

to screening it. Washing tends to remove clay, slate and iron pyrite and this is quite an advantage for high sulphur coals for coking. An elaborate washery was put into operation at the United States Fuel Company's mine at Benton, Franklin County, Illinois in the fall of 1918.¹ It has been the hope of mining men that the greater part of the sulphur could be removed from coal by washing out the pyrite. Unfortunately, as previously pointed out in this text, it is impossible to wash out the sulphur in organic compounds, or the finely divided pyrite which is almost always present.



FIG. 104. — The Loree Breaker. (Photo by courtesy of R. P. Hutchinson, Bethlehem Fabricators, Inc.)

Storage

The storing of coal is a very important item in many industries. If it is not stored at times when it is plentiful and transportation facilities are good, plants may be tied up owing to break-downs in traffic or mining operations, resulting from storms, strikes or other causes. Another advantage in storing coal is that it distributes the demand more uniformly over the whole year and the peak load does

¹ Campbell, J. R., Mechanical separation of sulphur minerals from coal. *Trans. Amer. Inst. Min. and Met. Eng.*, Vol. LXIII, p. 683, 1920. Also, Frazer, Thomas and Yancey, H. J., Some factors that affect the washability of a coal, p. 768.

The chutes installed at Loree breaker, Fig. 23, approximately 2 years ago, show no appreciable wear or deterioration, apart from the fact that the inner surfaces have become smoother and brightened by the passage of material. Installations made more recently have given similar

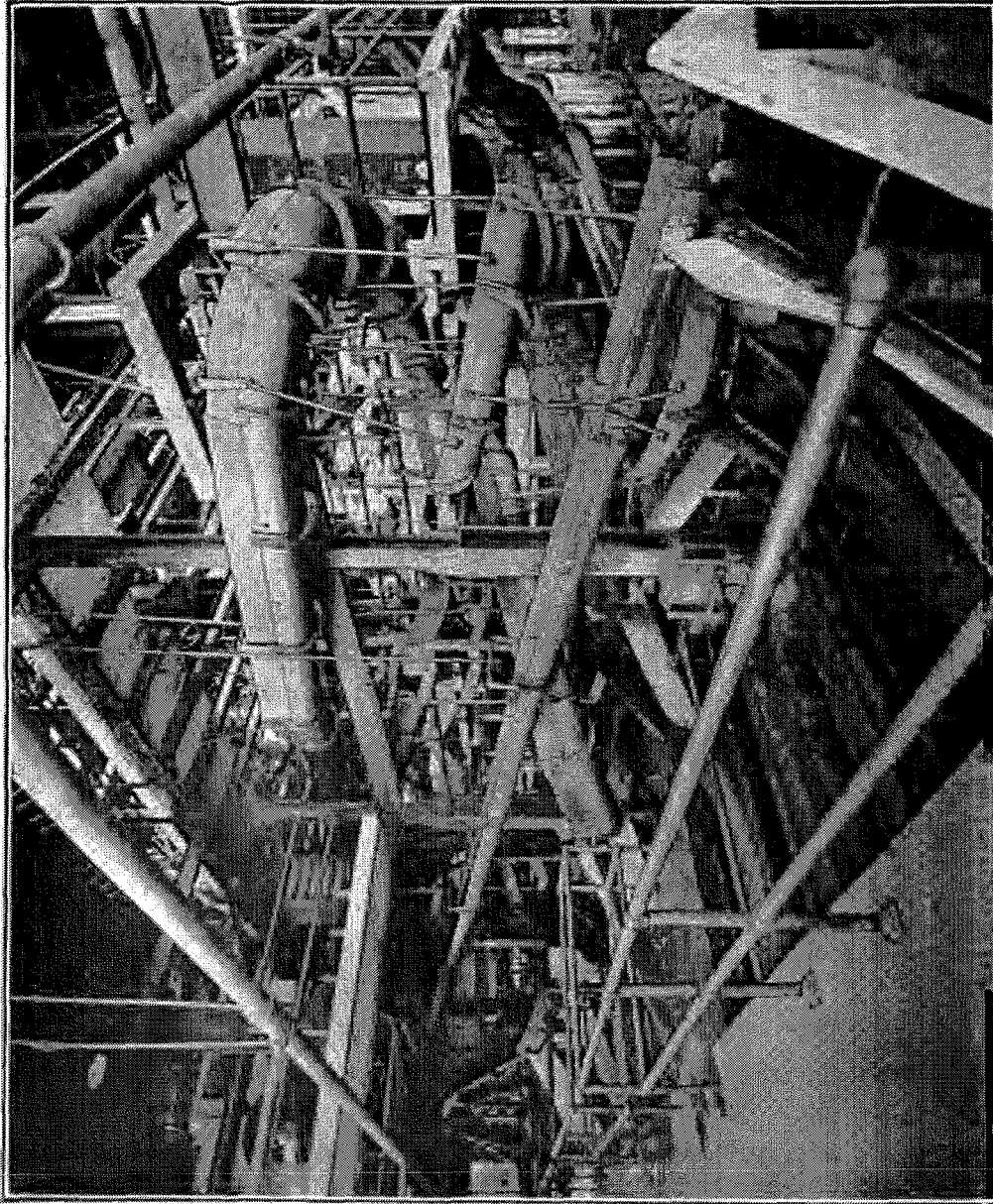


FIG. 23.—INTERIOR OF PART OF LOREE BREAKER OF HUDSON COAL (Co.), SHOWING A SPIRAL CHUTE MADE OF CORROS METAL.

results. When these chutes are first installed, they have a rough cast finish on the inside, as no practicable method has been devised for making them smooth except that of using extreme care in facing the mold in which they are cast. As a consequence, ordinary pitches are not quite sufficient to carry the material through them when they are first in-

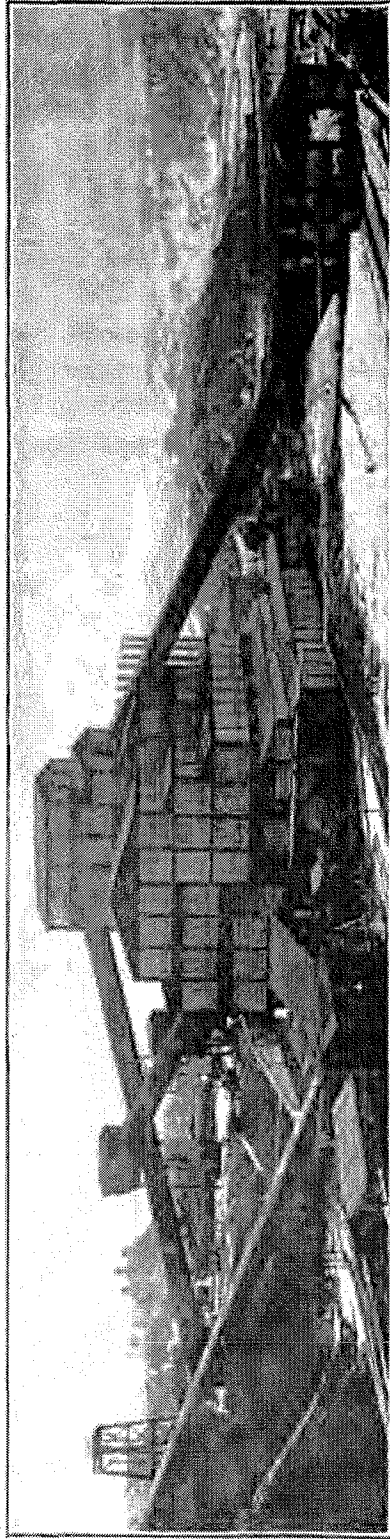


FIG. 38.—LOREE BREAKER OF HUDSON COAL CO. IN SMALL BUILDING AT END OF CONVEYOR LINE IN LEFT FOREGROUND DORE SEPARATOR IS HOUSED.