(No Model.) 2 Sheets—Sheet 1.

J. NEY.

HAY ELEVATOR.

No. 308,848. Patented Dec. 2, 1884.

Fig. 1.

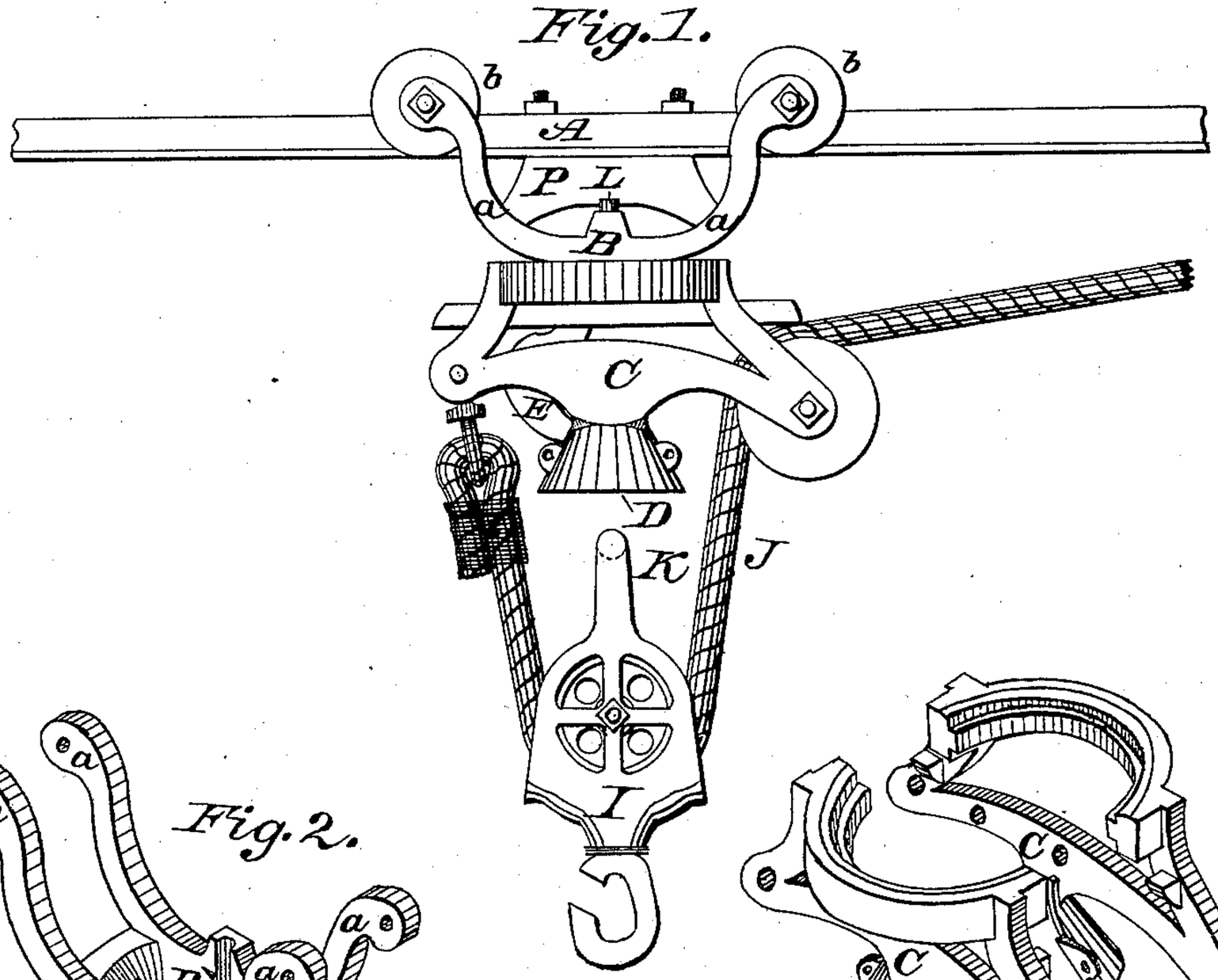


Fig. 2.

Fig. 3.

Fig. 4.

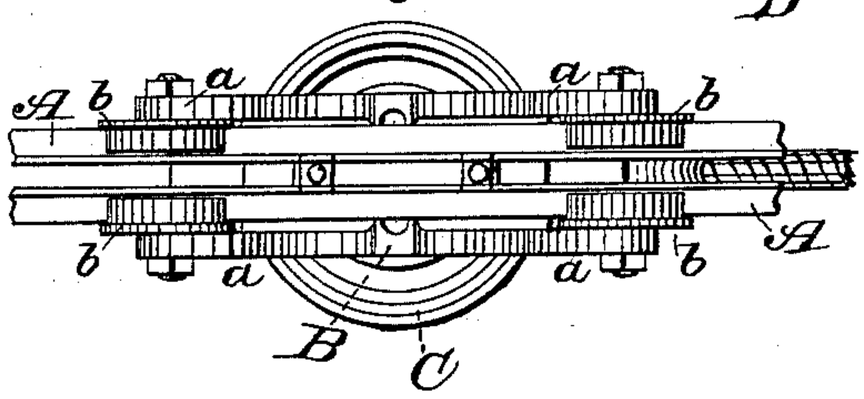
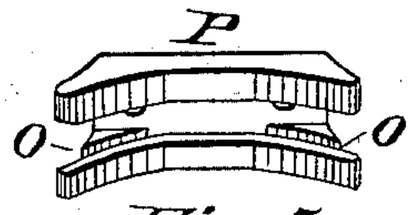


Fig. 5.



Witnesses:

Harry Grease

Thos. R. Ballard

Inventor:

Jacob Ney

per Fred N. Bond

Attorney.

(No Model.) 2 Sheets—Sheet 2.

J. NEY.

HAY ELEVATOR.

No. 308,848. Patented Dec. 2, 1884.

Fig. 6.

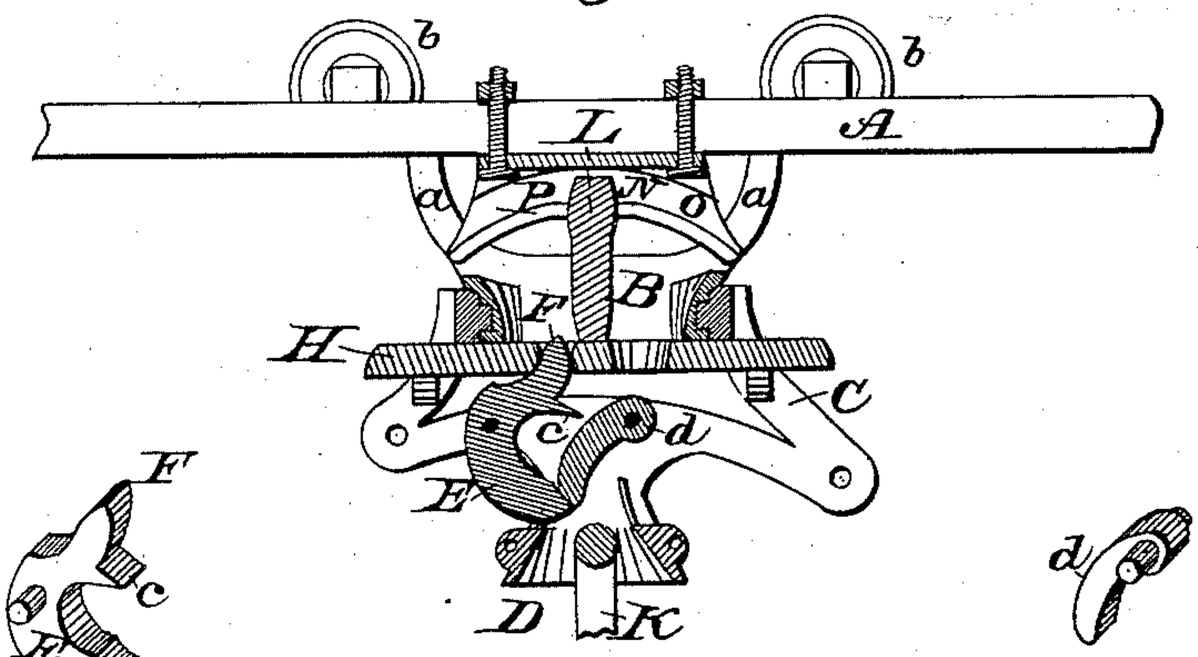
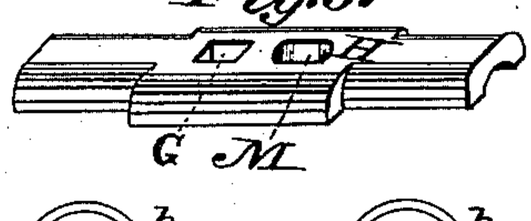


Fig. 11.

Fig. 10.

Fig. 9.



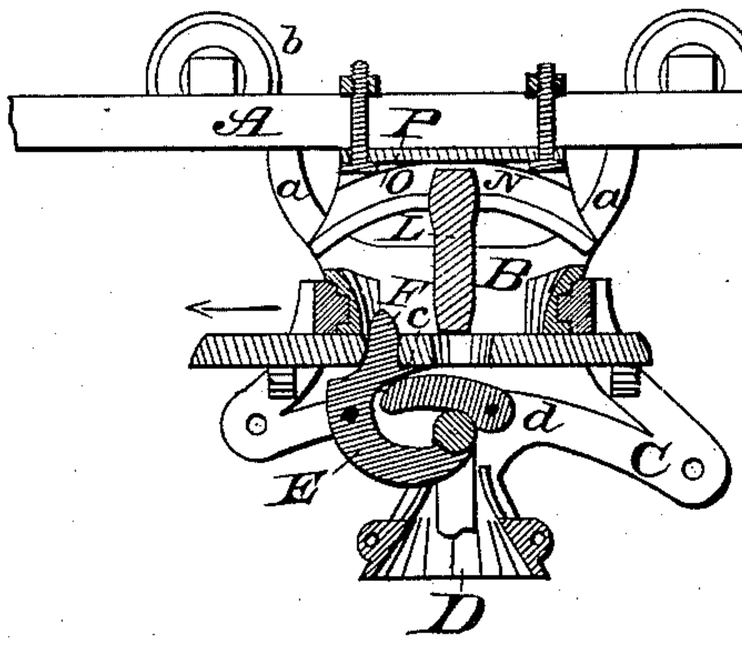


Fig. 7.

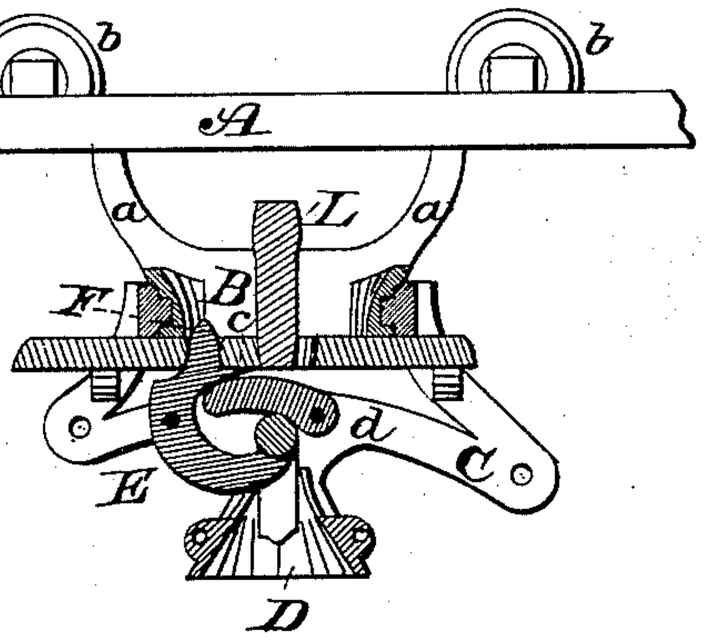


Fig. 8.

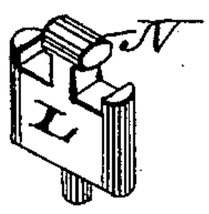


Fig. 12.

Witnesses:
Harry Grease
Theo. R. Ballard

Inventor:
Jacob Ney
per Fred N. Bond
Attorney.

UNITED STATES PATENT OFFICE.

JACOB NEY, OF CANTON, OHIO, ASSIGNOR TO THE NEY MANUFACTURING COMPANY, OF SAME PLACE.

HAY-ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 308,848, dated December 2, 1884.

Application filed September 12, 1884. (No model.)

To all whom it may concern:

Be it known that I, JACOB NEY, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Hay-Elevators; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon, in which—

Figure 1 is a side elevation. Fig. 2 is a detached view of the frame to which the traveling wheels are attached. Fig. 3 is a detached view of the frame carrying the locking devices. Fig. 4 is a top view. Fig. 5 is a detached view of arch. Fig. 6 is a sectional view showing the different parts in proper position for locking the frame or carriage to the arch. Fig. 7 is a sectional view showing the position of the locking devices when the load is elevated and the frame or carriage ready to be released from the arch. Fig. 8 is a sectional view showing the load locked and the frame or carriage removed from the arch. Fig. 9 is a detached view of the sliding bar. Fig. 10 is a detached view of the locking-dog. Fig. 11 is a detached view of the locking and releasing lever, and Fig. 12 is a detached view of the detent.

This invention relates to the controlling of the carriage and the operating of the elevating-head in that class of elevators in which the load is elevated, by means of a head or block operated by a rope and pulleys, to a carriage or frame which travels back and forth on an elevated track and carries the load held by the head to any desired point within the limits of the track; and it has for its objects to simultaneously lock the elevating-head and release the carriage when the load has been elevated, and to simultaneously release the elevating-head and lock the carriage when it is returned after the load has been deposited, both of which operations are performed automatically.

To prevent any accidental movement of the devices by which the locking and releasing are obtained, and to guide and operate the elevating-head so as to insure its engagement with the locking devices, a bell-shaped guide is located on the frame or carriage, as shown in the drawings; and it consists in the combination of parts hereinafter described, and pointed out in the claims.

Similar letters of reference indicate corresponding parts in all the figures in the drawings.

In the accompanying drawings, A represents the track, which may be of any desired form, and is supported at the required height by posts, standards, or other frame-work in the same manner as other tracks for hay-elevators of this description. The frame B is substantially of the form shown in the drawings, which is provided with an opening having grooves in its sides to receive the sliding detent L, and having arms *a*, to which are attached in the ordinary manner the traveling wheels *b*. The bottom or lower portion of this frame B is also formed with a groove, so as to receive and hold the frame C, and at the same time permit said frame C to revolve in the frame B, thereby forming a reversible or swiveled support for connecting the rope-pulley and rope to the carriage proper, whereby the frame carrying the locking devices may be reversed by the swaying of the rope and without the necessity of ascending to the carriage or frame, so that I am enabled to deliver the load upon either side of the wagon.

To the under side of the reversible frame C is located the bell-shaped guide D at a point on said frame C so that the central opening will be immediately beneath the pivoted locking-dog *d*. The reversible frame C is made in two pieces or halves, and provided with bell-shaped guide D and end supports securely held together by means of suitable clamping bolts or rivets, to which the rope-connection and rope-pulley are secured.

The locking-dog *d* is of the form shown in Fig. 10, and is pivoted to the frame C, as shown in the drawings, and is for the purpose hereinafter described.

The locking and releasing lever E is substantially of the form shown in Fig. 11, and is pivoted to the frame C, as shown in Figs. 6, 7, and 8, and is provided with the arms or projections *c* F, the latter of which enters the

opening G in the sliding bar H, as seen in Figs. 6, 7, and 8, said sliding bar being substantially of the form shown in Fig. 9.

The operation of my invention is as follows: The elevating-head I is raised by means of the hoisting-rope J in the ordinary manner, when the pin or point K of the head is guided by means of the pendent bell-shaped guide D to the upper part of said guide, and as the elevating-head ascends the top or upper end of the pin or point K strikes the under side of the locking-dog *d*, when said locking-dog is raised and engages the arm *c* on the locking and releasing lever E, thereby throwing the locking and releasing lever E through the pin or point K, and at the same time forcing the sliding bar H in the direction indicated by the arrow in Fig. 7, at the same time permitting the detent L to enter the opening M in the sliding bar H, thereby firmly locking the different parts in the position shown in Fig. 8. Upon the return of the carriage or frame the head N enters the groove O in the arch P and raises the detent L out of the opening M, thereby releasing the elevating-head I and permitting the locking-dog *d* and the lever E to fall, as seen in Fig. 6. To prevent the detent L binding, I provide the top wall of the arch P with a straight or horizontal surface on its inner side, as shown in Figs. 6, 7, and 8.

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

1. The pivoted lever E, having the projections or arms *c* and F, and frame C, in combination with the slide H and dog *d*, substantially as specified.

2. The combination of the detent L, having the cross-head N, with the arch P, having the groove O, and provided on its inside with a straight surface, the slide H, the frame B, and the frame C, substantially as described.

3. The combination of the frame C with the frame B, the lever E, dog *d*, and slide H, with the detent L and arch P, constructed and operating substantially as set forth.

4. The frame C, having end supports, and the guide-mouth D, with the traveling frame B, arch or cam block P, detent L, slide H, lever E, dog *d*, head I, having the pin or point K, and rope J, all constructed and operating substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JACOB NEY.

Witnesses:
THEO. R. BALLARD,
FRED W. BOND.