

HAY ELEVATOR.

Patented Sept. 22, 1868.

At Edmore

Mr. Burroughs

Harvey W. Loun
Luther W. W. Loun

by Prindle and Co. attys,

UNITED STATES PATENT OFFICE.

HARVEY McCOWN AND LUTHER M. McCOWN, OF ENON VALLEY, PA.

IMPROVED HAY-ELEVATOR.

Specification forming part of Letters Patent No. 82,427, dated September 22, 1868.

To all whom it may concern:

Be it known that we, HARVEY McCOWN and LUTHER M. McCOWN, of Enon Valley, in the county of Lawrence and in the State of Pennsylvania, have invented an Improvement in Hay-Elevators; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side elevation. Fig. 2 is a bottom view. Fig. 3 is an end view, showing the manner of suspending the weight.

Our improvement relates to mechanism for elevating hay; and consists in a device for suspending the hay when raised sufficiently to be deposited upon the stack or mow, so as to relieve the elevating-tackle of all strain while the weight is being transferred to the place where it is to be discharged.

We apply this improvement to our hay-elevator for which Letters Patent No. 73,190 were granted to us January 7, 1868, which we will describe, in order to properly illustrate the operation of our improvement.

In the annexed drawings, A represents a way, which is secured to the rafters or any elevated portion of a barn or building in which the hay is to be stored. B represents a carriage, suspended beneath the way by means of two metal loops or straps, *b*, each end of which is attached to a roller, *b'*, as shown in Fig. 1.

Within the carriage B are two pulleys, C C', over which a rope, D, passes, one end of said rope being secured to a block, E, from whence it passes over the pulley C' downward around the sheave *c*, and upward again over the pulley C. The block E is provided with a hook at its lower end, in the usual manner, to receive the hay-fork.

E represents a bar resting within the loops *b b*, one end of said bar being pivoted to the carriage at *f*, while the other end extends beyond said carriage, and is provided with a suitable notch upon its under side to engage with a shoulder, *g*, upon an arm, G, attached to a pendent bar, H, which is secured to the way A.

A spiral spring, *f'*, is placed within the loop *b*, so as to bear upon the upper side of the catch F, and hold it down when not raised for

the purpose of being engaged with or disengaged from the shoulder *g*, as shown by the red lines in Fig. 1. The object of this catch is to hold the carriage in position while the weight is being raised, as without it the carriage would be moved forward on the way by the strain upon the rope as soon as the weight was sufficiently elevated to swing clear of the wagon or ground.

A suitable slot is provided in the catch F, through which the ropes pass; and it will readily be seen that if the block E is elevated until it presses against the catch F a slight additional force applied to the rope will raise said catch and allow the carriage to be drawn forward upon the way until over the spot where the weight is to be deposited.

Experience having demonstrated the fact that where the way A was placed horizontally the weight suspended from the block E produced such a strain upon the rope as to move the carriage violently forward as soon as the catch is released, and at the same time lower the weight. It became necessary to counteract such strain by elevating that end of the way over the mow or stack at an incline of one inch in three feet; but this arrangement, although accomplishing the desired result, possessed many disadvantages which are entirely obviated by our improvement, the construction and operation of which we will describe.

As shown in the drawings, I I represent two bows or jaws, of round iron, similar in shape to the jaws of a trap, the ends of each being pivoted to the under side of the loops *b b* in any suitable manner, so that when said jaws hang downward they shall be parallel to each other and about three-fourths of an inch apart.

Attached to the rope just above the block E is a disk of wood or metal, K, two inches in diameter, and of suitable thickness to enable it to support the weight of the hay or other article being raised. If, now, the jaws I I are separated so as to allow the disk K to be drawn against the catch F and the jaws then released, they will drop beneath the disk, as shown in Fig. 3, forming a support for it and the weight, and entirely release the rope from strain, thus enabling the operator to move the carriage B forward to any point desired by applying to the rope sufficient power to overcome the fric-

tion. In order to release the disk K from the jaws I I when the load is discharged and the carriage B returned to place, we attach to the under side of the arm G a piece of wood or metal, L, with a wedge-shaped end, which is so adjusted as to pass between and open said jaws just before the carriage is locked in place, as shown in Fig. 2. As soon as the carriage moves forward with its load the jaws, being released, drop beneath the disk again.

The advantages possessed by this invention are, that it furnishes a cheap, durable, and effective self-operating means for locking or securing the load when raised to the desired height, by which all strain is removed from the hoisting-tackle while the carriage is being drawn forward upon the way until over the spot where the load is to be deposited, and

the operator enabled to fully control the movements of said carriage.

Having thus fully described the nature and merits of our improvement, what we claim as our invention, and desire to secure by Letters Patent, is—

The jaws I I, in combination with the disk K and wedge L, or its equivalent, when constructed and operated substantially as and for the purpose herein shown and described.

In testimony that we claim the foregoing we have hereunto set our hands this 26th day of August, 1868.

HARVEY McCOWN.
LUTHER M. McCOWN.

Witnesses:

MOLLIE ANDERSON,
ELIZABETH YOUNG.