

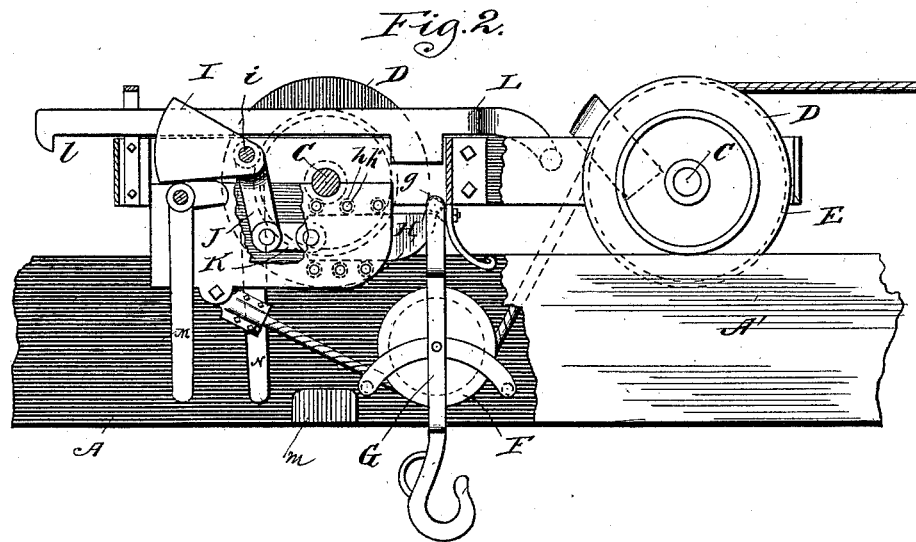
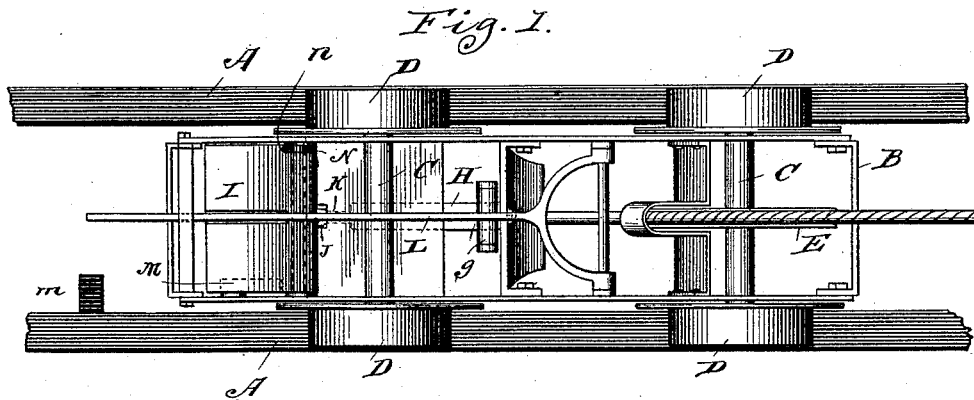
(No Model.)

W. S. BOGLE.

TRANSFER CARRIAGE FOR ELEVATED WAYS.

No. 419,629.

Patented Jan. 21, 1890.



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# UNITED STATES PATENT OFFICE.

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## TRANSFER-CARRIAGE FOR ELEVATED WAYS.

SPECIFICATION forming part of Letters Patent No. 419,629, dated January 21, 1890.

Application filed August 12, 1889. Serial No. 320,529. (No model.)

*To all whom it may concern:*

Be it known that I, WALTER S. BOGLE, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Transfer-Carriages for Elevated Ways, of which the following is a specification.

My invention relates to certain improvements in transfer-carriages commonly used on elevated ways for transferring coal or like material from one point to another along said way, and the particular improvements hereinafter described relate to means for locking the receptacle for the load to the carriage before the latter is unlocked from the track, and also to means for lowering the receptacle at any desired point along the way and while the carriage is moving in either direction.

In the accompanying drawings, Figure 1 is a plan view of a transfer-carriage containing my improvement, and Fig. 2 is a side elevation partly in section.

The way consists of the rails A and A', which are suspended or supported in any convenient manner at any desired elevation above the ground. On said way moves the carriage, which consists of the rectangular frame B and axles C, having wheels D. On one of the axles is mounted a sheave E, over which the operating-cable is passed, and said cable has one of its ends made fast to the carriage. Intermediate said end and the sheave on the axle the cable carries a sheave F, having a block G, the upper end of which is adapted to be engaged by a locking-bolt moving in ways on the carriage-frame, and the lower end of which is hooked to engage a receptacle to contain the load.

H represents the locking-bolt, which moves between anti-friction bearings, which, as shown, comprise sleeves h, supported by bolts or rods h', secured in the frame-work of the carriage.

I is a weight pivoted at i to the frame of the carriage and having a rigid arm or lever J loosely connected at its lower end to the link K, the latter being pivotally connected to the locking-bolt H.

L is a locking-lever, which is pivoted at one end to the frame of the carriage, and its opposite end is projected beyond said frame and

bent over, as shown at l, to adapt it to engage a block (not shown) secured on the rails, whereby to lock the carriage to said rails. This lever rests normally upon the end bar of the frame, and the weight is cut away to receive it, as shown in the drawings, to permit the weight to be raised without raising the lever.

In operation, when the cable is drawn up, carrying the sheave F and block, the upper end of the latter will first engage the end of the locking-bolt H and force it back until the head of the block passes, raising the weight through the intervention of the links described. As soon as the head of the block has cleared the bolt the weight will drop and shoot the bolt between the side pieces of the block and under its head g, thus preventing the dropping of the block, or, in other words, locking it to the carriage. The continued upward movement of the block will cause it to engage the lever L, and thus to lift it, so as to disengage its hooked end from the stop-block on the track, thereby releasing the carriage and permitting it to be drawn along the track by a continued pull on the cable.

In order to lower the bucket or other load-receptacle at any desired point of the way between the discharge and the hoisting point, I have provided the following mechanism: M is the bell-crank lever, which is pivoted to the frame beneath the weight which rests on the horizontal arm of the lever. The vertical arm of said lever projects down and is adapted to engage a stop or obstruction m, secured to one of the rails. When the carriage is moving in one direction, it is obvious that the lever M, when it engages the stop m, will operate to raise the weight and thereby withdraw the locking-bolt, and when the carriage is moving in the opposite direction said lever M will ride over the obstruction, simply turning on its pivot without raising the said weight and affecting the locking-bolt. By placing the obstruction at a point on the track where it is desired to lower the sheave-block carrying the receptacle said block can be lowered, providing the carriage travels in the direction to cause the lever M to elevate the weight.

In order to lower the sheave-block when the carriage is moving in the opposite direction, I have provided a second tripping-lever on

the opposite side of said carriage. This lever is marked N, and is preferably secured on the pivot of the weight, and its upper end rests within a notch or recess of the weight, as is clearly shown at *n*, Fig. 1. An obstruction will be placed on the rail and adapted to engage the lever N. If, now, the carriage be moving forward (or in the direction to which the cable leads) and lever N engage an obstruction on the track, it will, because of its manner of connection with weight I, raise the latter and withdraw the locking-bolt, thereby permitting the sheave-block to descend; but when the carriage is moving backward or toward the left, as shown in the drawings, lever N will turn freely on its pivot and without affecting the weight or locking-bolt.

By the means above described it is apparent that the sheave-block may be lowered at any point on the track by simply locating the tripping obstructions at the desired point and when the carriage is going in either direction.

As an illustration of the desirability of this construction, reference is made to my Patent No. 402,134, of April 30, 1889, for hoisting-buckets, showing a bucket adapted for hoisting and carrying coal and used in connection with a transfer-carriage and elevated way. In such use it is desirable to lower the bucket at the edge of the pile of coal, instead of upon the coal, and then the carriage is drawn back and locked to the track, and by a pull on the operating-cable the bucket is filled and then hoisted and locked to the carriage. By my present improvement the bucket may be lowered at the edge of the pile of coal and then the carriage drawn back over the pile and locked to the track before the filling commences, thereby obviating the annoyance heretofore caused by the lodgment of the bucket in the coal.

I claim—

1. In a transfer-carriage for elevated ways, the combination, with the operating-cable and

a sheave-block for attaching the load, of a locking-bolt for the sheave-block, a weight pivoted on the carriage, and links connecting the weight and the bolt, and a lever pivoted on the carriage for locking the carriage to the track, the block being adapted on its upward movement to engage first the bolt and then the locking-lever, and the weight being adapted to shoot the bolt after the passage of the block, whereby to lock the latter to the carriage before the carriage is unlocked from the track, substantially as described.

2. In a transfer-carriage for elevated ways, the combination, with the operating-cable and a sheave-block for attaching the load, of a locking-bolt for the sheave-block, a weight pivoted on the carriage, and links connecting said weight and the locking-bolt, and a lever pivoted on the carriage and adapted to engage an obstruction on the track and elevate the weight to withdraw the locking-bolt when the carriage is passing in one direction and to ride over said obstruction when the carriage is passing in the opposite direction, substantially as described.

3. In a transfer-carriage for elevated ways, the combination, with an operating-cable carrying a sheave-block for attaching the load, of a locking-bolt for the sheave-block, a weight, and links connecting the weight and the bolt, and two levers pivoted on the carriage and adapted, respectively, by their engagement with the stops on the track to actuate the weight to withdraw the locking-bolt when the carriage is moving in one direction and to pass said obstructions without actuating the locking-bolt when the carriage is moving in the opposite direction, substantially as described.

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