

No. 664,057.

Patented Dec. 18, 1900.

G: A. OLSON.

HAY. SLING.

(Application filed Sept. 23, 1899.)

(No Model.)

Fig. 1.

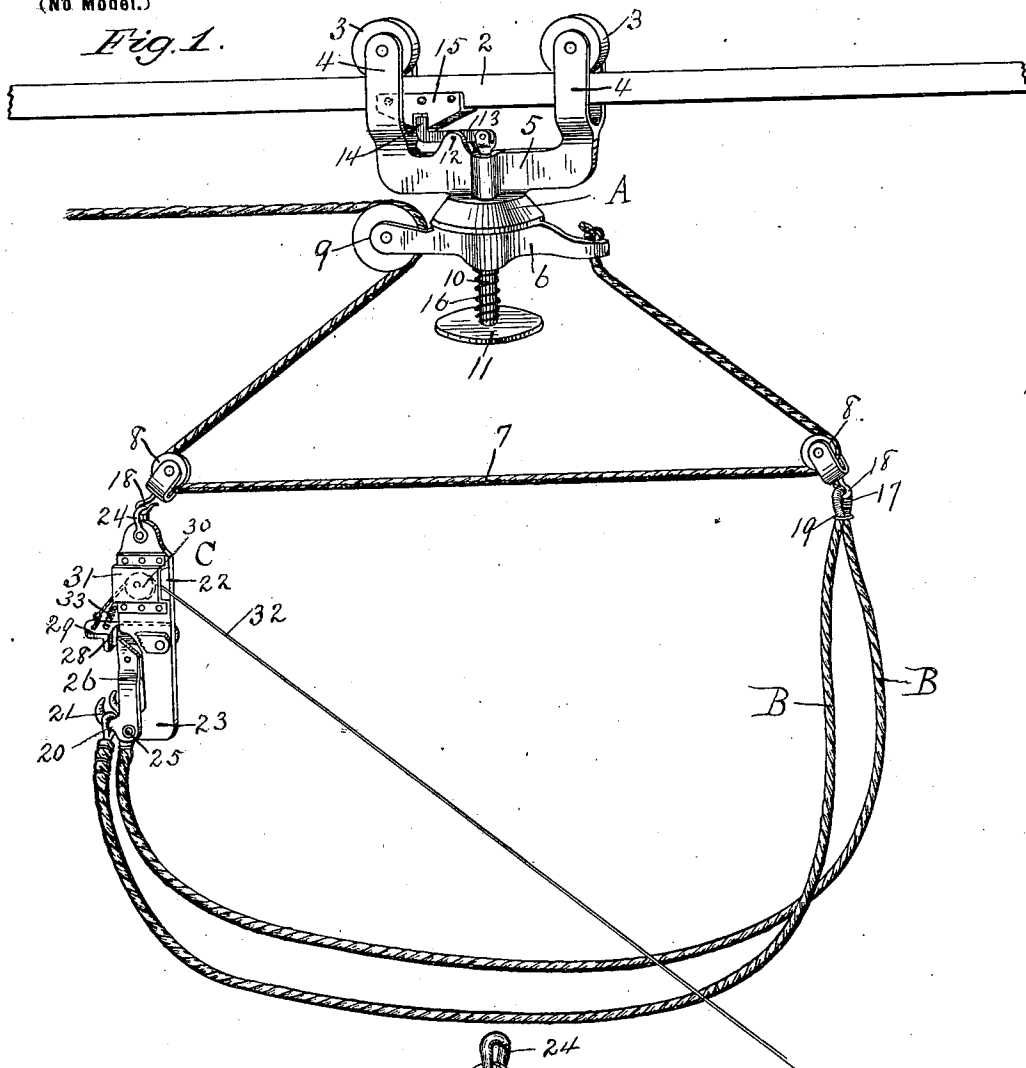
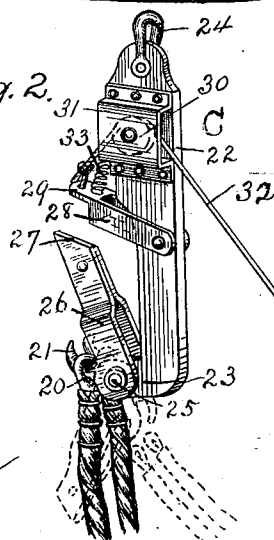


Fig. 2.



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UNITED STATES PATENT OFFICE.

GUSTAV A. OLSON, OF LERDAL, MINNESOTA.

HAY-SLING.

SPECIFICATION forming part of Letters Patent No. 664,057, dated December 18, 1900.

Application filed September 23, 1899. Serial No. 731,401. (No model.)

To all whom it may concern:

Be it known that I, GUSTAV A. OLSON, a citizen of the United States, residing at Lerdal, in the county of Freeborn and State of Minnesota, have invented certain new and useful Improvements in Hay-Slings, of which the following is a specification.

My invention relates to improvements in hay-slings of the class intended more particularly for use in connection with a hay-carrier; and the object of my invention is to provide a trip-sling which can be easily and expeditiously adjusted about the load of hay to be carried and as easily disengaged therefrom and which can be easily operated in connection with the carrier.

In the accompanying drawings, forming part of this specification, Figure 1 is a view of my improved hay-sling attached to the sling-pulleys of a hay-carrier; and Fig. 2 is a detail of the trip-lock, showing the trigger raised to release the trip-hook.

My improved hay-sling may be used in connection with almost any form of hay-carrier and sling-pulleys.

In the drawings, A represents a simple form of hay-carrier suspended from and adapted to travel upon the track 2 by means of rollers 3, journaled in the ends of the upwardly-projecting U-shaped arms 4 of the frame 5 of the carrier. Secured to the under side of the frame is a cross-bar 6, to one end of which is secured the end of the draft-rope 7, which passes first around the sling-pulleys 8 and then around the draft-pulley 9, journaled in the other end of the cross-bar 6 to the place of application of the power. Extending through and slidably arranged within the cross-bar and frame of the carrier is a trip-rod 10, provided at its lower end with a bumper-plate 11. Pivoted to the upper end of this rod and fulcrumed upon the frame of the carrier at 12 is a trip-lever 13, having at its free end a projection 14, adapted to engage with a corresponding slot in the stop-block 15, riveted to the track. The bumper-plate and trip-rod are held normally in lowermost position by means of a coil-spring 16, interposed between the cross-bar and the bumper-plate. In this position the trip-lever is held in locking engagement with the stop-block. Any

suitable means may be provided to hold the draft-rope when the lever has been tripped.

The sling-rope B consists, preferably, of a single piece formed at the middle with a loop 17, by which it is attached to the hook 18 of one of the sling-pulleys 8. This loop is kept from changing position along the rope by a ring 19, slipped over it. The free ends of the sling-rope B are provided with suitable eyes 20 for attachment to the hooks 21 of the trip-lock C.

The trip-lock C consists of a main supporting-piece or frame-plate 22, formed at the bottom with a laterally-projecting arm 23 and provided at the top with an eye 24 for attachment to the hook 18 of the desired sling-pulley 8. Pivotally mounted by the pivot 25 upon the arm 23 and straddling the same is a bifurcated trip-latch 26, provided at its lower ends with outwardly-projecting hooks 21 to receive the eyes 20 of the sling-rope B. The top of the trip-latch is beveled to form a downwardly and inwardly inclined face 27, adapted to engage and raise the trigger or catch 28 as the trip-latch is pressed back into normal or locked position behind the catch. This catch or trigger is pivotally mounted upon the frame-plate 22 in position to engage the top of the trip-latch and is made, preferably, forked or of general U shape, so as to embrace and swing upon both sides of the frame-plate. Secured to the outer end 29 of the catch and passing over a pulley 30, having journal support in the frame 22 and the pulley shield or casing 31, secured to the frame, is a trip-rope 32 for raising or tripping the catch. To prevent the catch from being accidentally or prematurely tripped, it is held pressed down in locking position by a coil-spring 33, interposed between the catch and the frame 22 or pulley-shield 31.

In operation the trip-lock is left permanently in the hook of one sling-pulley. When it is desired to carry a load of hay, the sling-rope are extended, with the looped end in the hook of the free sling-pulley. The hay is then placed upon the sling-rope, and the eyes upon the ends of the sling-rope are placed over the trip-hooks 27. When the draft-rope of the carrier is pulled, it first draws together the sling-pulleys, and with them the trip-lock

and the sling-rope loop 17, thus binding the sling-ropes tightly about the load, and then raises the load until it strikes the bumper-plate, throwing the trip-lever out of engagement with the stop-block and releasing the carrier. When the load of hay has been carried to the desired place, the trip-rope is pulled, raising the catch and releasing the trip-latch. The strain of the load upon the trip-hooks turns the trip latch and hooks down upon the pivot 25, as shown in Fig. 2, into the position indicated by dotted lines, when the eyes upon the ends of the sling-ropes slip from the hooks, allowing the hay to drop from the sling. When the carrier is pulled back upon the track, the ends of the sling-ropes are drawn from under the bale or load of hay, and when the trip-latch has been pressed back into place behind the catch the sling is again in position for loading.

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

1. In a hay-sling, the combination with the sling-pulleys, of a trip-supporting frame detachably secured to one of said pulleys, a bifurcated trip-latch pivotally mounted upon said frame, and straddling the same, and provided with outwardly-projecting trip-hooks, a catch pivotally mounted upon said frame in position to engage and hold the upper end of said trip-latch, means for holding said catch normally in position to engage said trip-latch, a trip-rope secured to said catch for raising it out of such engagement, and a sling-rope provided with eyes at the ends for attachment to said trip-hooks, and adapted to be detachably connected with a second pulley.

2. In a hay-sling, the combination with the sling-pulleys, of a trip-supporting frame detachably secured to one of said pulleys, and formed with a laterally-extending arm, a bifurcated trip-latch pivotally mounted upon said arm and straddling the same, and provided with trip-hooks, a catch pivotally mounted upon said frame, means for holding said catch in position to engage and hold the upper end of said trip-latch, a trip-rope secured to said catch for raising it out of such engagement, and a sling-rope provided with eyes upon its ends for attachment to said trip-hooks, and having means for detachable connection with a second sling-pulley.

3. In a hay-sling, in combination with the sling-pulleys, a trip-supporting frame detachably secured to one of said sling-pulleys and formed with a laterally-extending arm, a bifurcated trip-latch pivotally mounted upon said arm and straddling the same, and provided with outwardly-projecting trip-hooks, a catch pivotally mounted on said frame in position to engage and hold said trip-latch, spring means for holding said catch normally in position to engage said trip-latch, a trip-rope secured to the outer end of said catch for tripping the same, a guide-pulley for said trip-rope mounted upon said frame, and a sling-rope detachably secured to a second sling-pulley and to said trip-hooks.

In testimony whereof I affix my signature in presence of two witnesses.

GUSTAV A. OLSON.

Witnesses:

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