

The Knowledge Bank at The Ohio State University

Ohio Mining Journal

Title: Car Unloaders

Creators: [Hanlon, William B.](#)

Issue Date: 1898

Citation: Ohio Mining Journal, no. 27 (1898), 55-59.

URI: <http://hdl.handle.net/1811/32791>

Appears in Collections: [Ohio Mining Journal: Whole no. 27 \(1898\)](#)



WM. B. HANLON, VICE PRESIDENT

CAR UNLOADERS.

WILLIAM B. HANLON.

To the members and friends of the Institute who failed to avail themselves of the pleasures and benefits of the summer meeting of the Institute held June, 1897, these few remarks may not be as interesting as they might be.

Unfortunately the coal strike of the season caused some of the Lake car unloaders to be idle and hence the good and bad qualities of some of the machines could not be observed. During the season the Lindsey machine on the C. C. & S. Dock at Cleveland has been abandoned and removed. The next machine described in my former paper, the Long is still in successful operation on the Erie Dock and is admitted by all designers of unloaders, for rapidity and minimum cost of operation and maintenance to not have an equal. During the season of 1896 it unloaded 556,000 tons, and 1897 508,000 tons, the decrease being caused by the coal strike of that year.

The McMyler End dumps at Ashtabula and Fairport are still maintaining their record of satisfactory service. I have no late report of speed but the former report gave 465 tons per minute. The McMyler side-dump on the Cuddy-Mullen dock at Cleveland has loaded in a very satisfactory manner about 500,000 tons during the season.

A machine of the same pattern has been built on the B. & O. dock during the season but with a bucket attachment on the end of the apron instead of a spout, but it has not given entire satisfaction and on a duplicate machine built at Erie during the season, the bucket has been replaced by a telescope chute.

The latest design of the McMyler machine and for which contracts have been given for one at Conneaut and one at Lorain, provides for using the same cradle as in the former pattern but instead of hoisting the cradle and car to the proper height to dump into the pan the hinged side of the cradle is stationary and the overturning movement is the same as before, but empties into a large pan, 40 feet in length with a capacity of 40 tons. This pan has one sloping side and ends and concentrates the coal towards a door in the center of the opposite

side from the car. When the pan is in a position for being loaded it is a quarter turned and the sloping side serves as an apron for the coal to pass from the car upon. As the pan fills the opposite side is lowered until it is in a vertical position allowing the entire contents of the car to be discharged.

The cradle is then turned back and the pan is hoisted by four cables to the necessary height to discharge into a telescope chute. By this plan a saving of about 38 to 40 tons of weight to be hoisted is made and the cars can be shifted while the pan is being emptied, thus saving time and power.

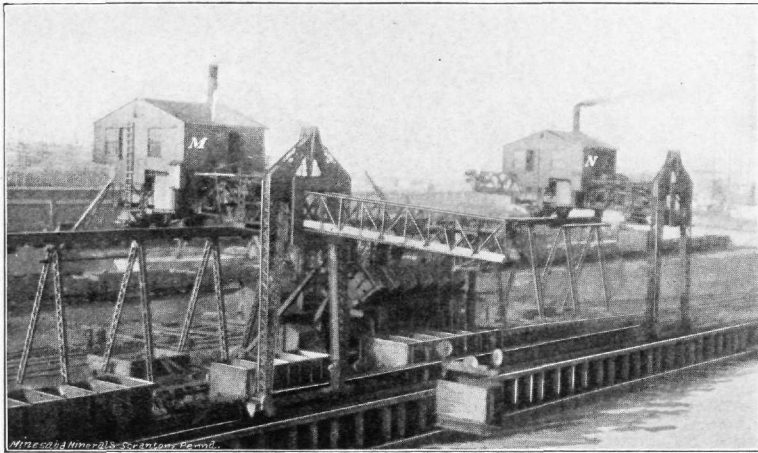
The five Brown machines have been in successful operation during the season and at the Hocking Valley dock in Toledo the record has been made of 4700 tons in 12 hours, 200 tons of which was fuel and handled with one bucket. Another record is given of 337 tons per hour. The guarantee on these machines was for 300 tons per hour. During the season the Thomburg machine built by the Webster Camp & Lane Machine Co. of Akron has been put in operation at Sandusky and has loaded all the coal reaching that port by the C. S. & H. Ry. It is a side-dumping machine, taking the car from the dock level and elevating it and dumping on to a pan thence by a spout to the boat.

This firm now has the contract for building a machine on the Buffalo dock of the Buffalo, Rochester & Pittsburgh R. R. which introduces some new features.

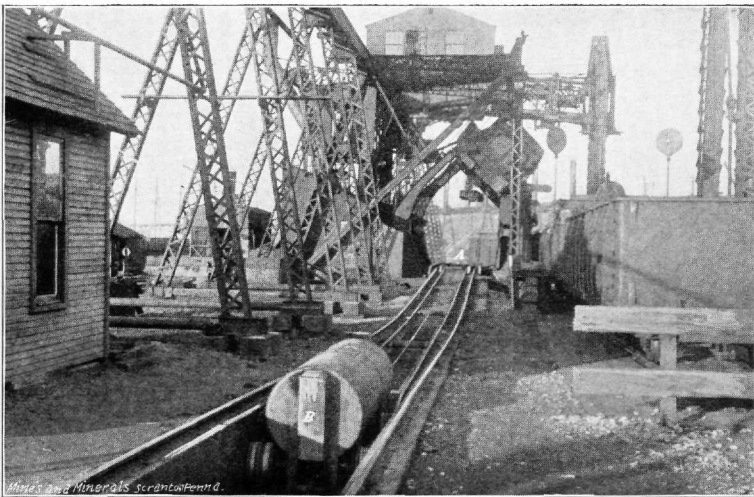
The cradle is the same pattern as the McMyler, but instead of using a pan, two large drop bottom buckets of 23 tons capacity each are used and each receives a portion of the load dumped. The bottom of the buckets is arranged that when ready to fill the bottom is near the top and as the coal enters upon it, it descends to the bottom, thus not giving any fall to the coal. The buckets are conveyed from that position to the boat by an overhead crane. This firm is introducing into the North-west a device for unloading from the vessels to stock piles in which the speed of unloading and breakage is very much reduced. It is a bucket of the clam-shell pattern so arranged that when open to receive its load has an opening of 12 feet and a capacity of 2 tons.

It is a much debated question whether the condition of the coal when it reaches the North-west is taken into account much or not and it is rather the rule for vessel owners to seek the port where they can be loaded with the least delay, regardless of a slight percentage of breakage in different machines.

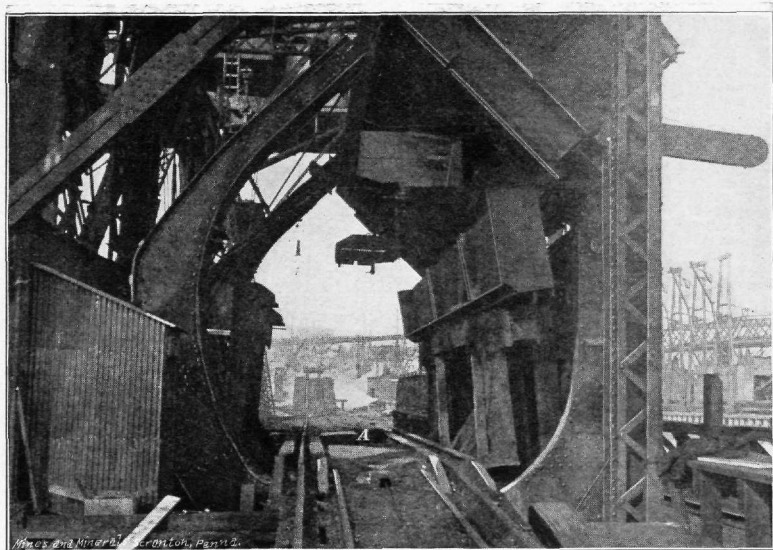
During the season of 1897 perhaps 80 per cent. of the lake coal was loaded after Oct. 1st and without the use of the



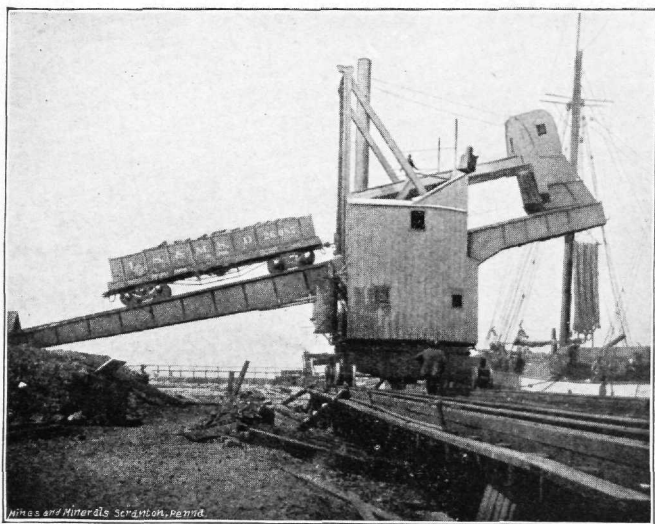
BROWN MACHINE—FRONT VIEW.



BROWN MACHINE—END VIEW.



BROWN MACHINE—END VIEW OF CRADLE.



McMYLER MACHINE—END DUMP AT ASHTABULA.

rapid car unloaders. The amount shipped could not have been handled by the lake. By June 1st 1898 every Lake Erie port will have from one to four unloaders.

PRESIDENT RAY: Are there any questions or any discussion on this subject?

SECRETARY HASELTINE: When we were in Cleveland, there was an unloader in course of erection on the Cuyahoga River, the upper one we visited, — I do not remember what railroad it was on. It was the one that had a bucket on the spout, worked on the same plan as the McMyler, — is that machine completed?

MR. HANLON: That is the same pattern mentioned, has a bucket instead of a chute, — yes, sir.

SECRETARY HASELTINE: Was that successful?

MR. HANLON: No, sir; it was not successful; and one of the same pattern built at Elyria was changed to a spout.

SECRETARY HASELTINE: What was the reason?

MR. HANLON: Too much mechanism to get out of order.

SECRETARY HASELTINE: Tell us about this Thornburg Dump at Sandusky, which was half erected when we were there.

MR. HANLON: That has been completed and is in successful operation.

SECRETARY HASELTINE: Wherein does it differ from the others?

MR. HANLON: In the raising of the car. I do not know whether it was far enough along for you to see how the car reached the overturning point, or not, when you were there. The car does not overturn until at the right height to dump. It travels up the incline by rope haulage.

SECRETARY HASELTINE: Like the cages?

MR. HANLON: Yes, sir; the same that Brown uses.

PRESIDENT RAY: Does it dump at the end or side?

MR. HANLON: Sideways. The front part of the wheels carrying the car drop on the lower track, the other wheels follow the higher track and dumps the car.

PRESIDENT RAY: Which car unloader is considered the most successful?

MR. HANLON: The fastest unloader and the cheapest to operate is the Long machine on the Erie dock.

SECRETARY HASELTINE: That is the cradle machine?

MR. HANLON: Yes, sir.

SECRETARY HASELTINE: Cylinder?

MR. HANLON: Yes, sir.

PRESIDENT RAY: Empties into the buckets?

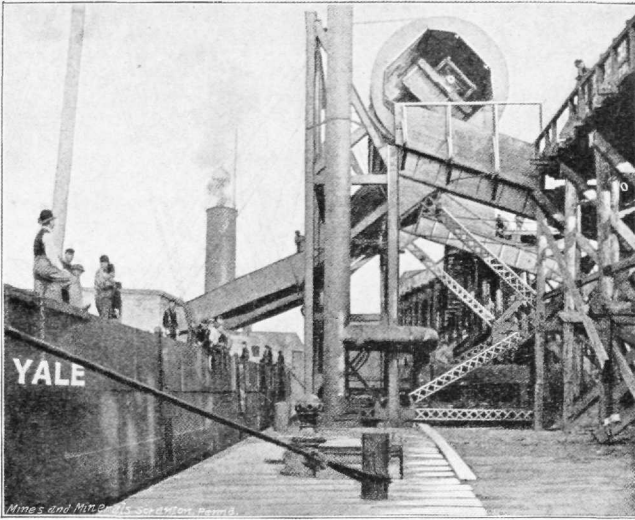
MR. HANLON: No, sir; empties into a spout. The Brown machine claims the least breakage. Mr. Brown claims it saves fifteen cents on the ton in breakage. Also that he can get 400 tons more on a large boat by the convenience he has of trimming than can be done by any other machine and get more lump coal.

PRESIDENT RAY: That is a point I heard made for it, that it does not break the coal up.

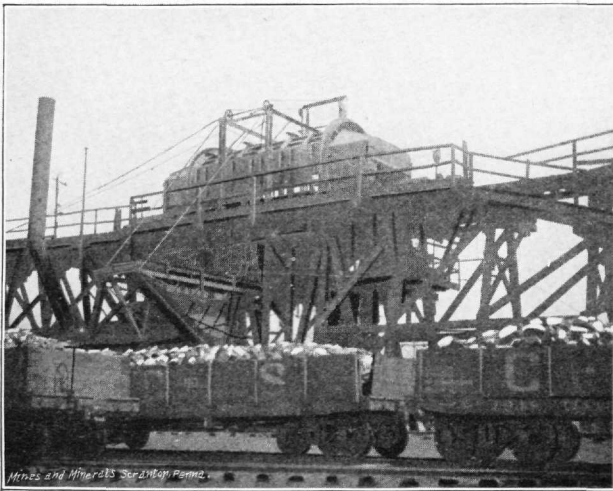
MR. HANLON: He claims to have put 400 tons more on the boat, in the same space, than was done by the Mullen.

PRESIDENT RAY: If there are no further questions, we will be favored by the pictures of these machines, which Mr. Lewis of the Ohio State University, and Mr. Hanlon have made. Mr. Hanlon will explain them as they come on the screen.

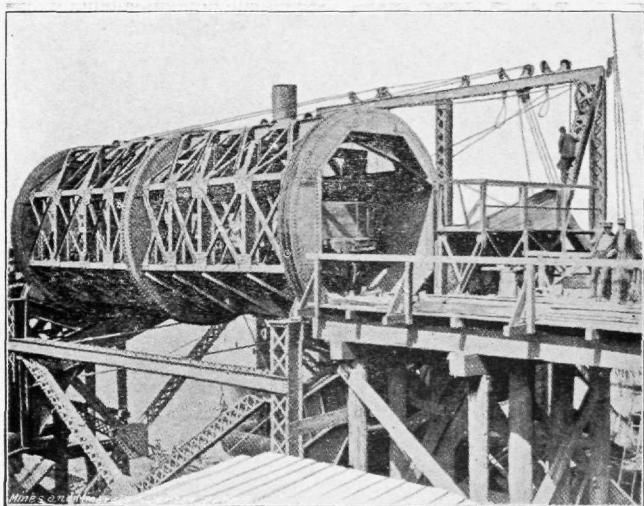
After the exhibition and explanation of a number of interesting pictures, as a closing to the same, a picture of Dr. Edward Orton was thrown upon the screen, in the shape of a bust being made by a young woman of the Ohio State University. At this juncture "My Country 'Tis of Thee" was rendered by the graphophone, and the first glimpse of the picture was greeted by the most hearty applause.



LONG DUMP.



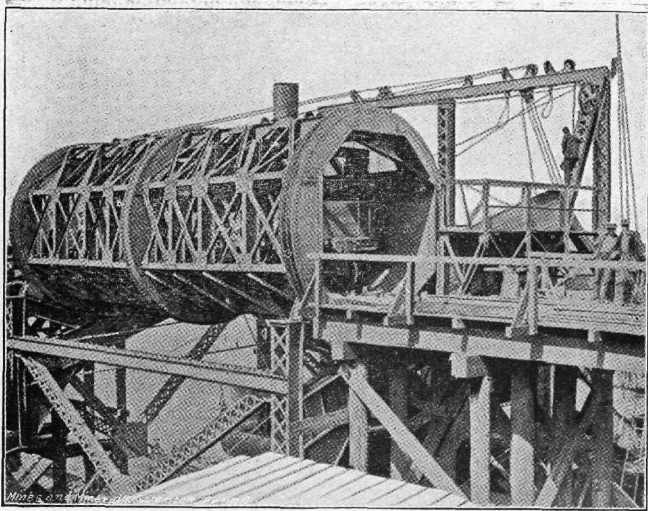
LINDSEY MACHINE, CLEVELAND. TAKEN DOWN 1898.



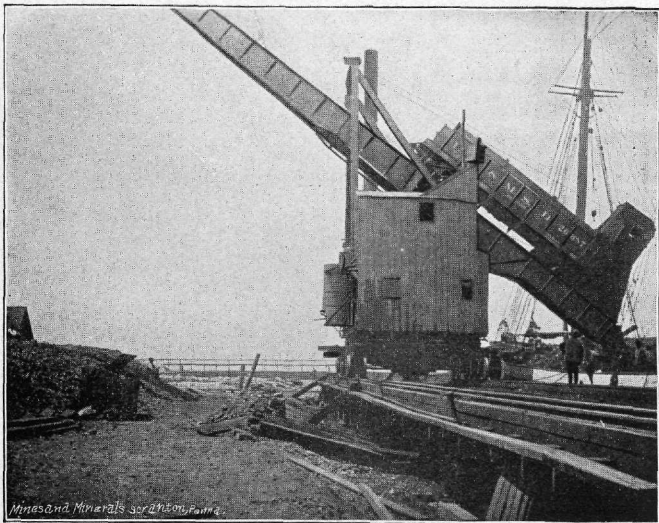
THE LONG DUMP ON THE ERIE TRACKS, CLEVELAND.



McMYLER END DUMP AT ASHTABULA.



THE LONG DUMP ON THE ERIE TRACKS, CLEVELAND.



McMYLER END DUMP AT ASHTABULA.

SECRETARY HASELTINE: I wish to have the thanks of the Institute extended to Professor Lewis and assistants for this fine entertainment, and to Mr. Hanlon for his able paper and interesting explanations of the pictures.

Seconded: carried

PRESIDENT RAY: The next paper is one by Professor F. C. Caldwell, of the Ohio State University.

Professor Caldwell not being quite ready, Mr. Doe's paper on "The Isser vs. The Wasser" was read by Prof. Lord, Mr. Doe not being able to be present.