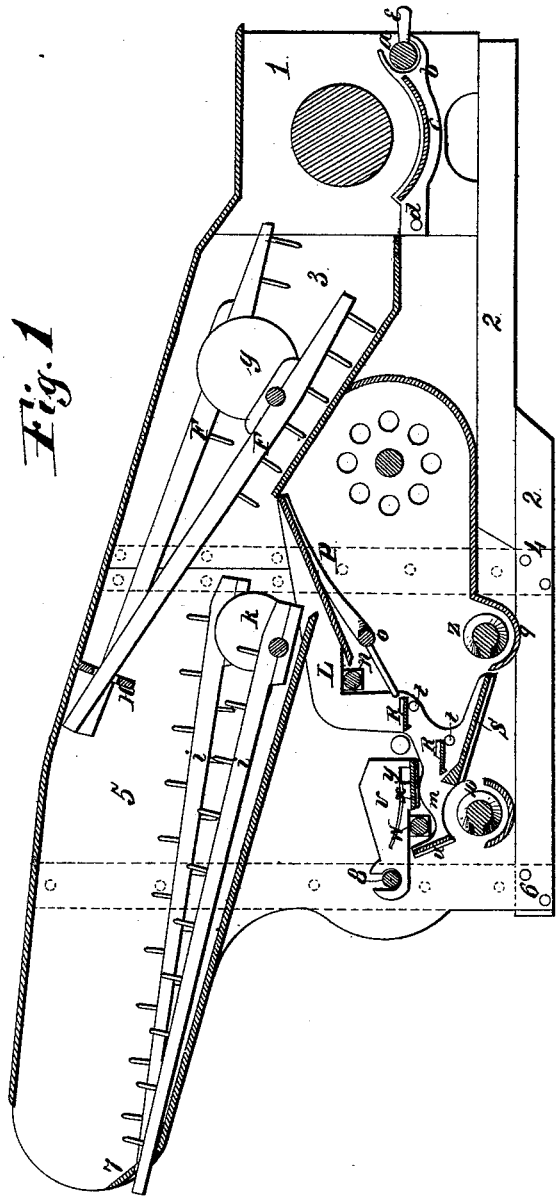
2 Sheets—Sheet 1.

W. W. DINGEE.

THRASHING-MACHINES.

No. 195,586. Patented Sept. 25, 1877.

Fig. 1



Witnesses.

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Edgar P. Sawyer

Inventor.

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2 Sheets—Sheet 2.

W. W. DINGEE.

THRASHING-MACHINES.

No. 195,586. Patented Sept. 25, 1877.

Fig. 2.

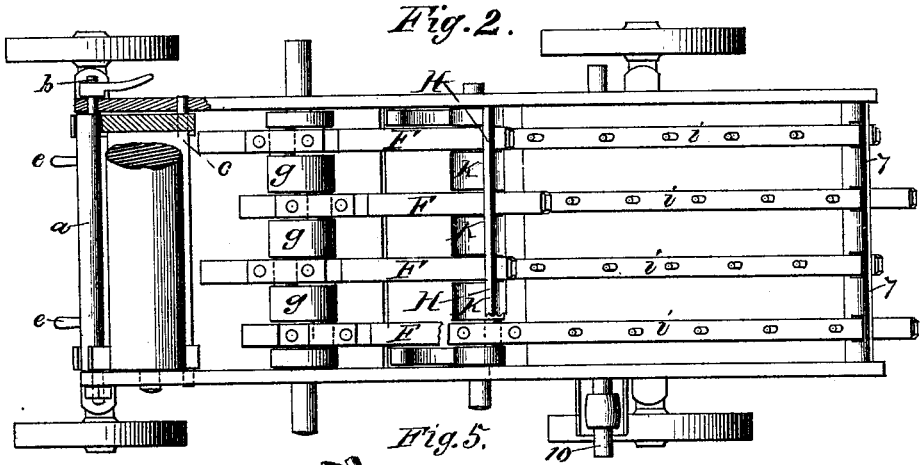


Fig. 5.

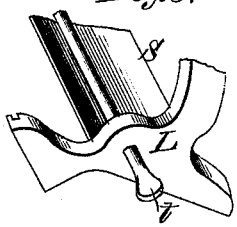


Fig. 3.

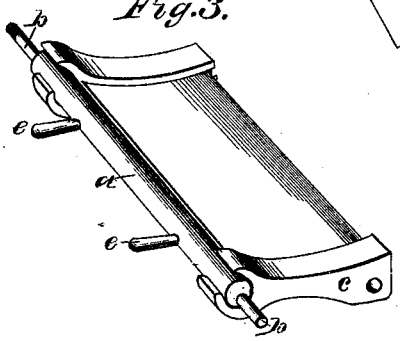


Fig. 6.

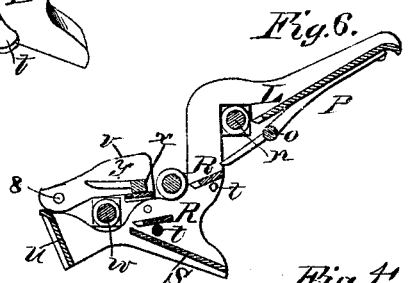


Fig. 4.

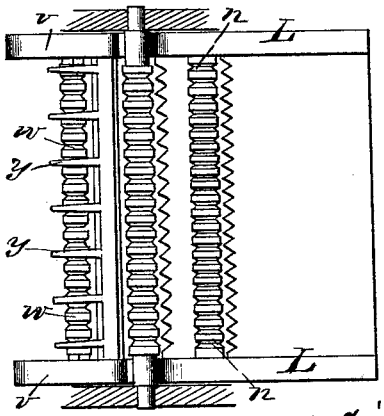
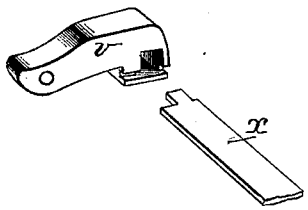


Fig. 7.



Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM W. DINGEE, OF OSHKOSH, WISCONSIN, ASSIGNOR TO THE SAWYER MANUFACTURING COMPANY, OF SAME PLACE.

IMPROVEMENT IN THRASHING-MACHINES.

Specification forming part of Letters Patent No. **195,556**, dated September 25, 1877; application filed January 10, 1876.

To all whom it may concern:

Be it known that I, WILLIAM W. DINGEE, of Oshkosh, Winnebago county, Wisconsin, have invented certain Improvements in Machines for Thrashing and Cleaning Grain, of which the following is a specification:

In the annexed drawing, Figure 1 is a central vertical section of my invention. Fig. 2 is a plan view with the top removed, and Figs. 3, 4, 5, 6, and 7 are detail views of my invention.

1 is the cylinder-frame. It is made of cast-iron, and is bolted to sills 2 and to the lower rake-trunk 3. *a* is one of the cross-girts of the cylinder-frame, and as made forms an eccentric for raising and lowering the concave. This cross-girt is round, with rod *b* passing entirely through it aside from the center; and with this rod *b* as a center, cross-girt *a* may be moved. *c* is one of the two concave holders, secured to the side of the thrasher by bolt *d*. The other end of this concave holder is formed to receive the cross-girt *a*. By turning this cross-girt *a* by means of handle *e*, the concave holder *c* may be raised or lowered. It is held in any desired position by tightening the nuts on rod *b*, which turn outside of the thrasher side plates.

3 is the lower rake-trunk, bolted to the cylinder-frame 1 and to the center-post 4. F F are the lower rakes, which are carried by the crank-shaft *g* with the outer ends sliding in mortises in cross-pieces H.

These rakes (from six to eight or more in number, according to the width of the machine) have teeth on their under side, and take the straw and grain, as they pass from the cylinder, and put it on top of outer rakes *i i*. The outer trunk 5 is bolted to center-post 4 and to outer post 6. The outer rakes are driven by crank *k*, which turns in the opposite direction from crank *g*. These rakes also slide at their outer ends in mortises in cross-piece 7. They have teeth both above and below, the upper to carry off the straw, and the lower to bring back the grain and chaff and put it on the shoe L of the fan.

L is the shoe of the fan. It is hinged at the side of the fan, and rests on the square parts of roller *n*. When the roller is turned it gives the shoe, and all attached thereto, a slight jarring motion. *o* is a strip, with a set of wire fingers attached, for the purpose of shaking to pieces any bunches of chaff and grain that might otherwise lodge on the shelves and clog the shoe. This finger-strip is attached to the upper part of the shoe by spring-pieces P. When the shoe is in motion, these springs give the fingers much more movement by vibration than they would have if rigidly attached to the shoe.

The shelves R R and grain-board S are movable, and are held securely in any desired position by end pressure caused by tightening nuts on rods *t t*, which rods cross the shoe, and are accessible from the outside of the machine. The tail-board *u* is set in grooves in the end of shoe L, and partakes of its jarring motion, rendering the tail-board much less liable to clog than when fixed on the side of the fan.

In order to catch all the grain which may be blown over, it is necessary to raise this tail-board to the highest point at which it can be placed without clogging the elevator.

When attached to the shoe, as described, it receives the jarring motion of the shoe, delivers uniformly all it catches to the elevator, and can be raised higher than is possible when it has no motion.

v is a tailings-shoe, designed to partially clean the tailings before they are delivered to the elevator. It is hinged to the side of fan at point 8 in such a manner as to be readily detached, and rests on the square parts of revolving roller *w*, from which it receives a motion similar to the main shoe.

It was found necessary in many conditions of grain to use a finger-strip in the place of the stationary shelf, as the latter would throw over and waste grain when the former would save it. The tailings-shoe is therefore provided with a movable shelf, *x*, used in cleaning wheat, and a movable finger-strip, *y*, used in cleaning oats and wet grain.

One of these devices can readily be substituted for the other by removing the detachable tailings-shoe *v*.

Z is a grain auger or conveyer, turning in grain-trough 9. This trough receives the grain

as it leaves grain-board S, and as provision is made for turning this auger in either direction, the grain can be delivered on either side of the machine. 10 is a tailings-auger similar in its construction to the grain-auger. It turns but one way, and has a pulley on it for carrying the elevator-cups. It receives the tailings caught by tail-board *u*, conveys them to the side of the machine, where an elevator returns them to the cylinder. 22 are the sills of the machine. They are spliced in the middle for the purpose of allowing the front wheels of trucks on which the machine is carried to turn under them.

For convenience in making or repairing the machine the outer shell or case may be made in several pieces and bolted to the upright posts 4 and 6 of the thrasher-frame, as shown in dotted lines in Fig. 1.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, substantially as specified, of the concave and the eccentrically-journaled cross-girt *a*.

2. In combination, the winnowing-shoe L, having the tail-board *u* and the tailings-shoe *v*, substantially as set forth.

3. In combination with the winnowing-shoe L, the tailings-shoe *v*, provided with the movable shelf *x* and movable finger-strips *y*, substantially as set forth.

WILLIAM W. DINGEE.

Witnesses:
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EDGAR P. SAWYER.