C. M. MALLORY.
Hay-Elevator.

No. 200,465. Patented Feb. 19, 1878.

Fig. 1.

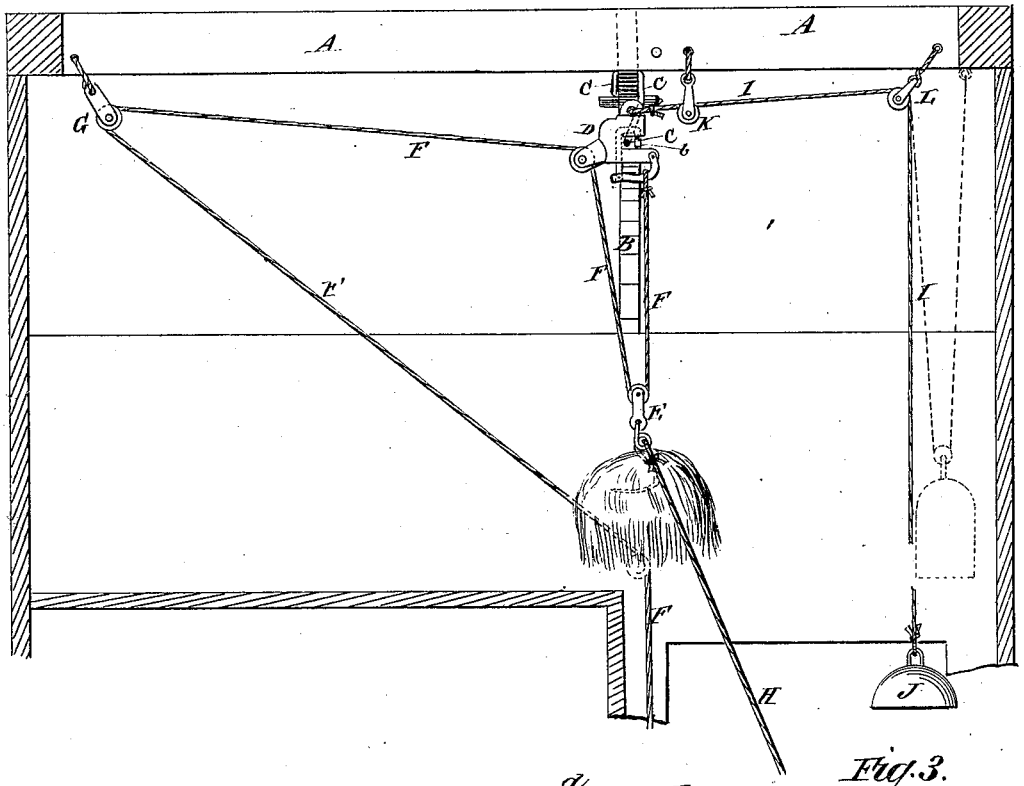


Fig. 2

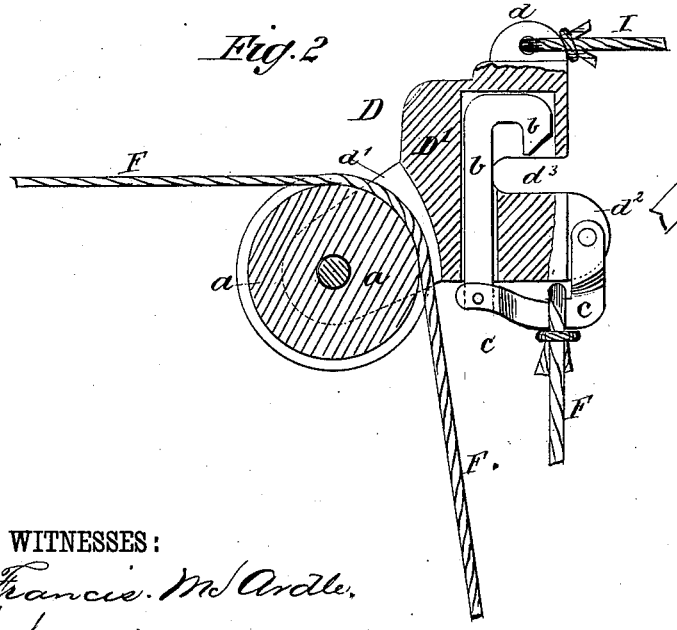
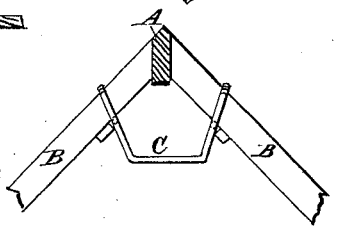


Fig. 3.



WITNESSES:
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INVENTOR:
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UNITED STATES PATENT OFFICE.

CHARLES M. MALLORY, OF WAUSEON, OHIO, ASSIGNOR TO HIMSELF AND MATHIAS ORENDORF, OF SAME PLACE.

IMPROVEMENT IN HAY-ELEVATORS.

Specification forming part of Letters Patent No. **200,465**, dated February 19, 1878; application filed January 8, 1878.

To all whom it may concern:

Be it known that I, CHARLES M. MALLORY, of Wauseon, in the county of Fulton and State of Ohio, have invented a new and Improved Hay-Elevator, of which the following is a specification:

The object of my invention is to provide a hay-elevator of improved construction, and by which the hay may be carried to be dropped in either corner of the mow, thereby better utilizing and economizing space in a barn.

The invention will first be described in connection with the drawings, and then pointed out in the claim.

In the accompanying drawings, Figure 1 represents an elevation of my improved hay-elevator, put up in working position in a barn, the latter being shown in vertical section. Fig. 2 is a detail section of the carrier. Fig. 3 is a detail view of the suspension-brace attached to the rafters of the barn.

Similar letters of reference indicate corresponding parts.

A is the ridge-beam, connecting the upper ends of each pair of rafters B of the barn. C is the suspension-brace, made preferably of bar-iron, and secured to the collar-beam between two opposite rafters, B, or to the rafters themselves above the barn-floor adjacent to the mow, to serve as fulcrum or support for the carrier while hoisting the forkful of hay from the wagon. D is the carrier, consisting of the carrier-block D′, with lugs d d^1 d^2, pulley a, vertical sliding catch b, and connecting-lever c. The pulley a is pivoted between the two lugs d^1 of the carrier-block D′, for receiving the hoisting-rope. The lug d is perforated, for attaching the rope I of the balancing-tackle, and the lug d^2 serves to hold the pivot or fulcrum of the bent or angular lever C, one end of which is pivoted to it, while the other end is pivoted to the lower end of the sliding bar of the catch b. The bar b is fitted to slide in a groove or recess in the block D′, and its upper end is bent in the shape of an inverted U, having an opening large enough to receive and catch on the brace C when the carrier is suspended on the latter, the brace C then being lodged in the opening d^3, formed in the block D′ directly under the opening in the catch b, in which latter opening it is grasped by the hook or catch b, which is pulled down over it by the weight of the hay-fork, &c., and thus holding the carrier in position on the brace C while the fork is being loaded.

The forward corner of the end of the catch b should be beveled off, as shown in the drawing, so as to facilitate its sliding over the brace C when the carrier, after discharging a forkful of hay, is brought back in position for reloading.

The hay-fork is attached to the block of the pulley E, which rides on the hoisting-rope F. The latter is secured to the lever c, and runs thence down under and around the pulley E; then up again over and around the pulley a in the block D′; thence to, over, and around the pulley G, which is suspended from the rafters or beams of the barn or mow, at any end or corner desired, as the reach of travel of the carriage for dropping of the hay.

From the pulley G the rope F leads down over suitable guide-pulleys for hoisting, by windlass or horse, inside or outside of the barn.

The balancing-tackle consists of a rope, I, secured to the lug d of the carrier-block D′, and running over the adjusting-pulley K and the pulley L, and held taut by the weight J, attached to its pendent end. The length of the pendent end of the rope I must be equal to the limit of travel of the carrier D; therefore, when the hay has to be carried far to drop I use a return or double rope and a heavier weight, as shown in dotted lines in Fig. 1.

When the fork, loaded with hay, has been hoisted far enough for the pulley E to strike against the lever c and raise the catch b, the carrier D will be released from the brace C, and then, counterbalanced by the weight J, travel with rope F to the desired point, when the rope H for operating the hay-fork is pulled, and the hay dropped.

In unwinding or backing up the rope F the weight J descends, pulling back the carrier D by the rope I until it again catches onto the brace C. The pulley K is adjusted by its suspension-strap in the suitable position to

guide the carrier by the rope I at the proper elevation to bring the brace C into the opening d^3, and the catch b over the brace.

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

The carrier D, constructed of the combination of the block D′, provided with the lugs d d^1 d^2 and the opening d^3, with the pulley a, sliding catch b, and lever c, substantially as specified.

CHARLES MARTIN MALLORY.

Witnesses:
DAVID C. WALTER,
GEORGE W. SMITH.