J. K. MOUNT.

HAY-ELEVATOR.

No. 173,233. Patented Feb. 8, 1876.

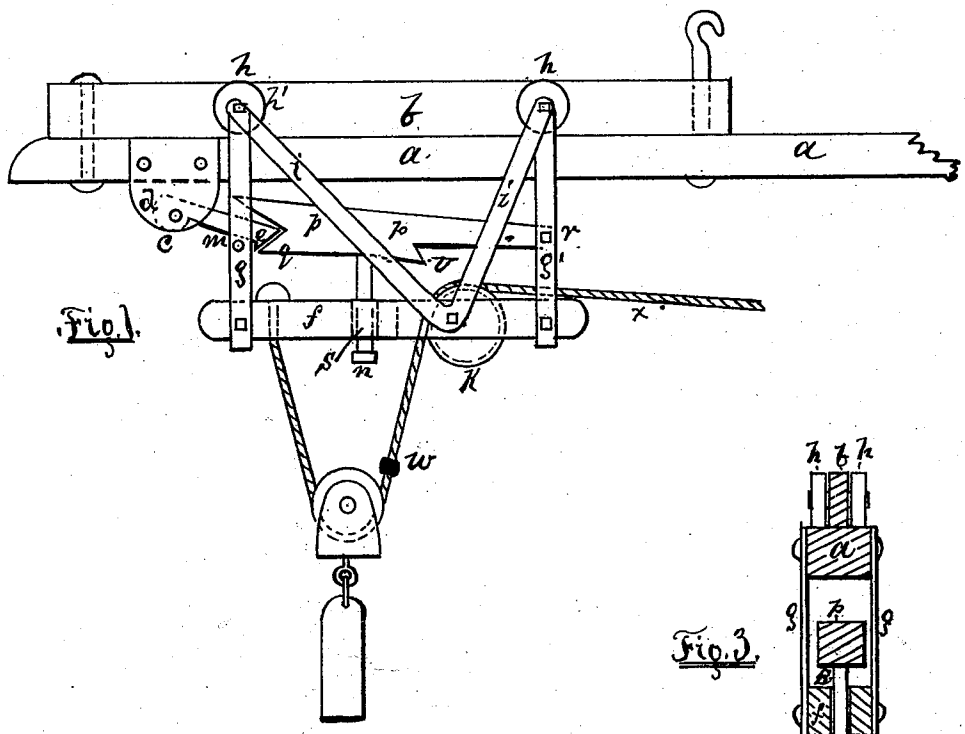

Fig. 1.

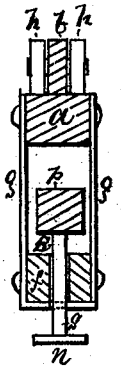

Fig. 3.

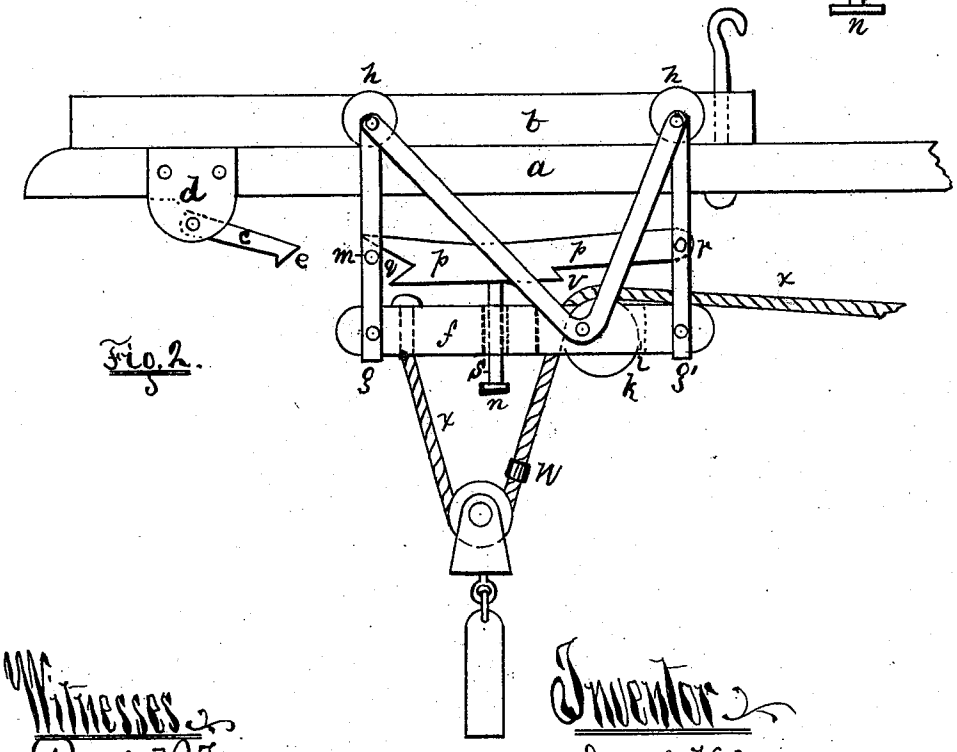

Fig. 2.

Witnesses:

Paul R. Forbes

Henry Elmer

Inventor:

Joseph K. Mount

per John Inglis Jr. & Co

Attorneys

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOSEPH K. MOUNT, OF HIGHTSTOWN, NEW JERSEY.

IMPROVEMENT IN HAY-ELEVATORS.

Specification forming part of Letters Patent No. **173,233**, dated February 8, 1876; application filed April 30, 1875.

To all whom it may concern:

Be it known that I, JOSEPH K. MOUNT, of Hightstown, Mercer county, and State of New Jersey, have invented a new and Improved Hay-Elevator, of which the following is a specification:

The object of my invention is to facilitate the removal of hay, &c., from a wagon or boat or cars to a barn or other proper place; and my invention consists in the peculiar construction of the track-beam and a stop-catch attached thereto, the catch arranged flexibly, so as to engage it with proper apparatus or parts of the carriage or truck upheld by the beam.

It further consists in the peculiarities of framing, bracing, &c., forming the carriage, which is suspended from the beam, hanging beneath, and formed to traverse from outer end, or near thereto, when loaded, toward interior of barn or other suitable place for discharge, as desired.

It also consists, in combination therewith, of the arrangement of wheels forming the rollers upon which the carriage is moved.

It further consists in construction and peculiar form of a tripping-lever, connected to the frame of carriage, and arranged to operate for the purpose of tripping the catch before mentioned, unloosing the carriage, and permitting it to move as desired.

It further consists of a stop-catch, in combination with said lever, and arranged so as to press against the rope used in hoisting, so as to prevent its running backward, although allowing the load to be be hoisted, but not permitting its return.

It further consists of a device connected with aforesaid tripping-lever, and having a peculiar foot adapted to receive a shock from the pulley-block, &c., attached to the weight or load, so that when the contact is effected the tripping-lever is driven upward in unfastening the hereinbefore-mentioned beam and carriage catch.

Figure 1 is a side elevation of the elevator, the carriage shown at the outer end of the beam, and fastened in position by the catch belonging to the beam. This is the proper position when hoisting a load or portion of a load. Fig. 2 is a side elevation, similar, but showing the carriage after it has been disengaged from the catch, and when on its way to the interior of the barn, &c. This view shows the position of the tripping-lever and stop-catch, which, by pressing down upon the rope and pulley, effectually prevent any backward run, so that the load is held at the desired height for transportation. Fig. 3 is a transverse section of the apparatus.

a represents the beam forming the track upon which the wheels of the carriage run. *b* is a piece of wood or metal, sitting on edge, and fastened to beam *a* by bolts. Its purpose is to strengthen the beam where it is extended beyond the barn or other support. At *c* is the catch or catch-lever, secured to the beam *a* by the cheeks *d d*. It is pivoted thereto by bolt or otherwise, and its outer end *e* is formed as a hook, and its extreme point wedge-shaped, so as to readily glide over the device requisite, and then drop over the same and hold it firm. *f* represents the bottom plate of the carriage, made of wood or metal. *g* and *g'* represent vertical pieces, usually of metal bands, reaching under plate *f*, and up each side to above the beam-line. At the top of these are attached the wheels *h*, of which there are four. A bolt running through each piece *g g'*, and through wheels *h*, with heads countersunk in the wheels, forms the axle and means of attachment. *i* and *i'* are other bands or strips of metal, reaching down from axle of wheels and top of pieces *g* and *g'*, to which they are secured, to the bottom plate *f*, at the point where the pulley is located, and where the greatest strain comes are fastened to the plate *f*, and act as stiffeners of the carriage-frame, and strengthen the same to a considerable degree. At *k* is the pulley. Its axle is a bolt running across the carriage through stiffening-braces or clamping-pieces *i* and *i'* and bottom plate *f*, the pulley *k* fitting into a slot, *l*, through plate *f*. At *m* is a rod or bolt, running across the carriage through piece *g*. This is the device to which the catch-lever *c* connects when at proper point, the end *e*, hooking over the same, making a firm connection. The catch-lever *c* takes hold automatically as the carriage comes into proper distance, and rises over and falls accurately. At *p* is shown the tripping-lever, having jaws at *q*,

and pivoted by bolt *r* to the frame-piece *g'*, so that it may rise and fall readily. The jaws *q* are arranged so as to fit over the end *e* of catch-lever *c*. At *s* is a rod secured to tripping-lever *p* by pivot *t*, running through, and this rod *s* has a foot branching out at bottom *u*, and is arranged so that, as anything strikes up from beneath, the tripping-lever *p* will be forced up thereby, the end *q* rising so as to disengage the catch-lever and let the carriage go free. At *v* is the stop-catch. This is formed wedge-shaped, and projects downward and backward from tripping-lever *p* toward pulley *k*, so that, when the catch is pressed down against by the weight of the tripping-lever *p*, the stop-catch will hold the rope, so as to effectually prevent it running backward, although permitting it to be drawn upward, if desired. By this means the load may be held at any desired height. A ferrule is shown at *w*. There may be many of these, if desired, so the catch *v* may engage therewith; but the rope will be held sufficiently without such aid in most cases. *x* represents the rope. It is shown as attached to the carriage at *x'*, and passing downward under a pulley or through a block at *y*, passes upward over pulley *k*, and toward the barn or otherwise, as desired.

The first-mentioned portion of rope at *x* may be dispensed with, if desired, and the weight attached to the bottom end of the remaining portion, or any other arrangement desirable, provided it passes over the pulley *k*. All the rest is optional.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. The lever *p*, provided with jaws *q*, stop-catch *v*, in combination with driving-pin *s*, arranged to operate in manner and for the purpose described and set forth.

2. The combination of lever *p*, provided with jaws *q*, stop-catch *v*, and driving-pin *s* with pins *r* and *m*, frame-pieces *g g'*, catch-lever *c*, cheeks *d*, track-timber *a*, also pulley *k* and stiffening-bars *i i'*, substantially as and for the purpose set forth.

JOSEPH K. MOUNT.

Witnesses:
JOHN INGLIS, Jr.,
HENRY ELMER.