

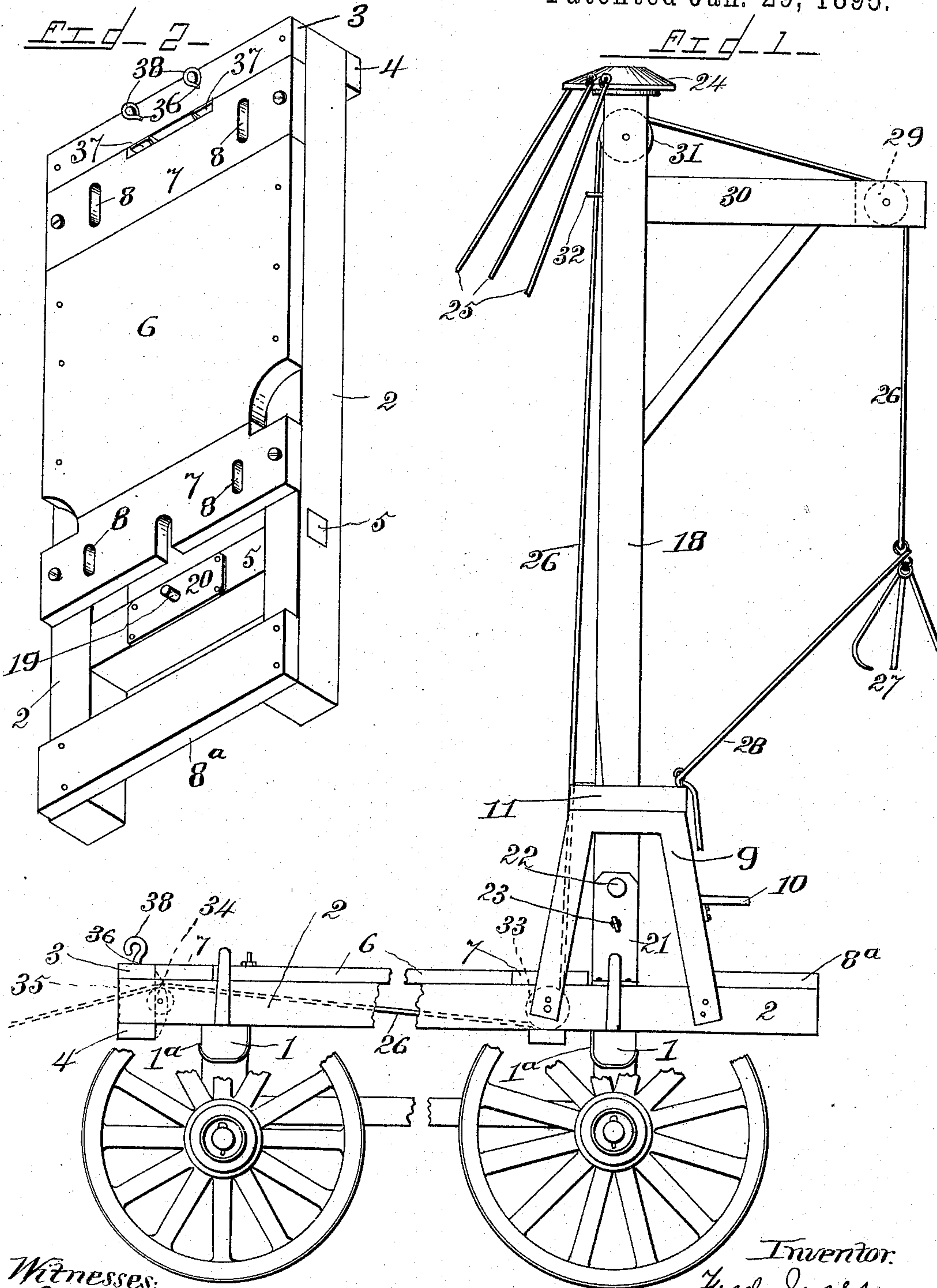
(No Model.)

2 Sheets—Sheet 1.

F. JONES.
HAY LOADER AND STACKER.

No. 533,359.

Patented Jan. 29, 1895.



Witnesses:
Edwin S. Clarkson
W. L. S. S. S. S.

Inventor:
Fred Jones
By C. J. Bell
Att'y.

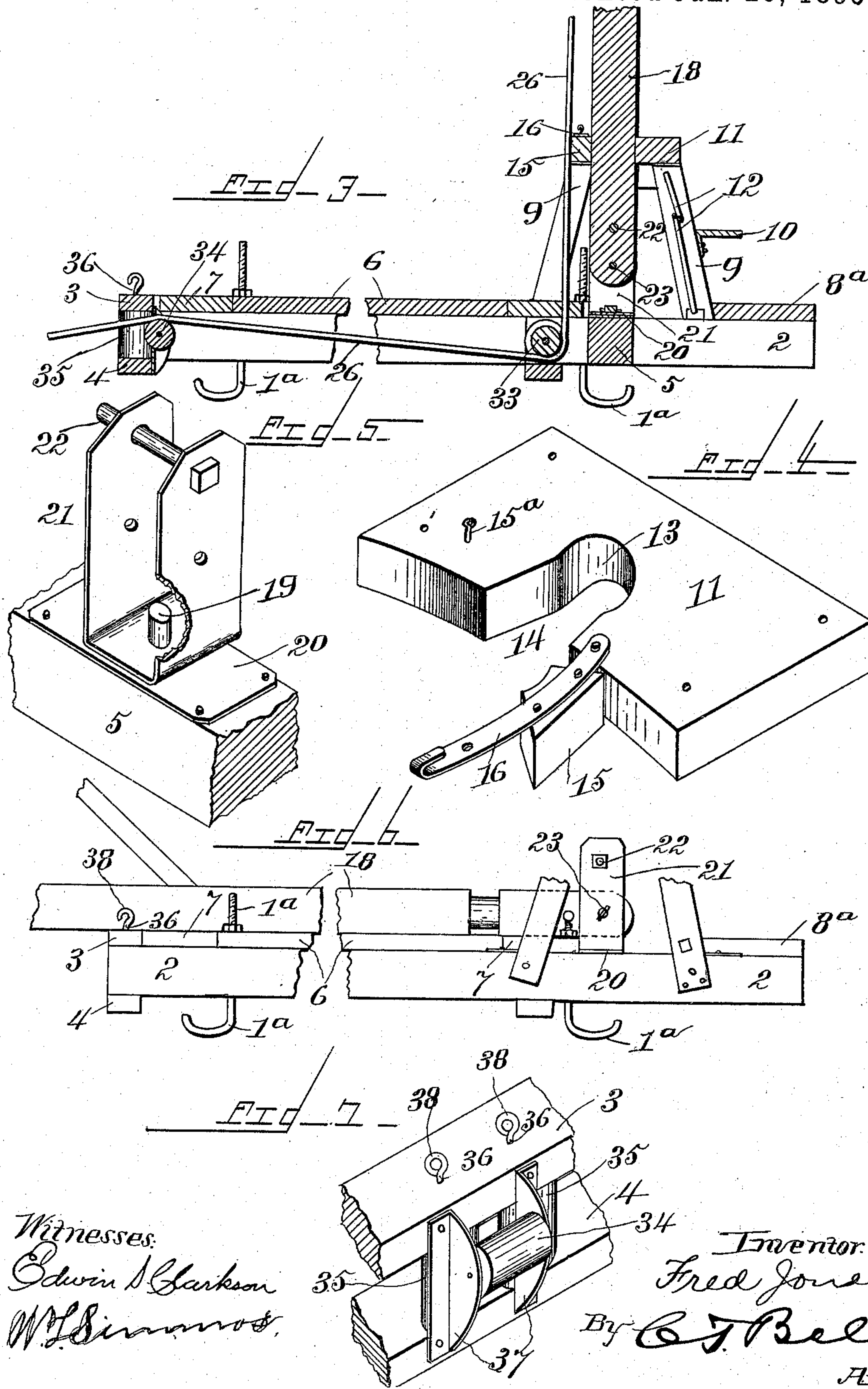
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UNITED STATES PATENT OFFICE.

FREDERICK JONES, OF WOODLAND, MINNESOTA.

HAY LOADER AND STACKER.

SPECIFICATION forming part of Letters Patent No. 533,359, dated January 29, 1895.

Application filed July 12, 1894. Serial No. 517,316. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK JONES, a citizen of the United States, residing at Woodland, in the county of Wright and State of Minnesota, have invented certain new and useful Improvements in Hay Loaders and Stackers, of which the following is a specification.

This invention relates to the class of hoisting, and particularly to a hay loader and stacker, and the object of the invention is to provide a simple, cheap and durable loader and stacker.

A further object of the invention is to provide a folding loader and stacker to be set upon a wagon, and detachably secured thereto by simple and effective means.

A still further object of the invention is to provide a loader and stacker adapted to be folded together when transporting it, or when it is not in use.

To this end, the invention consists in the novel construction and arrangement of parts, and essentially in the means for folding.

In the accompanying drawings forming part of this application: Figure 1 is a side elevation of a wagon, partly broken, with my improved loader and stacker fastened upon it, also partly broken. Fig. 2 is a perspective view of the loader and stacker bed. Fig. 3 is a sectional view of the loader and stacker, partly broken away. Fig. 4 is a perspective view of the top portion of the stile, with the guide slot or mouth open. Fig. 5 is a perspective view of the U shaped pivot bracket, and its plate having a pivot. Fig. 6 is a side elevation of the loader and stacker folded, and partly broken away. Fig. 7 is a perspective view of the front cross beams partly broken away, showing the vertical rollers between the beams, and the angle plates secured to the beams and supporting the horizontal roller.

The same reference numerals denote the same parts throughout the several figures of the drawings.

The wagon having the usual bolsters 1, forms no part of the invention, as the loader and stacker can be attached to a farm wagon of any character, by the hook rods 1^a.

The bed frame of the loader and stacker is composed of side beams 2, joined together at their front ends by upper and lower cross

beams 3 and 4, respectively; and near their rear ends by the cross beam 5.

The loader and stacker bed is composed of the main portion 6, attached to each of the beams 2, in any suitable manner, but preferably by securing it upon the top of them; and at the rear and front portion of the portion 6, are boards 7, detachably secured to the said beams 2. These removable boards 7, protect the pulleys and ropes under the bed from waste hay or other refuse which would otherwise fall through and retard or impair the operation of pulleys and the ropes. The said boards have hand holes or slots 8, for convenience in removing them to get at the said pulleys or ropes, as may be desired. Upon the rear end of the beams 2, is secured a platform 8^a, and upon the rear of the stile 9, is formed a similar step or platform 10. These platforms taken together with the top 11, of the stile, afford convenient standing places for the operator of the derrick. This stile top 11, is supported by suitable legs from the beams 2, which are provided with braces 12. The front of the said top is grooved out or cut away so as not to interfere with the draft cable or the load upon the bed. The top 11, has a central circular opening 13, which has a flaring mouth or slot 14, extending to the said front edge of the top. This mouth 14, is open or closed as desired by means of the block 15, pivoted to one edge of the mouth by means of the pivot arm 16, which is made fast at its free end to the other edge of the mouth by the pin 15^a when it is desired to keep the mouth closed. The derrick consists of the upright 18, and the arm 30, projecting from the upright a sufficient distance not to interfere with any other parts of the machine, while in operation. The upright 18, of the derrick sits above the pivot 19, of the plate 20, secured upon the cross beam 5, where it is held by the U shaped bracket 21, through which the said pivot projects, and the bolt 22. The said upright is further secured in the bracket 21, by means of the pivot pin 23. The upright extends through the opening 13, and is locked therein by the block 15. The top of the upright 18, is pivoted in the plate 24, having apertures to receive one end of the guy ropes 25, the other ends being made fast to the ground in any suitable manner, but preferably by pegs or

short posts driven into the ground to which the ends are secured. To the free end of the draft cable or rope 26, is secured the grapple 27, and to the grapple is attached the guide rope 28.

The draft cable 26, runs over the pulley 29, in the end of the derrick arm 30, pulley 31, in the top of the upright 18, down the front of the latter through one or more guides 32, around the pulley 33, between the beams 2, over the horizontal roller 34, and between the vertical rollers 35. The rollers 35, are journaled between the front cross beams 3 and 4 upon the rods 36, which have enlarged heads for the purpose hereinafter disclosed, and the roller 34, is journaled in the angle plate hangers 37, secured to the said top and bottom front cross beams.

In order to fold the machine when not in use, the bolt 22, is removed, the mouth in the stile top 11, is opened, the top of the derrick thrown forward, while its lower end is retained in the bracket 21 by the pivot pin 23, so that said derrick top lies between the rods 36, and is held there by the heads 38, of the said rods 36. This manner of folding is accomplished without displacing or detaching any of the guy ropes, the draft cable, or guide rope from the machine; and the slack of said ropes may be wound about the parts to assist in keeping them together, but this however is not necessary.

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

1. The combination with a loader and

tacker having a revoluble pivoted derrick, of the U shaped bracket, the pivot pin and bolt engaging the bracket and derrick, and the pivot projecting through the bottom of the bracket, whereby the bracket is held in operative or folded position, as set forth.

2. The combination in a hay loader and stacker, the derrick, the U shaped bracket, the pivots upon which the derrick is revolved and folded respectively, and the stile for supporting the derrick provided with a top having a mouth in one edge adapted to be opened and closed as desired, for the purpose set forth.

3. The combination with a hay loader and stacker having a revoluble folding derrick, of the stile provided with a top having a central opening, in which the derrick is supported, said top having a flaring mouth, and the block pivoted to the top for opening and closing the mouth, as set forth.

4. In a hay loader and stacker, the bed frame, the vertical rollers journaled between two of the bed frame beams, the angle plates or hangers secured to the said beams, and the horizontal roller journaled in the hangers, combined with the revoluble folding derrick, and its draft cable or rope, supported beneath the bed and between the vertical rollers by the horizontal roller, substantially as set forth.

In witness whereof I hereunto set my hand in the presence of two witnesses.

FRED. JONES.

Witnesses:

J. SINGINGER,

J. H. FERRELL.