

993,323.

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UNITED STATES PATENT OFFICE.

JAMES R. HARRISON, OF PEORIA, ILLINOIS.

THRESHER-RACK.

993,323.

Specification of Letters Patent.

Patented May 23, 1911.

Application filed November 3, 1910. Serial No. 590,415.

To all whom it may concern:

Be it known that I, JAMES R. HARRISON, a citizen of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Thresher-Racks, of which the following is a specification.

My invention relates to thresher racks.

The object of my invention is to provide a side delivery of grain from a carrying receptacle as distinguished from an end delivery as disclosed in my pending application for patent, Serial No. 586,151.

The purpose of the invention is to accomplish a delivery of grain in position better adapted to facilitate its handling in connection with carriers delivering to thresher feeders.

My invention consists in the construction of a rack adapted for side delivery therefrom and in means for accomplishing such delivery.

Referring to the figures of the drawings—

Figure 1 is a plan view of a rack body, showing load delivery means applied; Fig. 2 is a detail view, showing a rope carrying pulley secured to a frame part; Fig. 3 is a detail sectional view, showing the same pulley as in Fig. 2 but in another position; Fig. 4 is a perspective view, showing means for detachably supporting the end of a closure chain; Fig. 5 is a vertical section, showing rope supporting means placed at the corners of the rack frame; Fig. 6 is a side elevation of a portion of the side wall opposite the delivery side, showing a frame piece connected with and movable with ropes; and Fig. 7 is a detail perspective view, showing means for detachably holding the end of a rope adapted in straightening under a pull to dislodge the load, and when drawn substantially straight, to be disengaged from its support.

The general use of thresher racks is fully explained in my application heretofore referred to.

In certain uses it is impracticable to drive the loaded vehicle close enough to the thresher so that an end delivery of the load will deposit said load in the most advantageous position, and it is to meet this emergency that I have devised my present plan to accomplish a side delivery of the grain.

In the drawings, 2 is the bottom of the rack body; 3 is a side wall thereof, and 4

5 are upright frame parts adapted to be formed at the lower extremities to adapt them to enter sockets as 6 upon the rack body, and 7 is a closure chain adapted to close the delivery side of the rack, it being designed in practice to use as many of such chains as may be necessary to make a sufficient closure. The chains as 7 are permanently connected to the rear corner post 8 by any suitable means, as by staple as shown, and the other ends thereof are detachably supported upon the front corner post 9 by adjustable hooks as 10 (see Fig. 4) which are connected to bar 11, which is turnably held in proper supports upon post 9. The bar 11 is provided with lug 12 and is held from turning by means of a dog 13 pivoted to the post engaging the stud, and when the dog releases the lug, the bar 11 will turn and the chain link will slip off from hook 10.

The particular mechanism adapted to force the load from the rack comprises the rope or ropes as 14 which are detachably secured at the rear end of the rack body by a loop thereon as 15, engaging the hook 16 on post 8, the hook being provided with only a slight outward turn, adapting it when the rope lies in the position shown in the drawings, to engage the loop, and when drawn in until it has been extended into substantially a straight line it will slip readily from the hook. While I have shown a hook as 16, any suitable means may be employed to detachably support the end of the rope, the hook being shown merely as an example of the means for the purpose. The rope is designed to lie on hooks as 17 located at the corners of the rack (see Fig. 5) while the vehicle is being loaded, and its free end passing forwardly toward the delivery side of the rack and extending beyond it to be attached to and through a loop as 20, to a fixed object as 21 externally of the rack.

In carrying out my invention practically, I prefer to provide a flat rack bottom provided with one side and the usual end walls, and to employ closure chains as shown herein for the delivery side, although the rack may be otherwise constructed, if desired, the main point being to provide a side delivery opening.

The parts having been arranged substantially as shown in Fig. 1, in which 22 refers to the tongue at the forward end of the

wagon, the rack loaded, with the rope positioned with reference to the load to best accomplish the removal of the latter, and the end of the rope being attached to the
 5 fixed object 21, the horses are turned toward the right of the figure, and the rack moved in that direction, the load will be drawn from the rack body and deposited upon the ground, and when the wagon has moved to
 10 a position that the rope is carried to or beyond the edge of the delivery side of the rack, it will be released from hook 10 so as not to strain it or make it necessary to limit the movement of the wagon. When the
 15 load is removed from the rack, the rope will be again placed in the position shown in Fig. 1 and the rack will again be in readiness to receive another load.

One or more ropes, as 14, may be employed, but if more than one rope is used, it will be necessary to connect the free ends thereof to accomplish a single connection with hook 21. I have shown in Fig. 5, means for supporting a plurality of ropes
 25 at the corners of the rack.

It may, under some conditions, be found desirable to use movable uprights or frames in connection with the rope or ropes, and in that event, such uprights or frames may be
 30 placed against wall 2 of the rack, as for example, shown in Fig. 6, and they may be merely in bearing relation with the rope or be connected therewith in some suitable manner to allow the ropes to pass thereover
 35 as they are being straightened out in the removal of the load. I have in mind a different arrangement of parts wherein the same object is obtained, which consists in connecting a rope as 14 to a hook as 10 and
 40 carrying it about the rack in the same manner as shown in the figure, and to support a pulley as 18 in frame as 19 upon post 8 and to extend the rope rearwardly and connect with a fixed object. Under this construction, it will be seen that the wagon
 45 may be driven directly forward, and the rope being drawn toward a straightened position, will dislodge the load and will itself be disengaged from the hook connection at its forward end to release it from
 50 the rack.

The provision of a rope supported to embrace a load upon the rack, that in being drawn out by the movement of the carrying vehicle will dislodge the load, is the essence of my invention and the principle may be applied in various forms and in connection with any suitable physical embodiment without departing from my invention.
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What I claim is:

1. In a threshing rack in combination, a containing receptacle having a side delivery opening, closure means for said opening, a flexible member extending substantially horizontally around the interior of the receptacle, means for supporting the flexible member about the interior of the receptacle, a fixed object exterior of the receptacle for attachment to one end of the flexible member and a hooked member at the side
 60 of the delivery opening for securing the other end of the flexible member to hold it under the pull of moving the load and to automatically release it when the flexible member is drawn out substantially straight.
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2. In a threshing rack, in combination, a containing receptacle having a side delivery opening, a fixed object exterior of the receptacle, closure chains for said opening, a flexible member extending substantially horizontally around the interior of the receptacle, a hooked member at the side of the delivery opening and hooked members about the interior of the receptacle, said hooks adapted to support the flexible member at
 70 the delivery opening and about the interior of the receptacle, in a relation that as the load is withdrawn the flexible member will be drawn off from the interior hook supports and when it is drawn substantially
 75 straight it will be drawn free of the hooked member at the side of the delivery opening.

3. In a threshing rack, in combination, a rack body having one side wall and a front and rear wall and detachable closure chains
 80 for closing the open side, provided with a hook at its forward end adjacent the side delivery opening for detachably engaging a flexible member and a pulley at the rear end adjacent the delivery opening, a flexible member, its forward end engaging the hook and carried about the interior of the rack, and over the pulley and rearwardly thereof and a fixed object exterior of the rack for engaging the free end of the flexible member, whereby, when a load is on the rack and the closure chains removed, the free end of the flexible member engaging the fixed object and the vehicle moved forward, the flexible member will be straightened and will push the load from the rack through the side delivery opening.
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In testimony whereof I affix my signature in presence of two witnesses.

JAMES R. HARRISON.

Witnesses:

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 W. V. TERT.