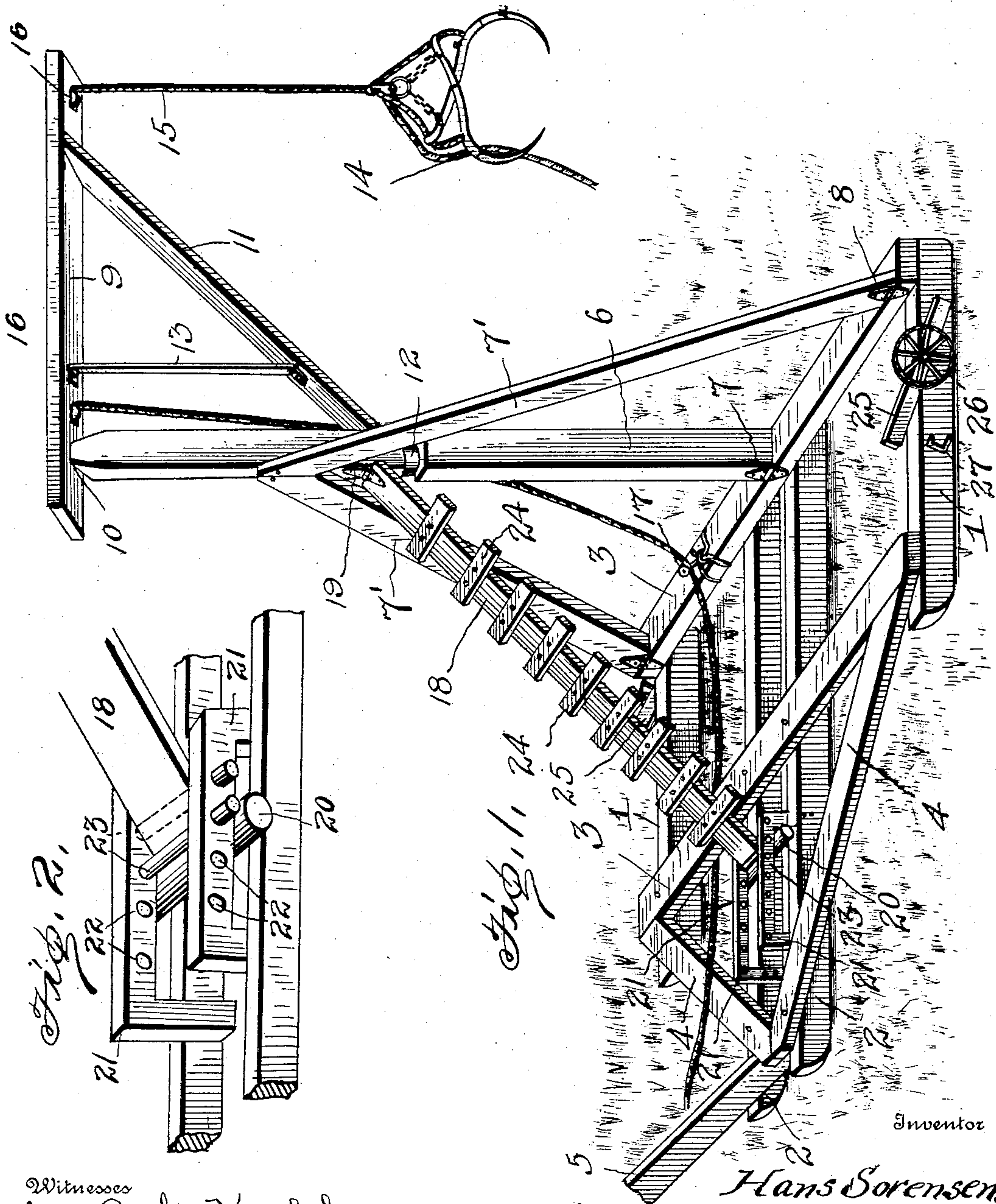


No. 738,080.

PATENTED SEPT. 1, 1903.

H. SORENSEN.
HAY LOADER OR STACKER.
APPLICATION FILED FEB. 19, 1903.

NO MODEL.



Witnesses
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HANS SORENSEN, OF GRAND ISLAND, NEBRASKA.

HAY LOADER OR STACKER.

SPECIFICATION forming part of Letters Patent No. 738,080, dated September 1, 1903.

Application filed February 19, 1903. Serial No. 144,122. (No model.)

To all whom it may concern:

Be it known that I, HANS SORENSEN, a citizen of the United States, residing at Grand Island, in the county of Hall and State of Nebraska, have invented certain new and useful Improvements in Hay Loaders or Stackers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to hay loaders or stackers, and has for its object to provide a transportable apparatus of this character which is simple of construction, comparatively inexpensive of production, and adapted to be easily operated to load or stack the hay and to be readily adjusted to suit the character of the ground where the operation of loading or stacking is to be carried on.

With this object in view the invention consists in certain novel features of construction, combination, and arrangement of parts, which will be hereinafter fully described and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 represents a perspective view of a hay loader or stacker constructed in accordance with my invention. Fig. 2 is a similar view of a fragment of the frame and brace, showing the means for adjustably securing the brace to the frame.

In carrying my invention into practice I provide a supporting-frame composed of side beams or sills 1 and intermediate beams 2, connected by transverse beams 3. The side beams 1 are shorter than the beams 2 and are connected thereto by divergent braces 4, whereby a strong and durable construction of frame is provided. A draft-tongue 5 is designed to be secured to the forward ends of the central beams 2 in any approved manner.

Rising from the rear cross-beam 3 is a vertical post 6, which is hinged to said beam, as shown at 7, to swing in a forward direction, and connected at their upper ends to this post are inclined braces 7', which are hinged, as at 8, in like manner to the rear beam 3 and serve to provide a stable support for the post 6. A swinging arm or boom 9 is mounted upon a pivot 10 upon the upper end of the post 6 and is adapted to swing in a horizontal plane from

a position centrally and in rear of the post 6 to a position transversely of the frame and on either side thereof. This arm 9 is reinforced by a brace 11, connected to a collar 12, which embraces the post 6 and permits said brace to swing with the arm, and by a rod 13 connecting the inner end of the arm with the inner end of said brace.

A hay fork or grapple 14 is suspended from the operating-rope 15, which passes forwardly over pulley 16 on the arm 9, thence downward through an opening in the brace 11, and finally around pulley 17 to the front of the frame. In operation it will be understood that after the fork or grapple 14 receives its load the rope 15 is drawn upon to elevate the same and thence swing the arm 9 to move the load to the point of deposit, after which the arm is swung back to the position shown in full lines to bring the grapple into place to receive the succeeding load.

In order to maintain the post 6 in a perpendicular position when the frame rests upon a hillside or inclined surface, I provide an adjustable brace 18, which is hinged at 19 at its upper rear end to the post and is provided at its lower forward end with a cross-piece 20. This cross-piece 20 slides longitudinally on the frame in a guideway formed by a pair of spaced bars 21, bolted or otherwise secured to the beams 2, said bars being projected a slight distance above the surface of said beam to form a space or passage in which the cross-piece is fitted to slide, the bars holding said cross-piece from upward movement. The bars 21 are provided along their length with a series of registering apertures 22, through which bolts 23 are adapted to be passed, one bolt in front and the other in rear of the forward end of the brace 18, to hold the latter against movement in either direction. By this construction it will be apparent that when the frame rests upon an inclined surface by adjusting the brace 18 the post 6 may be brought to a vertical position and held in such position by the brace and the applied bolts 23. The brace 18 is provided with cross-pieces or rounds 24, whereby it is adapted to serve as a ladder upon which the operator may ascend to have convenient access to the arm 9 and grapple-controlling devices carried thereby.

Hinged or pivoted at one end to the side beams 1 are vertically-swinging bars or levers 25, carrying supporting-wheels 26. These bars or levers when elevated are adapted to hold the wheels 26 out of contact with the ground, so as to allow the frame to rest upon a secure foundation for operation. When the bars 25 are depressed to a horizontal position, the wheels 26 are moved below the plane of the frame and brought into contact with the ground, thereby elevating the frame, so that it may be transported on said wheels. The bars 25 are adapted to be held in horizontal position by catches or other suitable fastenings 27 upon the beams 1. This construction permits the frame to be readily transported on the wheels 26 to the place where the stacking or loading is carried on and then to be dropped down to rest squarely upon the surface of the ground.

From the foregoing description, taken in connection with the accompanying drawings, the construction, mode of operation, and advantages of my invention will be readily apparent, it is thought, without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention.

Having thus described my invention, what

I claim as new, and desire to protect by Letters Patent, is—

1. In a hay loader or stacker, the combination of a supporting-frame having a guideway, a post hinged to the frame and supporting the fork-operating devices, a brace hinged at one end to the post and provided at its opposite end with a cross-piece sliding in said guideway, and means for securing the latter-named end of the post at any point along the guideway, substantially as described.

2. In a hay loader or stacker, the combination of a supporting-frame having a guideway, formed by spaced members secured to the frame and provided with registering apertures, a post hinged to the frame and supporting the fork-operating devices, a brace hinged at one end to the post and provided at its opposite end with a cross-piece sliding in said guideways, and fastening pins or bolts adapted to be passed through said openings in front and rear of the post to secure the latter at any point along the guideway, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HANS SORENSEN.

Witnesses:

J. H. JONES,

I. R. ALTER, Jr.