(No Model.)

H. L. FELL.

HAY SLING.

No. 579,642. Patented Mar. 30, 1897.

Fig. 1.

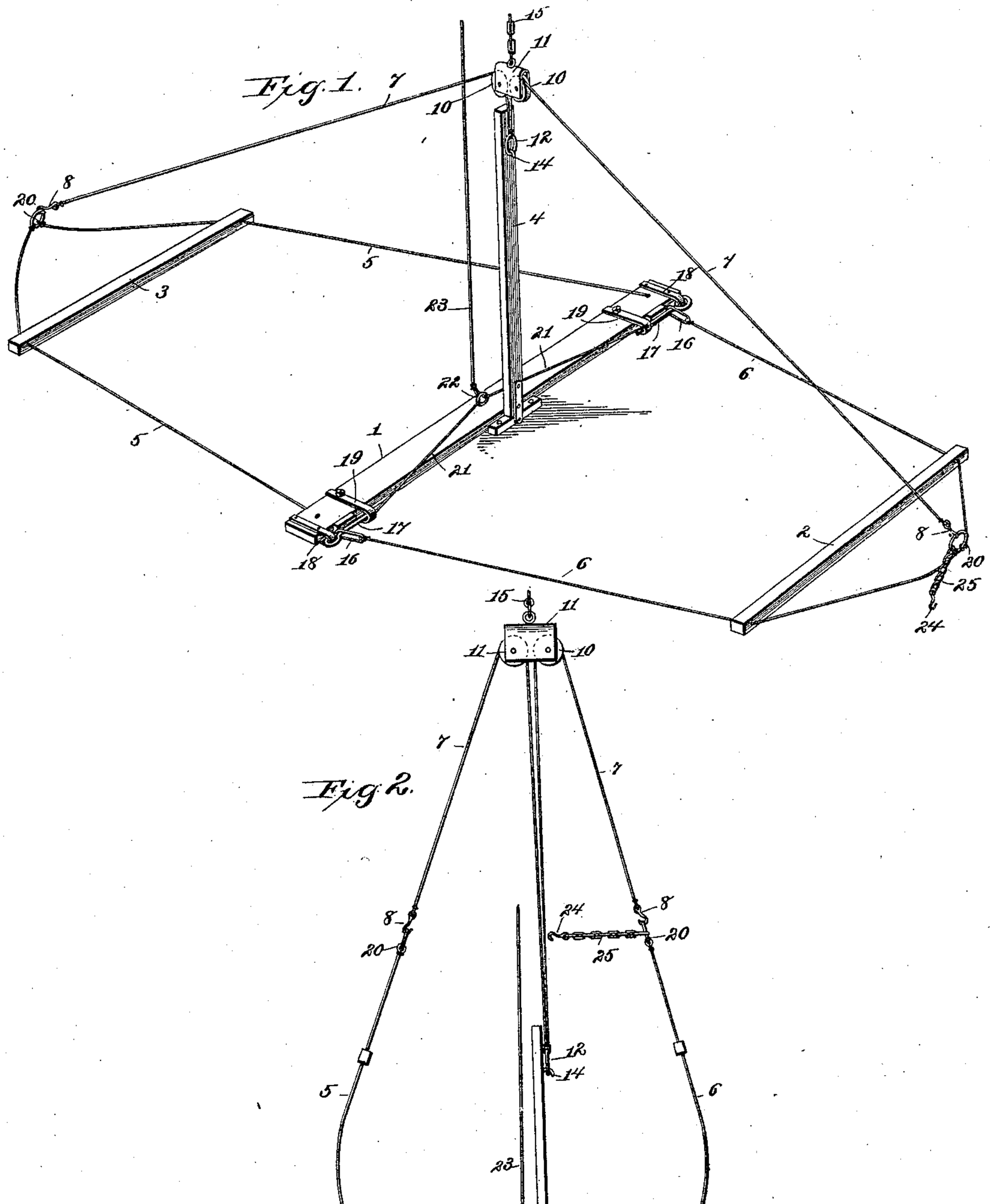

Fig. 2.

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HENRY L. FELL, OF BELLEVILLE, MICHIGAN.

HAY-SLING.

SPECIFICATION forming part of Letters Patent No. 579,642, dated March 30, 1897.

Application filed June 24, 1896. Serial No. 596,715. (No model.)

To all whom it may concern:

Be it known that I, HENRY L. FELL, a citizen of the United States, residing at Belleville, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Hay-Slings, of which the following is a specification.

My invention relates to a new and useful improvement in hay-slings, and has for its object to provide a device which may be applied to the rack of a wagon in such manner that hay or the like may be loaded into said wagon without hindrance and when being unloaded will be compressed into a comparatively small space during the operation of elevating, and, further, to so construct such a sling that by a single pull of a guy-rope the sling will be released from the compressed hay and its withdrawal permitted.

With these ends in view my invention consists in the details of construction and combination of elements hereinafter set forth, and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, I will describe its construction and operation in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective of a sling built in accordance with my improvement and showing the several parts and ropes thereof in their distended positions, as though embracing a load of hay; and Fig. 2, a side view showing the parts drawn into the position assumed when pressing the hay.

The sling is composed of the cross-rail 1 and the end rails 2 and 3. The first-named rail is provided with an upright 4, which serves as an anchor when the device is being operated, and sling-ropes 5 and 6 connect the cross-rail with the end rails, and the ends of these ropes are secured to the rings 20, by means of which they are connected to the compressing-ropes 7, the latter having hooks 8 for engagement with said rings. The ropes 7 pass upward and over the pulleys 10 of the double sheave-block 11 and then downward and are secured to a ring 12, which may be attached to the anchor by the hook 14, and the sheave-block in turn is supported by the chain 15, which passes upward to any suitable elevating device, such as a windlass or blocking-tackle. The ropes 6 have attached to their inner ends the eyes 16, which are secured to the cross-rail 1 by the pins 17, which latter are pivoted to the yokes 18 and are held parallel with the cross-rail by the swinging latches 19. These latches have connected thereto the ropes 21, which pass through the ring 22 and are in turn connected to the guy-rope 23, the latter passing upward within easy reach of an operator.

In practice one of my improved slings is placed upon the rack of a wagon to be loaded, and after a sufficient quantity of hay or other material has been loaded thereon to form a sufficient bundle or bale another of my improved slings is then placed upon the top of this material, and a like quantity of said material is loaded thereon, and this may be continued until the wagon is fully loaded, or where the load is not greater than is desired to be made into a single bale but one of my slings may be used.

In placing my improved sling upon a wagon the anchor is permitted to protrude above the upper surface of the load in order that the ring 12 may be attached to the hook 14 when it is desired to compress the material upon the wagon.

When the hay is to be unloaded or elevated, the ring 12 is engaged with the hook 14, when by drawing upon the hoist-chain the compressing-ropes are drawn upward with a tension equal to the force exerted by the weight of the hay and sling, and as the sheave-block 11 is anchored to the upright 4 it will be seen that the draft upon the compressing-ropes will cause the ends of the sling-ropes to move toward each other, and this in connection with the pressure that the compressing-ropes will exert will reduce the bulk of the hay, and thus greatly facilitate the elevating and storing thereof.

When the hay has been drawn into its most compact form, it may be secured in this position by engaging the hook 24 upon the short chain 25 with the opposite ring 20, and when this has been accomplished the ring 12 may be disengaged from the anchor and the hay then elevated. The sheave-block can be drawn back and, when provided with a hook, made to engage with the chain 25, when the bundle

can be still further elevated. After a bundle of hay has been thus elevated and it is not desired to leave it in bale form the sling may be removed therefrom by drawing upon the guy-rope 23 with sufficient force to swing the latches 19 and release the pins 17, thereby releasing the sling-ropes 6 from the cross-rail and permitting the removal of the sling.

While I have shown a rigid upright to which the sheave-block is anchored, it is obvious that this might be replaced by a chain or rope, the only use of said anchor being the holding into position of the sheave-block, whereby the shape of the hay after being compressed is determined.

Other slight modifications might be made in this construction without departing from the spirit of my invention.

What I claim as new and useful is—

1. In a compressing device, a cross-rail, an anchor secured to said cross-rail, end rails, sling-ropes attached to the cross-rail and passing through the end rails, compressing-ropes attached to the sling-ropes, a sheave-block through which said compressing-ropes pass, and means for attaching the last-named ropes to the anchor, as specified.

2. In a compressing device, a cross-rail, an anchor extending vertically therefrom, sling-ropes attached to the cross-rail, compressing-ropes adapted to be attached to said sling-ropes, a sheave-block having journaled therein two pulleys in the same plane, said block adapted for attachment to or detachment from the anchor, means for elevating said block, and a chain terminating in a hook attached to one end of the sling-ropes and adapted for attachment to or detachment from the other end of the sling-ropes, substantially as and for the purpose set forth.

3. The herein-described combination of a cross-rail, sling-ropes attached thereto, end rails through which said ropes pass, rings to which the ends of said ropes are attached, compressing-ropes attached to said rings, an anchor projecting upward from the cross-rail, a ring carried by the compressing-ropes for engagement with a hook upon said anchor, a sheave-block through which the compressing-ropes pass, and an elevating-chain, substantially as shown and described.

4. The herein-described combination of a cross-rail 1, an anchor projecting upward therefrom, pins 17 pivoted to the cross-rail, latches 19 adapted to engage said pins, eyes 16 for engagement with said pins, sling-ropes 6 attached to said eyes, sling-ropes 5 attached to the cross-rail, end rails 2 and 3 through which the sling-ropes pass, rings 20 attached to the ends of the sling-ropes, compressing-ropes 7 for drawing the sling-ropes toward each other, a ring 12 attached to said ropes, means for connecting said ring to the anchor, a sheave-block through which the compressing-ropes pass, an elevating-chain 15, ropes 21 attached to the latches, and a rope 23 for drawing upon the ropes 21 to release the pins 17 from the latches, substantially as and for the purpose set forth.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

HENRY L. FELL.

Witnesses:
S. S. WILLIAMSON,
HELEN F. BUSH.