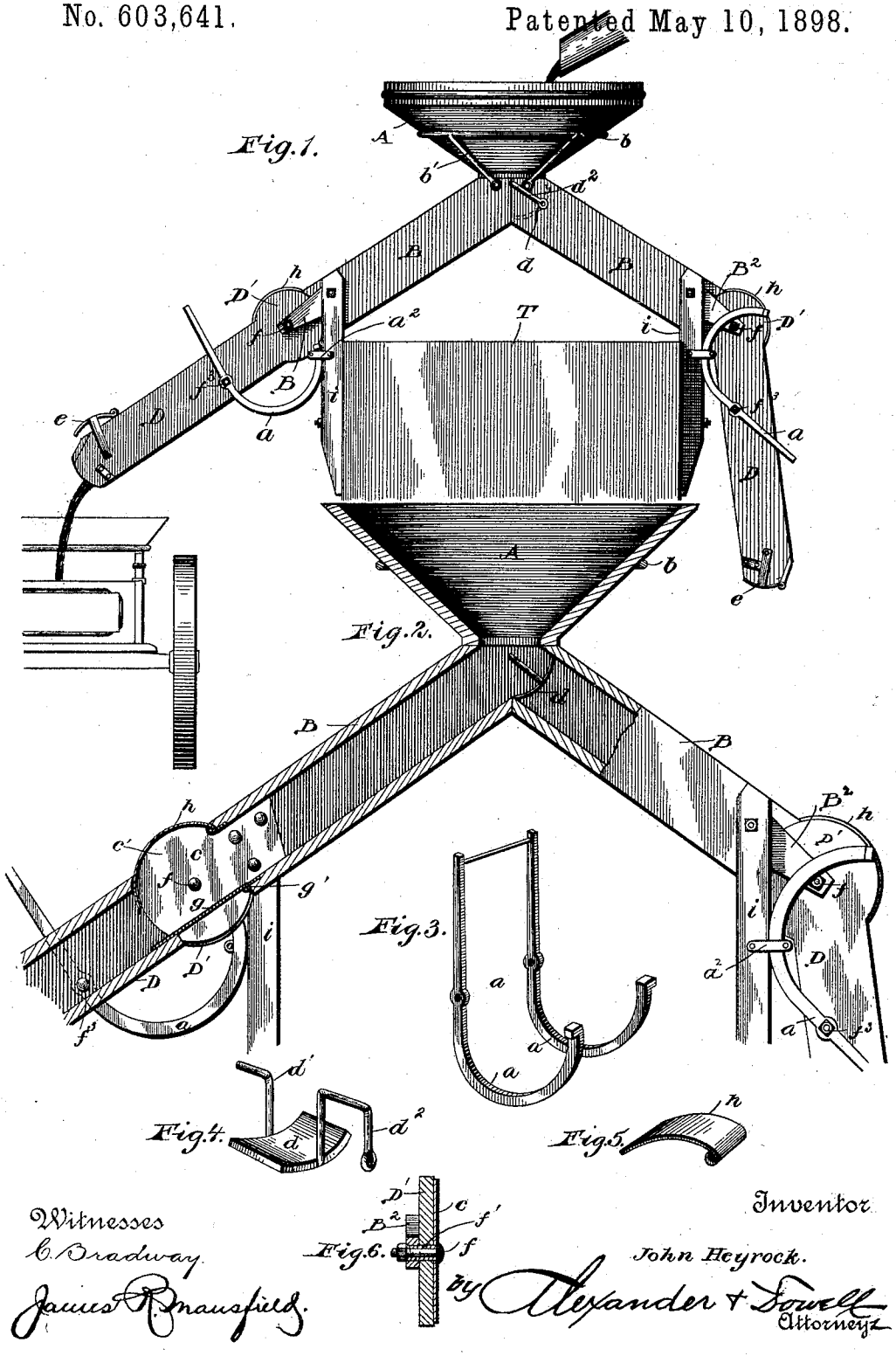
(No Model.)

J. HEYROCK.

MACHINE FOR LOADING GRAIN FROM THRESHING MACHINES INTO WAGONS OR SACKS.

No. 603,641. Patented May 10, 1898.



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UNITED STATES PATENT OFFICE.

JOHN HEYROCK, OF CAVALIER, NORTH DAKOTA.

MACHINE FOR LOADING GRAIN FROM THRESHING-MACHINES INTO WAGONS OR SACKS.

SPECIFICATION forming part of Letters Patent No. 603,641, dated May 10, 1898.

Application filed July 31, 1897. Serial No. 646,695. (No model.)

To all whom it may concern:

Be it known that I, JOHN HEYROCK, a citizen of the United States, residing at Cavalier, county of Pembina, State of North Dakota, have invented a new and useful Machine for Loading Grain from Threshing-Machines into Wagons or Sacks, of which the following is a specification.

My invention relates to improvements in machines for loading grain from threshing-machines or separators into wagons or sacks; and its object is to produce a grain-loader that can be easily attached to a threshing-machine or separator, which can be used to load grain into wagons or sacks at either side or both sides of the machine at will, and which will not interfere with the continuous operation of the machine.

The invention consists in the novel construction and combination of parts hereinafter described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of the loader as applied to a thresher or separator, showing one grain-spout in position for delivering grain into a wagon or into sacks in an ordinary wagon-box and another spout on the opposite side lowered in position to deliver grain into sacks on the ground or as when moving the machine. Fig. 2 is an enlarged view, part vertical section and part elevation, of the loader. Figs. 3, 4, 5, and 6 are details of various parts.

The loader consists of two oppositely-inclined chutes B B, which are united at their upper ends and communicate with a conical grain-reservoir A of considerable capacity, which is retained in position above the chutes by means of a ring b, connected to rods b', fastened to the chutes by screws, bolts, or in any other suitable manner. The grain may be deflected from the reservoir into either chute B by means of a swinging valve d, which is hung upon a bent rod d', (shown in detail, Fig. 4,) said rod having an arm d^2, by which the valve can be shifted.

To the lower end of chutes B are attached vertical standards i, which are adapted to fit against the sides of the threshing-machine or separator, (conventionally illustrated at T in Fig. 1,) and may be bolted to the thresher, as indicated, so as to fasten the loader thereupon, with chutes B leading to the opposite sides of the machine.

When applied to a thresher or separator, the loader would be placed, preferably, on top thereof and in position to be out of the way of the operative parts of the machine, and the clean grain discharged from the separator could be elevated into reservoir A by any suitable means, many such being well known in the art, and therefore I do not consider it necessary to illustrate the same in the drawings.

To the lower ends of the fixed chutes B are attached swinging spouts D. The upper ends of the sides of the spouts D are provided with circular extensions D′, which are fitted against and pivoted to the circular heads c' of metallic plates c, fastened to the lower ends of the sides of chutes B, as shown in Fig. 2. To further support the spouts, pieces B^2 are fastened to the sides and lower ends of chutes B, and the pivot-bolts f transfix the plates c, the portions D′ of the spouts, and the pieces B^2, as indicated in Fig. 6.

Bushings f' are preferably placed around bolts f to prevent clamping parts B^2, D′, and c' together too tightly.

The opening between the bottoms of each chute B and its spout D is closed by a plate g, hinged to the lower end of chute B, as indicated at g', Fig. 2, and the space between the top of each chute B and its spout D is closed by a curved plate h, hinged to the lower end of the top of chute, as shown. These hinged plates g h maintain grain-close joints between the chutes and spouts D no matter in what position they are adjusted.

To the sides of spouts D are pivoted curved levers a by means of bolts f^3, the curved portions of these levers engaging guides a^2, attached to the standards i, as shown. These levers A will support the spouts D in any position to which they may be adjusted, as indicated in the drawings.

The lower ends of spouts D may be closed by the swinging valve e, one of which is shown open on the left-hand spout and the other closed on the right-hand spout, Fig. 1.

Operation: The grain is delivered into the reservoir A and is directed to the chutes B B

on either side of the machine by the switch *d* and allowed to pass out at the ends of the spouts D D or detained at will in the reservoir or spouts B B and D D by the valves *e e*.

To adjust the spouts D D, all that is necessary is to raise them to the desired height. The adjustable levers *a a*, falling into position, retain them in the desired position.

The reservoir A on top of the separator will hold and retain several bushels of grain, thereby enabling the thresher to be operated continuously while the spouts D are closed while sacks or wagons are being changed, and by the duplicate chutes B B and spouts D D the grain can be delivered on either side of the machine without any shifting of the apparatus except the adjustment of spouts D D.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a grain-loader, the combination of the reservoir, the diverging chutes connected thereto, and the spouts hinged to the lower end of said chutes; with the hinged plates closing the spaces between the bottoms and tops of the chutes and spouts, respectively, for the purpose and substantially as described.

2. In a grain-loader, the combination with a thresher or separator, of a reservoir, and the opposite chutes connected thereto all adapted to be supported upon the top of the thresher so that the chutes lead to opposite sides thereof, and a valve for directing grain from the reservoir into either chute; with adjustable swinging spouts attached to the lower end of said chutes, and means for holding said spouts in the positions to which they may be adjusted, for the purpose and substantially as described.

3. The combination of the chute and the plates *c* attached to the lower end thereof, with the spout having circular enlargements on the ends of their sides hinged to said plates *c* and the swinging plate *g* hinged to the lower end of the chute, closing the space between the bottom of the chute and the spout, for the purpose and substantially as described.

4. The combination of the chute and the plates attached to the lower end thereof, with the spouts having circular heads on their ends hinged to said plates, the swinging plate hinged to the lower end of the chute closing the space between the bottoms of the chute and spout, and the curved plate hinged to the top of the chute and closing the space between the tops of the chute and spout, for the purpose and substantially as described.

5. The combination in a grain-loader, of a swinging spout, with the adjustable curved supporting-levers pivoted to the sides of the spout, for the purpose and substantially as described.

6. The combination in a grain-loader, of a chute, and a spout hinged to the lower end thereof; with the adjustable curved supporting-levers *a* pivoted to the sides of the spout, for the purpose and substantially as described.

7. In a grain-loader, the combination of a reservoir, the opposite chutes connected thereto and adapted to be supported upon the top of a thresher and lead to opposite sides thereof, and a valve for directing grain from the reservoir into either chute; with the swinging spouts hinged to the lower end of said chutes, the curved levers for holding said spouts in the positions to which they are adjusted and the valves for closing said spouts, for the purpose and substantially as described.

8. The combination in a grain-loader, of a reservoir, the diverging chutes communicating at their upper ends with said reservoir, and the spouts hinged to said chutes, with the plates hinged to the lower end of the chutes, closing the space between the bottoms of the chutes and spouts, and the plates hinged to the lower end of the chutes and closing the opening between the tops of the chutes and spouts, for the purpose and substantially as described.

9. In a grain-loader adapted to be mounted on a thresher or separator, the combination of a reservoir, diverging chutes communicating at their upper ends with said reservoir, the valve for directing grain from the reservoir into either chute, the plates attached to the lower ends of the chutes and projecting therefrom, and the spouts pivoted to said plates, with the plates hinged to the lower end of the chutes, closing the space between the bottoms of the chutes and spouts, the curved plates hinged to the lower end of the chutes and closing the opening between the tops of the chutes and spouts, and the curved supporting-levers pivoted to the spouts, for the purpose and substantially as described.

Dated at Cavalier, Pembina county, North Dakota, this 26th day of July, A. D. 1897.

JOHN HEYROCK.

Witnesses:
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THORDUR VATNSDAL.