

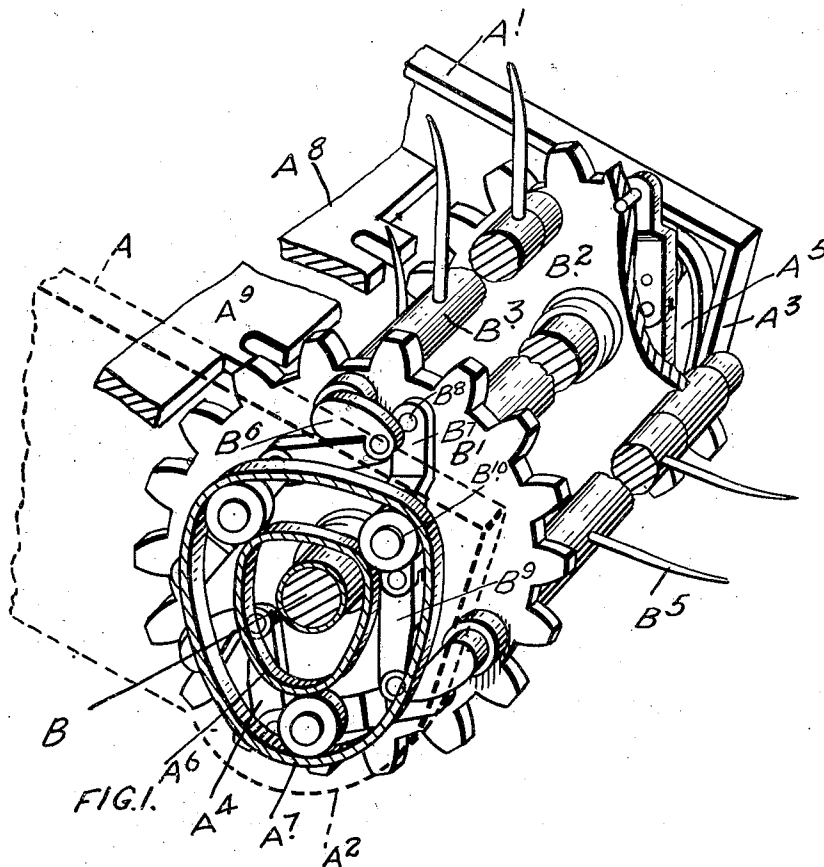
J. F. STEWART.
SHEAF LOADER.

APPLICATION FILED MAR. 2, 1912.

1,047,327.

Patented Dec. 17, 1912.

2 SHEETS—SHEET 1.



WITNESSES.

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SHEAF LOADER.

Patented Dec. 17, 1912

2 SHEETS—SHEET 2.

FIG. 3.

FIG. 3.

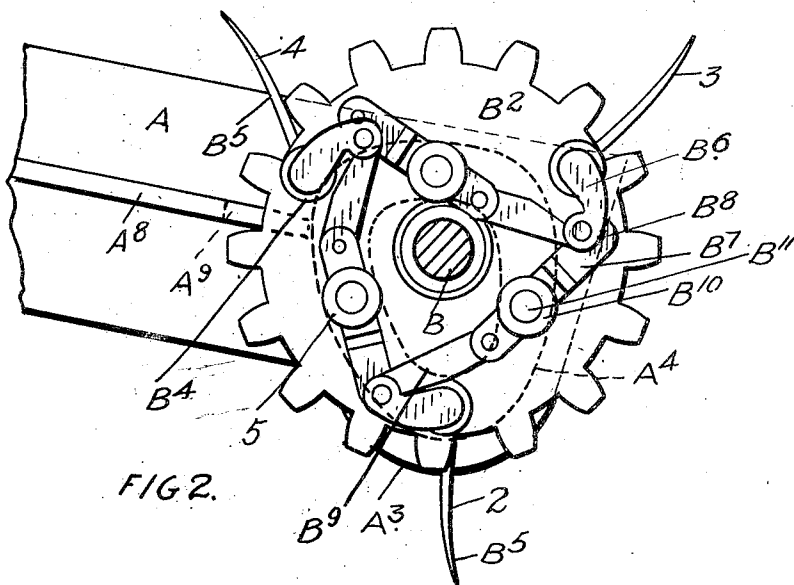


FIG 2.

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UNITED STATES PATENT OFFICE.

JOHN FERGUSON STEWART, OF MOLESWORTH, ONTARIO, CANADA.

SHEAF-LOADER.

1,047,327.

Specification of Letters Patent.

Patented Dec. 17, 1912.

Application filed March 2, 1912. Serial No. 681,158.

To all whom it may concern:

Be it known that I, JOHN FERGUSON STEWART, of the village of Molesworth, in the county of Huron, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Sheaf-Loaders, of which the following is the specification.

My invention relates to improvements in sheaf loaders and the object of the present invention is to improve the construction of the "pick-up" or that portion of the machine whereby the sheaves are moved up off the ground onto the inclined elevating deck so that the sheaves will be delivered by the prongs onto the deck radially and without any liability of the prongs getting entangled in the sheaves and the consequent stoppage or breaking of the "pick-up" incident thereto by reason of the prongs drawing down at an angle and choking instead of straight down and drawing out easily from the sheaf and it consists essentially of a deck extending between the side-boards having notches at the lower edge thereof, a shaft journaled in the side boards, disks or gears rigidly secured upon the shaft in proximity to each end thereof and to the side-boards, rock shafts having a series of prongs extending therefrom and journaled at each end in the disks, crank arms extending from the ends of the rock shafts, a toggle connection between the ends of the crank arms and the disks, rollers journaled on such toggle connection and cam-ways formed on the inside of the cam-ways into which the rollers extend as hereinafter more particularly explained by the following specification.

Figure 1, is a perspective view of my device intermediately broken away and showing one of the side-boards removed. Fig. 2, is a sectional elevation of my device showing the prongs in the position they assume when raising the sheaf. Fig. 3, is a similar view to Fig. 2 showing the prongs in the position they assume when the sheaf is being stripped therefrom and deposited on the receiving deck.

In the drawings like letters of reference indicate corresponding parts in each figure.

A and A' are the side boards having enlarged lower ends A² and A³ on the inside of which are formed similar cam-ways A⁴ and

A⁵. The ways A⁴ and A⁵ are formed by the interior and exterior cam ribs A⁶ and A⁷.

A⁸ is an inclined deck extending between the side-boards having notches A⁹ in the lower edge thereof.

B is a shaft journaled at each end in the side-boards A and A' and suitably driven.

B¹ and B² are gears or disks secured in proximity to each end of the shaft B and to the sideboards A and A'.

B³ are rock shafts journaled at each end in suitable bearings B⁴ located in the disks or gears B¹ and B².

B⁵ are prongs extending from the rock shaft for a purpose which will hereinafter appear.

B⁶ are crank arms secured to each end of the rock shaft B³.

B⁷ are links pivotally connected on pins B⁸ to the gears B¹ and B² in proximity to the periphery thereof.

B⁹ is a link pivotally connected at one end to the link B⁷ and at the opposite end to the crank arm B⁶ connected to the rock shaft.

B¹⁰ are rollers journaled on pins B¹¹ extending from the links B⁷.

Having described the principal parts involved in my invention I will briefly describe the operation of the same. In Fig. 2 the prong B⁵ in the position 2 is about to pass into the position to engage with the sheaf. The prong in the position 3 is elevating the sheaf and the prong in position 4 is about to deposit the sheaf on the deck A⁸. As the shaft B continues to revolve carrying the gears B¹ and B² with it the prong 4 is gradually carried into a position substantially at right angles with the deck A⁸ by means of the roller passing from the position 5 in the cam-way to the lower end of the cam way. The prong then assumes the position shown by dotted lines in Fig. 3 as it passes through the notch A⁹. As the roller passes around the bottom of the cam-way the links B⁷ and B⁹ gradually come into longitudinal alinement thereby holding the prong 2 in a rigid position as it elevates the sheaves into position for deposit. As the roller passes over the top of the cam the joint between the links B⁷ and B⁹ is disconnected, thereby again throwing the prong into a right angular position previously de-

scribed so as to allow of the prong being drawn out of the sheaf at right angles to the body thereof and thereby preventing the sticking and clogging of the prong in the sheaf.

What I claim as my invention is:

1. In a pick-up device for sheaf loaders the combination with the side-boards and deck of a shaft journaled in the side-boards, disks secured in proximity to each end of the shaft in proximity to the side-boards, rock shafts journaled at each end of the disks, prongs extending from the rock shafts, crank arms extending from the rock shafts, a toggle joint connection connecting the ends of the crank arms to the disks, rollers journaled on the toggle connection, and cam-ways located at the inside of the side-boards designed to carry the rollers radially outwardly from the center of the shaft as the prongs descend to draw the prongs laterally out of the moving grain, and carry them upwardly in a locked position substantially radially to the center of the shaft, as and for the purpose specified.

2. In a pick-up device for sheaf loaders the combination with the side-boards and deck having notches at the lower end thereof, of a shaft journaled in the side-boards, disks secured in proximity to each end of the shaft in proximity to the side-boards, rock shafts journaled at each end of the disks, prongs extending from the rock

shafts, crank arms extending from the rock shafts, a toggle joint connection connecting the ends of the crank arms to the disks, rollers journaled on the toggle connection, and cam-ways located at the inside of the side-boards designed to carry the rollers radially outwardly from the center of the shaft as the prongs descend to draw the prongs laterally out of the moving grain, and carry them upwardly in a locked position substantially radially to the center of the shaft, as and for the purpose specified.

3. In a pick-up device for sheaf loaders, the combination with the side-boards and deck having notches in the lower end thereof, of a shaft journaled in the side-boards, disks secured in proximity to each end of the shaft in proximity to the side-boards, rock shafts journaled at each end of the disk, prongs extending from the rock shafts, a toggle joint connection connecting the ends of the crank arms co-acting with the rollers to carry the prongs upwardly in a radial position with the toggle joint locked in alinement and the roller held free of cam-way, and to break the toggle joint as it passes into position to descend to draw the prongs laterally out of the moving grain as and for the purpose specified.

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Witnesses:

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