No. 885,821. PATENTED APR. 28, 1908.

R. WOODS.

SHOCKER.

APPLICATION FILED SEPT. 14, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

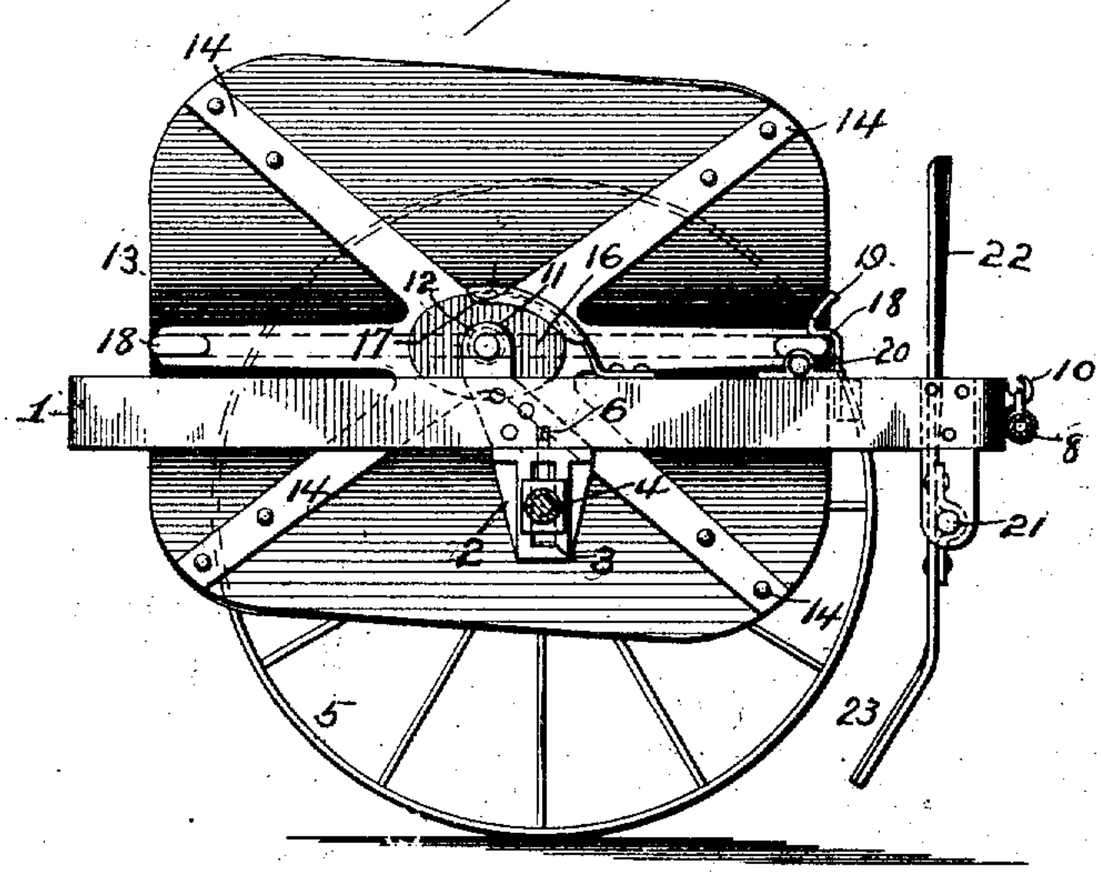
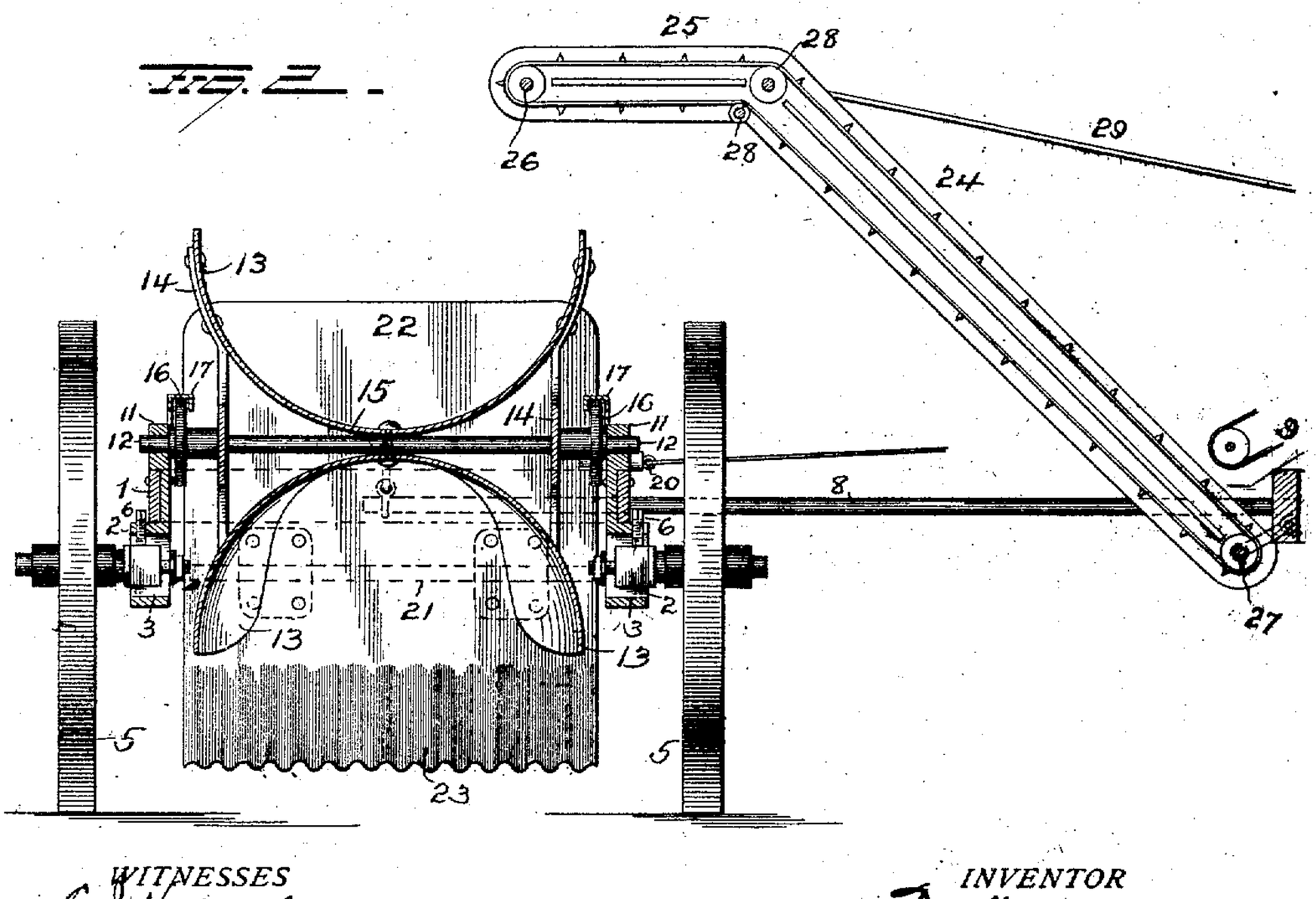


Fig. 2.



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 3.

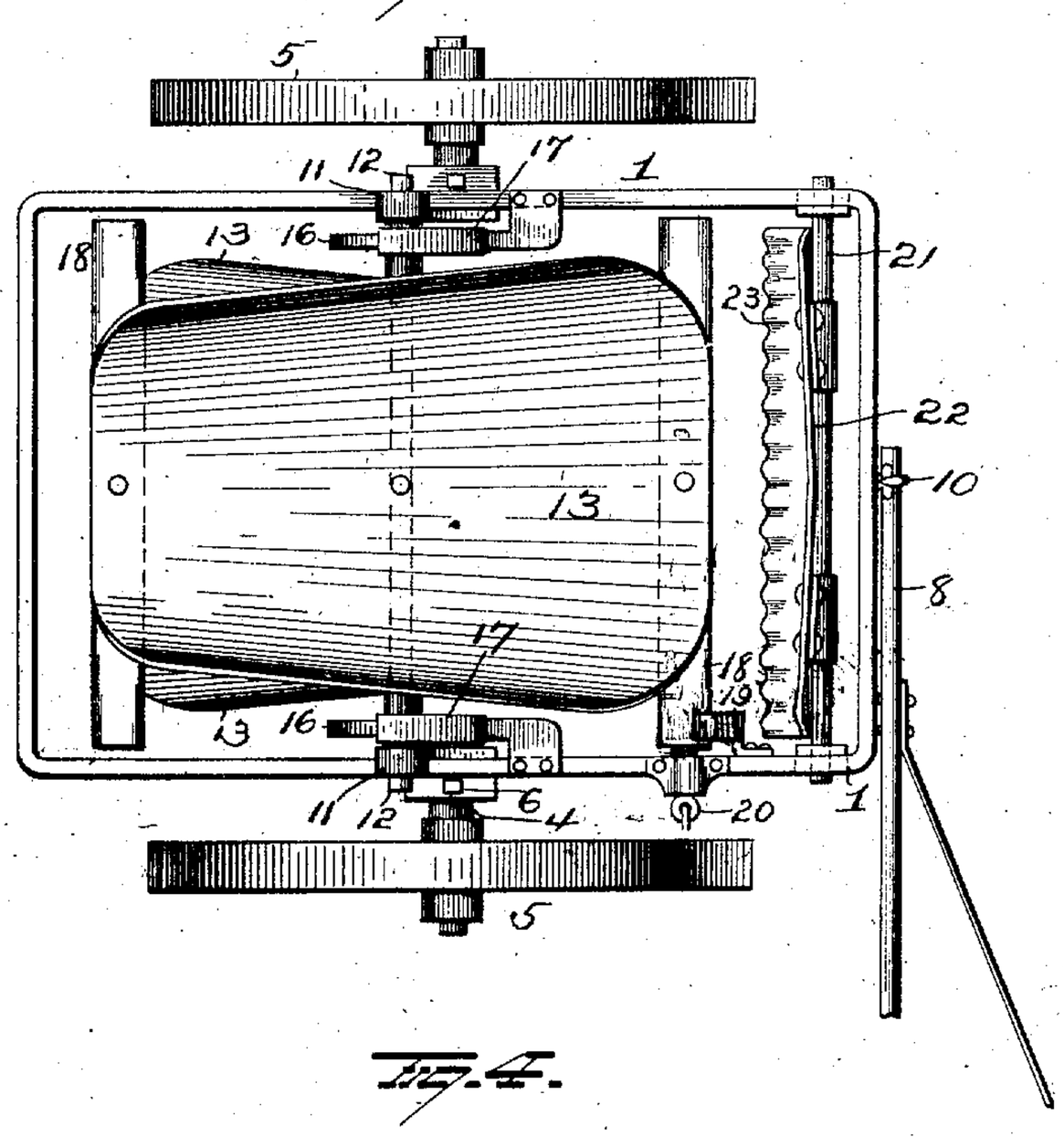
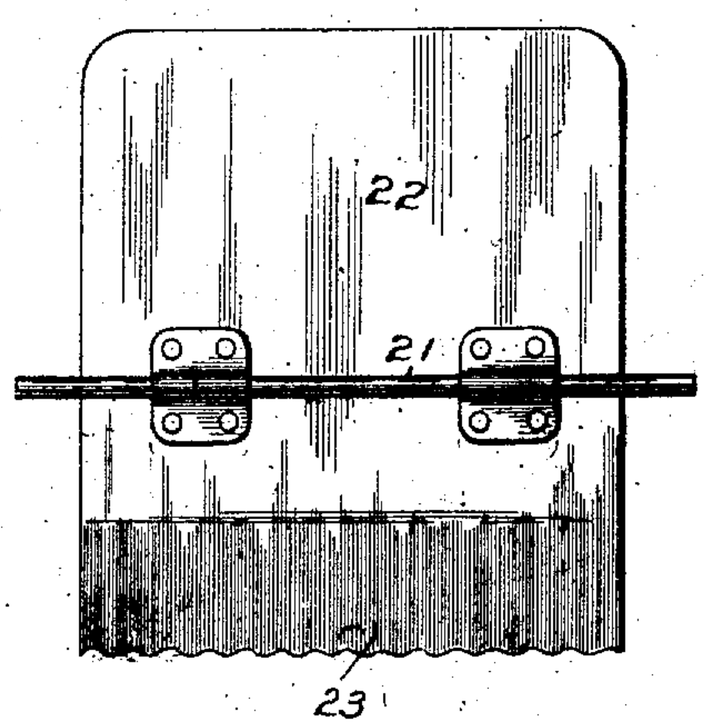


Fig. 4.



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UNITED STATES PATENT OFFICE.

ROBERT WOODS, OF GRAND FORKS, NORTH DAKOTA.

SHOCKER.

No. 885,821. Specification of Letters Patent. Patented April 28, 1908.

Application filed September 14, 1907. Serial No. 392,912.

To all whom it may concern:

Be it known that I, ROBERT WOODS, of Grand Forks, in the county of Grand Forks and State of North Dakota, have invented certain new and useful Improvements in Shockers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in shockers adapted to be connected with and receive bundles of grain from the binder,—the object of the invention being to provide simple and efficient means for forming a shock and depositing the same in an upright position upon the ground.

With this object in view, the invention consists in certain novel features of construction and combinations of parts as hereinafter set forth and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in side elevation illustrating my improvements. Fig. 2 is a cross section. Fig. 3 is a plan view and Fig. 4 is a detail view of the "tucker."

1 represents a rectangular frame provided between its ends with depending arms 2 having vertical elongated slots 3, for the adjustable attachment of axle stubs 4 for carrying wheels 5. Screws 6 may be provided for adjusting the frame vertically with respect to the axle stubs and wheels. The forward end of the frame 1 is connected with an arm or rod 8 (preferably gas-piping) located in front of the binder 9 and braced to the end of the pole of the binder. The center of the forward end of the frame 1 is provided with a hook 10 to engage a loop at the end of the arm or gas-piping 8. In other respects, the frame 1 and the shocking devices carried thereby as hereinafter described, are free to travel with the binder. The sides of the frame 1 are provided with bearings 11 for the journals or trunnions 12 of shock-receiving receptacles 13. These receptacles are made approximately semi-circular in cross section, with one end somewhat more contracted than the other. That is to say,—each receptacle 13 is made of less width at the end in which the headed ends of the bundles are received, than at the end in which the butt ends of the bundles will be located. The receptacles 13 are disposed back-to-back and held rigidly with respect to each other, by means of spiders 14. The journals 12 by means of which the dumping receptacles are rotatively mounted on the frame 1, are located at the ends of a shaft 15 disposed between the two receptacles and secured to the spiders 14. Cam-shaped brake disks 16 are secured to the shaft 15 and shoes 17 secured to the frame 1, engage these disks, to retard the turning of the receptacles during the act of dumping a shock, but permitting their free rotary motion to return a receptacle to normal position. Arm 18 on the spiders cooperate with a spring catch 19 on the frame 1 to prevent the dumping receptacles from turning in the wrong direction, and a latch device 20 will be provided to hold the receptacles in normal position and for releasing the same to dump a shock.

The side bars of the frame 1 are provided at or near their forward ends with lugs, in which the ends of a shaft 21 are mounted. This shaft serves to pivotally support, a plate or "tucker" 22, the latter being supported between its ends by said shaft; disposed approximately vertically between the shocking receptacles and the forward end of the frame 1, and provided at its lower end, with a downwardly and rearwardly rojecting flange 23, which latter may, if desired, be corrugated. A conveyer frame 24 is attached at its lower end to the binder frame and the curved upper end of said conveyer frame is supported over the receptacles of the shocker, by means of a cord or rope 29 suitably attached to the binder frame. An endless conveyer 25 passes over sprocket wheels on shafts 26—27 and over suitably arranged idles 28. The shaft 27 receives motion for driving the conveyer, from the pitman or other suitable part of the binder mechanism.

When the uppermost receptacle 13 has received sufficient grain from the conveyer 25 to form a shock, the operator will withdraw latch device 20 to release the receptacles. As the heavier, butt-end of the shock begins to dump, it will engage the lower flanged end of the "tucker" 22, whereby the sheaves will be lifted out slightly from the shock (thus spreading out the bottom of the shock) and as the shock continues to turn, the upper end of the "tucker" will crowd against the top of the shock. When the shocking receptacle arrives at an upright position, the upper end of the shock will be closely confined by the contracted upper end of the receptacle 13 and the upper portion of the tucker, while the bottom of the shock

has been caused to spread out somewhat by its engagement with the flanged lower end of the "tucker" 22, during the early portion of the turning movement of the receptacle, as before explained. The shock will now be standing firmly upon the ground in an upright position, and as the machine moves forwardly, the engagement of the wider end of the receptacle 13 with the shock, will cause the two receptacles to turn and become disposed in horizontal position, with the previously idle receptacle in position to receive bundles or sheaves of grain from the conveyer 25 for forming another shock.

Various slight changes might be made in the details of construction of my invention without departing from the spirit thereof or limiting its scope and hence I do not wish to limit myself to the precise details herein set forth.

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

1. The combination with a frame, of a revoluble shock dumping receptacle, and a plate disposed between the dumping receptacle and the forward end of the frame, said plate having a hinge-connection between its upper and lower ends, with the frame.

2. The combination with a frame, of a revoluble shock dumping receptacle, and a hinged tucker plate disposed between the dumping receptacle and the forward end of the frame, and provided at its lower end with a rearwardly and downwardly projecting flange.

3. The combination with a frame, of a revoluble dumping receptacle, said receptacle being approximately semi-circular in cross-section, and having less width at one end than at the other, and a tucker plate disposed between the forward end of the frame and said dumping receptacle and coöperating with the latter, said tucker plate having a hinge-connection between its upper and lower ends, with the frame.

4. The combination with a frame, of two dumping receptacles secured back to back and revolubly mounted in said frame, and a pivoted tucker plate disposed between the forward end of said frame and the revoluble receptacles and coöperating with the latter.

5. The combination with a grain binder and a traveling frame connected therewith, of shock dumping receptacles secured back to back and revolubly mounted in said traveling frame, a conveyer mounted on and receiving motion from the grain binder, said conveyer disposed to discharge bundles of grain into the dumping receptacles.

6. The combination with a wheel frame, and means for adjusting the same vertically, of dumping receptacles secured back-to-back and revolubly mounted in said frame, and means for normally locking said receptacles and for releasing them.

7. The combination with a frame, of a dumping receptacle mounted therein means for normally locking said receptacle and for releasing it, and a brake device operating to retard the movement of the receptacle through the first portion of its movement and then automatically release it.

8. The combination with a frame, of a dumping receptacle having its journals mounted on said frame, a cam disk secured to a journal of the dumping receptacle and a brake shoe bearing against said cam disk through one-fourth of a rotation of said disk and free from the latter during the remainder of the rotation thereof.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

ROBERT WOODS.

Witnesses:
PHIL S. RANDALL,
H. BENDEKE.