

No. 760,196.

PATENTED MAY 17, 1904.

P. HAMILL.

PIT CAR.

APPLICATION FILED MAR. 24, 1904.

NO MODEL.

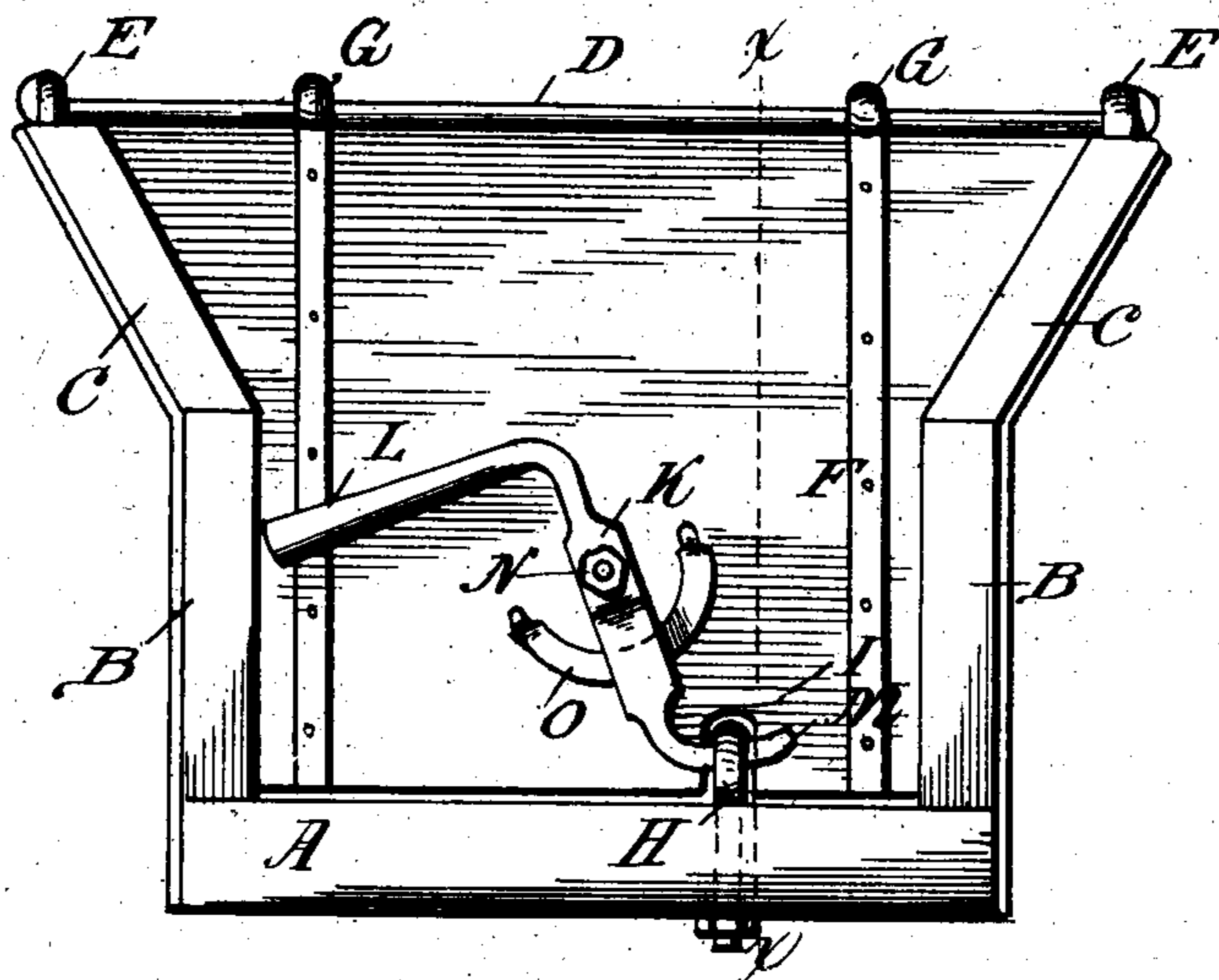


Fig. 1.

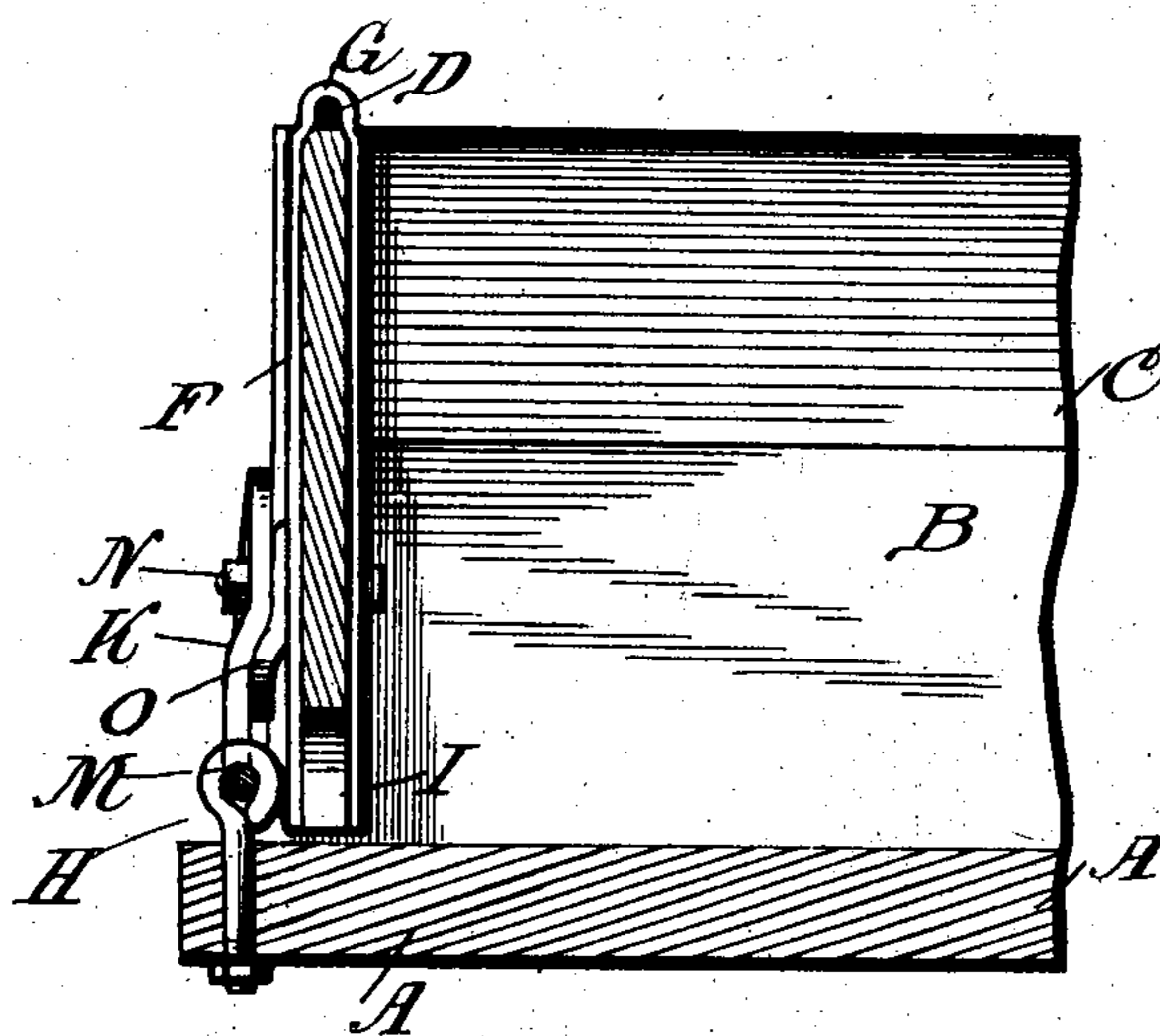


Fig. 2.

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UNITED STATES PATENT OFFICE.

PATRICK HAMILL, OF DARRAGH, PENNSYLVANIA.

PIT-CAR.

SPECIFICATION forming part of Letters Patent No. 760,196, dated May 17, 1904.

Application filed March 24, 1904. Serial No. 199,698. (No model.)

To all whom it may concern:

Be it known that I, PATRICK HAMILL, a citizen of the United States of America, residing at Darragh, in the county of Westmoreland and State of Pennsylvania, have invented certain new and useful Improvements in Pit-Cars, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has relation to cars of that class known as "pit-cars," which are used in mines to convey material from the workings to the mouth of the mine.

The invention relates in particular to that class of pit-cars which have swinging doors or gates at one end; and the invention has for its object the provision of means for locking the doors when the same are closed.

The invention consists in the novel construction, combination, and arrangement of parts to be hereinafter described and claimed.

Referring to the drawings, Figure 1 is an end elevation of a pit-car having my improvements applied thereto. Fig. 2 is a vertical longitudinal sectional view on the line *xx* of Fig. 1, a portion of the front of the car being omitted.

In the drawings, A designates the bottom of the car, and B C the timbers which form the sides of the same, the timbers B B being vertical and the timbers C C at an obtuse angle to the vertical timbers, the car being by this construction of the sides wider at the top than at the bottom, as is usual in constructing cars of this character. A bar D extends across and on top of the timbers C C, being passed through the eyes E E and riveted or otherwise secured on the outside of the eyes.

F designates an end-gate which is hung from the bar D upon the yokes G G, the straps of said yokes extending the entire depth of the gate and are secured thereto by any suitable means, the said end-gate being shaped to conform to the space between the sides of the car. A heavy eyebolt H is bolted through the bottom A or otherwise secured in position therein, and the end-gate F is formed with an opening I, so that the gate may swing over the eyebolt H. Upon the

side of the gate is arranged a latch, which is composed of a straight central portion K, an angularly-disposed and weighted handle L, and a curved finger M, which finger when the gate is closed enters into the eye of the bolt H and bridges the opening I. The latch is pivoted by a suitable bolt N to the end-gate, and the handle L is so disposed that its weight tends to throw the latch into the position shown in the drawings—that is, with the finger M bridging the opening I. An arc-shaped guide O is secured upon the end-gate within the latch K and serves to prevent the latch from bearing against and wearing the surface of the end-gate.

The device for locking the end-gates above described is purposely made of extremely simple form and construction, for the reason that pit-cars are subjected to very rough handling and usage, and as the gate of the car is, owing to the weight of the coal on the same, hard to unlatch it is customary to strike the latch a heavy blow with a wooden billet to disengage the same from its keeper.

The rough usages to which the latches of pit-car doors are subjected usually results in their being broken in a short time, and it has therefore been the object of the present invention to provide a latch of such character that it would stand the rough usage to which it is likely to be subjected without being broken or rendered inoperative.

The operation of the improved latch above described is extremely simple. When the end-gate is to be opened, the weighted handle L is raised and the latch swinging on its pivotal point the finger M will be drawn out of the eyebolt H, when the door can be swung open, the operation of opening the door being usually effected by the coal, which when the car is in the inclined position on the dump bears heavily upon the door. The finger M, bridging the opening I of the door, bears the weight of the contents of the car when in the inclined position, and the eyebolt H, which is, as shown, arranged with its eye on a line running lengthwise of the car, presents a very small surface to the coal falling out of the car, and hence is not liable to be broken or bent by the impact of the coal. When the gate is to be

closed, the handle L is lifted, and the car being in the horizontal position the gate will swing back to its vertical position, and upon releasing the handle L the handle will drop and the finger M will automatically engage with the eyebolt.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

- 10 1. The combination with a pit-car having a swinging door with an opening in its lower edge, of an eyebolt fixed in the bottom of the car in alinement with said opening, a pivoted latch having a weighted handle, and a finger adapted when the latch is closed to bridge the said opening and pass through the eyebolt.
- 15 2. The combination with a pit-car, a swing-

ing end-gate arranged at the end of the car and having an opening in its lower edge, of an eyebolt secured in the bottom of the car, a piv- 20
oted latch having a laterally-extending weighted handle on one end, and a curved finger on the other end bridging the opening in the end-gate, and an arc-shaped guide fixed on the end-gate beneath the body of said latch and be- 25
tween the pivotal point of the latch and said finger.

In testimony whereof I affix my signature in the presence of two witnesses.

PATRICK HAMILL.

Witnesses:

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