No. 752,745. PATENTED FEB. 23, 1904.

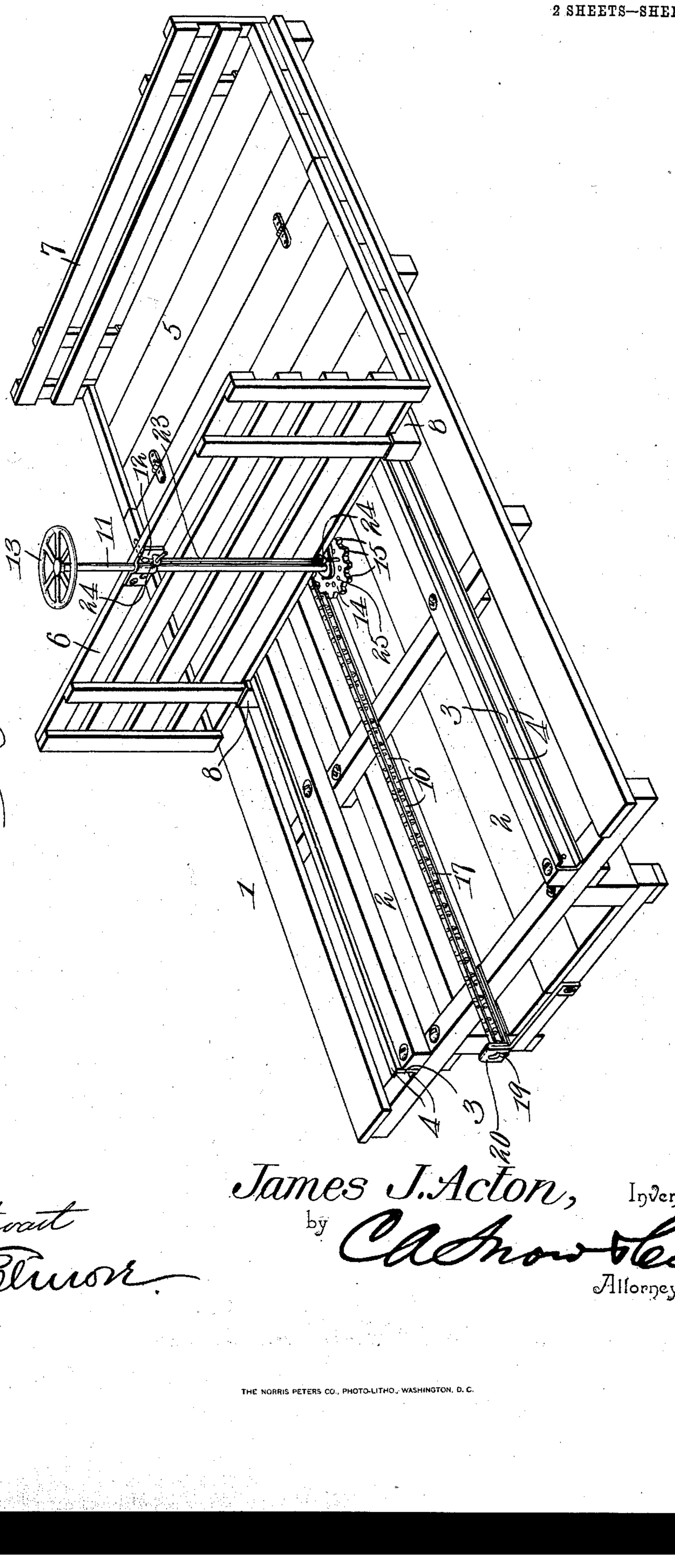
J. J. ACTON.

HAY RACK ATTACHMENT.

APPLICATION FILED NOV. 30, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.



Witnesses
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F. S. Elmore.

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NO MODEL. 2 SHEETS—SHEET 2.

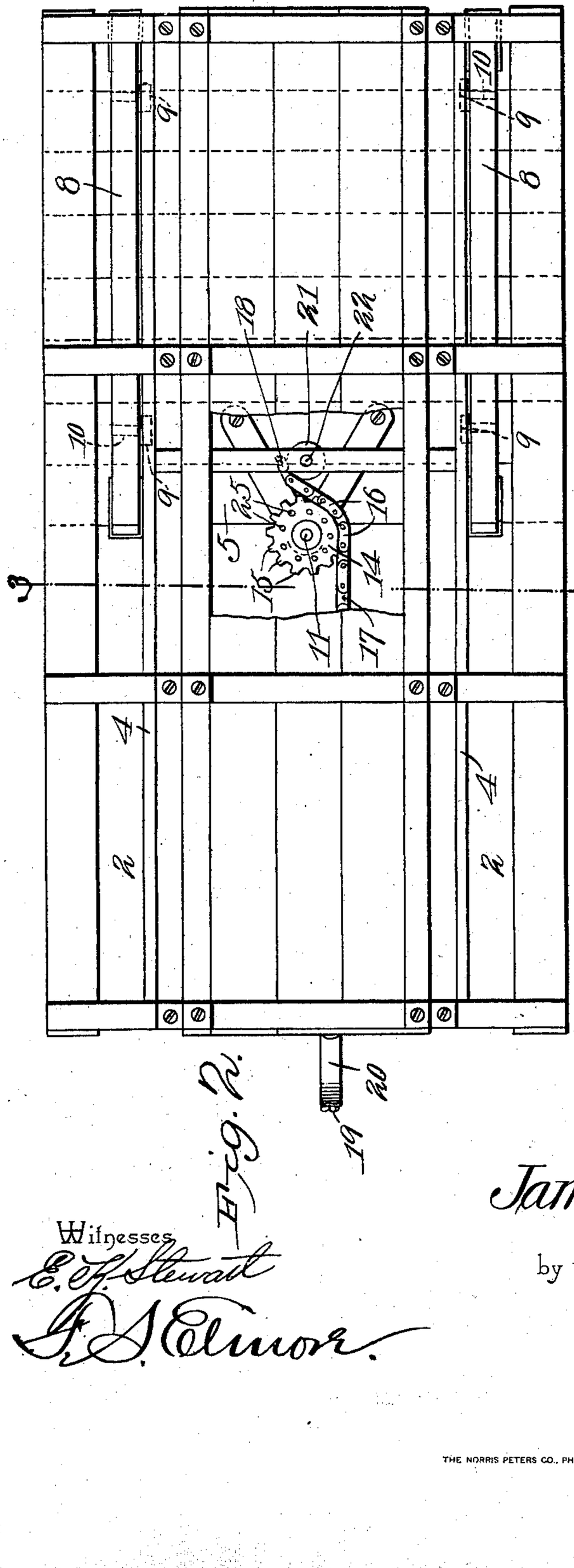

Fig. 2.

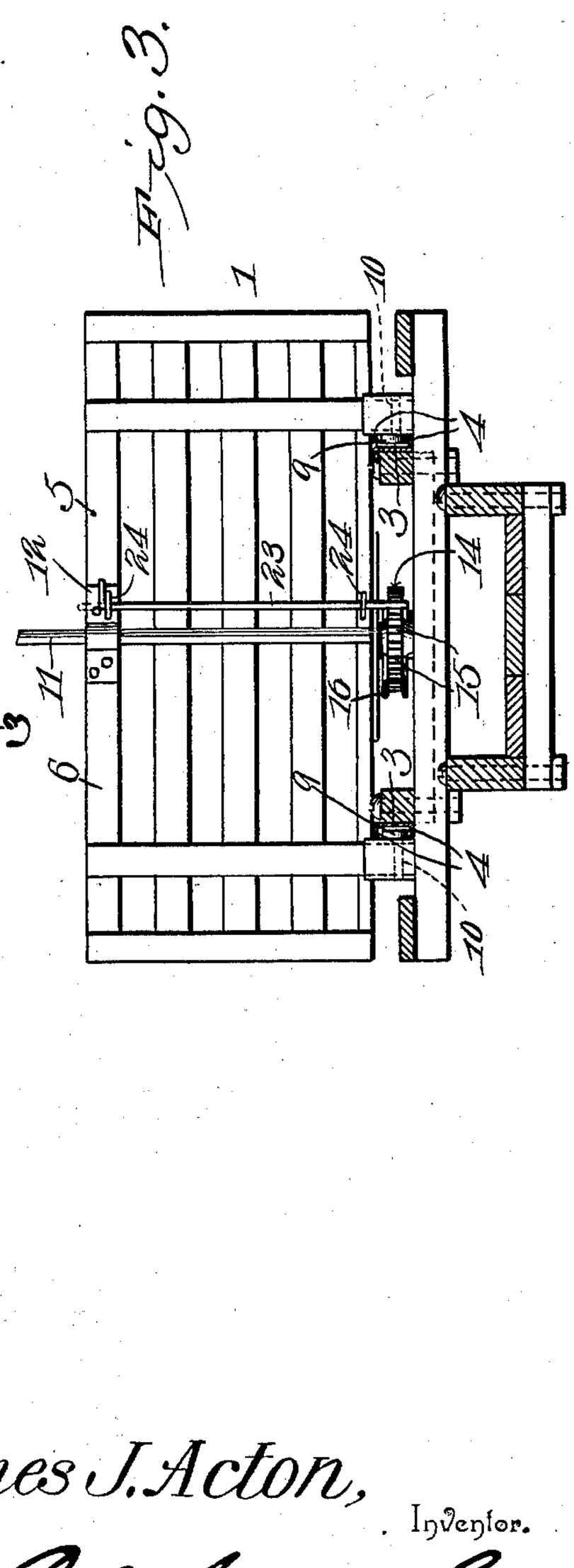

Fig. 3.

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No. 752,745. Patented February 23, 1904.

UNITED STATES PATENT OFFICE.

JAMES J. ACTON, OF ELDON, IOWA.

HAY-RACK ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 752,745, dated February 23, 1904.

Application filed November 30, 1903. Serial No. 183,200. (No model.)

To all whom it may concern:

Be it known that I, JAMES J. ACTON, a citizen of the United States, residing at Eldon, in the county of Wapello and State of Iowa, have invented a new and useful Hay-Rack Attachment, of which the following is a specification.

My invention relates to hay-racks, and has for its objects to provide the same with a simple inexpensive attachment in the form of a carrier or platform adapted to travel and be easily propelled from end to end of the rack longitudinally and designed in practice to be positioned at one end of the rack for the reception from the loader of a part of the load which the rack is to receive and to then be moved with the contained hay to the other end of the rack in order that the remainder of the load may be received directly upon the first-mentioned end of the body of the rack, thus obviating the necessity of pitching the load in small quantities from one end of the rack to the other, and consequently decreasing the number of attendants employed.

To these ends the invention comprises the novel features of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a perspective view of a rack-body embodying my invention. Fig. 2 is a bottom plan view of the same. Fig. 3 is a transverse section on the line 3 3 of Fig. 2.

Referring to the drawings, 1 designates the body of the rack, which may be of the form herein shown or of other preferred construction and of any suitable material, inasmuch as the same, except as hereinafter specified, constitutes no part of my invention.

Bolted or otherwise secured to the rack-body is a pair of spaced tracks or guides 2, disposed in parallel relation and extending longitudinally of the body from end to end thereof. These tracks by preference and in accordance with my invention each consist of a wooden beam having riveted or otherwise secured to its outer vertical edge a channel bar or plate 3, presenting in cross-section a pair of vertically-spaced horizontal flanges 4, the purpose of which will presently appear.

5 designates the movable platform or carrier provided at its front and rear ends with vertically-disposed guards 6 7, respectively consisting of any suitable lattice-work, but preferably, as herein shown, of horizontal rails or slats connected by vertical cross-pieces or standards. This platform, which is made in two sections hingedly connected to permit folding for shipment or storage, has secured to its lower face a pair of longitudinal beams or rails 8, which when the carrier is in position upon the rack lie in parallelism with and each adjacent to the outer vertical edge of one of the tracks or guides 2. Each of the rails carries a pair of wheels or rollers 9, disposed upon the inner vertical face of the rail and one adjacent to each end of the latter, these rollers being adapted to seat between and travel upon the horizontal flanges 4 of the channel-plate, which, as above described, is a component part of the tracks or guides. The wheels or rollers 9 are journaled for rotation upon suitable pintles or axles 10, extending transversely through the rails 8. From this arrangement it is apparent that the carrier may travel freely and smoothly longitudinally of the rack and that the rollers which bear upon the lower flanges 4 will be prevented from accidentally escaping therefrom by the upper flanges 4, thus obviating liability of the carrier during its movements becoming displaced from the tracks.

For propelling the carrier I employ a vertical rotary shaft 11, journaled in suitable bearings 12 and provided at its upper end with an operating member, preferably in the form of a hand-wheel 13, and at its lower end with a traction member 14, preferably in the form of a sprocket-wheel having teeth 15, which engage the links 16 of a sprocket-chain 17 and adapted when the shaft is rotated to draw the carrier back and forth upon the rack. The chain 17, which is disposed in vertical edgewise position, is attached at its rear end to a vertical stud or finger 18, arising from one of the cross-bars of the rack and at its forward end by an adjustable bolt or element 19 to the vertical perforated ear of a clip 20, attached to the forward end of the rack. For maintaining the chain in operative engagement with the wheel 14 during the propulsion of the carrier I provide a pressure device or

member 21 in the form of a roller journaled for rotation upon a vertical pintle or axle 22, depending from the lower face of the platform just in rear of and in central longitudinal alinement with the wheel 14. This roller, which bears upon the outer face of the chain with respect to the traction-wheel, travels freely over said chain, but maintains the latter firmly in engagement with the traction member.

For locking the carrier against movement I provide a latching device 23, preferably in the form of a vertical longitudinally-movable rod mounted in bearings 24 and positioned adjacent to the shaft 11, whereby its lower end may be moved into and out of engagement with suitable openings 25, provided in the member or wheel 14.

From the foregoing it is apparent that when the rack is backed up to and for the purpose of receiving its load from a hay-loader the carrier may be moved to the rear of the rack and receive about one half of the entire load of the latter and then be moved forward, permitting the body of the rack to receive the other half of the load, and that when in either of said positions the carrier may be readily locked against accidental movement. It is also obvious that during such operation the carrier will travel smoothly and freely and that the traction mechanism while exceedingly strong and durable is at the same time of extremely simple construction and adapted for ready application to the rack. In attaining these ends it is to be understood that I do not limit myself to the precise details herein set forth, as minor changes may be made without departing from the spirit of the invention.

Having thus described my invention, what I claim is—

1. The combination with a hay-rack, of tracks or guides associated therewith, a chain attached to the rack, a carrier mounted for travel upon the tracks or guides, a traction member attached to the carrier and having teeth engaging the chain-links, and means for operating the member.

2. The combination with a hay-rack, of tracks or guides associated therewith, a chain attached to the rack, a carrier mounted for travel upon the guides, a traction member attached to the carrier and having teeth engaging the chain-links, means for operating the member, and a pressure device for holding the chain into engagement with the member.

3. The combination with a hay-rack, of tracks or guides associated therewith, a carrier mounted for travel upon the guides, a chain attached to the rack, a traction member connected with the carrier and having teeth engaging the chain-links, means for operating the member, and a rotary pressure-roller for maintaining the chain in engagement with the member.

4. The combination with a hay-rack, of tracks or guides associated therewith, a carrier mounted for travel upon the guides, a chain disposed vertically on edge and attached to the rack, a rotary shaft connected with the carrier, a traction member carried by the shaft and having teeth engaging the chain-links, and an operating member connected with the shaft.

5. The combination with a hay-rack, of tracks or guides associated therewith and having spaced horizontal flanges, a carrier mounted for travel upon the guides and having guide-rollers arranged between the flanges, and interengaging members carried by the rack and carrier and operable for moving the latter.

6. The combination with a hay-rack, of tracks or guides associated therewith and having spaced horizontal flanges, a carrier mounted for travel upon the guides and carrying guide-rollers arranged between the flanges, a chain attached to the rack, a traction member connected with the carrier and having teeth engaging the chain-links, and means for operating the member.

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

JAMES J. ACTON.

Witnesses:
E. L. SHORE,
E. E. NEFF.