

No. 659,641.

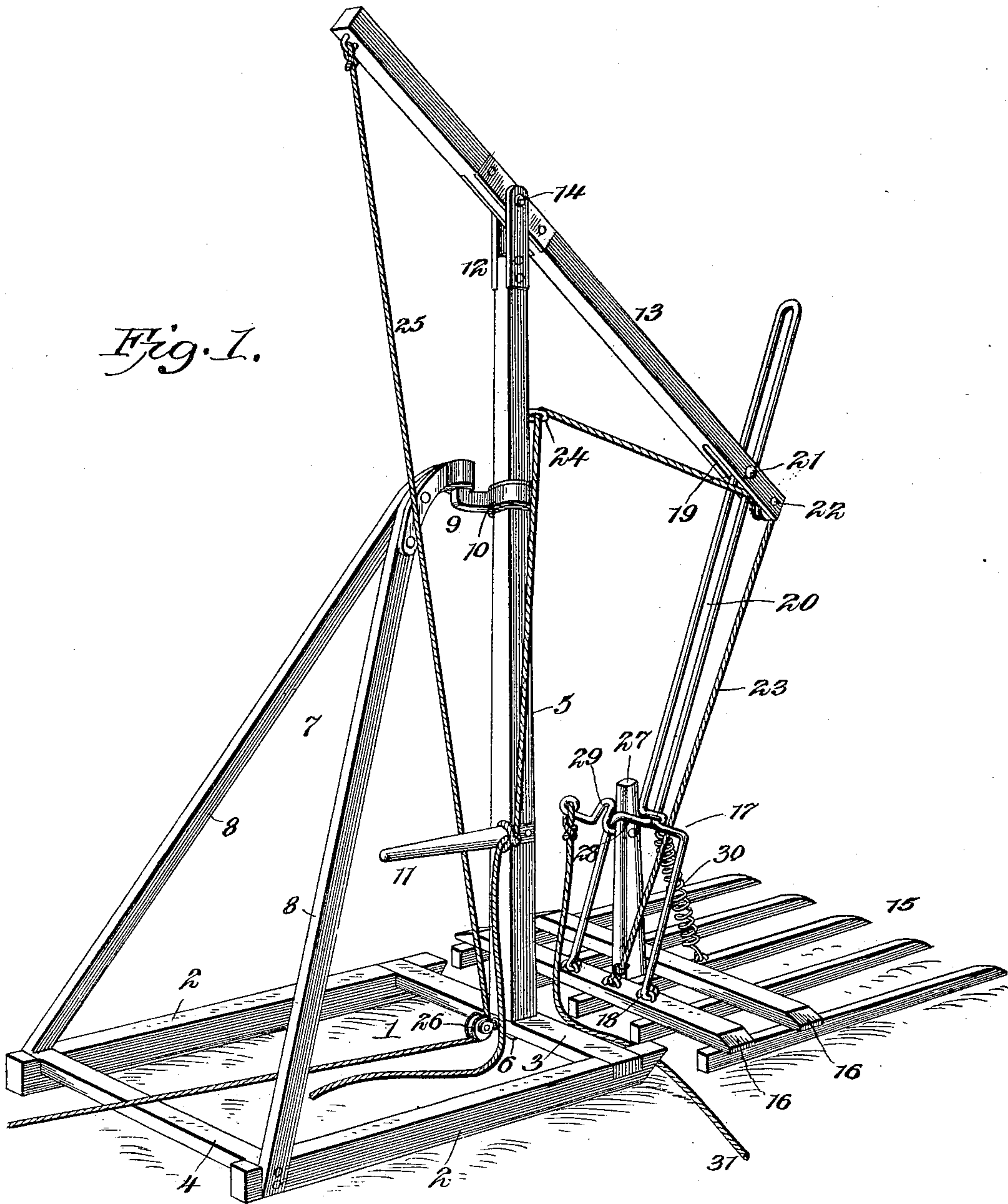
Patented Oct. 16, 1900.

C. BLACKWELL.
HAY STACKER.

(Application filed Mar. 6, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses

Howard D. Orr,

J. W. Garner

By *his* Attorneys,

Charles Blackwell, Inventor.

C. A. Snow & Co.

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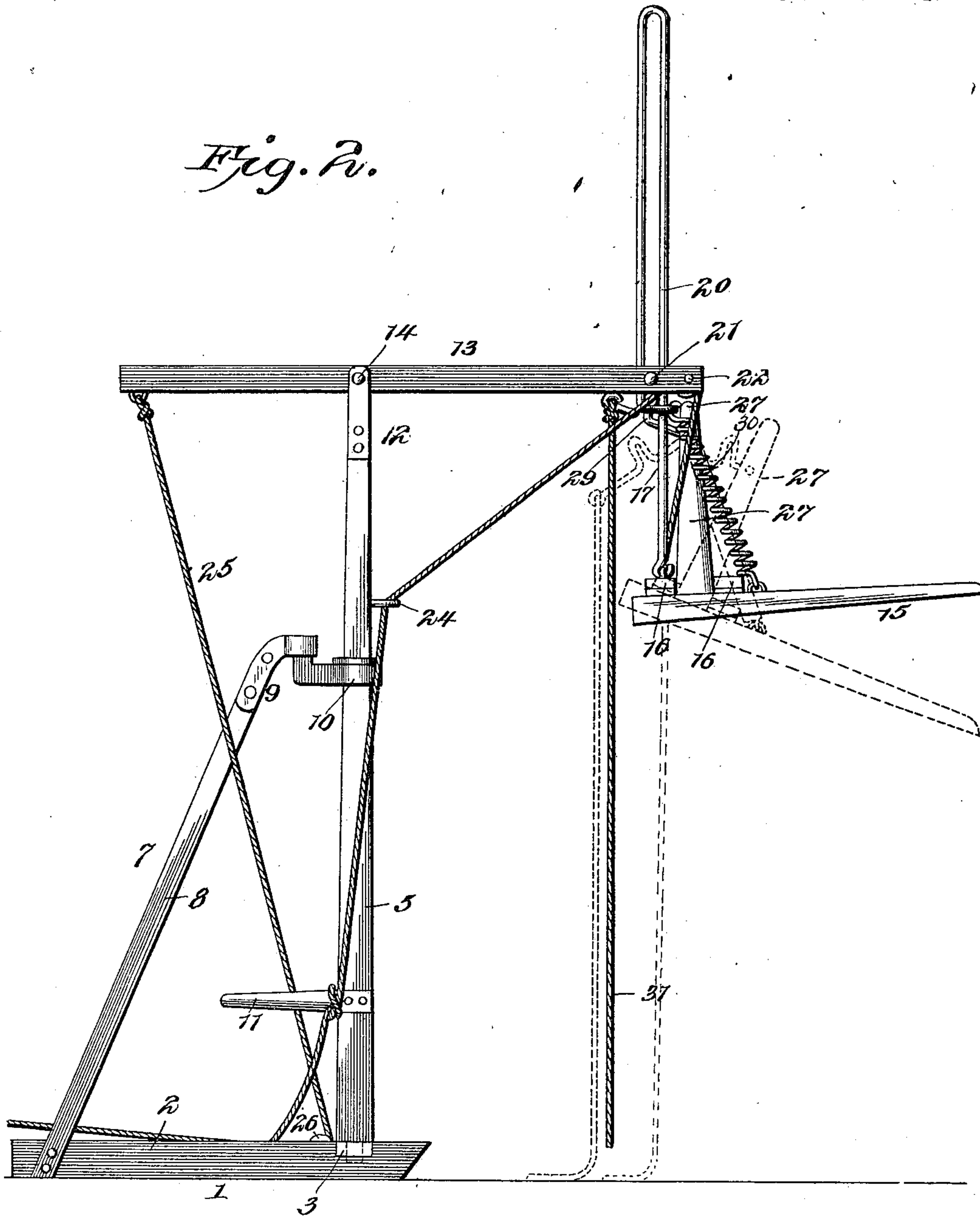
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2 Sheets—Sheet 2.

Fig. 2.



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UNITED STATES PATENT OFFICE.

CHARLES BLACKWELL, OF VINITA, INDIAN TERRITORY, ASSIGNOR TO
GEORGE W. BLACKWELL, OF SAME PLACE.

HAY-STACKER.

SPECIFICATION forming part of Letters Patent No. 659,641, dated October 16, 1900.

Application filed March 6, 1900. Serial No. 7,581. (No model.)

To all whom it may concern:

Be it known that I, CHARLES BLACKWELL, a citizen of the United States, residing at Vinita, in the Cherokee Nation and Indian Territory, have invented a new and useful Hay-Stacker, of which the following is a specification.

My invention is an improvement in hay-stackers, the object being to provide a simple, strong, efficient, and portable hay-stacker which is adapted to be readily operated by one man and a horse or team; and it consists in the combination of an elevating-lever, a carrier having a link connected to and movable with relation to said elevating-lever, and a tackle connecting said carrier to said lever and adapted to be anchored, whereby said carrier when said lever is operated will move independently toward or from said lever and permit the height reached by the carrier to be predetermined without altering the sweep of the elevating-lever.

My invention further consists in the peculiar construction and combination of devices hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a hay-stacker embodying my improvements, showing the same in its initial position with the carrier lowered to the ground. Fig. 2 is a side elevation of the same, showing the carrier in an elevated position with its link at the upper limit of its movement with relation to the elevating-lever and in dotted lines indicating the action of the tripping or releasing device for discharging the carrier or fork-frame of its load.

The combined slide and supporting frame 1, which constitutes the supporting-base of my improved hay-stacker, comprises sills or runners 2 and the cross-bars 3 4, which connect the ends thereof together, as shown in Fig. 1. A revoluble vertical standard 5 has its lower end supported in a bearing, as at 6, in the center of the cross-bar 3, and said standard is supported in a vertical position by the inclined frame 7, which comprises the pair of upward-converging inclined bars 8, which rise from two of the corners of the base-frame 1, and the horizontally-disposed arm 9, connected to the upper ends of

the bars 8 and provided with a bearing-collar 10, in which the standard turns. The said standard is provided near its lower end with an arm 11, that is horizontally disposed, as shown, and forms a lever by means of which the standard may be turned. A pair of supporting-plates 12 are bolted in the upper end of the standard and project above the same and between the said arms. An elevating-lever 13 is fulcrumed on a bolt 14.

The carrier comprises the series of fork-bars 15, connected together near one end by a pair of parallel bars 16. A link 17, which may be either of the form here shown or of some other suitable form, has its lower end pivotally connected to the outer bar 16 of the fork-frame, as at 18, the said fork-frame or carrier being thereby hinged to the lower end of the said link. The link passes through and is adapted to travel in a slot or guideway 19, formed in one end of the lever 13, and said link is slotted substantially throughout its length, as at 20, and is connected to the lever 13 by a transverse bolt 21, which travels in the slot 20. A suitable sheave 22 is carried by the lever 13 near the link, as shown. A rope or tackle 23 has one end connected to the head of the fork-frame or carrier, and said rope passes over the sheave 22 and over a suitable sheave or support 24 near the upper end of the revoluble standard, the free end of the said rope being adapted to be anchored, cleated, or otherwise secured at any desired adjustment, preferably to the standard 5. As herein shown, the said rope is tied or knotted on the lever-arm 11, that being a convenient but not necessary disposition thereof. An elevating-rope 25 is attached to the lever 13 at the end opposite the link, and said rope passes downward over a guiding sheave or pulley 26, which is attached to the cross-bar 3 at the heel of the standard, the free end of the said rope being adapted for the attachment of a horse or team thereto in the usual manner.

A stop-arm 27 rises from the fork-frame and is adapted to engage a shoulder 28, formed on the widened lower portion of the link, and to the said stop-arm is pivoted a catch or detent 29, which is adapted to engage the link and to lock the stop-arm thereto, as clearly illus-

trated in Fig. 1. A coiled retractile spring 30 has one end connected to the link and the other end connected to the fork-frame or carrier, as shown, the function of the said spring being to normally maintain the stop-arm in engagement with the link when the detent or catch is released from the link, the strength of the spring being sufficient for the purpose of elevating the free end of the carrier by turning the same on its hinged connection with the link when the carrier is unloaded, or, in other words, the function of the said spring is to restore the carrier or fork-frame to an approximately-horizontal position after the load has been discharged therefrom.

The operation of my invention is as follows: The lever 13 is operated by the rope or tackle 25, and as the loaded end of the lever rises it draws upon the rope 23, thereby drawing the carrier or fork-frame toward the lever, and hence causing the fork-frame or carrier to move more rapidly than the loaded end of the lever, this independent movement of the fork-frame or carrier being permitted by the sliding link 20. The rope or tackle 23 must be so adjusted as not to cause the sliding link to reach the upper limit of its movement until the loaded end of the elevating-lever has been raised to the desired height, when, assuming that the detent or catch 29 has been engaged with the link and that the carrier or fork-frame has been loaded, the same will be discharged of its load of hay by drawing down upon a cord or rope 31, attached to said catch or detent, as will be readily understood. The standard 5 being revoluble, the elevating-lever and the fork-frame or carrier may be turned to any required direction when the hay-stacker is in operation.

Having thus described my invention, I claim—

1. In a hay-stacker, the combination of an elevating-lever, a carrier having a link connected to and movable with relation to said elevating-lever, a tackle connecting said car-

rier to said lever and adapted to be anchored, whereby said carrier, when said lever is operated, will move toward or from said lever, for the purpose set forth, substantially as described.

2. In a hay-stacker, the combination of an elevating-lever, a link connected thereto and adapted for movement thereon in the direction of the axis of the link, a carrier, pivoted or hinged to the link, means to lock the said carrier to said link against pivotal movement, a releasing device, a tackle connecting the carrier to the lever and adapted to be anchored, and means for operating the lever, substantially as described.

3. In a hay-stacker, the combination of an elevating-lever, a link connected thereto and adapted for movement thereon, in the direction of the axis of the link, a carrier pivoted or hinged to the link, a spring connecting said carrier to said link, for the purpose set forth, means to lock the said carrier to said link, against pivotal movement, and a releasing device, a tackle connecting the carrier to the lever and adapted to be anchored and means for operating the lever, substantially as described.

4. In a hay-stacker, the combination of the base-frame, the revoluble vertical standard thereon, an elevating-lever mounted on said standard, a carrier having a link connected to and movable with relation to said elevating-lever, a tackle connecting said carrier to said lever, and adapted to be anchored for the purpose set forth, and a tackle for operating the elevating-lever, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CHARLES BLACKWELL.

Witnesses:

A. E. JACKSON,
HENRIETTA FRENCH.