

J. H. Violett,

Elevator.

No. 109278.

Patented Nov. 15, 1870.

Fig. 1.

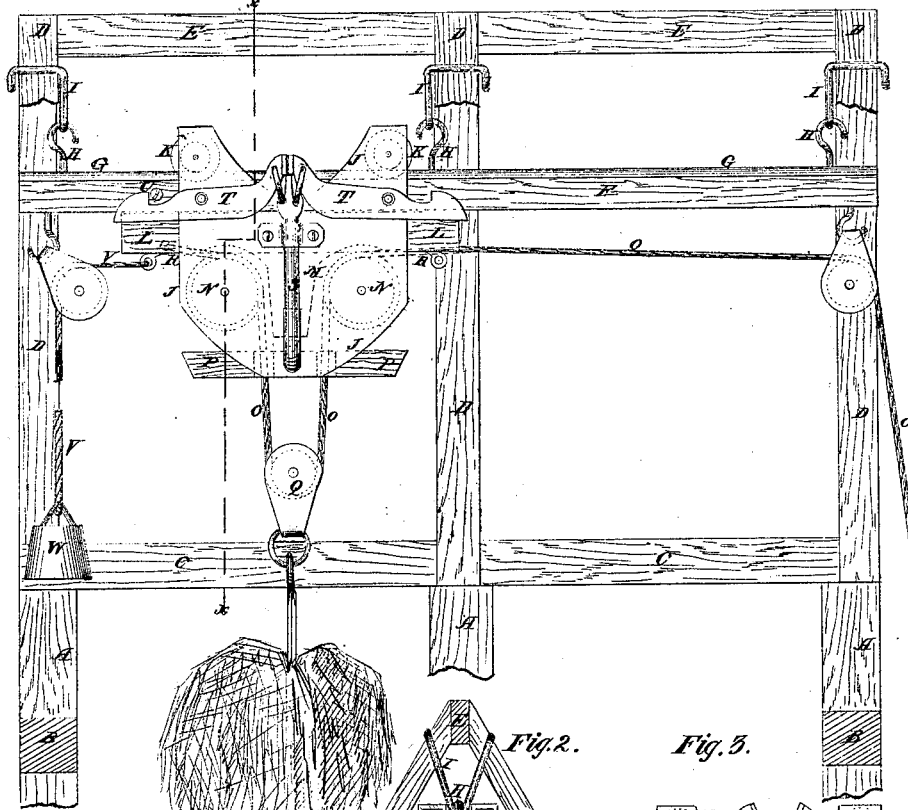
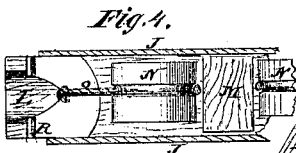
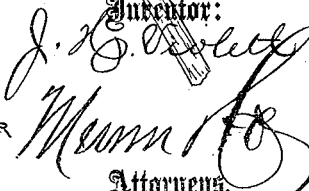


Fig. 2.

Fig. 3.



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# UNITED STATES PATENT OFFICE.

JOHN H. VIOLETT, OF GOSHEN, INDIANA.

## IMPROVEMENT IN HOISTING APPARATUS.

Specification forming part of Letters Patent No. 109,278, dated November 15, 1870.

*To all whom it may concern:*

Be it known that I, JOHN H. VIOLETT, of Goshen, in the county of Elkhart and State of Indiana, have invented a new and useful Improvement in Apparatus for Moving Hay, &c.; 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 make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of my improved apparatus as attached to the frame of a barn or other building. Fig. 2 is a detail sectional view of the same, taken through the line *x x*, Fig. 1. Fig. 3 is a detail side view of the same, showing the position of the parts when the carriage is traveling with a loaded fork. Fig. 4 is a detail view, showing the way in which the end of the hoisting-rope is secured.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved apparatus for carrying the hay-fork in moving hay from one part of a barn or other building to another, especially in unloading hay, and which shall be simple in construction and effective in operation; and it consists in the construction and combination of the various parts of the apparatus, as hereinafter more fully described.

A are the posts, B are the beams, C are the plates, D are rafters, and E is the ridge-pole, about the construction of which parts there is nothing new.

F is a beam, which may extend for the entire length of the frame, and upon the upper side of which are secured rails G, to form a track for the wheels of the carriage.

To the middle part of the upper side of the beam F are attached hooks H, to hook into the loops I, the ends of the arms of which are hooked to hook over the rafters D, upon each side of the ridge-pole E, as shown in Fig. 2, so as to suspend the beam F in such a way that the carriage may pass from end to end of the beam without being obstructed by the supports of said beam.

J are the side plates or frames of the carriage, upon the ends of the upper edges of each of which are formed arms, which are bent twice at right angles, as shown in Fig. 2, to form supports for the journals of the four

wheels K, two upon each side, which roll along the rails G of the beam F, so that the movement of the carriage may not be obstructed by the supports of the said beam F.

L is a bar, to which the plates or frames J are attached to keep them in their proper relative positions, and which is placed directly beneath the beam F, to keep the wheels K securely in place upon the rails G. The lower parts of the plates or frames J are kept in proper relative position by being attached to the block or plate M, which also serves as a stop to the trip-bar.

To the plates or frames J, upon each side of the block M, are pivoted two rollers, N, which are grooved for the passage of the hoisting-rope O. The middle part or loop of the hoisting-rope O passes down through holes in the trip-bar P, and receives the pulley Q to the block of which the hay-fork is attached. The under sides of the ends of the bar L are recessed, and to them are attached plates R, the outer edges of which are notched to receive the knotted end of the rope O, and hold it securely. The trip-bar P is supported by the bar or arm S, the lower end of which is bent inward, passes through a slot in one of the plates J, and is attached to the said bar P. The bar S extends up along the side of the plate J, passes through a keeper attached to said plate, and to its upper end are pivoted the inner ends of the levers T, which are pivoted at or near their middle points to the upper part of the plate J, near its side edges. The outer or projecting ends of the levers T are beveled and notched, as shown in Figs. 1 and 3, so that when the carriage is drawn back into position to raise the loaded fork the said lever may catch automatically upon a pin or other catch, U, attached to the beam F or other convenient support. As the loaded fork is raised by drawing upon the hoisting-rope O, the pulley-block Q, to which said fork is attached, strikes against and raises the trip-bar P, which operates the catch-lever T to release the carriage and allow it to be drawn forward by the hoisting-rope O to the place where the hay is to be discharged. The carriage may be adjusted to be drawn in either direction by attaching one or the other of the ends of the hoisting-rope O to one or the other of the notched plates R, and attaching the power to the other end of said rope.

To the ends of the outer edge of the plates R are attached, or upon them are formed, eyes for the attachment of the end of the rope V, which rope passes over a guide-pulley, and to its other end is attached a weight, W, of sufficient size to draw the carriage back, when the loaded fork has been tripped, to receive another load.

The rope and weight V W may be attached to either end of the carriage, as may be desired.

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

1. The pivoted and notched levers T T, arm S, and trip-bar P, combined with a pin, U, on the beam F, as and for the purpose described.

2. The plates J, wheels K, bar L, block M, and weighted ropes O V, combined with the trip mechanism S T P and beam S U, as and for the purpose described.

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Witnesses:

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