(No Model.)

B. OBORN.

HAY ELEVATOR AND TRACK FOR THE SAME.

No. 362,307. Patented May 3, 1887.

FIG. 1.

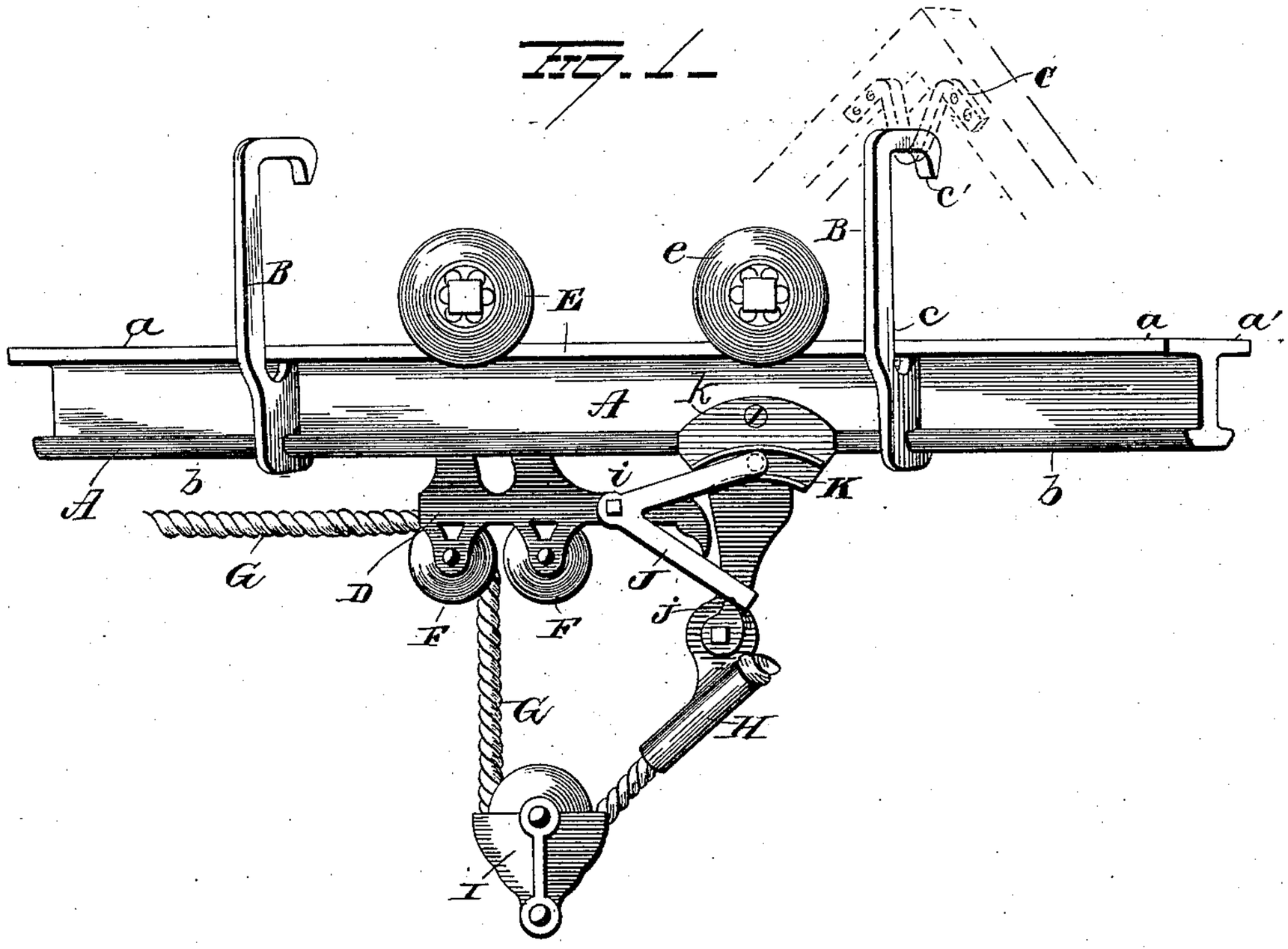
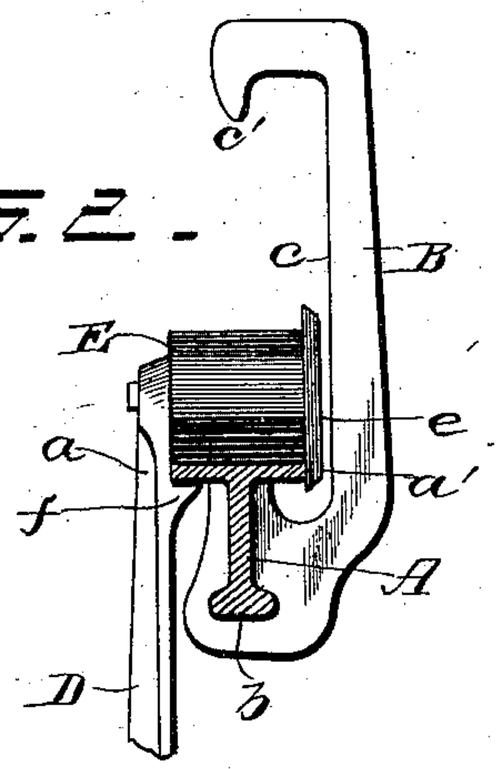


FIG. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

BENJAMIN OBORN, OF MARION, OHIO.

HAY-ELEVATOR AND TRACK FOR THE SAME.

SPECIFICATION forming part of Letters Patent No. 362,307, dated May 3, 1887.

Application filed December 21, 1886. Serial No. 222,189. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN OBORN, of Marion, in the county of Marion and State of Ohio, have invented certain new and useful Improvements in Hay-Elevators and Tracks for Same; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in hay-elevators and tracks for the same.

Hitherto metal tracks for hay-elevators have generally been formed of two parallel bars and complicated in form, necessitating the use of more rollers than absolutely necessary, and rendering it difficult to remove the elevator from the track when necessary, and difficult to construct.

The object of my present invention is to provide a metal track, cheap and substantial in construction, which may be readily suspended in any building, and one in which the elevator to be used shall be of such formation that its parts shall be reduced to a minimum.

A further object is to provide a light and inexpensive elevator which may be easily removed from the track, but which shall not be liable to accidental displacement.

With these ends in view my invention consists in certain features of construction and combinations of parts, as will be hereinafter fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of my improved track and elevator, the latter being in the position of dropping its load. Fig. 2 is an end view of track and section of the carrier, partly in section.

A represents the track or rail, preferably similar in form to the ordinary railway-track, but smaller and lighter, having the lateral flanges *a a'* on the upper edge, so that its upper face is flat, while the lower edge, *b*, is flanged and rounded in order to increase its strength; but this construction is by no means necessary, and the rail might be T-shaped in section.

The hanger-hooks B are either formed to clasp the lower edge, *b*, of the track when the latter is rounded or when the track is T-shaped. A desirable means of adjustment is by the use of an adjusting screw in the hanger-hook, the object to be attained being to admit of the hangers being moved or shifted along the track should it be necessary to vary its point of support. The hanger-hooks B are bent laterally through the middle portion, *c*, sufficiently to leave considerable space between itself and the track, and its upper end terminates in a forwardly or backwardly turned hook, *c'*, the position of which is directly over the longitudinal center of the track or rail A. A U-shaped iron, C, is secured to the rafters, and the hook *c'* is adapted to rest therein.

D represents the carriage or traverser of the elevator, mounted on the track A by means of the flanged rollers E, preferably two in number. The width of the rollers E is sufficient to throw the flanged portion *e* on the opposite edge from the body of the carriage D, and hence on the same side with the hangers, yet adapted to slide by them without touching the latter.

The flange *e* acts as a guide, preventing the carriage from rolling off its track laterally, while a lug, *f*, formed integral with one side of the carriage, is located beneath the upper flange of the track or rail, preventing the carriage from upwardly jumping the track. A pair of pulleys, F, in the lower end of the carriage receive the elevating-rope G between them, one end of this rope being secured to the pivoted elevator-holder H, whereon the elevator pulley and hook I are held. The V-shaped latch J is pivoted to the carriage at point *i*, its lower end engaging with the lug *j* to hold the elevator-holder H in an approximately horizontal adjustment, while the upper end of the latch engages with the rounded slot of the cam-block K, removably secured to the rail or track A over the point at which it is desirable to elevate the load to the elevator. Obviously this cam-block K may be moved to various points on the track after loosening the adjusting-screw *k*.

The operation is as follows: The elevating-rope G is drawn until the pulley and hook I are elevated and slid onto the elevator-holder H, to which the rope is attached, causing the holder to assume a horizontal position, where it is held by the engagement of the lower end of latch J with the lug *j* until it returns to the point where the load is to be lowered, when

the upper end of latch J is forced into engagement with the cam groove or block K, which forces the latch upward out of engagement with lug *j*, allowing the holder H to tip, the pulley and hook I descending vertically. To return the elevator and carriage, it is simply necessary to pull the end of the rope G, the other parts operating automatically.

It is evident that other elevators might be used with this track, and that slight changes might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of my invention; hence I do not wish to limit myself to the particular construction herein set forth; but,

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

1. The combination, with a rail or track and a cam-block, of a carrier mounted on the rail or track, an elevator-holder, substantially as described, pivoted to the carrier, and a latch pivoted to the carrier and adapted to lock said holder in an elevated position.

2. The combination, with a rail consisting of a web or a body and two laterally-projecting horizontal flanges and hangers secured to the web of the rail, of a carriage having pulleys adapted to travel on the track, the said pulleys having flanges adapted to engage the side edge of the track farthest from the carriage and the latter having a projection adapted to rest under and in close proximity to the flange on the side adjacent to the carriage, substantially as set forth.

3. The combination, with a metallic rail or track having the horizontal laterally-projecting flanges, hangers for supporting the rail, and the cam-block secured to the rail, of a carrier mounted on wheels, the latter having flanges on one side adapted to engage one side edge of the rail, the carrier having a projection adapted to rest under the opposite side edge of the rail, and a latch pivoted to the carrier and adapted by engagement of the cam-block to release the block, substantially as set forth.

4. The combination, with a flanged rail, the supporting hanger-hooks, and the cam-block adjustably secured to the rail, of a hay-elevator mounted on the rail, a block or elevator support or holder pivoted to the carriage and adapted to be held in an elevated position by a latch, and a latch pivoted to the carrier, adapted by its engagement with the cam-block to release the block or elevator holder or support, substantially as set forth.

5. The combination, with a rail and a cam-block secured thereto, of a hay-carrier adapted to travel on the rail, an elevator-holder loosely secured to the carrier, an elevating-rope attached to the elevator-holder, a block or elevator mounted on the rope and adapted to engage the elevator-holder, and a latch for locking said holder in an elevated position, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

BENJAMIN OBORN.

Witnesses:

GEO. H. VAN FLEET,

ROBERT HOPKINS.