(No Model.)

I. STARR.

THRASHING MACHINE STRAW CARRIER.

No. 305,979. Patented Sept. 30, 1884.

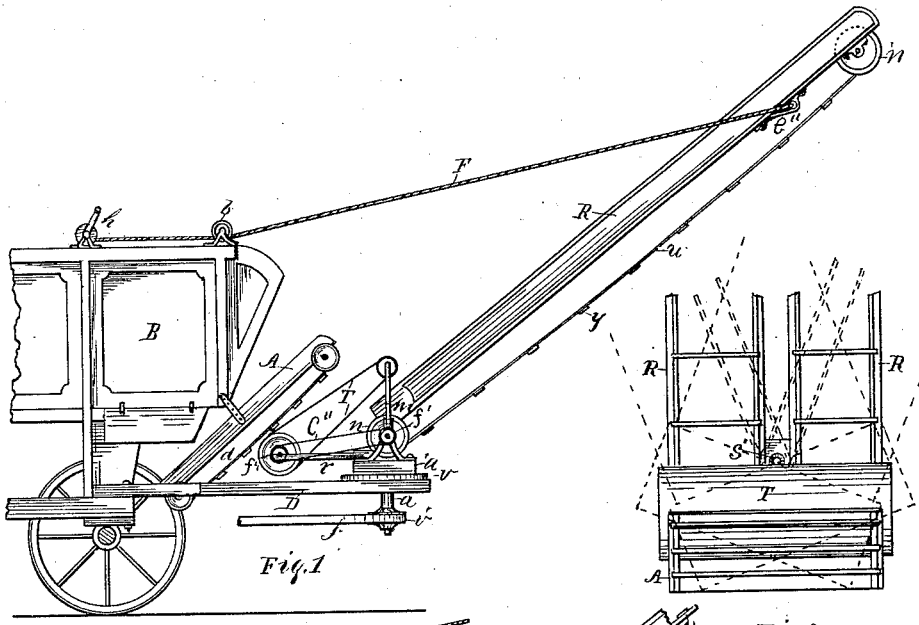

Fig. 1

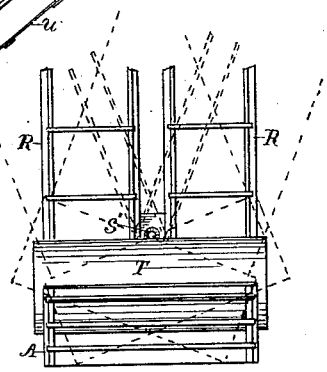

Fig. 3

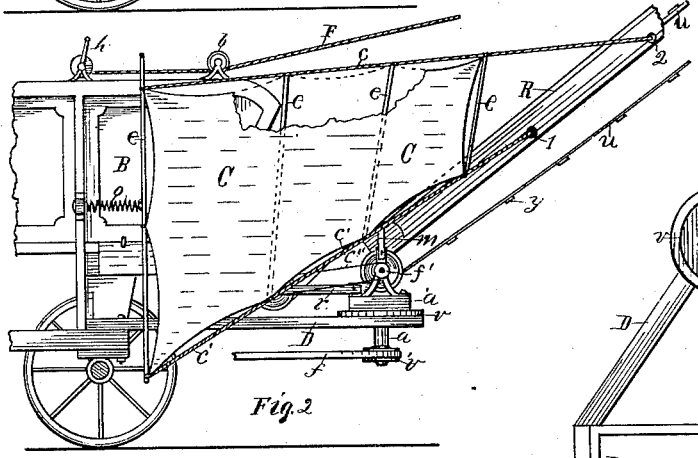

Fig. 2

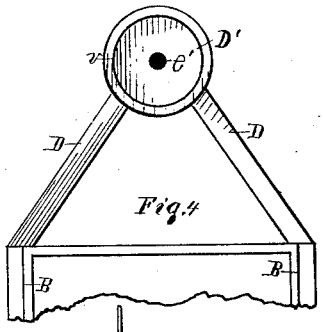

Fig. 4

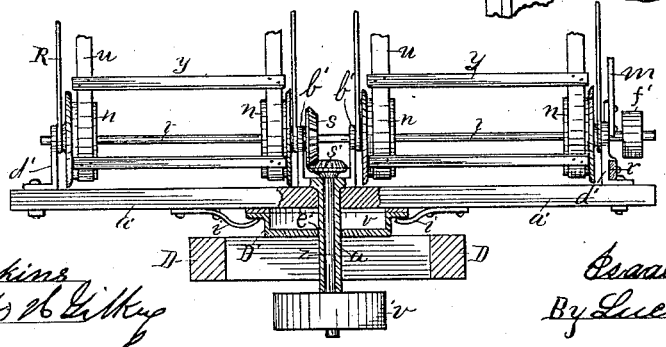

Fig. 5

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UNITED STATES PATENT OFFICE.

ISAAC STARR, OF RICHLAND, MICHIGAN, ASSIGNOR OF ONE-HALF TO PATRICK H. GILKEY, OF SAME PLACE.

THRASHING-MACHINE STRAW-CARRIER.

SPECIFICATION forming part of Letters Patent No. 305,979, dated September 30, 1884.

Application filed January 30, 1883. (No model.)

To all whom it may concern:

Be it known that I, ISAAC STARR, a citizen of the United States, residing at Richland, county of Kalamazoo, State of Michigan, have invented a new and useful Thrashing-Machine Straw-Carrier, of which the following is a specification.

My invention relates to that class of straw-carriers which are so constructed and pivoted that their elevated end, next to the straw-stack, may be located in different positions vertically and laterally by turning in their pivot-connections at the lower end, in order that the straw may be delivered at different locations on the stack.

My invention has for its object certain improvements in construction and arrangement, whereby the device is simplified and cheapened, its utility increased, and the carrier connected with the thrasher in a manner to be transported with it and form a connected part thereof.

In the drawings forming a part of this specification, Figure 1 is a side elevation of the straw-carrier connected with the rear end of a thrashing-machine; Fig. 2, the same, showing a curtain connected therewith; Fig. 3, a top view of a portion of Fig. 1, hereinafter explained; Fig. 4, a top view of the straw-carrier support; and Fig. 5, a view of the lower end of the pivoted straw-carrier, looking from the thrasher, with a portion in section on a line with the vertical center of pintle *a*.

B illustrates the rear end of a thrashing-machine.

A is a short straw and chaff carrier, common in such machines, except in those not using the pivoted carrier R. It extends to a greater height. Supporting-beams D D are secured to the frame of the machine B, and extend rearwardly at converging angles. Where the ends meet they are provided with a circular plate, D′, having a pivot-hole, *e′*, extending down through the beams. Beam *a′*, which supports the lower end of carrier R, is pivoted on plate D′ by means of a hollow pintle, *a*. The upper end of this pintle terminates in brackets *b′ b′*, which form bearings for shaft *t* in the center. The ends of this shaft have bearings in brackets *d′ d′*, which project upward from beam *a′*.

n n are the lower belt-wheels of the carrier, secured to shaft *t*. Two sets of belts, *u u*, with slats *y y*, are used in the carrier, in order to locate the propelling-gear at the center of shaft *t* and over the point of pivoting.

n′ shows one of the upper belt-wheels. Gear S′ terminates the upper end of the vertical shaft *z*, and meshes with the gear S of shaft *t*. A belt-pulley, *v′*, is secured to the lower end of shaft *z*, with which a belt may be connected from the power mechanism. Shaft *z* is located in the hollow pintle *a* and revolves therein. The lower end of the pivoted carrier R is pivoted on shaft *t* in a manner that the elevated end may be raised and lowered, as in other carriers. Plate D′ has a circular elevated rim, *v*, upon which the carrier-beam *a′* rests and turns. This forms a balancing-support to the lower end of the pivoted carrier at all locations, similar to the fifth-wheel of an axle in a vehicle.

In order that carrier R shall not turn too easily on its pivot *a*, I provide friction-bars *i i*, secured to the under side of beam *a′*. One end of said bars engages the under surface of rim *v*. The degree of their frictional engagement is controlled by tightening or loosening the bolts which secure said bars to beam *a′*.

T is a carrier constituting a rear extension to the pivoted carrier R, located between the upper end of carrier A and the lower end of carrier R, said intermediate carrier being extended well to the rear of the point of pivoting, as in Fig. 1.

The carrier T consists of an endless web passing around shafts which have bearings in the ends of bars *r m*. The web extends from one side of the carrier R to the other. Bars *r m* are secured to the brackets at each end of beam *a′*, as shown at the right of Fig. 5.

c″ is a belt located around pulleys *f′ f″*, imparting motion from shaft *t* to the intermediate carrier, T.

Fig. 3 illustrates the use of carrier T. When the carrier R is carried to the right or left, as indicated by the dotted lines, were it not for the carrier T, or that portion of it which ex-

tends in the rear of the pivot *a*, a space would be left at the rear corners, through which straw and chaff would fall after leaving the carrier A.

F is a rope for raising the carrier R. It is similar to former arrangements, except that after leaving the windlass *h* it passes under a pulley, *b*, on the rear corner of the machine B; then around a pulley, *e''*, secured to the under side of the carrier R; thence across the same around a like pulley, *e''*, on the other side, and under a like pulley, *b*, on the other side of the machine, and then it is connected to the other end of the windlass *h*. By this means, when the carrier R is moved laterally, the rope F moves around the pulleys *e''*, necessitating less lateral sway of the rope, and pulleys *b b* cause the rope to always wind squarely on the windlass.

C is a curtain located on each side of the machine in the position shown in Fig. 2. This curtain is supported by a frame composed of rods *c c* and ropes *c c'*, secured together at the points of connection shown. It is connected to the machine by spring *o*, and to the pivoted carrier by the ropes *c c'*, passing through holes 1 2, crossing on the under side of said carrier, passing through like holes on the other side, and connecting with a like curtain on the other side of the machine. When the carrier is adjusted laterally, it slips on the ropes, thus admitting of a free movement without unduly swaying the curtain. When an unusual side movement is made, or when said carrier is raised or lowered at its elevated end, spring *o* yields under the strain.

Having thus described my invention, what I claim is—

1. The combination, with a thrashing-machine, of a short carrier, upon which the straw and chaff first fall, a pivoted carrier adapted for lateral adjustment, and an intermediate carrier constituting an extension to the pivoted carrier in the rear of its pivot, for the object specified, all substantially as set forth.

2. The supporting-beams and balancing-plate having the circular rim, in combination with a pivoted straw-carrier having the shaft-supporting beam, and the brake-bars engaging the under side of said rim, substantially as described.

3. The combination, with a thrashing-machine provided with the windlass and corner pulleys, of a pivoted straw-carrier having the pulleys mounted on the under side thereof, and a rope connecting with the pulleys and windlass, substantially as set forth.

4. The combination, with a thrashing-machine and a straw-carrier pivoted to be adjusted vertically and laterally, of a curtain and a supporting-frame therefor, composed of the ropes and rods, all substantially as specified and shown.

In testimony of the foregoing I have hereunto subscribed my name in the presence of two witnesses.

ISAAC STARR.

Witnesses:
JNO. C. PERKINS,
PATRICK H. GILKEY.