

(No Model.)

J. J. DRAFFIN & W. P. NELSON.  
COTTON OR HAY ELEVATOR.

No. 448,641.

Patented Mar. 24, 1891.

Fig. 1.

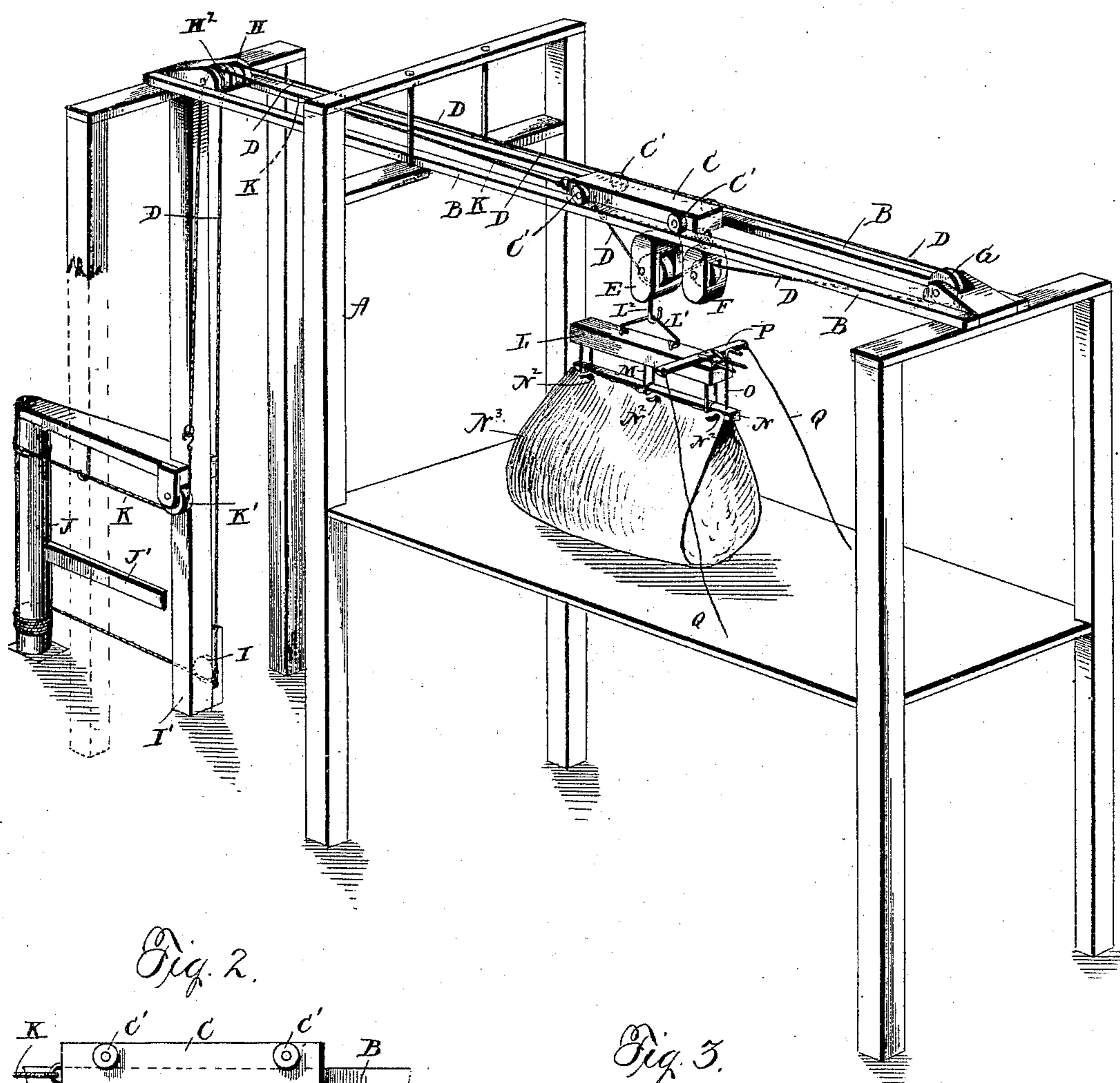


Fig. 2.

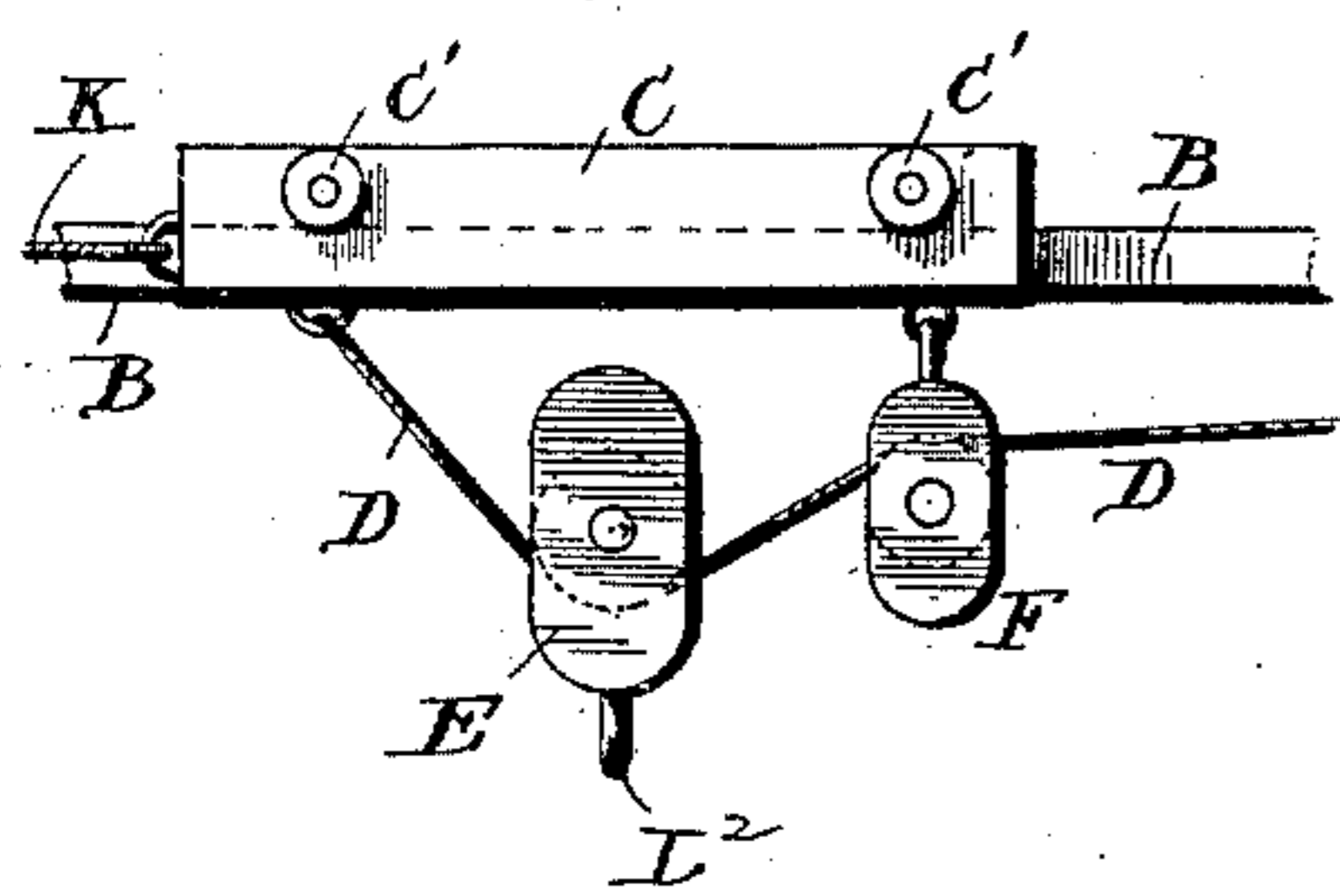
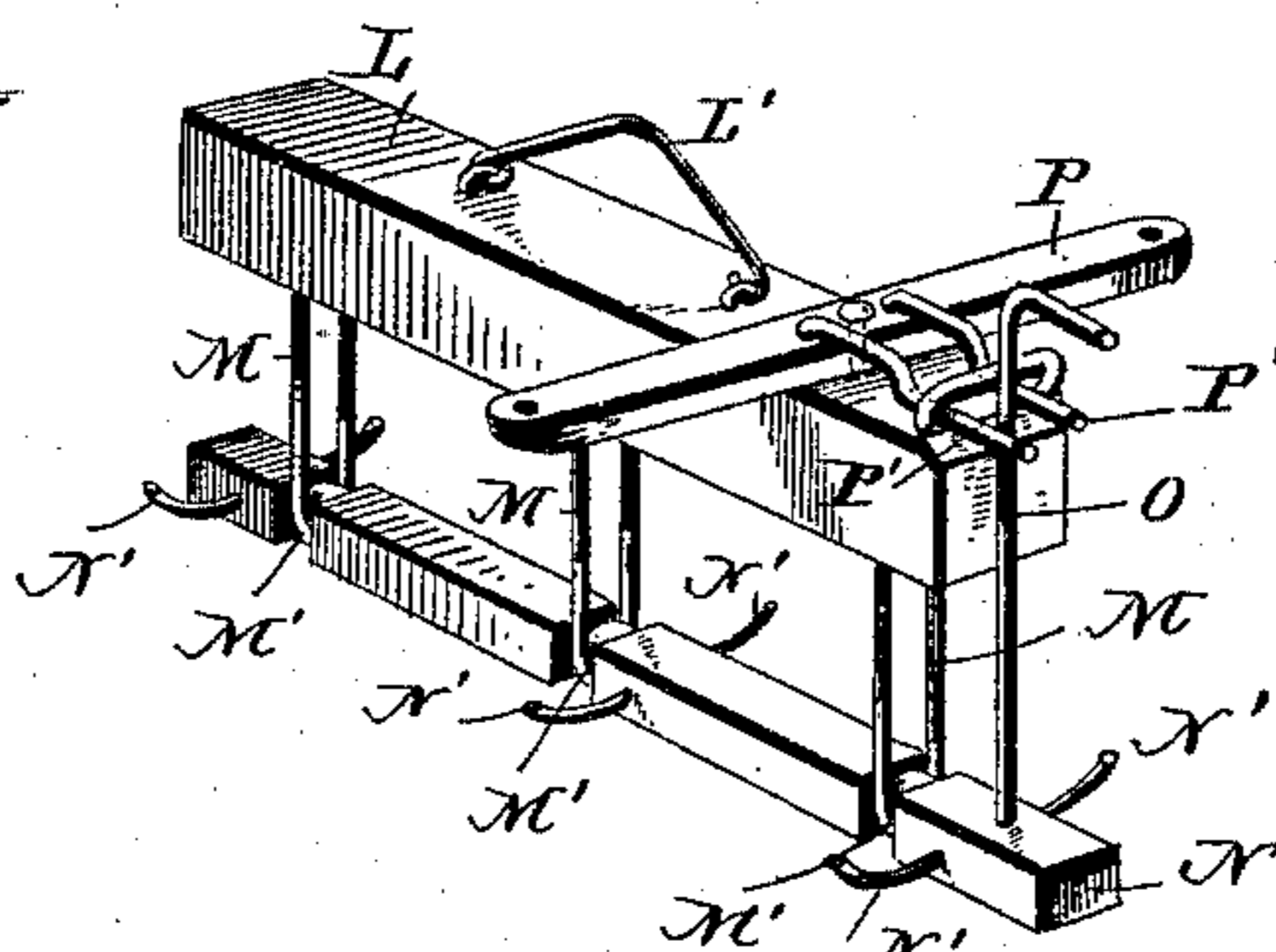


Fig. 3.



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# UNITED STATES PATENT OFFICE.

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## COTTON OR HAY ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 448,641, dated March 24, 1891.

Application filed December 9, 1890. Serial No. 374,036. (No model.)

*To all whom it may concern:*

Be it known that we, JESSE JOHN DRAFFIN and WILLIAM PARIS NELSON, citizens of the United States, residing at Idaville, in the county of Tipton and State of Tennessee, have invented certain new and useful Improvements in Cotton or Hay Elevators; and we do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in machines for use in unloading and elevating cotton, hay, and other like articles; and it has for its object to provide a simple and cheaply constructed machine of this character which may be easily operated, will consist of but few parts, and will be little likely to get out of order.

To these ends and to such others as the invention may pertain the same consists in the peculiar construction and in the novel combination, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the accompanying drawings, and then specifically defined in the appended claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, like letters of reference indicating like parts throughout the several views, and in which drawings—

Figure 1 is a perspective view of a machine constructed in accordance with my invention. Figs. 2 and 3 are details upon an enlarged scale, which will be hereinafter more particularly referred to.

Reference now being had to the details of the drawings by letters of reference, A designates the main frame of the machine.

B B are timbers which are extended longitudinally across the upper portion of the frame a short distance apart. The carriage C is fitted loosely between the timbers B B and is supported by means of the wheels C', which are sleeved upon stub shafts or axles

extending from the sides of the body of the carriage, the wheels resting upon the upper faces of the said timbers, as shown.

Attached to the lower face of the carriage C, at a point near its forward end, is the rope D, said rope being passed beneath the pulley-wheel in the pulley-block E and over the pulley-wheel in the pulley-block F, which block F is suspended from beneath the rear end of the carriage. After passing over the pulley F the rope is passed around the pulley G, which is secured at the end of the frame of the machine between the parallel timbers B B, and is carried to the opposite end of the frame and passed over the pulley H, thence continued downward and passed beneath the pulley I at the base of the upright I' of the frame, and after passing said pulley the rope is carried to the drum J, around which drum it is wound, when said drum is rotated by the application of power to the horizontal arm J', as will be readily understood.

The rope K has one of its ends secured to the upper portion of the vertical drum J, and leading from said drum it is passed around the pulley K' upon the frame of the machine, and is thence passed upward and over the pulley H<sup>2</sup>, and has its opposite end attached to the forward end of the carriage C.

L is a short piece of timber which is provided upon its upper face with a bail L', which bail is adapted to be passed over the hook L<sup>2</sup>, depending from the lower end of the pulley-block E, and sleeved within loops M', formed at the lower ends of the depending supports M, the upper ends of which are attached to the body of the carriage C, is a shaft N, carrying upon its opposite sides a series of hooks N', adapted to engage suitable eyes N<sup>2</sup>, provided at the outer edges of the canvas N<sup>3</sup>, for a purpose which will presently be explained.

Rising from the forward end of the shaft N, which is extended for a short distance beyond the forward end of the timber L, is the vertical arm O, and said arm is held normally in a vertical position by the arms P', which arms are carried by the lever P, pivoted at its longitudinal center to the upper face of the timber L near its forward end. A cord or rope Q, attached to one end of the said pivoted lever P, serves as a means whereby the

said lever may be turned upon its pivot and one or the other of the arms P' carried thereby may be withdrawn from its engagement with the vertical arm O upon the shaft N, allowing said shaft to rotate.

The operation of the device is simple and as follows: We will suppose that the machine is to be used in unloading cotton. The cotton is loaded upon the canvas N<sup>3</sup>, placed in the box of the wagon, with the edges of the canvas carrying the eyes N<sup>2</sup> extending over the sides of the wagon-box. The wagon, having received its load, is moved to a point beneath the forward end of the machine, and power is applied to the arm J', so as to rotate the drum J, and thus move the carriage C to a point directly over the wagon. The side edges of the canvas N<sup>3</sup> are then drawn up and passed over the hooks N' upon the shaft N. By again rotating the drum the carriage will be moved toward the opposite end of the track, and the cotton contained within the canvas will be raised from the wagon and carried to the point at which it is to be delivered, when, by pulling the cord Q, the shaft N will be allowed to rotate and the hooks upon the under side of the said shaft will be detached from their engagement with the canvas, allowing the cotton contained therein to fall out. By turning the drum in the opposite

direction the carriage will be returned to the starting-point and will be in readiness to receive and transfer its next load.

When the machine is used in unloading hay, straw, and the like, a series of ropes may be substituted for the canvas which we have described as adapted for use in unloading cotton, as will be readily understood.

Having thus described our invention, what we claim to be new, and desire to secure by Letters Patent, is—

The combination, with the main frame, the carriage, track, drum, and rope connections between the carriage and drum, of the timber L, suspended beneath the carriage, the shaft N, sleeved within the loops or supports M depending from the timber L, the hooks N' upon the shaft N, the arm O, rising from the forward end of the shaft N, and mechanism, substantially as described, connected with the timber L, for locking and releasing the shaft N, substantially as and for the purpose specified.

In testimony whereof we affix our signatures in presence of two witnesses.

JESSE JOHN DRAFFIN.

WILLIAM PARIS NELSON.

Witnesses:

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