

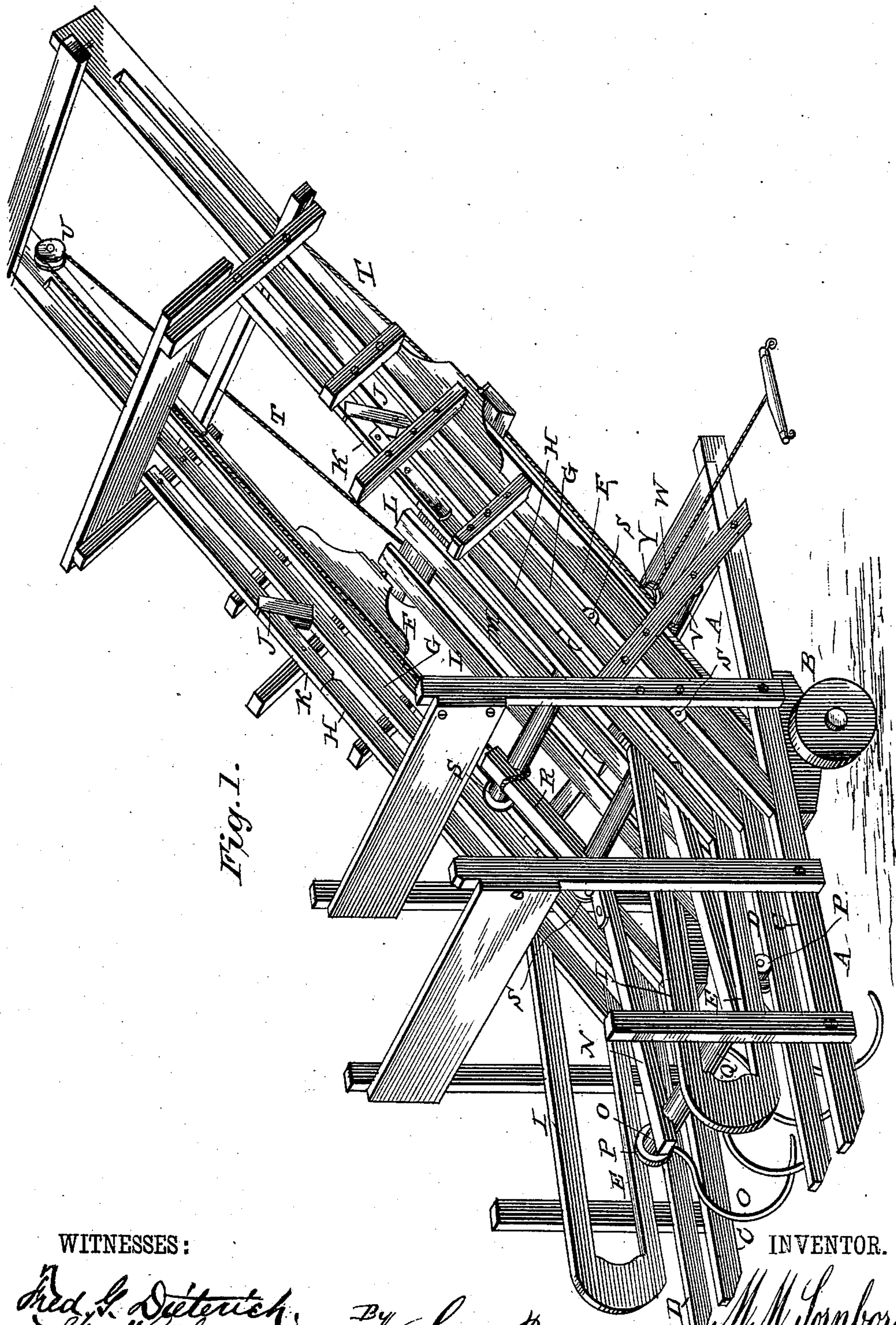
(No Model.)

3 Sheets—Sheet 1.

M. M. SORNBORGER.
HAY LOADING MACHINE.

No. 294,693.

Patented Mar. 4, 1884.



WITNESSES:

Fred L. Dietrich
Wm. Lechner

By *Louis Bagger & Co.*

INVENTOR.

M. M. Sornborger.
ATTORNEYS.

(No Model.)

3 Sheets—Sheet 2.

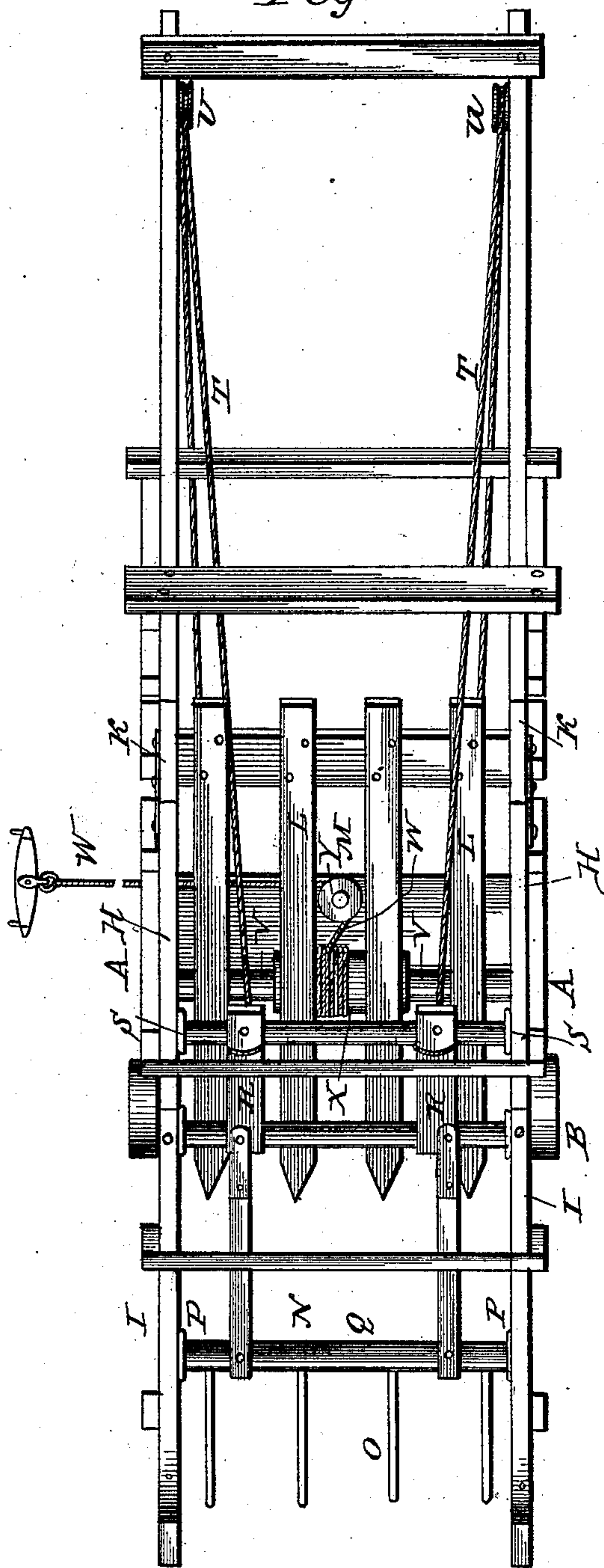
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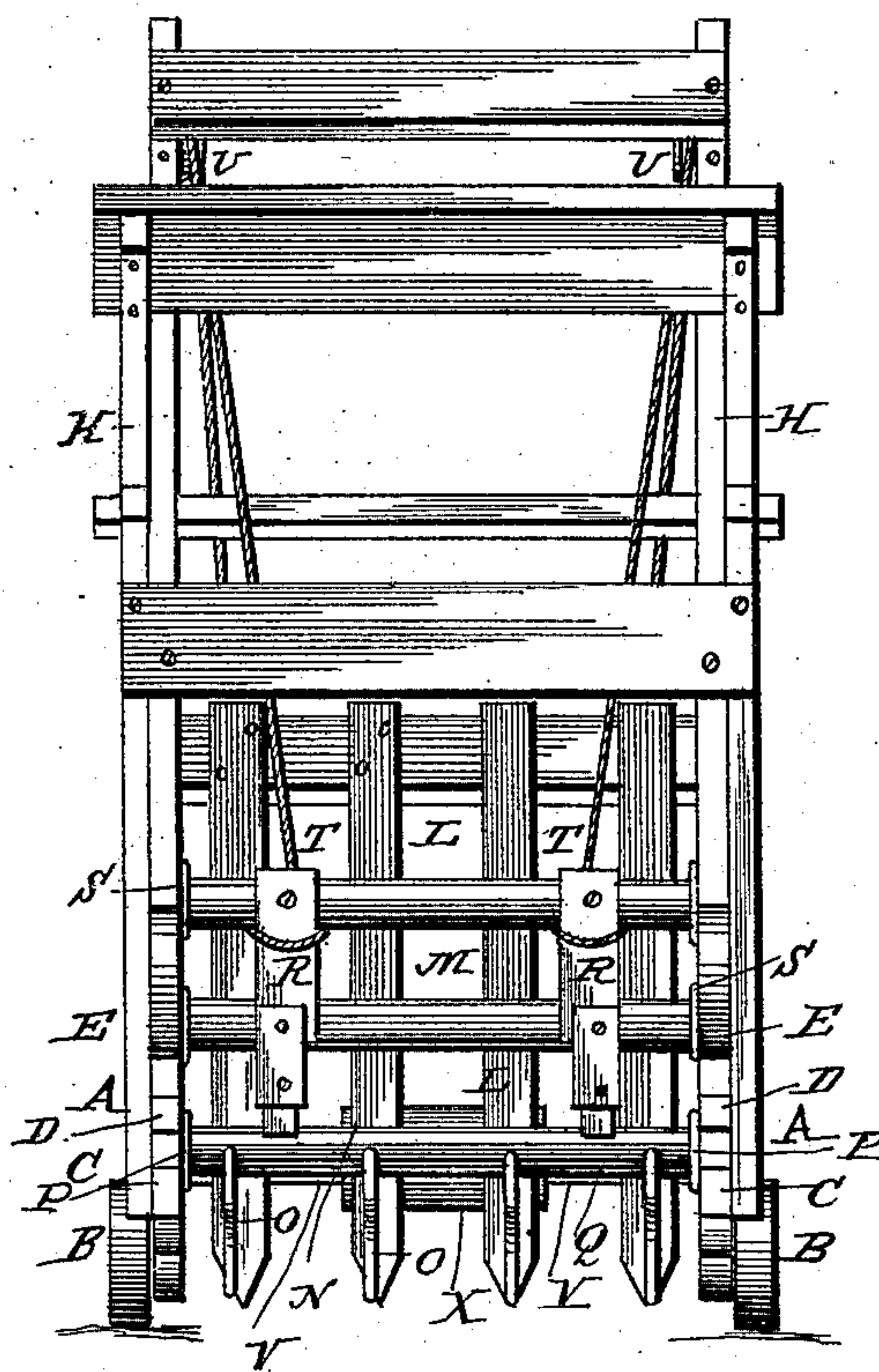
Fig. 2.



WITNESSES:

Thos. L. Dieterich
Wm. J. Fisher

Fig. 3.



Martin M. Sornborger.
INVENTOR.
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ATTORNEYS.

(No Model.)

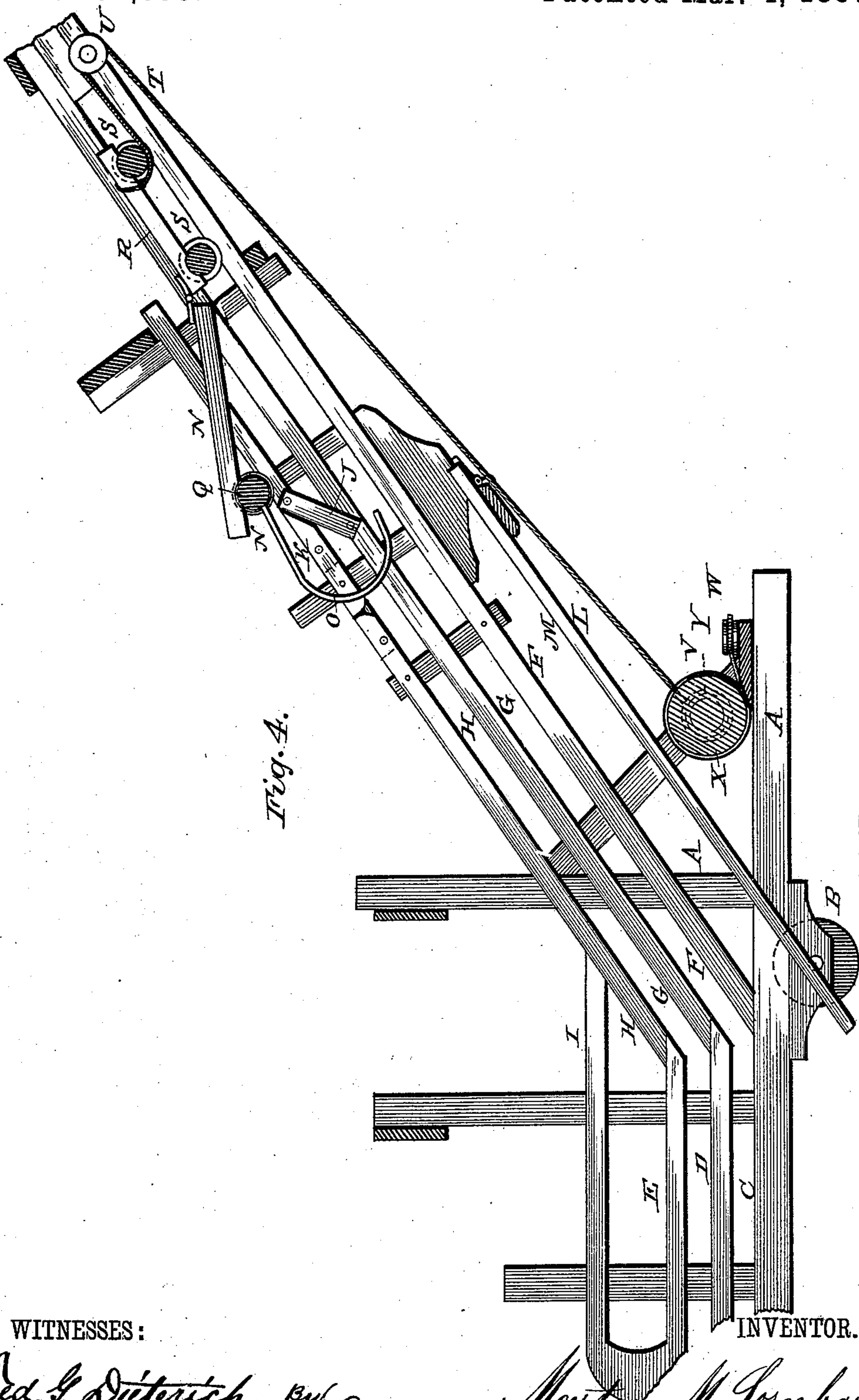
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WITNESSES:

Wm. L. Dieterich.
Wm. L. Dieterich.

By

Louis Bagger & Co.

INVENTOR.

Martin M. Sornborger.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

MARTIN M. SORNBORGER, OF MILLVILLE, CALIFORNIA.

HAY-LOADING MACHINE.

SPECIFICATION forming part of Letters Patent No. 294,693, dated March 4, 1884.

Application filed April 11, 1881. (No model.)

To all whom it may concern:

Be it known that I, MARTIN M. SORNBORGER, a citizen of the United States, and a resident of Millville, in the county of Shasta and State of California, have invented certain new and useful Improvements in Hay-Loading Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, which will enable those skilled in the art to 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 hay-loading machine. Fig. 2 is a top view. Fig. 3 is an end view, and Fig. 4 is a longitudinal vertical section.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to that class of hay-loaders which may be attached to the rear end of a wagon; and it consists in the improved construction and combination of parts of such a machine, in which the hay, after a bundle or bunch of hay has been raked together, may be drawn up and dumped into the wagon, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates a frame, mounted on wheels B, which may be attached to the rear end of a wagon. Three horizontal pairs of track-beams, C C, D D, and E E, are mounted, one above the other, upon this frame, and are continued at the forward ends of these tracks in three pairs of inclined track-beams, F F, G G, and H H, likewise one above the other. The rear ends of the upper horizontal track-beams are curved upward and form a fourth horizontal track, I I, which is open at the top, the under sides of each pair of the other track-beams forming guides for the rollers traveling upon the tracks below. The two lower pairs of track-beams extend farther upward than the upper pair, and the middle pair of the inclined track-beams are provided near the ends of the upper beams with two short inclined switch-sections, J J, which ascend from the middle track to the uppermost track, which has at the point where the short sections connect with them a hinged pair of track-sections, K K, swinging upward,

allowing rollers ascending the switch-sections to pass from the middle track to the uppermost track, while they will by their own weight fall back into position after the rollers have passed up upon the uppermost track, allowing the rollers in descending to pass down the same. A floor composed of longitudinal slats L is hinged at its upper end below the lowest track, under the point where the switches are, forming an inclined slat floor, M, running parallel with the tracks below and between them, and drags upon the ground with its lower end. A rake, N, having spring-teeth O, of the usual construction, and having rollers P upon the ends of its head Q, travels with its rollers upon the middle track, and has two or more forwardly-projecting bars, which are hinged to the rear end of a carriage-frame, R, having four (or more or less) rollers, S, which travel upon the lowest track. Two ropes or chains, T, are attached to the front end of this carriage, and pass over two pulleys, U U, journaled at the upper ends of the lowest and middle inclined track-beams, and from these pulleys pass to a horizontal transverse windlass, V, to which they are attached and around the ends of which they wind, while a rope, W, is attached to a drum, X, upon the middle of the windlass, and of a larger diameter than the same, and winds upon the same, passing over a pulley, Y, journaled upon the front end of the frame, and has a whiffletree attached to its free end, to which a draft-animal may be hitched, which, in pulling the rope, will unwind it, revolving the windlass and winding the ropes upon the ends of the same. In this manner, after a sufficient quantity of hay has been gathered by the rake, the draft-animal may be started, winding the ropes upon the ends of the windlass, which will draw the carriage and the rake upward, the ends of the rake-teeth bearing upon the upper side of the inclined slat floor, drawing the hay upward. When, now, the rollers upon the rake-head arrive to the inclined track-sections, they will ascend the same, raising the switch-sections and raising the rake, which will dump the load of hay upon the wagon, when the draft-rope may be released, and the carriage and rake will descend by its own weight, unwinding the

two elevator-ropes and winding the draft-rope, the rollers upon the rake-head traveling upon the uppermost track, holding the rake out of the way for the hay, which possibly may have remained upon the inclined slat floor or at its upper end, and traveling upon the uppermost horizontal track, passing down over the curved ends, down upon the middle track between it and the uppermost of the three tracks, when the same operation may be repeated.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination of a pair of horizontal and upwardly-inclined track-beams, a pair of horizontal and upwardly-inclined track-beams placed above the former, a pair of upwardly-inclined switch-sections leading from the latter track-beams to a track above them, a pair of horizontal and upwardly-inclined track-beams placed above the second pair, and constructed with a pair of hinged track-sections near their upper ends, resting upon the upper ends of the inclined switch-sections of the track below, a carriage having rollers at its sides traveling in the lowest track, a rake hinged to the rear end of the carriage, and having rollers at the end of its head traveling upon the middle and the upper tracks, and means for elevating it, as and for the purpose shown and set forth.

2. The combination of a triple track, horizontal at its lower end and upwardly inclined at its other end, upwardly-inclined switch-sections leading from near the end of the middle track to the upper track, hinged track-sections forming parts of the upper track, as

described, a traveling rake consisting of a carriage having rollers traveling upon the lowest track, and a rake having rollers upon the ends of its head traveling upon the middle and upper tracks, and hinged to the carriage, and an inclined slat floor hinged under the tracks at the point below the switch-sections, as and for the purpose shown and set forth.

3. A hay-loader consisting of a frame mounted upon wheels, a triple track consisting of a lower horizontal portion and an upper, inclined portion, upwardly-inclined switch-sections and hinged switch-rails leading from the middle to the uppermost track-beams, as described, a slat floor hinged under the tracks below the switch-sections, a carriage having rollers traveling upon the lowest track, a rake hinged to its rear end, and provided with rollers upon the ends of its head traveling upon the middle and upper tracks, a windlass having a drum of a larger diameter upon its middle, and journaled at the forward end of the frame, pulleys journaled at the upper ends of the inclined tracks, ropes attached to the forward end of the carriage, passing over the pulleys and winding upon the ends of the windlass, and a rope winding upon the drum of the windlass in the opposite direction to the ropes upon its ends, and having means at its end to be attached to draft-power, all constructed and arranged to operate as and for the purpose shown and set forth.

MARTIN M. SORNBORGER.

Witnesses:

H. K. SYMONDS,

CHARLES GREEN.