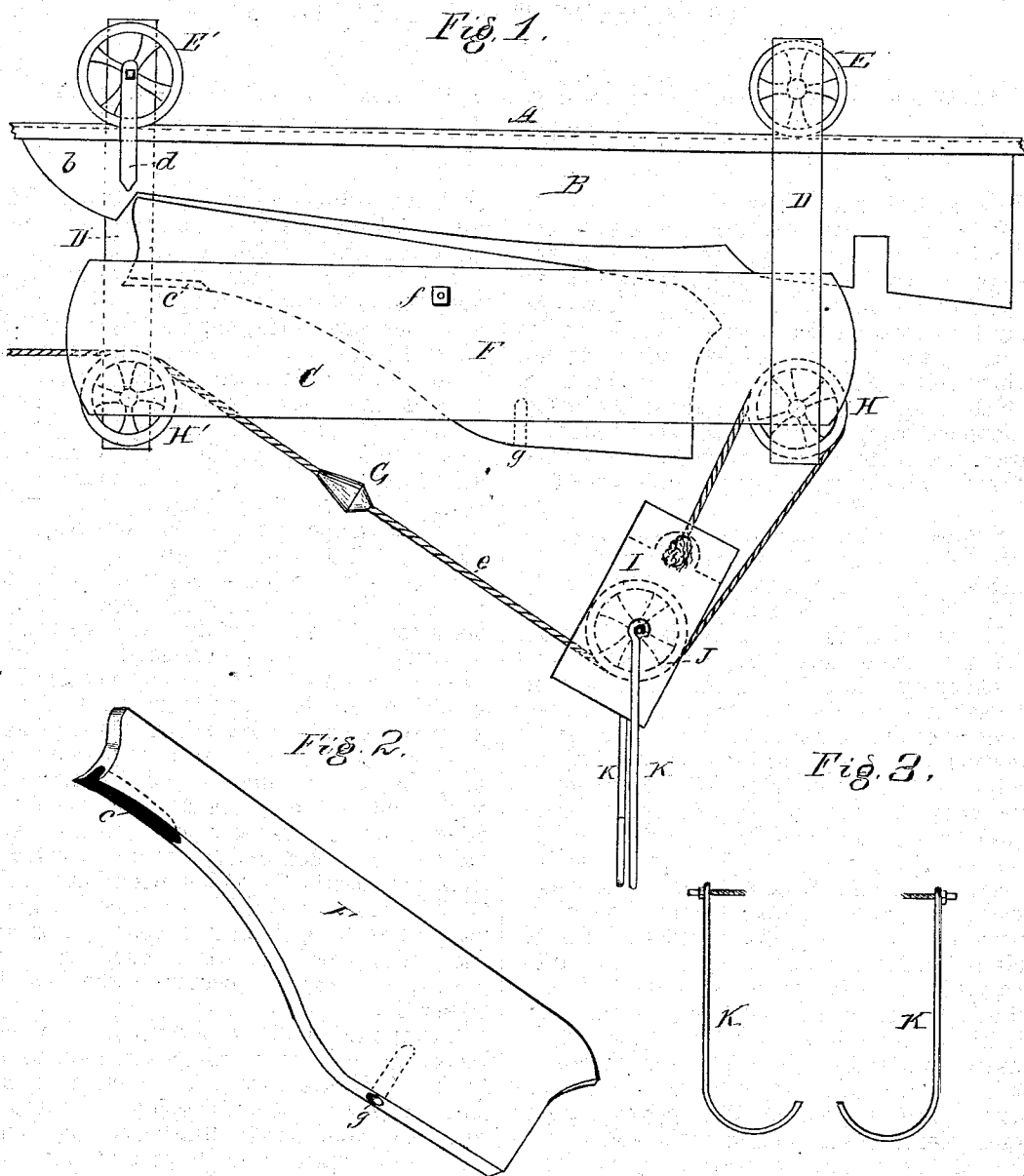


C. S. KERSHAW.
Hay-Elevators.

No. 158,379.

Patented Jan. 5, 1875.



WITNESSES
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IMPROVEMENT IN HAY-ELEVATORS.

Specification forming part of Letters Patent No. **158,379**, dated January 5, 1875; application filed December 16, 1874.

To all whom it may concern:

Be it known that I, CHARLES S. KERSHAW, of Sherburne, in the county of Chenango and State of New York, 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 thereof, which will enable others skilled in the art to which it pertains 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.

Figure 1 of the drawings represents a side view of my improved elevator; Fig. 2, a detached view of the catch-lever; Fig. 3, a detached view of the hooks.

The object of this invention is to facilitate the operation of lifting hay from wagons and discharging it into the hay-mow of a barn, or, if desired, take the hay from the mow and place the same outside the barn; and my invention has relation to that class of hay-elevators in which a hanging truck is employed, and provided with pulleys and rollers and a catch-lever. My invention consists in providing the truck with a catch-lever of peculiar form, and having at its smaller end a groove which, in connection with a notched shoulder-bleat and pulley-rope provided with a frog, admits of the elevator being operated automatically. My invention also consists in providing the catch-lever with an opening, into which a pole or other suitable device may be inserted to remove the truck from or replace it upon the track. My invention also consists in the application of swinging bars or guide-pieces to the axles of the wheels or rollers, for the purpose of preventing the car or truck from jumping the track, as will be hereinafter more fully set forth.

A in the drawings represents a grooved track, which may be attached to one of the rafters of a barn in such a manner that one end of the track will project out through the mow-hole or barn-window, so as to be over the hay-wagon outside the building without requiring any other support. Connected to the under side of this track A is a holder or shoulder cleat, B, provided with a bevel end, *b*. Supported and traveling upon the groove-

track A is a hanging truck, consisting of two horizontal side pieces, C C', carrying arms D D', to the top of which are secured rollers or wheels E E', provided with swinging or loosely-hung bars, *d*, acting as guides to prevent the truck from jumping the track. Between the side pieces C C' of the truck is hung a catch-lever, F, connected by a suitable bolt, *f*. This catch-lever has a groove, *c*, at its smaller end, into which a frog, G, upon the rope *e* slides, holding the frog against the end of the catch-lever F, and thereby preventing the rope from slipping. The catch-lever has an opening, *g*, in its lower edge, into which is placed the end of a pole or other suitable device, to raise the truck when it is desired to remove the same or replace it upon the track, thereby avoiding the necessity of climbing to the track. Connected to the lower ends of the arms D D' are pulley-wheels, H H', around which the rope *e* works, the rope being first secured to the end of a pulley-block, I, in any suitable manner, and passing over the pulley H down and around the under side of the pulley J, and thence over the pulley H', continuing onto any point or distance required. Swiveled or otherwise connected to the side pieces of the pulley-block I are hooks, K K, to which the load is attached, the hooks hanging with their ends opposite or toward each other, forming, when together, a firm holder, and securely clamping the load between them.

The operation of my elevator is as follows: After the load is securely attached to the hooks K K the rope *e* is drawn up by any suitable power, the pulley-block I ascending until the same strikes and raises the larger end of the catch-lever F, and at the same time lowering the smaller end, and thereby disconnecting the truck from the shoulder-bleat B. The catch-lever F is now brought in a horizontal position, the smaller end resting upon the periphery of the pulley H'. Just after the frog G has passed over the pulley H' the groove *c* in the catch-lever F prevents the frog from slipping back, holding it against the end of the catch-lever. After the load is disposed of the truck is run back until the beveled end of the catch-lever F strikes the bevel of the shoulder-bleat B, which raises

the smaller end of the catch-lever, and at the same time relieving the frog G, and allowing the pulley-block I to descend to its position.

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

1. The hanging truck, consisting of the horizontal side pieces C C', arms D D', rollers or wheels E E', and catch-lever F, the same provided with a groove at one end, the whole constructed to operate in combination with the shoulder-cleat B and rope e, and frog G, substantially as set forth.

2. The hanging truck, consisting of the horizontal side pieces C C', catch-lever F, arms D D', carrying pulleys H H, and rollers or

wheels E E', the latter provided with swinging arms or guides d d, substantially as and for the purpose set forth.

3. In combination with the shoulder-catch B, hanging truck provided with the catch-lever F, having groove c and hole g of the pulley-block I, and pulley J, hooks K K, rope e, and frog G, the whole constructed to operate as set forth.

In testimony that I claim the foregoing as my own invention, I affix my signature in presence of two witnesses.

CHARLES S. KERSHAW.

Witnesses:

WM. M. BULLIS,
ISAAC PLUMB.