

(No Model.)

J. S. SHAFER.
FANNING MILL.

No. 448,809.

Patented Mar. 24, 1891.

Fig. 1.

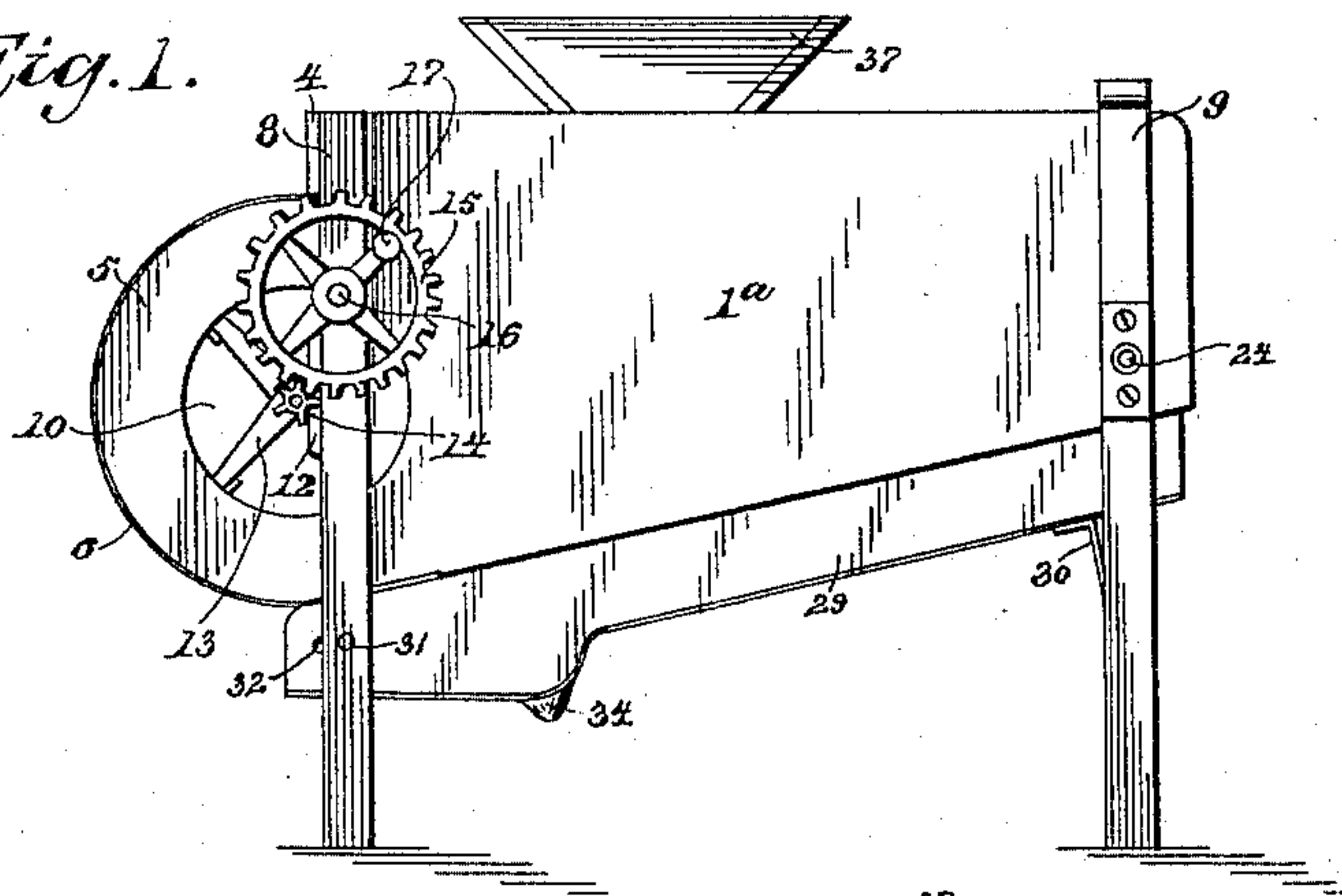


Fig. 2.

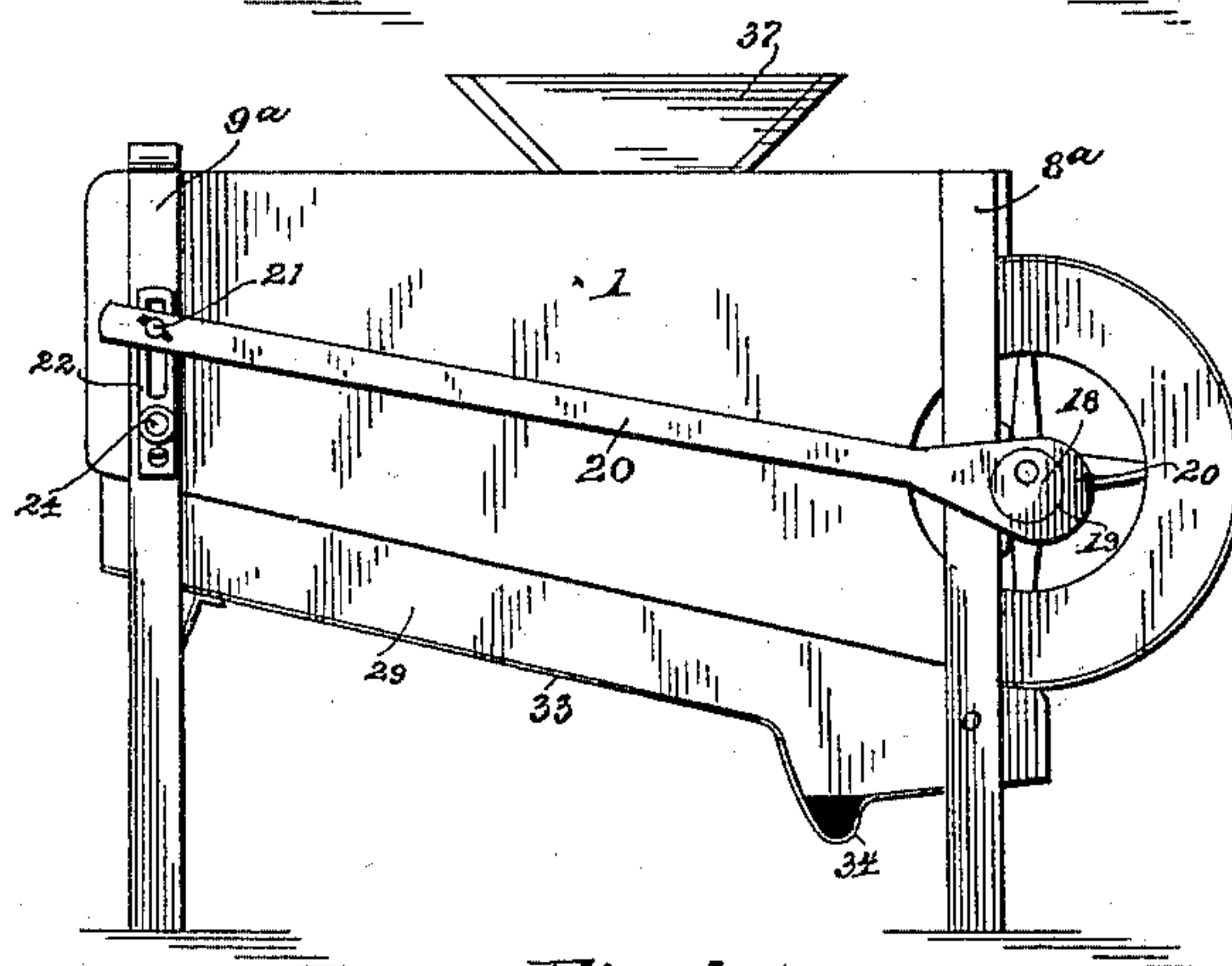


Fig. 3.

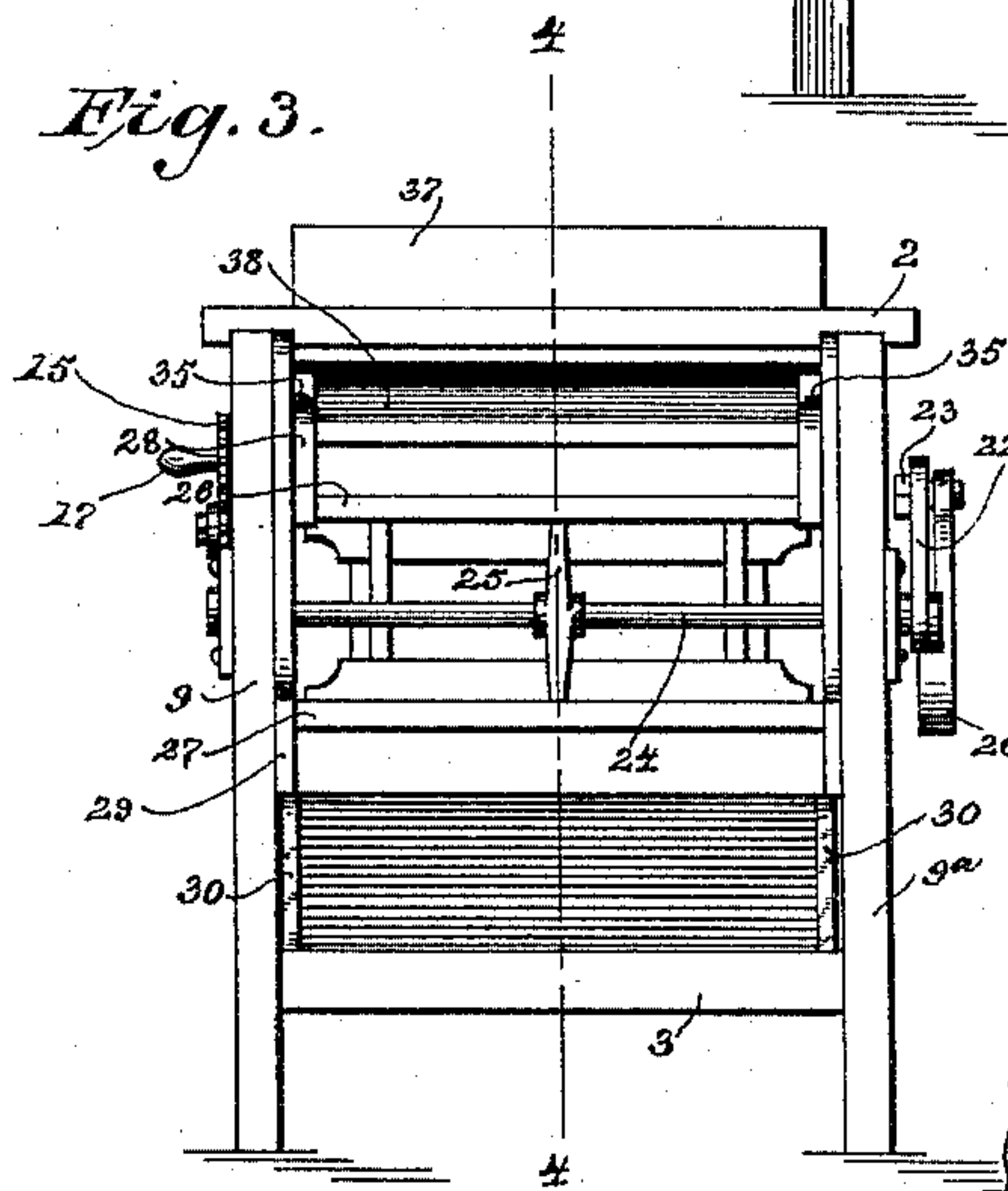


Fig. 4.

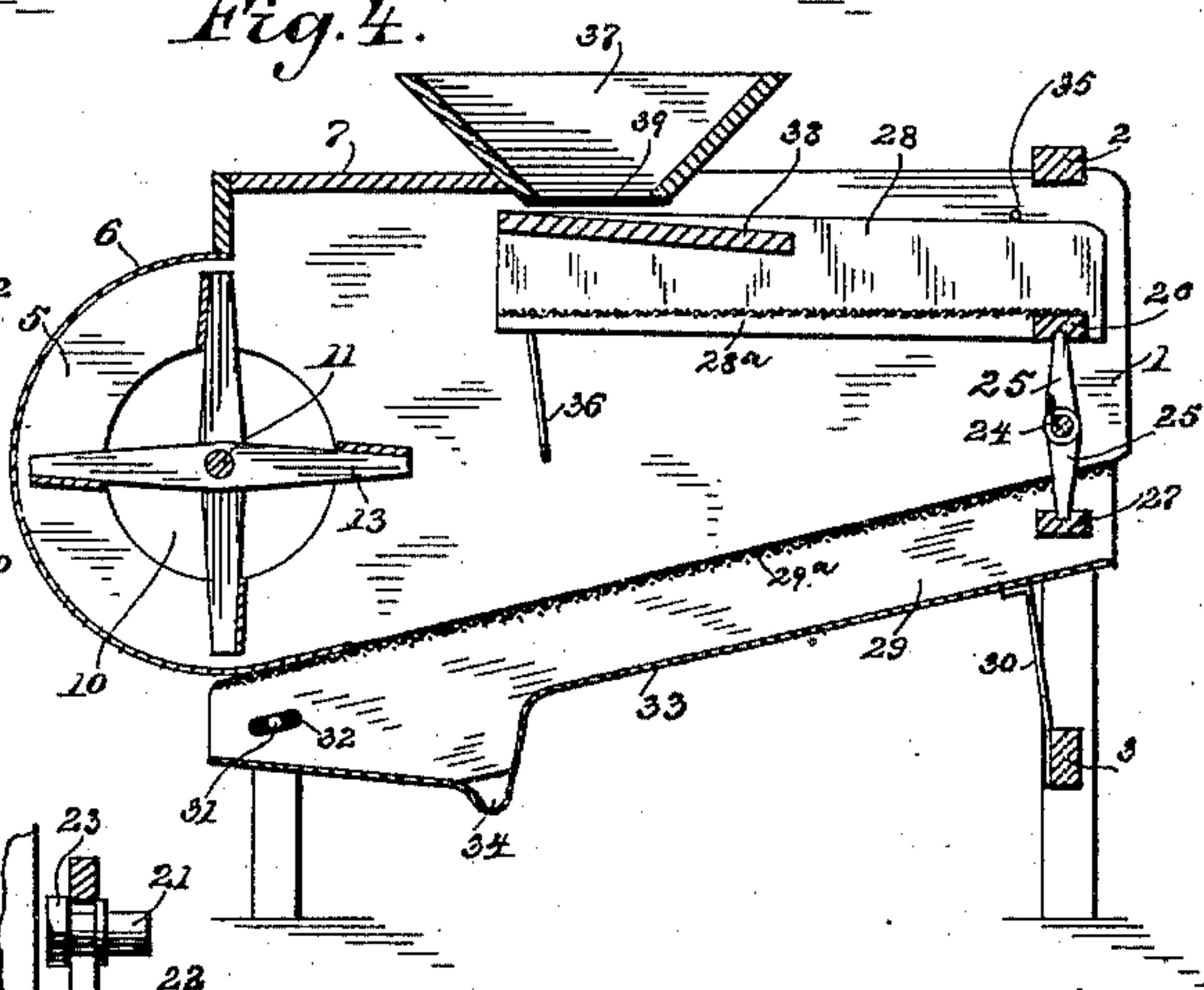
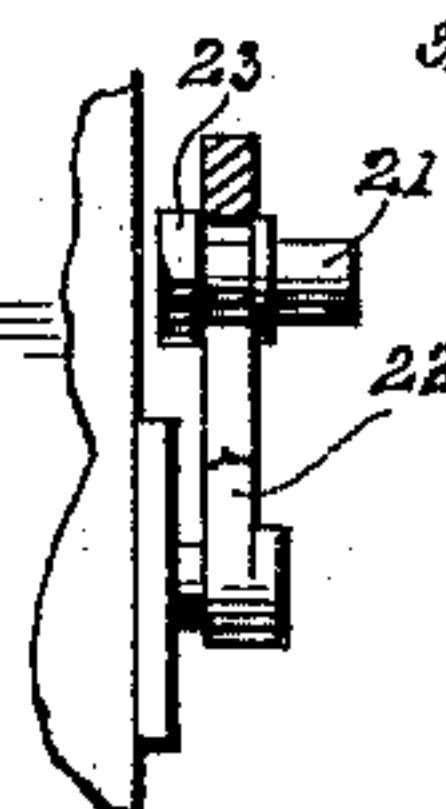


Fig. 5.



Witnesses

E. H. Gallahan.

Geo. S. Wheelock.

By his Attorneys,

Cash & Co.

Inventor

Joshua S. Shafer

UNITED STATES PATENT OFFICE.

JOSHUA S. SHAFER, OF WEST PLAINS, MISSOURI, ASSIGNOR OF TWO-THIRDS
TO JOE R. DAVIDSON AND ROBERT G. GREEN, BOTH OF SAME PLACE.

FANNING-MILL.

SPECIFICATION forming part of Letters Patent No. 448,809, dated March 24, 1891.

Application filed September 3, 1890. Serial No. 363,843. (No model.)

To all whom it may concern:

Be it known that I, JOSHUA S. SHAFER, a citizen of the United States, residing at West Plains, in the county of Howell and State of Missouri, have invented a new and useful Fanning-Mill, of which the following is a specification.

My invention relates to a fanning-mill; and it consists, principally, in utilizing a board or one of the reciprocating grain-shoes as a bottom to the hopper.

In the drawings, Figure 1 is a view looking toward one side of the machine, and Fig. 2 is a view looking toward the opposite side. Fig. 3 is a rear view, and Fig. 4 is a vertical section thereof, on line 4 4, Fig. 3. Fig. 5 is a detail section showing the connection of the pitman to the rock-arm.

The frame of the machine is composed of sides 1 1^a, cross-pieces 2 3 at the rear end, cross-piece 4 at the top of the front end, semi-cylindrical fan-casing 5 6 below the piece 4, formed by the extended semicircular front ends 5 of the sides and the curved covering-plate 6, that extends a distance under the sides, top board 7, and supporting-legs 8 8^a and 9 9^a. The extended ends 5 of the sides, together with the sides, have formed therein circular openings 10 10, passing through the centers of which is a fan-shaft 11, journaled in boxes 12 12, secured to the front legs, and carrying the usual fan 13, that revolves in the fan-casing.

On the end of the shaft 11, in juxtaposition to the front leg 8, is a pinion 14, engaged by a large cog-wheel 15, mounted on a stud 16, projecting from said leg, and turned by a crank 17, thus operating the fan. The opposite end of shaft 11 carries an eccentric 18, that engages a circular opening 19 in pitman 20, that extends along the side 1 to the rear end of the machine, which end is provided with a screw-threaded stud 21, that passes through a slot in rock-arm 22, in which the stud is held adjustably up or down by means of a nut 23, whereby the reciprocation of the grain-shoes is adjusted. This rock-arm 22 is carried by a rock-shaft 24, that extends across the machine, passing through the rear legs and the sides, and this shaft is provided with

a cross-piece 25, the ends of which engage openings in the strips 26 27 of the upper and lower grain-shoes 28 29, respectively. The rear end of the lower grain-shoe 29 is supported on spring pieces or plates 30, while its front end is supported by pins 31, projecting inwardly from the front legs and engaging in slots 32 in the sides thereof. The bottom 33 of this shoe is formed into a trough at 34 for permitting the escape of the grain or seed. The sides of the lower shoe are directly below the sides of the machine.

The rear end of the upper shoe is supported by the upper end of cross-piece 25 and is prevented from shifting upwardly by stop-pins 35, projecting inwardly from the sides of the machine, and its front end is supported by spring-rods 36.

The support for the shoes is such as to permit of the necessary oscillation of the shoes 28 29, which are provided with the usual screens 28^a 29^a for the sifting of the material, the chaff being blown away by the fan.

The hopper 37, supported on the sides of the machine at the rear end of top board 7, has for its bottom a rearwardly and downwardly inclined cross-board 38 at the top of the upper shoe. It will be observed that by this combination of the hopper and a board oscillated with the upper shoe below it the material in the hopper is disturbed and shaken readily through the opening 39, formed by the rear end of the hopper and the bottom or cross board 38.

What I claim is—

The combination, with the lower shoe having a slot 32 in each side near the lower end, of the supporting-frame provided with pins 31, projecting into said slots, the spring supporting the upper end of said shoe, and the rock-shaft engaging said shoe at its upper end, substantially as described.

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

JOSHUA S. SHAFER.

Witnesses:

E. J. DAVIDSON,
S. D. RICHARDSON.