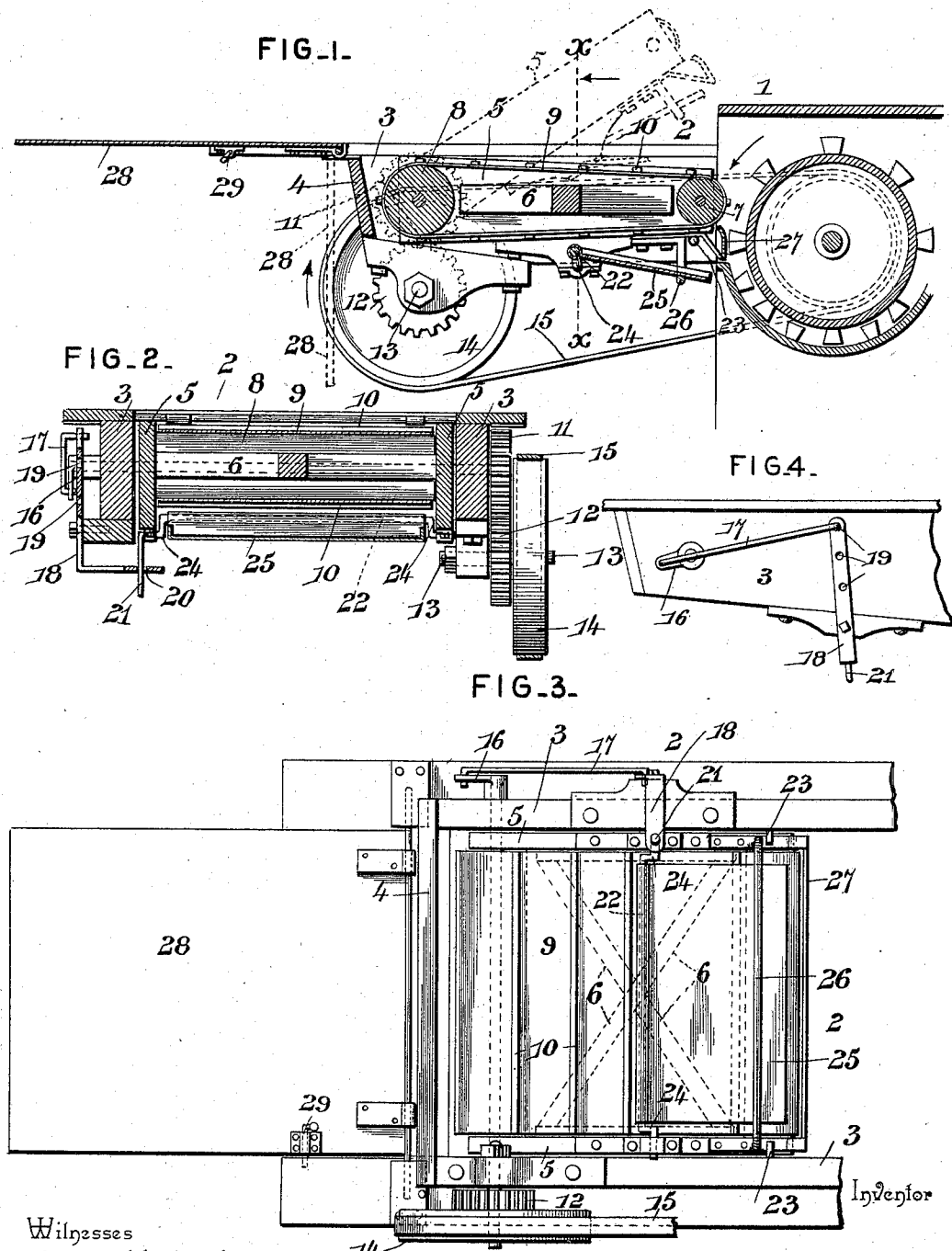


(No Model.)

A. E. PRATT.
FEEDER FOR THRESHING MACHINES.

No. 570,336.

Patented Oct. 27, 1896.



Witnesses
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UNITED STATES PATENT OFFICE.

ARTHUR E. PRATT, OF ANDOVER, SOUTH DAKOTA.

FEEDER FOR THRESHING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 570,336, dated October 27, 1896.

Application filed November 16, 1895. Serial No. 569,215. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR E. PRATT, a citizen of the United States, residing at Andover, in the county of Day and State of South Dakota, have invented a new and useful Feeder for Threshing-Machines, of which the following is a specification.

This invention relates to feeders for threshing-machines, and aims to provide a simple and effective means for replacing the ordinary table, and which will automatically deliver the grain to the threshing-cylinder and admit of access being readily had to the separator from the receiving end.

Various other objects and advantages are contemplated and will become apparent as the nature of the improvement is understood; and to this end the invention consists in certain details of construction, novel features, and peculiar combinations of the parts, which hereinafter will be more particularly set forth, illustrated, and claimed.

In the accompanying drawings is illustrated an embodiment of the invention, although changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention, and in said drawings—

Figure 1 is a vertical central section showing the invention applied, the dotted lines showing the carrier-frame tilted upon its pivotal supports. Fig. 2 is a cross-section on the line X X of Fig. 1, looking in the direction of the arrow. Fig. 3 is a bottom plan view. Fig. 4 is a side elevation showing the means for imparting a reciprocating motion to the pan or plate.

Like numerals of reference denote corresponding parts in all the figures of the drawings, in which—

1 indicates the front end portion of a threshing-machine of ordinary construction, and 2 the frame of the feeder attached thereto in any convenient manner, and this frame comprises side beams 3 and a cross-beam 4, the several beams being secured together in any substantial and firm manner.

The carrier-frame comprises side bars 5 and an intermediate cross-brace 6, and is provided at its ends with rollers 7 and 8, the journals of the roller 8 being extended

through the side beams 3 and forming pivotal supports for the outer or front end of the said carrier-frame. An endless apron 9, of canvas, leather belts, or of any approved construction common in this class of machinery, is supported upon the rollers 7 and 8, and is provided with transverse slats 10 in the ordinary manner and for the well-known purpose of strengthening the apron and materially assisting in the positive advancement of the grain to the threshing-machine. The carrier-frame can be thrown upward and turned upon its journals, so as to be out of the way when it is required to gain access to the threshing-cylinder, concave, or front end of the separator.

A pinion 11 is secured to the projecting end of a journal of the roller 8, and meshes with a corresponding pinion 12, loosely mounted upon a stub-shaft 13, secured to the adjacent side beam 3 and attached to a band-pulley 14, the latter receiving motion from a convenient part of the thresher by means of a belt 15. The opposite journal of the roller 8 is provided with a crank 16, which is connected by means of a pitman 17 with the upper end of an L-shaped lever 18, fulcrumed between its ends to the side beam 3, adjacent to the crank 16. In order to vary the movement of the L-shaped lever 18, its vertical arm is provided with a series of openings 19, any one of which is adapted to receive the bent end of the pitman 17, whereby the desired end is attained. The horizontal arm of the L-shaped lever 18 has an opening 20, in which is loosely fitted an arm 21 of a crank-shaft 22, journaled at its ends in blocks pendant from the lower side of the carrier-frame. The carrier-frame is limited in its downward movement by suitable stops 23, attached to the inner ends of the side beams 3 and projecting across the path of the free ends of the side bars 5.

The crank-shaft 22 is provided at its ends with corresponding cranks 24, which obtain bearings in the carrier-frame substantially in the manner set forth, and one of the cranks 24 is extended to form the arm 21 for the purpose set forth. A pan or plate 25 has loose connection at its front edge with the horizontal portion of the crank-shaft 22, and its sides are flanged or upturned to prevent the

lateral displacement of the loose grain received thereon. The rear edge of this pan or plate projects into the thresher or separator a short distance, so as to deliver the loose grain thereto received upon the said plate during the operation of the feeder. A rod 26 has its ends similarly bent and secured to the inner or rear end of the carrier-frame in any convenient manner, and is disposed so as to support the rear portion of the pan or plate 25 and prevent the same from dropping down at its rear or free edge. A fender or strip 27 is attached to the rear end of the carrier-frame and is disposed in vertical relation, the upper edge portion being bent or deflected, so as to approach close to the endless apron to prevent the straw or grain being carried from the thresher by adhering to the lower side or returning portion of the endless apron.

A wing or leaf 28 is hinged or pivotally connected to the outer or front end of the frame 2, and is adapted to be supported in a horizontal position for sustaining bundles or gavels of grain when the latter are placed thereon prior to cutting the band, but when feeding loose grain this wing or leaf will be removed or turned into a vertical position, so as to be out of the way, the loose grain being placed directly upon the upper portion of the endless apron. Any means, as the bolt 29, will be employed to hold the leaf 28 elevated.

When in operation, the endless apron is driven so that its upper portion moves toward the thresher or separator, and the pan or plate 25, located at the delivery end of the feeder, receives a shaking or reciprocating movement through the instrumentalities herein more particularly referred to.

A feeder constructed substantially as set forth can be applied to threshing-machines now in use, and is light, compact in the arrangement of its parts, and can be provided at a comparatively low cost, and will be effective in operation and give satisfactory results.

Having thus described the invention, what is claimed as new is—

1. In a feeder for threshing-machines, the combination of a main frame, a carrier-frame, a shaft journaled to the outer end portion of the main frame and pivotally supporting the carrier-frame, means for supporting the carrier-frame at its delivery end, a crank at one end of the aforesaid shaft, a pan or plate supported by and movable with the carrier-frame and located immediately below the delivery end thereof, a lever fulcrumed to the

main frame and having connection with the crank of the shaft pivotally supporting the carrier-frame, and an arm operatively connected with the pan or plate for imparting a shaking or reciprocating movement thereto, and movable with the carrier-frame and having detachable connection with the operating-lever, substantially in the manner and for the purpose set forth.

2. In a feeder for threshing-machines, the combination of a main frame, a carrier-frame having pivotal connection at its outer end with the main frame, means for supporting the carrier-frame at its delivery end, a shaking pan or plate having connection with the carrier-frame and supported immediately below the delivery end thereof, a shaft having a crank portion to which the front end of the shaking pan or plate is connected, and having a pendent arm, a substantially L-shaped lever fulcrumed to the main frame and having its horizontal portion apertured to receive the pendent arm of the said shaft, and having its vertical member formed with a series of openings, a crank connected with a journal of a carrier-supporting roller, and a pitman adjustably connecting the said crank with the vertical member of the L-shaped lever, substantially in the manner set forth for the purpose described.

3. In a feeder for threshing-machines, the combination of a main frame, a carrier-frame having pivotal connection at its receiving end with the main frame by extensions of the front roller-journals, stops applied to the main frame and supporting the rear or free end of the carrier-frame, a rod having its ends bent vertically and secured to the carrier-frame, a shaft journaled to the carrier-frame and having a crank portion and a pendent arm, a pan or plate having connection with the said crank portion and supported by and movable on the aforesaid rod, a substantially L-shaped lever fulcrumed to the main frame and having its horizontal portion apertured to receive the pendent arm, a crank applied to one of the pivotal journals, and a pitman adjustably connecting the crank with the vertical member of the L-shaped lever, substantially as shown for the purpose described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ARTHUR E. PRATT.

Witnesses:

FRED S. PEW,
J. M. PEW.