulling back heading pillars. The general condition of the mine was fair.

Walston No. 6 was in good condition at the different visits, as they have a large fan at work, capable of producing a large volume of air.

In Elk Run shaft there has been great improvements made during the year, as the tunnel connecting Adrian mine has been completed. Large pumps have been installed, also haulage by electricity. The general condition of the mine was good.

Adrian is still the largest mine, and improvements have been made during the year by extending the haulage system, and grading the main slope near the foot, and they are putting in a large Capell fan for ventilating the mine, as the one in use was not of sufficient capacity. The condition of the mine was good.

Florence No. 1 mine is getting to be very large, and a new Capell fan is being put in which it is expected will be fully ample to ventilate the mine for a long time. No. 2 mine has been pushed in for quite a distance, and a good body of coal has been opened up. The mines have been well looked after, and the ventilation at all times was well distributed.

Eleanora No. 1 mine has been confined to pillar work during the year, and there is very little left now. No. 2 has been the big mine, and they have produced a large quantity of coal, and have pushed the workings ahead at a good rate. No. 3 mine on one side is confined to

pillar workings, and on the left they have opened up considerable coal. The ventilation and drainage were good.

Walston No. 1 mine was again started during the latter part of the year, as there is a large body of coal, and lots of pillars to be worked yet. Walston No. 5 has been worked very regularly, and the condition of the mines has been good. These mines are operated by Kurtz & Rinn, and the product goes to the R. & P. C. & I. Co.

The following mines are operated by the Berwind-White Coal Mining Co.; West Eureka Nos. 4, 6, 7, 10, 11 and 13. No. 4 mine has been developed very much ahead of the main straight heading, and an opening for ventilation and a traveling way have been put in. The mine was in good condition. No. 6 mine has been opened up considerably near the foot of the slope, and they are putting in a large Capell fan for ventilating, as the present fan has reached its limit, and something larger was needed as this is to be a very large mine. No. 7 is a new mine, and the work so far has been confined to opening up the main slope, and driving from both ends of headings to serve as traveling and airways. Nos. 10 and 11 mines have been all confined to pillar work, and old No. 13 has been finished, but a new opening across the hill has been put in and they will commence shipping early in the year.

The general condition of all these mines was good.

Conrad and Shollar mines have been visited regularly during the year and have always been found in good condition.

Sykes shaft, operated by the Jefferson Coal and Iron Co., commenced shipping early in the year, and they have made many improvements about the surface and in the mine, and on my last visit had commenced to sink a large shaft, at which they will erect a large fan for ventilation of this, and a portion of Soldier mine adjoining.

Penn No. 2 mine and Hillman mine were visited regularly and found in good condition. At Hillman mine a new haulage system and compressor for cutting coal with machines has been installed during the year.

Williams mine near Horatio is a new mine, which has just commenced shipping.

Indiana County Mines.

The Clearfield Bituminous Coal Corporation operates Canoe Ridge Nos. 1, 2 and 3, all drift mines; coal is cut with Puncher machines, and mines ventilated by fans and furnace. Mines were well looked after.

At the Urey mines they have worked very well, and No. 2 was in operation most of the year with a small force of men. The condition of the mines was good.

The Glenwood Coal Co. has operated two mines during the year, one in Indiana county has worked very well and was in good condition.

The Indiana Coal Co. has had three mines working during the year. One portion of No. 1 mine was deficient in ventilation at one of my visits, but was remedied on the succeeding ones. They have been trying to get beyond the fault into better coal, but at my last visit the outlook was not very encouraging. No. 2 has been opened up considerably. No. 3 has done very little work owing to the coal being low, and it was difficult to get men to work it. No. 4 has not worked as steadily as the No. 1 and 3 mines, and conditions were not very good.

Penn mine has worked regularly during the year, and most of the work has been confined to pillar drawing, and this year will see the mine exhausted. Condition of mine was good.

Cush Creek mine was visited at the regular intervals during the year. Old No. 2 mine was abandoned and a new opening was put in on the upper seam. The mine was in good condition on my usual visits.

Fuller Run mine was in good condition at the several visits made during the year.

Gipsy mine did not work regularly enough during the year to deserve much notice, and was visited only once.

Arcadia mines Nos. 1, 2 and 3 were visited at the regular intervals, and were always found in good condition as regards ventilation and drainage. At my last visit there were less than the required number of men to come under the law at No. 3 mine, and it will be shut down.

Victor No. 11 mine has been pushed ahead during the year, and it was always in a good condition at the different visits.

Clearfield County Mines.

At Glenwood No. 10, operated by the Glenwood Coal Co., the fault has been cut through, but they cannot open out new ground very well. They have put a fan at the shaft for ventilating the mine, and it is now in good condition.

Burnside mine has been worked regularly, and they have made a tramroad and use a locomotive for hauling the coal from the second opening, and they have also put a water level into this mine, which will be of great service. The old opening was kept in good condition, and the new opening was in fair condition.

Clearfield mine was worked steadily during the year, and they are installing compressors so as to use coal cutting machines in the different openings. Ventilation and drainage were good.

Wilson Run mine has never employed much more than twenty men, but it was found in good condition during the year.

At National Nos. 1 and 2 mines they have worked very well during the year. No. 1 mine has had trouble with a fault, which has kept them from opening out the mine as fast as they would have liked, and on my last visit they were putting another opening into the same hill as No. 1. No. 2 was confined mostly to pillar working and will not last much longer.

Irvona No. 3 mine was in good condition as regards ventilation, but in one portion of the mine the drainage was poor. Electric power for haulage purposes has been installed at this mine. At No. 4 mine some times I would find men at work and other times none.

Oakland mines Nos. 1 and 2, operated by Hegarty's Sons, have worked fairly well during the year, and No. 1 mine was in good condition. No. 2 was only in fair condition.

Blaine Run Nos. 1 and 2 were regularly visited during the year, and No. 1 mine was always found up to the standard required, and the same can be said in regard to No. 2 mine.

Superior mine has not had very many men at work during the year, so they have not opened up much territory. The mine has been kept in good condition.

Gazzam mine has worked very regularly, and they have cut a long ditch for the drainage, and have pushed the work at the back end of the old mine, and the coal is turning out better. The mine was in good condition.

O'Shanter mine was found working at two of the visits during the year, and they have put in a new opening behind the fault, and the old mine is now confined to pillar working. It was in good condition.

Bloomington mines were visited regularly during the year, and Nos. 3 and 4 mines are now confined to mostly pillar working, while No. 5 is promising to be the big mine now. The condition of these mines was good.

Potts Run is a new mine just commenced shipping, and was visited once, and they were making preparations for furnace and second opening.

Kennedy mine is a small operation near Berwindale which was opened during the year, and so far at my visits I never found more than ten men, but the mine was in good condition, as they have a suitable furnace.

Cheston is a new mine which shipped a small quantity of coal at the end of the year. They had only a temporary furnace, and no second opening at the time of my visit.

Cambria County Mines.

Blands mine was visited at regular intervals during the year, and was in fair condition.

Frick mine was always in good condition at the different visits, but they are still having trouble with poor roof, and have not yet succeeded in cutting through the fault; a tunnel has been driven from this vein to the one immediately above, and they will soon ship coal from this vein, which is about two and a half feet in thickness, and is of good quality.

Great Bend mine is in about same condition as last year. An opening is being driven through the hill, which will materially aid the ventilation.

Harbison-Walker mine, the product of which is used at the brick works at this place, works very regularly and its condition was good.

Mountaindale mine has opened considerable new ground during the year, and the coal is better than they have heretofore had, and the condition of the mine was all right.

Pleasant Hill mine has only a small number of men employed, but the mine has been well looked after.

Glasgow mine was visited twice during the year, but they struck a fault, and abandoned the first mine they opened, and are now trying to locate a new mine on one of the other seams.

Armstrong County Mines.

Yatesboro Nos. 1 and 2 are the only mines at present in this county. No. 1 mine has worked very well during the year, and considerable new work has been commenced, and the condition of the mine was good.

No. 2 mine has been developed to some extent, and they are now ready for shipping coal, and have installed a large Robinson fan for the ventilation of the mine.

New Mines and Improvements.

The following are new mines opened during the year, but some are not yet ready for shipping.

Alpha Coal Mining Co. has opened a new mine which shipped coal during the latter part of the year. Mine called Alpha No. 1.

Turner Run Mine.—Turner Run Coal Co. will be shipping from their new mine early in 1903.

Helman-Edelblute & Co. have opened a new mine on Turner Run, which will soon be ready to ship coal. These mines are in the vicinity of Coalport, and the coal will be shipped via Cresson and Coalport Railroad.

Cheston mine, operated by Gresmer & Co., is a new mine opened the last year, which shipped some coal in December.

Berwindale mine, operated by A. Kennedy, has been shipping a small quantity for several months. This mine and the Cheston will both ship via P. and N. W. R. R.

The Beech Creek Coal and Coke Co. is opening Arcadia mines Nos. 4 and 5, and will be ready for shipping in the spring.

The Indiana Coal Co. is also opening a mine adjacent to the above, and Stott Bros. are also opening a new mine in the same neighborhood, and they are expecting to ship coal this spring. This coal will be shipped over the N. Y. Central R. R.

Potts Run Nos. 1 and 2 are new mines just commencing to ship; coal will be shipped by Clearfield Southern and N. Y. Central R. R.

Yatesboro No. 2 is a new mine opened this year. The Williams mine is also a new mine, and coal from both these mines will be shipped over the B. R. & P. R. R.

Hillsdale is a new mine, opened by the Hillsdale Coal and Coke Co., near Gipsy, Indiana county. The coal will be shipped by N. Y. Central R. R.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Twelfth Bituminous District for the year 1902.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Rochester and Pittsburg Coal and Coke Co.						
Walston No. 3,	Jefferson,	L. M. Robinson,	Punxsutawney,			B. R. & P. R. R.
Walston No. 4,	Jefferson,	L. M. Robinson,	Punxsutawney,			B. R. & P. R. R.
Walston No. 6,	Jefferson,	L. M. Robinson,	Punxsutawney,			B. R. & P. R. R.
Berwind-White Coal Mining Co.						
West Eureka No. 4,	Jefferson,	Thomas A. Fisher,	Philadelphia,	A. J. Cook,	Horatio,	Pennsylvania Railroad.
West Eureka No. 6,	Jefferson,	Thomas A. Fisher,	Philadelphia,	A. J. Cook,	Horatio,	Pennsylvania Railroad.
West Eureka No. 7,	Jefferson,	Thomas A. Fisher,	Philadelphia,	A. J. Cook,	Horatio,	Pennsylvania Railroad.
West Eureka No. 10,	Jefferson,	Thomas A. Fisher,	Philadelphia,	A. J. Cook,	Horatio,	Pennsylvania Railroad.
West Eureka No. 11,	Jefferson,	Thomas A. Fisher,	Philadelphia,	A. J. Cook,	Horatio,	Pennsylvania Railroad.
West Eureka No. 13,	Jefferson,	Thomas A. Fisher,	Philadelphia,	A. J. Cook,	Horatio,	Pennsylvania Railroad.
John McLeavy & Co.						
Conrad,	Jefferson,	John McLeavy,	Punxsutawney,			Pennsylvania Railroad.
Shoilar,	Jefferson,	John McLeavy,	Punxsutawney,			Pennsylvania Railroad.
Clearfield Bit. Coal Corporation.						
Canoe Ridge No. 1,	Indiana,	R. A. Shillingford,	Clearfield,	W. A. Broadmeadow,	Rossiter,	N. Y. C. & H. R. R. R.
Canoe Ridge No. 2,	Indiana,	R. A. Shillingford,	Clearfield,	W. A. Broadmeadow,	Rossiter,	N. Y. C. & H. R. R. R.
Canoe Ridge No. 3,	Indiana,	R. A. Shillingford,	Clearfield,	W. A. Broadmeadow,	Rossiter,	N. Y. C. & H. R. R. R.
Gazzam,	Clearfield,	R. A. Shillingford,	Clearfield,	James Methven,	Gazzam,	N. Y. C. & H. R. R. R.
Urey Ridge Coal Co.						
Urey No. 1,	Indiana,	Thomas Bellis,	Burnside,			Pennsylvania Railroad.
Urey No. 2,	Indiana,	Thomas Bellis,	Burnside,			Pennsylvania Railroad.
Urey No. 3,	Indiana,	Thomas Bellis,	Burnside,			Pennsylvania Railroad.
Glenwood Coal Co.						
Glenwood,	Indiana,	A. M. Riddle,	Glen Campbell,			Pennsylvania Railroad.
Glenwood No. 10,	Clearfield,	A. M. Riddle,	Glen Campbell,			Pennsylvania Railroad.
Indiana Coal Co.						
Indiana No. 1,	Indiana,	George Scott,	Philipsburg,			P. R. R. & N. Y. C. & H. R. R.
Indiana No. 2,	Indiana,	George Scott,	Philipsburg,			Pennsylvania Railroad.
Indiana No. 3,	Indiana,	George Scott,	Philipsburg,			Pennsylvania Railroad.
Indiana No. 4,	Indiana,	George Scott,	Philipsburg,			Pennsylvania Railroad.

Beech Creek Coal & Coke Co.						
Arcadia No. 1,	Indiana,	W. C. Lingle,	Patton,			N. Y. C. & H. R. R. R.
Arcadia No. 2,	Indiana,	W. C. Lingle,	Patton,			N. Y. C. & H. R. R. R.
Arcadia No. 3,	Indiana,	W. C. Lingle,	Patton.			N. Y. C. & H. R. R. R.
Clearfield & Cush Creek Coal & Coke Co.						
Cush Creek No. 1,	Indiana,			John Hoover,	Glen Campbell,	N. Y. C. & H. R. R. R.
Cush Creek No. 2,	Indiana,			John Hoover,	Glen Campbell,	Pennsylvania Railroad.
Pennsylvania Coal & Coke Co.						
National No. 1,	Clearfield,	J. L. Mitchell,	Philadelphia,	W. M. Smith,	Ebensburg,	Pennsylvania Railroad.
National No. 2,	Clearfield,	J. L. Mitchell,	Philadelphia,	W. M. Smith,	Ebensburg,	Pennsylvania Railroad.
Irvona Coal Co.						
Irvona No. 3,	Clearfield,	J. W. Erdis,	Philadelphia,	Archie Bathgate,	Coalport,	Pennsylvania Railroad.
Irvona No. 4,	Clearfield,	J. W. Erdis,	Philadelphia,	Archie Bathgate,	Coalport,	Pennsylvania Railroad.
Blaine Run Coal Co.						
Blaine Run No. 1,	Clearfield,			W. H. Helman,	Coalport,	Pennsylvania Railroad.
Blaine Run No. 2,	Clearfield,			W. H. Helman,	Coalport,	Pennsylvania Railroad.
S. Hegarty's Sons.						
Oakland No. 1,	Clearfield,			W. S. Hegarty,	Coalport,	Pennsylvania Railroad.
Oakland No. 2,	Clearfield,			W. S. Hegarty,	Coalport,	Pennsylvania Railroad.
Peale, Peacock & Kerr.						
Bloomington Nos. 3 and 4,	Clearfield,	Alex. Dunsmore,	Glen Richey,	W. G. Dunsmore,	Glen Richey,	N. Y. C. & H. R. R. R.
Bloomington No. 5,	Clearfield,	Alex. Dunsmore,	Glen Richey,	W. G. Dunsmore,		N. Y. C. & H. R. R. R.
S. A. Rinn.						
Walston No. 1,	Jefferson,	S. A. Rinn,	Punxsutawney,	Thos. McMullen,	Walston,	B. R. & P. R. R.
Kurtz & Rinn.						
Walston No. 5,	Jefferson,	S. A. Rinn,	Punxsutawney,	Thos. McMullen,	Walston,	B. R. & P. R. R.
Williams Coal Co.						
Williams,	Jefferson,			S. A. Williams,	Lindsey,	B. R. & P. R. R.
Gaskill Coal Co.						
Penn No. 2,	Jefferson,					Pennsylvania Railroad.
Jefferson & Clearfield C. & I. Co.						
Sykes shaft,	Jefferson,	L. W. Robinson,	Punxsutawney,	John Reed,	Reynoldsville,	B. R. & P. R. R.
H. A. Bowers & Bro.						
Hillman,	Jefferson,	H. A. Bowers,	Punxsutawney,	S. C. Williams,		Pennsylvania Railroad.
Williams mine,	Jefferson,					B. R. & P. R. R.
Reakirt Bros. & Co.						
Penn,	Indiana,	F. A. VonBoynburgh,	Philadelphia,	W. J. Treverick,	Glen Campbell,	Pennsylvania Railroad.
Logan Coal Co.						
Fuller Run,	Indiana,			F. A. Boucher,	Dunlo,	Pennsylvania Railroad.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Gipsy Coal Co.						
Gipsy,	Indiana,					N. Y. C. & H. R. R. R.
Ellsworth-Dunham Coal Co.						
Victor No. 11,	Indiana,					N. Y. C. & H. R. R. R.
Cowanshannock Coal Co.						
Yatesboro No. 1,	Armstrong,	L. W. Robinson,	Punxsutawney,	James Craig,	Yatesboro,	B. R. & P. R. R.
Yatesboro No. 2,	Armstrong,	L. W. Robinson,	Punxsutawney,	James Craig,	Yatesboro,	
Burnside Coal Co.						
Burnside,	Clearfield,			Thomas Bellis,	Burnside,	N. Y. C. & H. R. R. R.
Clearfield & Cambria C. & C. Co.						
Clearfield Nos. 1, 2 and 3,	Clearfield,					Pennsylvania Railroad.
Mosher & Jose.						
Wilson Run,	Clearfield,					Pennsylvania Railroad.
Coalport Coal Co.						
Superior,	Clearfield,	A. A. Stevens,	Tyrone,	Geo. P. Bell,	Coalport,	Pennsylvania Railroad.
Weaver & Ettla.						
O'Shanter,	Clearfield,	George Scott,	Philipsburg,	H. B. Weaver,	Clearfield,	N. Y. C. & H. R. R. R.
Glasgow Coal Co.						
Glasgow,	Cambria,			W. M. Williams,	Glasgow,	Pennsylvania Railroad.
Joseph Smittle.						
Pleasant Hill,	Cambria,			Joseph Smittle,	Glasgow,	Pennsylvania Railroad.
Beccaria Coal Co.						
Mountaindale,	Cambria,			Charles Lamb,	Glasgow,	Pennsylvania Railroad.
Fred. Bland.						
Blands,	Cambria,			Fred. Bland,	Blandsburg,	Pennsylvania Railroad.
Harbison-Walker Co.						
Harbison-Walker,	Cambria,	H. B. Errett,	Clearfield,			Pennsylvania Railroad.
Bellwood Coal Co.						
Great Bend,	Cambria,	W. S. Bell,	Bellwood,			Pennsylvania Railroad.

Max. Frick.				Max Frick,	Blandsburg,	Pennsylvania Railroad.
Frick,	Cambria,					
Potts Run Land Co.						
Potts Run,	Clearfield,	G. C. Shults,	Clearfield,			N. Y. C. & H. R. R. R.
Andrew Kennedy.						
Berwindale,	Clearfield,	Andrew Kennedy,	Osceola Mills,			Pennsylvania Railroad.
Alpha Coal Co.						
Alpha,	Clearfield,	F. H. Seeley,	Altoona,	W. Templeton,	Coalport,	Pennsylvania Railroad.
Turner Run Coal Co.						
Turner Run,	Clearfield,					Pennsylvania Railroad.
Gresmer & Co.						
Cheston,	Clearfield,	A. F. Elder,	Irvona,	G. W. Turley,	Irvona,	Pennsylvania Railroad.

TABLE II—Gives the total number of tons of coal mined and tons of coke produced in each colliery, number of days worked, number of employes, number of employes killed and injured, number of kegs of powder, etc., used in the Twelfth Bituminous District for the year ending December 31, 1902.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in ton.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Rochester & Pittsburg C. & I. Co.														
Walston No. 3,	Jefferson,													
Walston No. 4,	Jefferson,	496,119	31,025	2,750	1,022,937	237,905	700	277	1,180	....	....	2,600	6,500	70
Walston No. 6,	Jefferson,	.....	.....	.....	.....	.....	.....	.....	.....	....	....	195	460	24
Elk Run shaft,	Jefferson,													
Adrian,	Jefferson,													
Florence No. 1,	Jefferson,	933,195	30,700	5,250	1,261,162	166,694	476	265	1,661	8	52	6,000	8,700	53
Florence No. 2,	Jefferson,													
Eleanora No. 1,	Jefferson,													
Eleanora No. 2,	Jefferson,	719,152	32,786	1,100	871,761	78,980	201	257	877	....	....	2,500	1,500	50
Eleanora No. 3,	Jefferson,													
Totals and averages,	.....	2,148,466	94,511	9,100	3,155,860	483,579	1,377	266	3,718	8	52	11,295	17,160	197
Berwind-White Coal Mining Co.														
West Eureka No. 4,	Jefferson,	156,851	4,293	138	161,282	.....	.....	250	192	....	....	2,000	2,500	32
West Eureka No. 6,	Jefferson,	134,392	15,530	.....	149,922	.....	.....	256	247	....	....	1,700	1,000	26
West Eureka No. 7,	Jefferson,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
West Eureka No. 10,	Jefferson,	95,935	1,434	13	97,382	.....	.....	274	129	3	11	1,816	.....	29
West Eureka No. 11,	Jefferson,	61,118	.....	437	61,555	.....	.....	296	53	....	....	1,153	.....	10
West Eureka No. 13,	Jefferson,	34,409	.....	22	34,431	.....	.....	184	38	....	....	778	.....	4
Totals and averages,	.....	482,705	21,257	610	504,572	.....	.....	253	659	3	11	7,447	3,500	101

*Totals in this column are averages.

John McLeavy & Co.,														
Conrad,	Jefferson,	11,915		13	11,928			144	28					2
Shollar,	Jefferson,	110,016	1,500	76	111,592			219	122	1	1			14
Totals and averages,		121,931	1,500	89	123,520			181	150	1	1			16
Clearfield Bit. Coal Corporation.														
Canoe Ridge No. 1,	Indiana,													
Canoe Ridge No. 2,	Indiana,	389,675	7,339	390	397,404			284	510			3,300	500	31
Canoe Ridge No. 3,	Indiana,													
Gazzam,	Clearfield,	74,429	287	585	75,301			271	112		1	1,120	200	14
Totals and averages,		464,104	7,626	975	472,705			277	622		1	4,420	700	45
Urey Ridge Coal Co.														
Urey No. 1,	Indiana,	51,320		100	51,420			158	61			450		8
Urey No. 2,	Indiana,	16,246			16,246			128	28			140		2
Urey No. 3,	Indiana,	76,609		75	76,684			211	82			590		10
Totals and averages,		144,175		175	144,350			166	171			1,180		20
Gleenwood Coal Co.														
Glenwood No. 10,	Indiana,	27,126	90	785	28,001			172	59			355		7
Glenwood No. 11,	Indiana,	108,846	1,433	993	111,272			219	149	1		912		
Totals and averages,		135,972	1,523	1,778	139,273			195	208	1		1,267		7
Indiana Coal Co.,														
Indiana No. 1,	Indiana,	60,181	1,368	510	62,059			220	118		1	900		10
Indiana No. 2,	Indiana,													
Indiana No. 3,	Indiana,	40,759	250	120	41,129			196	58			310		6
Indiana No. 4,	Indiana,	11,251	100	20	11,371			163	11			83		2
Totals and averages,		112,191	1,718	650	114,559			193	187		1	1,293		18
Beech Creek Coal & Coke Co.														
Arcadia No. 1,	Indiana,	85,573			85,573			214	145					6
Arcadia No. 2,	Indiana,	101,546	1,400	434	103,380			279	158					8
Arcadia No. 3,	Indiana,	17,669			17,669			174	41					2
Totals and averages,		204,788	1,400	434	206,622			232	344					16
Clearfield & Cush Creek C. & C. Co.														
Cush Creek No. 1,	Indiana,													
Cush Creek No. 2,	Indiana,	29,169		125	29,294			179	54			350	65	6
Pennsylvania Coal & Coke Co.														
National No. 1,	Clearfield,													
National No. 2,	Clearfield,	4,034	519	277	71,434	27,138	100	236	128	1	1	400	640	17

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in ton.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Irvona Coal Co.														
Irvona No. 3,	Clearfield,	99,663	2,000	490	161,148	39,330	100	* 194	261	....	5	610	40	29
Irvona No. 4,	Clearfield,													
Blaine Run Coal Co.														
Blaine Run No. 1,	Clearfield,	60,893	300	.....	61,193	.....	.....	232	110	1	....	400	.....	9
Blaine Run No. 2,	Clearfield,	20,000	150	.....	20,150	.....	.....	209	36	....	....	100	.....	2
Totals and averages,		80,893	450	.....	81,343	.....	.....	220	146	1	....	500	.....	11
S. Hegarty's Sons.														
Oakland No. 1,	Clearfield,	11,876	.....	.....	11,876	.....	.....	197	28	....	1	94	.....	3
Oakland No. 2,	Clearfield,	68,898	472	200	69,570	.....	.....	236	101	....	....	400	25	5
Totals and averages,		80,774	472	200	81,446	.....	.....	216	129	....	1	494	25	8
Peale, Peacock & Kerr.														
Bloomington Nos. 3 and 4,	Clearfield,	75,393	100	124	75,617	.....	.....	205	84	....	....	.....	.....	11
Bloomington No. 5,	Clearfield,	80,926	201	301	81,428	.....	.....	230	122	....	1	.....	.....	9
Totals and averages,		156,319	301	425	157,045	.....	.....	232	206	....	1	.....	.....	20
S. A. Rinn.														
Walston No. 1,	Jefferson,	18,000	.....	.....	18,000	.....	.....	73	60	....	....	90	.....	11
Kurtz & Rinn.														
Walston No. 5,	Jefferson,	135,000	400	200	135,600	.....	.....	300	160	....	....	2,160	.....	24

*Totals in this column are averages.

								*						
Williams Coal Co.														
Williams,	Jefferson,	2,000	15	.....	2,015	.....	.....	20	35	....	....	10	.....	5
Gaskill Coal Co.														
Penn No. 2,	Jefferson,	37,500	40	50	37,590	.....	.....	300	48	....	....	600	24	9
Jefferson & Clearfield C. & I. Co.														
Sykes shaft,	Jefferson,	48,000	.....	.....	48,000	.....	.....	192	56	1	1	.....	.....	4
H. A. Bowers & Bro.														
Hillman,	Jefferson,	41,748	650	475	42,873	.....	.....	302	81	....	....	800	600	8
Reakirt Bros. & Co.														
Penn,	Indiana,	47,840	.....	.....	47,840	.....	.....	252	57	....	....	.....	.....	11
Logan Coal Co.														
Fuller Run,	Indiana,	30,000	400	150	30,550	.....	.....	237	72	....	....	150	120	5
Gipsy Coal Co.														
Gipsy,	Indiana,	1,200	.....	.....	1,200	.....	.....	.....	11	....	....	.....	.....	1
Ellsworth-Dunham Coal Co.														
Victor No. 11,	Indiana,	55,813	120	149	56,082	.....	.....	213	138	....	....	279	.....	11
Cowanshannock Coal Co.														
Yatesboro No. 1,	Armstrong,	593,274	12,546	462	606,282	.....	.....	279	622	2	7	2,000	6,000	8
Yatesboro No. 2,	Armstrong,													
Burnside Coal Co.														
Burnside,	Cearfield,	62,093	.....	.....	62,093	.....	.....	266	83	1	....	791	30	10
Clearfield and Cambria C. & C. Co.														
Clearfield,	Clearfield,	24,000	12	.....	24,012	.....	.....	200	66	....	....	.....	.....	3
Mosher & Jose.														
Wilson Run,	Clearfield,	6,640	.....	250	6,890	.....	.....	117	21	....	....	135	.....	1
Coalport Coal Co.														
Superior,	Clearfield,	14,256	.....	.....	14,256	.....	.....	210	20	....	....	91	25	1
Weaver & Ettla.														
O'Shanter,	Clearfield,	17,789	.....	5	17,794	.....	.....	181	38	....	....	145	.....	2
Glasgow Coal Co.														
Glasgow,	Cambria,	5,839	84	16	5,939	.....	.....	165	25	....	....	.....	.....	2
Joseph Smittle.														
Pleasant Hill,	Cambria,	14,127	.....	127	14,254	.....	.....	281	31	....	....	165	500	2
Beccaria Coal Co.														
Mountaindale,	Cambria,	8,640	280	860	42,090	21,828	50	254	87	....	....	240	900	6

*Totals in this column are averages.

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in ton.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Fred Bland.														
Blands,	Cambria,	38,072		170	38,242			*310	45	....	....	520		6
Harbison-Walker Co.														
Harbison-Walker,	Cambria,			720	†23,746			298	29	....	....	472	220	3
Bellwood Coal Co.														
Great Bend,	Cambria,	60,828			60,828			255	73	....	....	350	800	5
Max Frick.														
Frick,	Cambria,	51,600	199	53	51,852			239	67	....	2	577	500	7
Potts Run Land Co.														
Potts Run,	Clearfield,	1,568			1,568				18	....	....			2
Andrew Kennedy.														
Berwindale,	Clearfield,	1,515	15	90	1,620			98	11	....	....	25		1
Alpha Coal Co.														
Alpha,	Clearfield,	4,000			4,000			91	12	....	....			
Turner Run Coal Co.														
Turner Run,	Clearfield,									....	....			
Gresmer & Co.														
Cheston,	Clearfield,	580		18	598			52	19	....	....	11	50	1
Grand totals,		5,587,106	118,038	19,123	6,838,985	571,875	1,627	8,225	8,968	19	86	38,977	31,899	660

*Totals in this column are averages.
†The difference was used in furnishing fire brick.

TABLE II—Continued.

Name of Collieries.	County.	Number of Boilers.				Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.	Horse power.		Steam.	Air.	Electric.							
Rochester & Pittsburg C. & I. Co.,	Jefferson,	6	440	73	9,220	9,660	8	.....	10	44	5,740	10	17,800	12,250	11	21
Berwind-White Coal Mining Co.,	Jefferson,	.....	.....	16	1,815	1,815	1	.....	.....	4	460	6	3,395	1,750	.....	3
John McLeavy & Co.,	Jefferson,	.....	.....	2	110	220	.....	.....	.....	2	330	1	150	.....	.....	1
Clearfield Bit. Coal Corporation,	Ind. & Clfld.,	.....	.....	6	685	685	.....	.....	2	5	264	4	750	640	2	2
Urey Ridge Coal Co.,	Indiana,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Glenwood Coal Co.,	Indiana,	.....	.....	3	320	320	.....	.....	3	2	250	.....	.....	.....	.....	.....
Indiana Coal Co.,	Indiana,	.....	.....	1	60	60	.....	.....	.....	3	140	1	300	200	.....	.....
Beech Creek Coal & Coke Co.,	Indiana,	.....	.....	2	140	140	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clearfield & Cush Creek C. & C. Co.,	Indiana,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pennsylvania Coal & Coke Co.,	Clearfield,	.....	.....	1	80	80	.....	.....	.....	1	35	.....	.....	.....	.....	.....
Irvona Coal Co.,	Clearfield,	.....	.....	4	.....	200	2	.....	.....	4	210	2	97	45	.....	.....
Blaine Run Coal Co.,	Clearfield,	.....	.....	1	60	60	.....	.....	.....	2	.....	1	48	36	.....	.....
S. Hegarty's Sons,	Clearfield,	.....	.....	2	120	120	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Peale, Peacock & Kerr,	Clearfield,	.....	.....	3	425	425	.....	.....	.....	4	210	.....	.....	.....	.....	.....
S. A. Rinn,	Jefferson,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kurtz & Rinn,	Jefferson,	.....	.....	2	35	35	2	.....	.....	4	56	1	50	20	.....	.....
Williams Coal Co.,	Jefferson,	1	.....	.....	25	25	.....	.....	.....	.....	.....	1	50	10	.....	.....
Gaskill Coal Co.,	Jefferson,	9	16	.....	.....	16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jefferson & Clearfield C. & I. Co.,	Jefferson,	.....	.....	6	900	900	.....	.....	.....	3	1,400	4	14,000	.....	2	2
H. A. Bowers & Bro.,	Jefferson,	.....	.....	1	80	80	.....	.....	.....	2	60	1	200	100	.....	1
Reakirt Bros. & Co.,	Indiana,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Logan Coal Co.,	Indiana,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gipsy Coal Co.,	Indiana,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Elisworth-Dunham Coal Co.,	Indiana,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cowanshannock Coal Co.,	Armstrong,	.....	.....	10	1,000	1,000	.....	.....	8	5	400	4	15,238	7,619	2	5
Burnside Coal Co.,	Clearfield,	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clearfield & Cambria C. & C. Co.,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mosher & Jose,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Coalport Coal Co.,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Weaver & Ettla,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Glasgow Coal Co.,	Cambria,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Joseph Smittle,	Cambria,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE II—Continued.

Name of Collieries.	County.	Number of Boilers.				Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.	Horse power.		Steam.	Air.	Electric.							
Beccaria Coal Co.,	Cambria,	.....	.....	1	40	40	.....	.....	.....	1	40	.....	.....	.....	.....	.....
Fred Bland,	Cambria,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Harbison-Walker Co.,	Cambria,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bellwood Coal Co.,	Cambria,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Max Frick,	Cambria,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Potts Run Land Co.,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Andrew Kennedy,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Alpha Coal Co.,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Turner Run Coal Co.,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gresmer & Co.,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand totals,	.....	16	456	134	15,115	6,201	14	.....	23	86	9,595	36	51,977	22,670	17	35

TABLE III—Showing the number of each class of employes at each colliery in the Twelfth Bituminous District during the year 1902.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
Rochester & Pittsburg C. & I. Co.																						
Walston No. 3,	Jefferson,	1	1	1	65	25	247	9	26	4	31	.....	410	1	1	5	20	200	2	74	303	713
Walston No. 4,	Jefferson,	1	....	....	15	4	32	2	9	2	6	.....	71	....	....	1	4	.....	.....	5	10	81
Walston No. 6,	Jefferson,	1	....	....	12	5	71	5	.....	.....	8	.....	102	....	....	3	2	.....	.....	9	14	116
Elk Run shaft,	Jefferson,	1	....	1	2	25	154	25	16	4	21	.....	244	....	1	2	10	.....	1	7	21	270
Adrian,	Jefferson,	1	....	2	95	80	280	80	40	8	33	.....	619	1	2	8	12	160	2	36	221	840
Florence No. 1,	Jefferson,	2	....	1	40	78	500	78	35	6	36	.....	776	1	1	6	7	.....	2	28	45	821
Florence No. 2,	Jefferson,																					
Eleanora No. 1,	Jefferson,	1	....	....	15	.....	.....	.....	2	.....	.....	.....	18	....	....	.....	.....	.....	.....	1	1	19
Eleanora No. 2,	Jefferson,	1	....	1	39	30	351	30	40	13	15	.....	520	1	1	8	18	90	1	9	128	648
Eleanora No. 3,	Jefferson,	1	....	....	100	10	64	10	17	3	5	.....	210	....	....	.....	.....	.....	.....	.....	.....	210
Totals,		10	1	6	383	257	1,699	239	185	40	155	.....	2,975	4	6	33	73	450	8	169	743	3,718
Berwind-White Coal Mining Co.																						
West Eureka No. 4,	Jefferson,	1	1	....	153	.....	.....	.....	9	4	.....	8	176	....	....	4	5	.....	1	6	16	192
West Eureka No. 6,	Jefferson,	1	....	1	43	25	101	16	12	4	.....	20	223	....	....	5	10	.....	1	8	24	247
West Eureka No. 7,	Jefferson,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....
West Eureka No. 10,	Jefferson,	1	....	....	107	.....	.....	.....	6	1	.....	5	120	....	....	1	2	.....	1	5	9	129
West Eureka No. 11,	Jefferson,	1	....	....	43	.....	.....	.....	2	.....	.....	2	48	....	....	1	.....	.....	1	3	5	53
West Eureka No. 13,	Jefferson,	1	....	....	29	.....	.....	.....	2	1	.....	1	34	....	....	1	.....	.....	1	2	4	38
Totals,		5	1	1	375	25	101	16	31	10	.....	36	601	....	....	12	17	.....	5	24	58	659

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
John McLeavy & Co.																						
Conrad,	Jefferson,	1	....	....	24	.....	.....	.....	1	1	.....	.....	27	....	....	.....	.....	.....	.....	1	1	28
Shollar,	Jefferson,	1	....	....	91	3	.....	3	8	3	2	.....	111	1	....	1	3	.....	1	5	11	122
Totals,		2	....	....	115	3	.....	3	9	4	2	.....	138	1	....	1	3	.....	1	6	12	150
Clearfield Bit. Coal Corporation.																						
Canoe Ridge No. 1,	Indiana,	3	....	....	60	50	245	50	20	6	.....	26	460	1	1	4	5	.....	1	38	50	510
Canoe Ridge No. 2,	Indiana,																					
Canoe Ridge No. 3,	Indiana,																					
Gazzam,	Clearfield,	1	....	....	90	.....	.....	.....	4	1	3	1	100	1	1	2	2	.....	1	5	12	112
Totals,		4	....	....	150	50	245	50	24	7	3	27	560	2	2	6	7	.....	2	43	62	622
Urey Ridge Coal Co.																						
Urey No. 1,	Clearfield,	1	....	....	50	.....	.....	.....	3	1	1	.....	56	1	....	1	.....	.....	1	2	5	61
Urey No. 2,	Clearfield,	1	....	....	25	.....	.....	.....	1	.....	.....	.....	27	....	....	.....	.....	.....	.....	1	1	28
Urey No. 3,	Clearfield,	1	....	....	40	3	24	3	6	.....	1	.....	78	....	....	1	.....	.....	.....	3	4	82
Totals,		3	....	....	115	3	24	3	10	1	2	.....	161	1	....	2	.....	.....	1	6	10	171
Glenwood Coal Co.																						
Glenwood No. 10,	Clearfield,	1	....	....	50	.....	.....	.....	2	.....	1	.....	54	1	....	1	.....	.....	1	2	5	59
Glenwood No. 11,	Indiana,	1	....	....	23	6	92	6	6	.....	2	.....	136	1	....	3	2	.....	1	6	13	149
Totals,		2	....	....	73	6	92	6	8	.....	3	.....	190	2	....	4	2	.....	2	8	18	208

Indiana Coal Co.																							
Indiana No. 1,	Indiana,	1			100				5		3		109			1	2		1	5	9	118
Indiana No. 2,	Indiana,																						
Indiana No. 3,	Indiana,	1			50				2		1		54			1			1	2	4	58
Indiana No. 4,	Indiana,	1			9				1				11									11
Totals,		3			159				8		4		174			2	2		2	7	13	187
Beech Creek Coal and Coke Co.																							
Arcadia No. 1,	Indiana,	1			130				5	2	3	1	142			1				2	3	145
Arcadia No. 2,	Indiana,	1			12	18	88	18	8	4	2		151			1	2		1	3	7	158
Arcadia No. 3,	Indiana,	1			35				2		1		39							2	2	41
Totals,		3			177	18	88	18	15	6	6	1	332			2	2		1	7	12	344
Clearfield and Cush Creek Coal and Coke Co.																							
Cush Creek No. 1,	Indiana,	1			32				2				35	1					1	3	5	40
Cush Creek No. 2,	Indiana,	1			9				1				11	1					1	1	3	14
Totals,		2			41				3				46	2					2	4	8	54
Pennsylvania Coal and Coke Co.																							
National No. 1,	Clearfield,	1	1		73				5	1	1		82	1		2	1	31	1	10	46	128
National No. 2,	Clearfield,																						
Irvona Coal Co.																							
Irvona No. 3,	Clearfield,	1			180				13	5		9	208	1	1	3	7	36	1	4	53	261
Irvona No. 4,	Clearfield,																						
Blaine Run Coal Co.																							
Blaine Run No. 1,	Clearfield,	1	1		90				7	1	1		101	1		1	1		1	5	9	110
Blaine Run No. 2,	Clearfield,	1			30				2		1		34							2	2	36
Totals,		2	1		120				9	1	2		135	1		1	1		1	7	11	146
S. Hegarty's Sons.																							
Oakland No. 1,	Clearfield,	1			20				2		1		24	1		1			1	1	4	28
Oakland No. 2,	Clearfield,	1			85				4	2	2		94	1		1	1		1	3	7	101
Totals,		2			105				6	2	3		118	2		2	1		2	4	11	129
Peale, Peacock & Kerr.																							
Bloomington No. 3,	Clearfield,	1			66				6	2	2		77	1	1	1			1	3	7	84
Bloomington No. 5,	Clearfield,	1			100				5	4	3		113		1	2				6	9	122
Totals,		2			166				11	6	5		190	1	2	3			1	9	16	206
S. A. Rinn.																							
Walston No. 1,	Jefferson,	1			50				3			1	55	1		1				3	5	60
Kurtz & Rinn.																							
Walston No. 5,	Jefferson,	1			141				5		2		152	1		2	4			1	8	160

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.												Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Mine foremen.	Assistant mine foremen.	Fire bosses.	Miners.	Machine runners.	Machine loaders.	Machine scrapers.	Drivers and runners.	Door boys and helpers.	Company men.	All other employes.	Total inside.	Superintendents.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Coke employes.	Book-keepers and clerks.	All other employes.	Total outside.	
Williams Coal Co.																						
Williams,	Jefferson,	1	....	....	25	.....	.....	.....	3	.....	1	.....	30	1	....	1	1	.....	.....	2	5	35
Gaskill Coal Co.																						
Penn No. 2,	Jefferson,	1	....	....	38	.....	.....	.....	3	.....	1	.....	43	1	....	1	1	.....	.....	2	5	48
Jefferson and Clearfield Coal and Iron Co.																						
Sykes shaft,	Jefferson,	1	....	....	35	.....	.....	.....	3	1	4	.....	44	1	....	2	6	.....	.....	3	12	56
H. A. Bowers & Bro.																						
Hillman,	Jefferson,	1	....	....	20	4	32	4	4	2	3	.....	70	1	1	2	2	.....	1	4	11	81
Reakirt Bros. & Co.																						
Penn,	Indiana,	1	....	....	50	.....	.....	.....	3	.....	1	.....	55	....	....	1	.....	.....	.....	1	2	57
Logan Coal Co.																						
Fuller Run,	Indiana,	1	....	....	52	.....	.....	.....	4	2	6	.....	65	1	....	2	.....	.....	1	3	7	72
Gipsy Coal Co.																						
Gipsy,	Indiana,	1	....	....	9	.....	.....	.....	1	.....	.....	.....	11	....	....	.....	.....	.....	.....	.....	.....	11
Ellsworth-Dunham Coal Co.																						
Victor No. 11,	Indiana,	1	....	....	123	.....	.....	.....	4	.....	.....	.....	128	1	....	1	2	.....	1	5	10	138
Cowanshannock Coal Co.																						
Yatesboro No. 1,	Armstrong,	1	...	....	36	42	400	42	6	3	21	11	562	1	2	6	6	.....	3	42	60	622
Yatesboro No. 2,	Armstrong,																					

Burnside Coal Co.																						
Burnside,	Clearfield,	1	....	....	67	.....	.....	.....	4	1	2	.....	75	1	...	1	1	.....	1	4	8	83
Clearfield and Cambria Coal and Coke Co.																						
Clearfield Nos. 1, 2 and 3,	Clearfield,	1	....	....	44	.....	.....	.....	3	1	3	3	55	1	1	5	.....	.....	2	2	11	66
Mosher & Jose.																						
Wilson Run,	Clearfield,	1	....	....	15	.....	.....	.....	1	.....	1	.....	18	1	....	.....	.....	.....	1	1	3	21
Coalport Coal Co.																						
Superior,	Clearfield,	1	....	....	17	.....	.....	.....	1	.....	.....	.....	19	1	....	.....	.....	.....	.....	.....	1	20
Weaver & Ettla.																						
O'Shanter,	Clearfield,	1	....	....	30	.....	.....	.....	1	.....	1	.....	33	1	....	.....	.....	.....	.....	4	5	38
Glasgow Coal Co.																						
Glasgow,	Cambria,	1	....	....	16	.....	.....	.....	1	.....	1	.....	19	1	....	1	1	.....	1	2	6	25
Joseph Smittle.																						
Pleasant Hill,	Cambria,	1	....	....	25	.....	.....	.....	2	.....	.....	.....	28	1	1	.....	.....	.....	1	.....	3	31
Beccaria Coal Co.																						
Mountaindale,	Cambria,	1	...	....	63	.....	.....	.....	4	1	1	.....	70	....	1	1	1	12	.....	2	17	87
Fred Bland.																						
Blands,	Cambria,	1	....	....	32	.....	.....	.....	6	1	1	.....	41	....	1	1	.....	.....	.....	2	4	45
Harbison-Walker Co.																						
Harbison-Walker,	Cambria,	1	....	....	22	.....	.....	.....	3	.....	1	.....	27	....	....	.....	.....	.....	.....	2	2	29
Bellwood Coal Co.																						
Great Bend,	Cambria,	1	....	....	55	.....	.....	.....	6	1	6	1	70	1	....	1	.....	.....	1	.....	3	73
Max Frick.																						
Frick,	Cambria,	1	....	....	55	.....	.....	.....	5	.....	1	2	64	....	....	1	.....	.....	.....	2	3	67
Potts Run Land Co.																						
Potts Run,	Clearfield,	1	....	....	12	.....	.....	.....	2	.....	.....	.....	15	1	....	1	.....	.....	.....	1	3	18
Andrew Kennedy.																						
Berwindale,	Clearfield,	1	....	....	8	.....	.....	.....	1	.....	.....	.....	10	....	....	.....	.....	.....	.....	1	1	11
Alpha Coal Co.																						
Alpha,	Clearfield,	1	....	....	10	.....	.....	.....	.....	.....	1	.....	12	....	....	.....	.....	.....	.....	.....	.....	12
Turner Run Coal Co.																						
Turner Run,	Clearfield,	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....
Gresmer & Co.																						
Cheston,	Clearfield,	1	....	....	12	.....	.....	.....	1	.....	2	.....	16	1	....	1	.....	.....	.....	1	3	19
Grand totals,	.....	69	4	7	3,297	408	2,581	481	417	96	246	91	7,697	37	18	105	141	529	43	398	1,271	8,968

TABLE IV—List of fatal accidents that occurred in and about the mines of the Twelfth Bituminous District for the year ending December 31, 1902.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 2	Michael Malone, ...	Irish, ...	Miner, ...	52	S.	...	....	Walston No. 3, ...	Jefferson,....	Instantly killed by a fall of rock from a slip in the roof; the machine cutters were making a cut at the face of the room, and Mr. Malone was sitting at the neck of the room, when, without any warning, the stone fell upon him; there was no one to blame, as the accident was an unforeseen one.
Feb. 10	Wm. Bickenstine, .	German, ...	Other employe,	53	M.	1	....	W. Eureka No. 6, .	Jefferson,....	Killed by falling down shaft; he and some other men were working night shift, hauling coal up the shaft for the boilers at compressor plant; he had been down the shaft to tell the men not to send any more loads up until he had sent some empties down, and he went up the shaft, and instead of hoisting the empty cage he and another young man pushed an empty car into the shaft, and he fell with it and was killed; the safety gate had been taken off, owing to one of the arms on the cage that lifted it being broken, and the deceased seemed, momentarily to have forgotten that the cage was still at foot of the shaft, and that the safety gate was off, and the accident was attributed to forgetfulness on his part, and it occurred about midnight.
24	Joseph Murrell, ...	Italian, ...	Machine scraper,	30	M.	1	....	Florence, ...	Jefferson,....	Killed by coming in contact with trolley wire in mine; he and machine cutter had pushed the machine to the mouth of the room they had finished cutting, and the cutter told Murrel to go to the next room and see if it was ready for cutting, and he went up the heading, and as he

											did not come back, the cutter went to look for him, and found him lying on the floor, at the mouth of the room, and from the appearance of the man, it appears he must have struck his head against the wire, as there was a mark on the temple. It was considered accidental, as the man had been accustomed to go in and out of the rooms, and knew the danger from the wire.
Mar.	22	James Parks, ...	English, ...	Miner, ...	14	S.	...	...	Yatesboro No. 1, .	Armstrong,..	Killed by fall of slate; he and his brother were working in the neck of a room and had shot down a fall of coal, and while engaged in breaking some of it down, and shoveling it out, a slab of slate fell on both of them; the place was about ten feet wide, and this was the fourth cut they were taking out; the slate above the coal is full of slips, but they did not think it was dangerous, and so they did not set any props, and in this respect were a little careless, and then, again, the narrowness of this place was such that it seemed hardly possible for the slate to fall.
May	23	Nelson Knapp, ...	English, ...	Machinescraper,	19	S.	...	....	W. Eureka No. 6, .	Jefferson,....	Killed by fall of coal; the machine cutter was taking a slip from the side of a room, and had started at a cross cut with a loose end, and had no sprags under the coal, and as they were cutting the third board, the coal fell away from a slip and caught Knapp; this accident was due to the men's carelessness in not securing the coal against falling, as at this point it was eight (8) feet thick.
	27	Andy Kalsmarick, ..	Slav, ...	Miner, ...	34	M.	1	2	Eleanor No. 2, ...	Jefferson,....	Died from burns by gas and after damp; this man and his "butty" worked in No. 9 room, 9th left heading, and after shooting down their fall of coal and loading mine car, Katsmarick went out into the heading and toward the face of the heading, and climbed over an obstruction placed across the heading as a danger signal, as gas had been found in a hole in the roof, and his lamp must have come in contact with this gas, for an explosion occurred and he was so badly burned and overcome with the after damp that his life was lost; this accident would not have occurred had he stayed in his own room and not gone where he had no business, as the barrier placed across the road was warning that he should not pass it.

TABLE IV—Continued.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
July 7	Dominic Micala, ...	Italian, ...	Miner, ...	36	M.	1	1	Walston No. 3, ...	Jefferson,....	Killed by mine cars; both men were going to work in the mine on night shift, and instead of going down the traveling way, they disobeyed the rule and went down the slope; a loaded trip was being pulled out and as the trip was going over the knuckle, the draw-bar of a car broke, and the drag falling to hold the cars, they ran back down the slope, and the men were caught in the wreck that followed; this accident was due to the men's own carelessness in not walking down the traveling way.
7	Joseph Basil, ...	Italian, ...	Miner, ...	41	M.	1	2	Walston No. 3, ...	Jefferson,....	
19	Peter Shivot, ...	Italian, ...	Driver, ...	25	M.	1	....	Shollar, ...	Jefferson,....	Killed by mine cars; he was bringing a loaded car from back heading into main heading, and the mules balked as they were going through the cross cut, and he blocked the car with a piece of wood, and as the mules started up again the car swung a little and a bolt on the car struck him on the left temple, fracturing his skull, and he died on the morning of July 21; no one was to blame for the accident.
31	Dominick Melack, ..	Italian, ...	Miner, ...	23	S.	....	....	Florence No. 1, ...	Jefferson,....	Killed by coming in contact with trolley wire; he and some miners were coming along the heading from their work, and the motorman had left a portion of his loaded trip standing on the heading while he was collecting the rest of his trip, and this man, in trying to get ahead of his companions, took to the left side of the trip, and then tried to climb across between the cars, and in doing so he struck the trolley wire with his head, and when removed from between the cars he was dead; this acci-

											dent was due to his own carelessness, as he would have been safe had he kept on same side of the trip as his companions.
Aug.	23	George Wesley, ...	English, ...	Miner, ...	21	S.	....	....	W. Eureka No. 10,	Jefferson,....	Killed by fall of rock; he had been working on a heading stump, and had finished his day's work and was bringing his tools from the face, when a rock fell from a slip in the roof, killing him; this accident was due to carelessness, as he knew the rock was loose and needed propping, and he failed to secure it.
	24	Michael Miney, ...	Slav, ...	Company man,	26	M.	1	1	Adrian, ...	Jefferson,....	Killed by fall of slate; this man and some others and the assistant foreman were at work on Sunday putting in cribs and props in No. 10 right to stop a squeeze that had started in some finished rooms, and this man and his "butty" were setting props in the back heading under a piece of loose slate, and they had set one prop and were measuring with a tape line for the length of the next one, when, without any warning, the flag of slate broke away and fell on him; this was accidental and no one to blame.
Sept.	15	John Hieka, ...	Slav, ...	Miner, ...	20	S.	....	....	Burnside, ...	Clearfield,...	Killed by fall of slate; he had started to turn off a room just inside a clay vein, and to make easier loading he knocked out two props that were standing, and while fixing his track a flag of slate fell on him; this accident was due to his own carelessness, for he had been warned by one of his fellow miners that the roof was unsafe.
	30	Steve Hamata, ...	Hungarian,..	Miner, ...	33	M.	1	2	Yatesboro, ...	Armstrong,..	Killed by fall of slate; was working in main slope heading and they had loaded the coal from under the slate, and while trimming up the side a piece of slate fell from a slip and struck him; he was sent to the hospital and died October 5; no one was to blame, as the accident was unforeseen.
Oct.	11	Peter Johnson, ...	Swede, ...	Company man,	45	M.	1	5	Eleanora No. 2, ..	Jefferson,....	Killed by fall of roof; he and a companion were taking down roof in heading and he was instructed to use dynamite to break down the cross bars, and while his companion was making up a cartridge Johnson cut the prop supporting the cross bar to a feather edge, and while he was putting clay around the cartridge on top of the cross bar the roof, cross bar and prop all gave way, burying him under the fall; this accident was due to his own carelessness in cutting the prop.

TABLE IV—Continued

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Nov. 11	Anthony Cavanaugh,	Pole, ...	Miner, ...	24	S.	....	....	Sykes' shaft, ...	Jefferson,....	Killed by fall of roof; I was in this room at 8 o'clock and told machine cutter to set a prop, and he did so; the miner shot down the coal after dinner, and knocked out the prop, and was loading his mine car, when a large piece of slate fell on him and he died in a few hours; this accident was due to his own carelessness, as his companion told him not to knock out the prop, but if he did, to take the slate down, but he was in too great a hurry to take it down.
11	Dern Palina, ...	Hungarian,..	Miner, ...	30	M	1	4	Glenwood No. 4, ..	Indiana,.....	Killed by mine car; this man and some companions were given a good car to take down to the tipple, over a mile away, but as it did not run fast enough to suit them, they changed it for another one at the mouth of the tunnel, and this car had a defective brake, and in going through the tunnel the car got beyond their control, and all the men got out safely but Polina was caught between the car and the roof when the car jumped the track, and he died in a few hours; the men were to blame for this accident, for if they had used the car they started out with they would have been all right and safe.
Dec. 1	Vincent Molysock, ..	Pole, ...	Miner, ...	16	S.	....	....	National No. 1, ...	Clearfield,...	Killed by fall of slate; he and his companion had cleaned up along side a heading stump, but had failed to pull down the loose slate on the side, and as they were loading a mine car, a large body of slate gave way from a slip and fell on the boy, breaking both his legs

16	Herbert Harris, ...	American, .	Miner, ...	22	S.	Blaine Run No. 1,	Clearfield,...	and crushing his pelvis; he died same day. Accident was due to their own carelessness, as they should have taken down the loose slate. Skull fractured; he and his brother were turning off a room and were taking down some ripping, and had pushed the car back a short distance; as the ripping fell, a piece struck his foot and he fell backward, striking back of his head on the iron bumper of the car; I think this accident would not have happened had they pushed the mine car further back.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Twelfth Bituminous District for the year ending December 31, 1902.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 6	John Catanlo,	Italian,	Miner,	22	S.	Walston No. 3,	Jefferson,	Burned by gas, instead of going to his own place he went into 12 left heading before the regular miners had come to work, and his lamp ignited a small body of gas, no one to blame but himself.
6	William Craig,	Irish,	Miner,	22	S.	Eleanora No. 2,	Jefferson,	Shoulder bone and leg broken by a fall of slate, due to his own carelessness.
20	James Hooley,	American,	Miner,	50	M.	Irvona No. 3,	Clearfield,	Ankle bruised and two small bones broken by a fall of slate in heading, accident due to his not propping the roof or taking it down.
22	Park Sargent,	American,	Other employe,	19	S.	Irvona No. 3,	Clearfield,	Shoulder bruised while trying to put on brake on slope in mine, no one to blame for accident.
24	John Hammond,	American,	Other employe,	30	S.	Adrian No. 1,	Jefferson,	Hand injured by being run over by car, due to carelessness.
29	Henry Williams,	American,	Miner,	30	S.	Oakland,	Clearfield,	Collar bone broken by fall of ripping, and due to his own carelessness.
Feb. 15	William French,	American,	Other employe,	35	M.	Adrian,	Jefferson,	Bones in both hands broken, front car of trip jumped the track, and last car jammed against motor, and his hand caught against brake wheel, and was accidental.
17	Charles Loyd,	American,	Miner,	16	S.	Walston No. 4,	Jefferson,	Leg broken by fall of draw slate, and was due to carelessness.
24	Andrew Campbell,	Scotch,	Miner,	60	M.	Florence No. 1,	Jefferson,	Finger broken and hand hurt by fall of draw slate, due to carelessness.
25	Craddle Hughes,	American,	Miner,	15	S.	Indiana No. 1,	Indiana,	Leg broken by fall of bone coal, accident due to his own negligence.
March 5	William Rhule,	English,	Miner,	55	M.	Florence No. 1,	Jefferson,	Squeezed about the hips by a fall of coal, and due to his own carelessness as he knew the coal was loose.
10	George Sivens,	English,	Miner,	17	S.	National No. 2,	Clearfield,	Cut above the knee, a piece of coal fell sticking his pick into his knee, accidental.

	12	James Madden,	American,	Machine loader,	18	S.	West Eureka No. 6,	Jefferson,	Hurt about the hips by fall of coal from a slip and was accidental.
	14	William Speck,	Pole,	Machine scraper,	19	S.	Elk Run shaft,	Jefferson,	Leg broken by fall of coal from a slip, and due to carelessness of machine cutter.
	17	John W. Carr,	Scotch,	Miner,	49	M.	Florence,	Jefferson,	Bone in leg broken, motor struck an iron rail lying along side the heading, and it struck him, accident due to his own carelessness.
	19	John Lord,	American,	Other employe,	19	S.	Florence,	Jefferson,	Hand hurt, got his hand and arm between top of car and roof, due to his own carelessness.
	22	George Day,	English,	Company man,	31	M.	Eleanora No. 2,	Jefferson,	Both men bruised about the body, in going down the slope in trip, the grip failed to catch and trip ran away, and men were injured in getting out of trip, accident due to their own carelessness.
	22	John Miller,	Scotch,	Company man,	55	M.	Eleanora No. 2,	Jefferson,	
	22	Warner D. H. Parks,	English,	Miner,	16	S.	Yatesboro No. 1,	Armstrong,	Injured by fall of slate, at same time his brother was killed, and accident due to carelessness.
	25	Charles Richards,	English,	Miner,	52	M.	West Eureka No. 6,	Jefferson,	Fingers cut by fall of coal, and due to his own carelessness.
	26	Eli Thomas,	Welsh,	Driver,	22	S.	West Eureka No. 6,	Jefferson,	Foot bruised, caught between cars, accident due to carelessness.
April	23	Richard Crags,	Irish,	Miner,	45	M.	Eleanora No. 2,	Jefferson,	Burned on face and hands by gas which he ignited by his open light; gas was in a hole in the roof, accident was unavoidable.
	26	Peter Galloway,	American,	Driver,	23	S.	Irvona No. 3,	Clearfield,	Bruised about face and right arm while loading timber in mine, the mule started up and he was caught by the timbers, and it was accidental.
	27	Paul Brokson,	Hungarian,	Miner,	27	M.	Yatesboro,	Armstrong,	Back broken by fall of slate, not fatal, while making undercut with a machine, he had a prop taken out and slate fell on him, the accident was due to his own carelessness.
May	1	Joseph Jeffrey,	Scotch,	Miner,	20	S.	Yatesboro,	Armstrong,	Back hurt by fall of slate, it was accidental.
	3	Alex. N. Ruddock,	Scotch,	Company man,	35	M.	Eleanora No. 2,	Jefferson,	Both men slightly burned, Ruddock wanted to see if there was any gas in the hole where Crags was burned, and he put his open light up to the hole and both were burned by a small body of gas that was there, accident due to his own carelessness.
	3	Moses Maffin,	English,	Company man,	40	M.	Eleanora No. 2,	Jefferson,	
	14	William Gustason,	American,	Miner,	18	S.	Florence,	Jefferson,	Bruised about the hips, was riding on electric motor, and was squeezed against the rib, accident due to his carelessness.
	16	Axel Dickson,	Swede,	Miner,	34	M.	Yatesboro,	Armstrong,	Leg broken by a fall of slate, due to his negligence in not propping.
	19	Salvatore Jusgent,	Italian,	Miner,	33	S.	Florence,	Jefferson,	Leg injured by empty car running over it, due to carelessness.
	22	Lewis Thomas,	American,	Miner,	23	S.	West Eureka No. 11,	Jefferson,	Both legs broken by fall of rock, accident was unavoidable.

TABLE V—Continued.

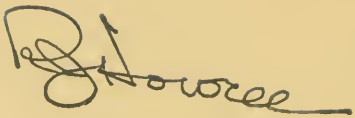
Date of accident.		Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
May	22	Thomas Blainar, ...	Pole, ...	Miner, ...	26	S.	Sykes shaft, ...	Jefferson,....	Leg broken by a fall of coal, and due to carelessness on his part.
	22	Matthew Snedden, ...	English, ...	Driver.	28	M.	Penn No. 2, ...	Jefferson,....	Ankle hurt, car jumped the track and his foot was caught, accidental.
	23	William Lawson, ...	English, ...	Miner, ...	25	S.	West Eureka No. 6,	Jefferson,....	Legs crushed by fall of coal, and due to his own carelessness.
	27	Peter Gachink, ...	Slav, ...	Miner, ...	32	M.	Eleanora No. 2, ...	Jefferson,....	Overcome by after damp from explosion
	27	Mike Topeck, ...	Slav, ...	Miner, ...	25	S.	Eleanora No. 2, ...	Jefferson,....	of gas in heading, and accident due to fault of another person.
	27	Sam Ball, ...	American, ...	Driver, ...	32	M.	Eleanora No. 2, ...	Jefferson,....	Burned on face and hands same time as above accident, accident due to fault of another person.
June	3	Steve Patchen, ...	Slav, ...	Miner, ...	42	....	West Eureka No. 6,	Jefferson,....	Burned on face and hands, thought his shot had missed fire, and went back to see, and it went off and caught him, due to his carelessness.
	4	Falk Fale, ...	Italian, ...	Miner, ...	18	S.	Florence No. 1, ...	Jefferson,....	Foot injured, caught between bumpers, and due to carelessness.
	7	John Hopkins, ...	American, ...	Driver, ...	22	S.	Florence No. 1, ...	Jefferson,....	Leg bruised by car jumping the track, no one to blame.
	12	Harry Earnest, ...	American, ...	Miner, ...	19	S.	Florence No. 1, ...	Jefferson,....	Foot squeezed while getting out of the way of runaway trip, accidental.
	14	Harry Hunt, ...	English, ...	Miner, ...	14	S.	Eleanora, ...	Jefferson,....	Leg broken by fall of loose coal, was avoidable if coal had been taken down.
	20	Con Donovan, ...	American, ...	Miner, ...	19	S.	Florence, ...	Jefferson,....	Fingers injured by timbers on trip, and was due to carelessness.
	23	Wallace Broadburt, ...	English, ...	Miner, ...	25	S.	Adrian, ...	Jefferson,....	Arm broken, empty car was thrown against the rib by being struck with loaded car, no one to blame for accident.
	26	Steve Bunt, ...	Italian, ...	Miner, ...	15	S.	Florence, ...	Jefferson,....	Hands injured by fall of draw slate, and was due to carelessness.
	28	Sigmund Powskey, ...	Russian, ...	Company man, ..	40	M.	Elk Run shaft, ...	Jefferson,....	Head cut and two ribs broken by fall of slate, accident was avoidable.
July	8	Joseph Stephens, ...	Hungarian, ..	Miner, ...	25	S.	Florence No. 2, ...	Jefferson,....	Head cut and back bruised by runaway car in heading, and was unavoidable.

	9	Clel Bowser,	American,	Miner,	19	S.	Eleanora No. 2,	Jefferson,	All were burned by explosion of powder they were stealing a ride on motor trip in mine, and one of the men had a can of powder, and in some unknown way it exploded, burning all of them, and was due to carelessness.
	9	James Smith,	American,	Door boy,	14	S.	Eleanora No. 2,	Jefferson,	
	9	Mick Vaschal,	Slav,	Miner,	45	M.	Eleanora No. 2,	Jefferson,	
	9	Dan. Vaschal,	Slav,	Miner,	14	S.	Eleanora No. 2,	Jefferson,	
	11	James Flanigan,	Scotch,	Driver,	21	S.	Elk Run shaft,	Jefferson,	Injured internally, was caught between car and prop, was unavoidable.
	15	Steve Chicomick,	Slav,	Miner,	23	S.	Penn No. 2,	Jefferson,	Ends of two fingers cut off, was caught between brake beam and prop, and was due to carelessness.
	21	Henry Resce,	American,	Company man,	38	M.	Elk Run shaft,	Jefferson,	Leg bruised, was caught by motor, due to his own carelessness.
	22	Steve Stankovitch,	Pole,	Miner,	14	S.	Frick,	Cambria,	Scalp wound by fall of slate, and due to his father's carelessness.
	24	Henry James,	American,	Door boy,	14	S.	Florence No. 1,	Jefferson,	Burned by mine lamp, and due to his own carelessness.
	25	Gitam Granlolu,	Italian,	Other employe,	40	M.	Florence No. 2,	Jefferson,	Leg badly crushed, was cutting rope from loaded trip, and cars jumped the track and wrecked, accident due to carelessness.
Aug.	8	Robert Goldridge,	American,	Runner,	17	S.	Florence No. 1,	Jefferson,	Leg fractured and pelvis broken, he tried to jump on motor trip in heading, and was caught between motor and rib, accident due to his own carelessness.
	12	John McCune,	American,	Miner,	17	S.	Adrian,	Jefferson,	Foot hurt, he jumped in between cars of motor trip, and cars came together and caught his foot, accident due to carelessness.
	23	Fred Johnson,	Finlander,	Miner,	35	M.	Walston No. 3,	Jefferson,	Hurt by runaway cars on slope, and due to his own neglect.
	25	Daniel Flanigan,	American,	Miner,	33	S.	West Eureka No. 4,	Jefferson,	Leg broken by fall of bone coal, accident unavoidable.
	30	Roscius Senian,	Italian,	Miner,	33	M.	Walston No. 3,	Jefferson,	Hurt by mine cars while riding on loaded trip, due to carelessness on his part.
Sept.	4	Milila Senian,	Italian,	Miner,	26	M.	Walston No. 6,	Jefferson,	Leg and collar bone broken, car jumped the track and knocked out a prop and cross timber, and slate fell on him, was due to his own carelessness.
	12	Samuel Madill,	American,	Runner,	17	S.	Florence No. 2,	Jefferson,	Heel bruised, his foot caught in a frog, and mine car ran on his foot, accident due to carelessness.
	16	Steve Falker,	Hungarian,	Company man,	18	S.	West Eureka No. 6,	Jefferson,	Leg broken by mine cars, his foot caught between car and rail, was unavoidable.
	27	Carmal Orego,	Italian,	Miner,	20	S.	Yatesboro,	Armstrong,	Leg broken, he broke his squib off too short, and before he could get far enough away, the shot went off, and coal struck him, accident due to carelessness on his part.
Oct.	6	William Pomeroy,	English,	Miner,	57	M.	Shollar,	Jefferson,	Arm and collar bone broken by cross bar breaking, was unavoidable.
	7	Sam Shuman,	Italian,	Miner,	55	M.	Adrian,	Jefferson,	Arm broken, car door fell on his arms, and was accidental.

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Oct. 10	Amos Myers, ...	American, ...	Miner, ...	22	S.	Adrian, ...	Jefferson,....	Pelvis fractured by a fall of coal, and due to his own carelessness.
15	Orin Pierce, ...	American, ...	Miner, ...	22	M.	Gazzam, ...	Clearfield,...	Burned on face and hands from an overcharged shot setting off a can of powder, accident due to his carelessness.
22	David Wilson, ...	American, ...	Miner, ...	21	S.	Adrian, ...	Jefferson,....	Leg broken, while jumping on cars he slipped, no one to blame.
22	J. A. Arnold, ...	American, ...	Miner, ...	41	M.	Frick, ...	Cambria,....	Leg broken by fall of roof, accident due to his neglect to prop the roof.
30	Mandus Olson, ...	Swede, ...	Company man, ..	26	M.	West Eureka No. 6	Jefferson,....	Burned on hands and face, after firing a shot he noticed a little gas burning, and tried to put it out with compressed air, and flame came back on him, no one to blame.
Nov. 3	Sadie Hitchhins, ...	Welsh, ...	other employe, ..	26	S.	West Eureka No. 6	Jefferson,....	Leg crushed, timber supporting a boiler broke, and boiler fell on him, no one to blame, as timber was supposed to be sound.
5	Thomas Wilkinson, ...	English, ...	Company man, ..	58	M.	Irvona No. 3, ...	Clearfield,...	Foot injured.
5	James Hooley, ...	American, ...	Miner, ...	45	M.	Irvona No. 3, ...	Clearfield,...	Shoulder and arm cut, these men were timbering and had secured the roof as they thought, but it fell on them, no one to blame for accident.
11	William Johnson, ...	Swede, ...	Door boy, ...	13	S.	Bloomington No. 5,	Clearfield,...	First joint of finger cut while trying to couple cars, accidental.
14	Philip Spevht, ...	German, ...	Company man, ..	30	M.	Walston No. 4, ...	Jefferson,....	Arm broken and head cut, he was rope rider, and going in with a trip of cars could not get enough slack to pull the pin, and in jumping to one side he struck against the rib, then was thrown against the cars, accident unavoidable.
17	Archie Perry, ...	Italian, ...	Driver, ...	18	S.	Walston No. 3, ...	Jefferson,....	Body squeezed, was caught between car and rib, and due to his own carelessness.
28	Axel Sealand, ...	Swede, ...	Machine loader,..	13	S.	Yatesboro No. 1, ...	Armstrong,	Leg broken by a fall of slate, no one to blame for accident.

Dec.	5	William Lumbull, ...	Welsh, ...	Miner, ...	18	S.	West Eureka No. 6,	Jefferson,....	Foot crushed by fall of coal, no carelessness on his part.
	11	Edward Evasky, ...	Russian, ...	Miner, ...	16	S.	Elk Run shaft, ...	Jefferson,....	Leg bruised, fell from front of empty trip, and car run over his leg, carelessness.
	18	Adam Yancosky, ...	Pole, ...	Miner, ...	25	S.	Adrian, ...	Jefferson,....	Three toes broken by fall of coal, and was accidental.
	18	Salvatore Chenone, ...	Italian, ...	Miner, ...	60	M.	Adrian, ...	Jefferson,....	Foot bruised, mine car run over it, and due to his own carelessness.
	22	Frank Grant, ...	Italian, ...	Miner, ...	40	M.	Yatesboro, ...	Armstrong,	Hip dislocated, was struck by a fall of coal, and due to carelessness.
	30	Theodore Schwartz, ...	American, ...	Other employe, ..	22	S.	Florence No. 2, ...	Jefferson,....	Leg cut and body bruised, was moterman, and taking in a load of boards in mine bumped against them with such force, that one of the boards struck him on the leg, accident due to his own carelessness.



INDEX.

BITUMINOUS DISTRICTS.

97
97