

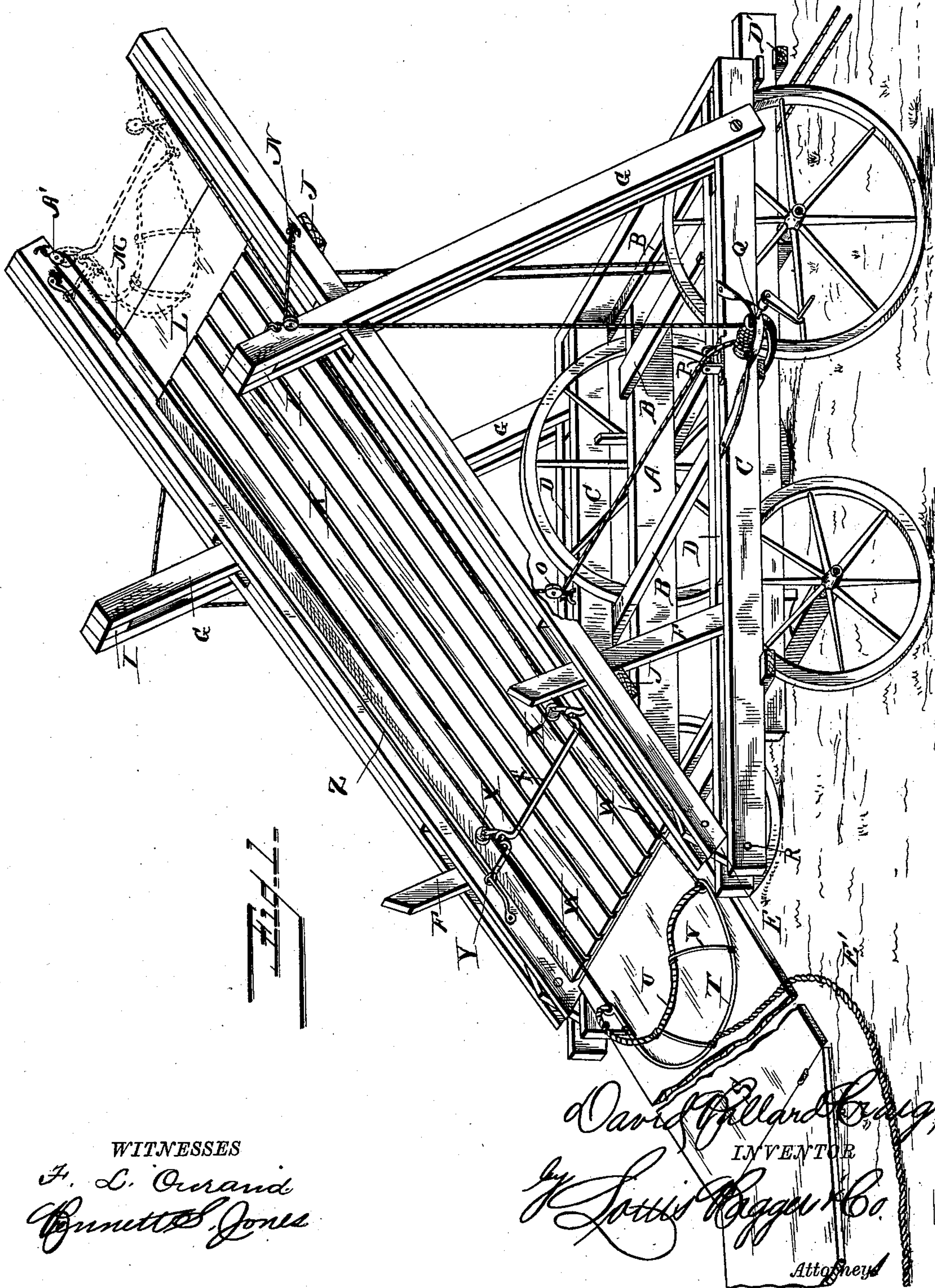
(No Model.)

2 Sheets—Sheet 1.

D. B. CRAIG.
HAY STACKER.

No. 365,332.

Patented June 21, 1887.



WITNESSES

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David Ballard Craig
INVENTOR

By Louis Rogers & Co.
Attorneys

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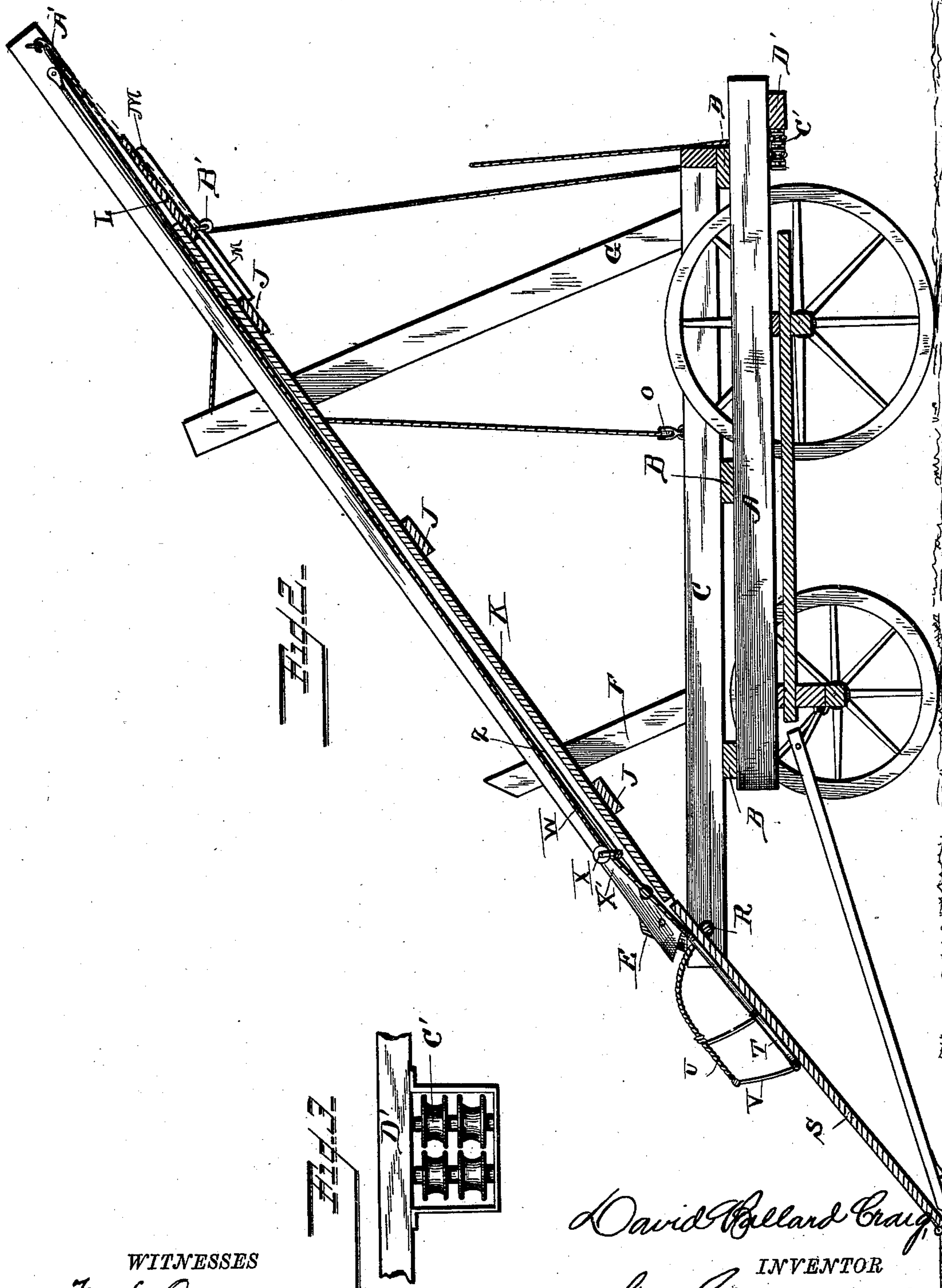
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UNITED STATES PATENT OFFICE.

DAVID BALLARD CRAIG, OF EUREKA, KANSAS.

HAY-STACKER.

SPECIFICATION forming part of Letters Patent No. 365,332, dated June 21, 1887.

Application filed October 12, 1886. Serial No. 216,021. (No model.)

To all whom it may concern:

Be it known that I, DAVID BALLARD CRAIG, a citizen of the United States, and a resident of Eureka, in the county of Greenwood and State of Kansas, have invented certain new and useful Improvements in Hay-Stackers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to 10 which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved stacker adjusted to the position it occupies when a stack is nearly finished, the carrier being shown in its lowered position in full lines and in its raised position in dotted lines. Fig. 2 is a vertical longitudinal section 20 of the same, and Fig. 3 is a detail view showing the set of pulleys attached to the bed frame.

Like letters of reference indicate corresponding parts throughout the figures.

My invention has relation to hay-stackers; and it consists in the improved construction and combinations of parts constituting the same, as will be hereinafter fully set forth and claimed.

In the accompanying drawings, A represents the bed-frame, which rests upon the wagon, and is similar to the bed-frame of an ordinary hay-rack. Upon this are secured cross-pieces B for the support of the base-frame C of the stacker. The side rails of this frame 35 are each composed of three strips placed on edge and bolted together, the middle strip, D, being shorter than the outside pieces, thus leaving spaces between said outside rails, in which are secured the lower ends of the hinges E, stays F, and the inner strips of the guides G. The side rails of the adjustable frame are constructed similar to those of the base-frame, spaces being left between the segments of the middle strip for the accommodation of the 45 hinges, stays, and the inner strips of the guides. The hinges consist of simple strips of wood or iron, each pivoted by one end to the forward end of the base-frame and by the other to the same end of the adjustable frame. 50 The stays are pivoted by their lower ends in the side rails of the base-frame, and by passing up

through the corresponding rails of the adjustable frame keep said frame from swaying side-wise. Each of the two guides consists of two strips secured together upon a block, I, at their 55 upper ends, and pivoted at their lower ends to the outside strip of each side rail of the base-frame, said outside strip being placed between the strips of the guide, and each outside strip of the adjustable frame being adapted to 60 slide between the strips forming the respective guides.

The adjustable frame is provided with cross-pieces J upon its under side, on which rests the slat floor K. At the upper end of said 65 floor, and adapted to slide under the same, is an extension, L, which is adjustable in ways M, secured to the side rails of the adjustable frame. This extension is for the purpose of lengthening the floor of said frame as the lat- 70 ter is raised, thereby providing for dropping the hay onto the same portion of the stack at whatever degree said frame is elevated.

To raise the adjustable frame as the stack increases, ropes are secured thereto at N, and 75 pass, respectively, through pulleys secured at the upper ends of the guides. Thence one of the ropes passes to a pulley, O, on the base-frame, across said frame and over a roller, P, to the windlass Q. The other rope passes di- 80 rectly down from the top of the guide to said windlass.

At the front end of the base-frame is hinged, to a bar, R, spanning said end, a jointed ground-apron, S, its two parts being hinged together, 85 so that the outermost one may rest flat upon the ground to receive the hay brought to the stacker, the other part serving as an approach to the floor of the adjustable frame.

The carrier consists of a curved rod, T, and 90 a rope, U, attached to the ends of the rod and supported at the upper ends of wires V, secured to said curved rod. To the ends of said carrier are attached the hoisting-ropes W. These pass through pulleys X, attached to the 95 guide-bar X', upon whose ends are formed swivels Y, by means of which said bar slides upon the rods Z, secured by their ends to the inner faces of the side rails of the adjustable frame. From said pulleys the hoisting-ropes 100 pass through pulleys A' upon the outer ends of the adjustable frame, and back under said

frame through pulleys B', attached thereto, thence down through a set of pulleys, C', secured to the inner edge of the cross-piece D', which is bolted to the under side of the back end of the bed-frame. This set of pulleys comprises four sheaves journaled in pairs side by side, so that said hoisting-ropes may each have two sheaves, that both may be passed out to the horses at either side of the stacker, as the lay of the ground may require. (See Fig. 3.)

In operating the stacker the carrier is placed around the hay upon the ground apron and the team started. The carrier with its load slides along up the apron till its front ends strike the guide-bar; then said bar moves with it till the summit of the adjustable frame is reached. Here the guide-bar aids in supporting the front end of the carrier, while the hay drops down onto the stack, the back end of said carrier resting on the end of the floor of said frame. When the carrier is freed of its load, it is hauled back to the ground-apron by the cord E', connected thereto.

In moving the stacker, the adjustable frame is lowered to rest upon the base-frame, and the apron folded and laid over onto the adjustable frame.

Having thus fully described my invention, I claim—

1. In a hay-stack, the combination of an inclined frame, ways upon its upper end, an extension adapted to slide in said ways, a carrier, and the hoisting-ropes.

2. In a hay-stack, the combination of a base-frame, an adjustable frame, rods secured upon the side rails of said adjustable frame, a guide-bar, the ends of which are adapted to move upon said rods, a carrier, and the hoisting-ropes.

3. In a hay-stack, the combination of an adjustable frame, rods secured upon the side rails of said frame, a guide-bar having swivels at its ends and pulleys intermediate its ends, a carrier, and the hoisting-ropes.

4. The combination, with the base-frame and adjustable frame, whose side rails are each formed of three pieces bolted together side by side, the middle piece being in sections, of the single-strip hinges and stays, and the guides, each formed of two strips secured together upon a block at their upper ends, and pivoted at their lower ends to the outside pieces of the side rails of the base frame, the outside pieces of the side rails of the adjustable frame being adapted to slide between the strips forming said guides.

5. The carrier consisting of a curved rod, vertical wires secured to said rod, and a rope secured to the ends of said rod and to the upper ends of said wires.

6. In the within-described stacker, the combination of the adjustable frame, rods secured to the sides of the rail thereof, the sliding guide-bar, the carrier consisting of a curved rod, vertical wires, and a rope connected to said rod and wires, and the hoisting-rope connected to the front ends of said carrier and passing through pulleys upon said guide-bar.

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

DAVID BALLARD CRAIG.

Witnesses:

G. W. KIDD,
S. A. MARTIN.