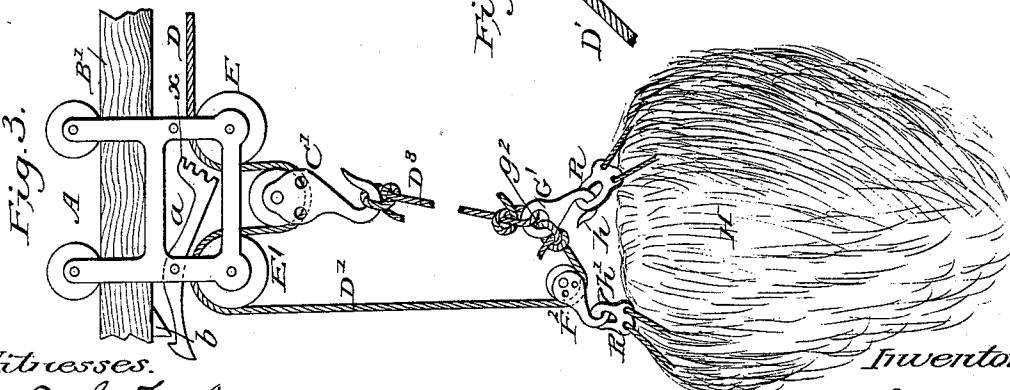
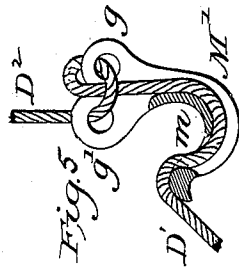
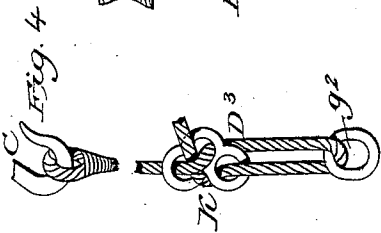
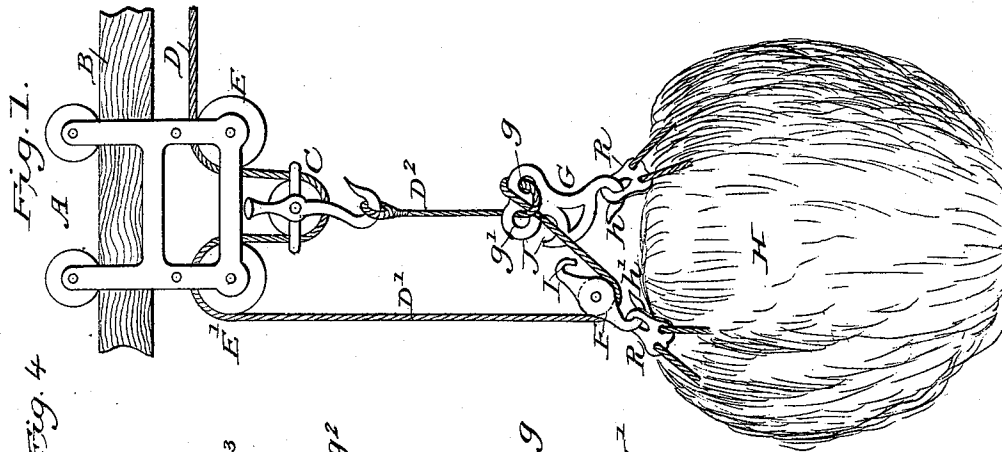
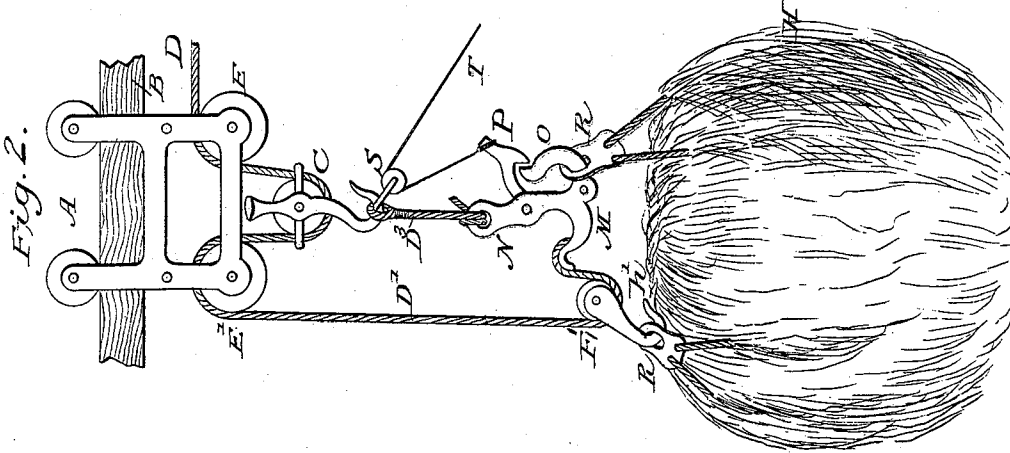


(No Model.)

W. LOUDEN.
HAY CARRIER ATTACHMENT.

No. 564,092.

Patented July 14, 1896.



Witnesses.

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HAY-CARRIER ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 564,092, dated July 14, 1896.

Application filed April 18, 1893. Serial No. 470,917. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM LOUDEN, a citizen of the United States, residing at Fairfield, in the county of Jefferson and State of Iowa, have invented a new and useful Improvement in Hay-Carrier Attachments, of which the following is a specification.

This invention relates to devices to be used with an ordinary hay-carrier having two sheaves, a rope passed over said sheaves, so as to form a loop between them, and a pulley-block hung in the loop of the rope and adapted to operate the mechanism of the carrier, so that a hay-sling or other load-holding device requiring to be supported at two points can be used with said carrier; and it consists of a second pulley-block mounted upon one end of the rope and adapted to support one end of the sling, and a hook or other connecting device connected to the pulley-block of the carrier and adapted to support the other end of the sling, the end of the rope which is passed through the second pulley-block being secured to the connecting device.

It further consists of details in the construction and arrangement of parts set forth in the specification and claims.

In the accompanying drawings, representing the invention, Figure 1 is a side view showing the invention in operation with a hay-carrier having an ordinary sheave-frame catch. Fig. 2 is the same showing a connecting device having a trip-hook for a sling. Fig. 3 is the same showing the invention in use with a carrier having a rope-lock. Fig. 4 is a side elevation of a modified plan of an adjusting-rope. Fig. 5 is a side elevation of a modified form of connecting-hook.

A represents an ordinary two-sheave hay-carrier arranged to run upon a track B, which may be of any desired construction.

C is an ordinary elevating pulley-block fitted to operate the lock mechanism of the carrier to free it from the stop on the track and to positively lock in the carrier while it traverses the track. (This lock mechanism here referred to is not shown, because it forms no part of this invention, and because there are a variety of different constructions in common use, which are well understood by those

familiar with the art, either of which will answer the purpose herein contemplated.)

D is the hoisting-rope, which is passed first over the sheave E of the carrier, then under the sheave of the pulley-block C, and then over the sheave E' of the carrier in the ordinary manner. The end D' of the rope after being passed over the sheave E' is brought down and passed under the sheave of a pulley-block F, then up to a connecting device G. The connecting device G is preferably fitted with two eyes *g* and *g'* at its upper end, and the rope is preferably passed through one of these eyes and then over itself and through the other eye, as shown in Fig. 1, and then up to the pulley-block C, where it is fastened.

The connecting device G is also fitted with a hook *h* and a catch J. The pulley-block F is also provided with a hook *h'* at the lower end of its frame and a hook I at its upper end to engage the catch J of the connecting device G, as will be hereinafter explained.

The operation is as follows: The sling being loaded with hay H, (or other material to be stored in the mow,) the pulley-block F and connecting-hook G are spread apart and hooked into the rings R of the sling. Power being applied to the free end of the rope D, the ends of the sling will be drawn together and the hay rolled up, as shown in the drawings. Then the hook I of the pulley-block F will be drawn up over the catch J of the hook G, and the pulley-block F and hook G will be securely locked together. The draft still continuing, the elevating pulley-block C will be drawn up into the carrier, and will lock therein and release the carrier from the stop on the track in the ordinary manner, when the sling-load will be carried into the mow by the carrier traversing the track.

The height at which the sling-load is carried into the mow is easily regulated by lengthening and shortening the end D² of the rope between the hook G and the pulley-block C. As shown in Fig. 1, this is done by adjusting the rope back or forth in the eyes *g* and *g'* of the hook G. The rope, passing through these eyes in the manner shown, will be firmly held wherever placed without the aid of any extraneous devices.

Instead of running the rope D through the connecting device G and fastening it to the frame of the pulley-block C, a separate rope D³ may be used to connect the hook G and pulley-block C, as shown in Figs. 2 and 3.

When a separate rope, as D³, is used to regulate the space between the pulley-block C and connecting-hook G, an adjusting device K may be used on said rope, as shown in Fig. 5, for the purpose of facilitating the adjustment of its length. When the sling-load is to be taken up close to the track, the rope D³ may be taken off and the hook G or G' fastened directly to the pulley C.

Instead of fitting the pulley-block F with a hook I, as shown in Fig. 1, it may be made like pulley-block F'. (Shown in Fig. 2.) In this case the frame of the pulley-block is made open enough to pass over a hook M of the connecting device N. The rope D is fastened to the end of the hook M, and the draft of the rope will draw the pulley-block F' up onto the hook M. If it is desired to connect the rope D to the pulley C, as shown in Fig. 1, the hook M may be arranged as shown in Fig. 5, in which a hook M' is made with a recess *m* in it, through which the rope is passed, and thence up through eyes *g* and *g'* in its upper end, as already described. In either case it is better to make the point of the hook over which the rope passes concave on its upper side, so that the rope will have a good seat and not be liable to slip off.

In the connecting device N (shown in Fig. 2) a trip-hook O is used, to which one of the rings R of the sling is hooked. The trip-hook is held in place by means of a catch P, which is released to discharge the sling by pulling on a trip-cord T, which is passed over a small pulley S. This trip-hook may be applied to the connecting device G, or any other suitable method of discharging the sling, however, may be used without departing from the spirit of my invention.

Fig. 3 shows my invention in use with a carrier having a rope-catch, in which a lock-lever *a* is used, having a hook on its outer end to engage a stop *b* on the track B' and a brake *x* on its inner end to engage the rope D as it passes over the sheave E. The pulley-block C' is drawn against the inner end of the lever to release it from the catch *b*, and when the pulley-block C', with its load, goes to drop down as the carrier traverses the track the inner end of the lever *a*, being the heavier, drops against the rope and prevents it from running back. When my invention is used on this kind of carrier, it is not necessary to lock the pulley-block F² and the connecting-hook G together, because the rope, being locked, makes it draft-sustaining.

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

1. The combination of a hay-carrier having two sheaves therein, a hoisting-rope passed

over said sheaves so as to form a loop between them, a pulley-block hung in the loop of the rope and adapted to operate the mechanism of the carrier, a connecting device attached to the pulley-block and adapted to support one end of a hay-sling, and a second pulley-block adapted to support the other end of the sling, one end of the hoisting-rope being passed through the second pulley-block and then secured to the connecting device, substantially as described.

2. The combination of a hay-carrier having two sheaves therein, a hoisting-rope passed over said sheaves so as to form a loop between them, a pulley-block hung in the loop of the rope and adapted to operate the mechanism of the carrier, a connecting device attached to the pulley-block and adapted to support one end of a hay-sling, and a second pulley-block adapted to support the other end of the sling, and to be locked to the connecting device, one end of the hoisting-rope being passed through the second pulley-block and then secured to the connecting device, substantially as described.

3. The combination of a hay-carrier having two sheaves therein, a hoisting-rope passed over said sheaves so as to form a loop between them, a pulley-block hung in the loop of the rope and adapted to operate the mechanism of the carrier, a connecting device adjustably attached to the pulley-block and adapted to support one end of a hay-sling and a second pulley-block adapted to support the other end of the sling, one end of the hoisting-rope being passed through the second pulley-block and then secured to the connecting device, substantially as described.

4. The combination of a hay-carrier having two sheaves therein, a hoisting-rope passed over said sheaves so as to form a loop between them, a pulley-block hung in the loop of the rope and adapted to operate the mechanism of the carrier, a connecting device attached to the pulley-block and adapted to support one end of a hay-sling, and a second pulley-block adapted to support the other end of the sling, one end of the hoisting-rope being passed through the second pulley-block, then adjustably secured to the connecting device and its end passed on through and fastened to the pulley-block of the hay-carrier, substantially as described.

5. The combination of a hay-carrier having two sheaves therein, a hoisting-rope passed over said sheaves so as to form a loop between them, a pulley-block hung in the loop of the rope and adapted to operate the mechanism of the carrier, a hook adjustably connected to the pulley-block and adapted to support one end of a hay-sling, and a second pulley-block adapted to support the other end of the sling, one end of the hoisting-rope being passed through the second pulley-block and then secured to the hook, substantially as described.

6. The combination of a hay-carrier having two sheaves therein, a hoisting-rope passed over said sheaves so as to form a loop between them, a pulley-block hung in the loop of the rope and adapted to operate the mechanism of the carrier, a second pulley-block adapted to support one end of a hay-sling, and a connecting device having a trip-hook, attached to the pulley-block of the carrier, and adapted to support the other end of the sling and to be released therefrom, substantially as described.

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Witnesses:

L. W. SIMS,
G. P. LANG.