J. BRINKERHOFF.

Corn Sheller.

No. 74,981. Patented March 3, 1868.

Fig. 1.

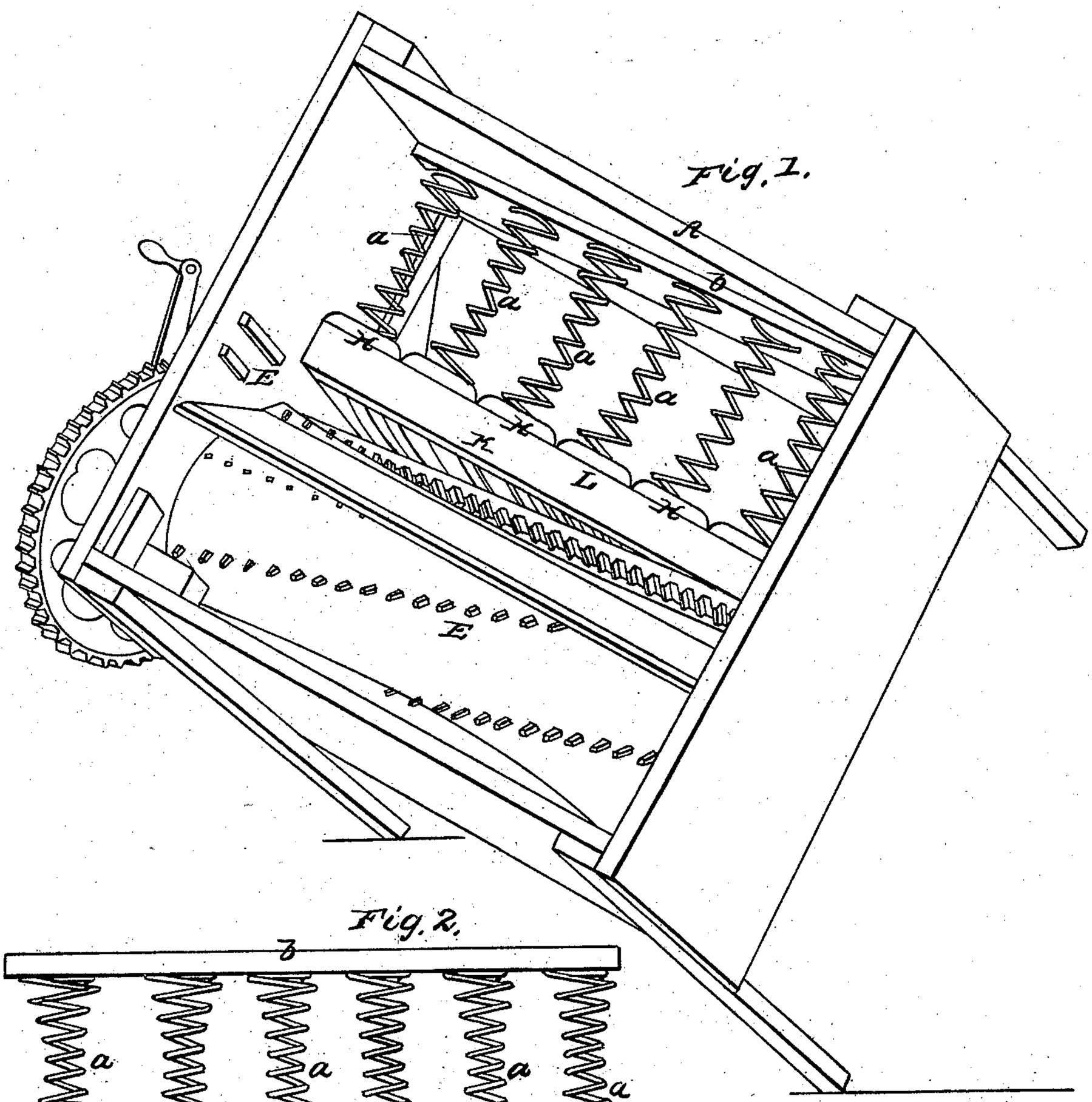
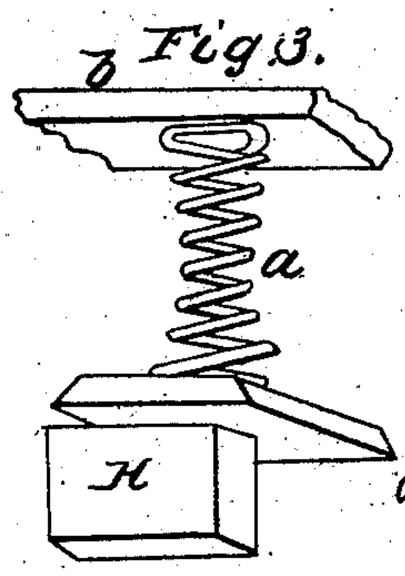


Fig. 2.

Fig. 3.



Witnesses:

D. Wright

Benj. B. Snow

Inventor:

Jacob. Brinkerhoff

United States Patent Office.

JACOB BRINKERHOFF, OF AUBURN, NEW YORK.

Letters Patent No. 74,981, *dated March* 3, 1868.

IMPROVEMENT IN CORN-SHELLER.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JACOB BRINKERHOFF, of the city of Auburn, in the county of Cayuga, and State of New York, have invented a new and useful Improvement in Corn-Shellers; and I do hereby declare that the following is an exact and full description of my said improvements, reference being had to the accompanying drawings for a more definite understanding thereof.

I do not attempt, in this specification, to describe all the parts of my corn-sheller, but only such parts thereof as constitute my present improvement, and those other parts most directly connected therewith. For a full description of my machine, as made by me previous to my present improvement, reference is made to the specification and drawings annexed to Letters Patent granted to me for an improvement in corn-shellers, bearing date February 28, 1865, and numbered 46,540. Of the drawings—

Figure 1 represents a top view of the machinery of the sheller, the covering being removed.

Figure 2 represents the series of regulators or pressure-blocks, each with its spiral spring attached thereto, and the movable back-board, to which the other ends of the spiral springs are attached.

Figure 3 represents one of said pressure-blocks, with its spiral spring attached, and a section of the movable back-board.

H H H H H H represent a series of regulators or pressure-blocks, which are placed parallel with the side of the cylinder E, and along the entire length thereof. These regulators or pressure-blocks play horizontally in an opening made to receive them, between the pieces L and K. They are each formed of two pieces of wood, glued or otherwise closely fitted, and firmly fastened together, in such manner and in such relative positions in relation to each other, as that a shoulder is formed upon three sides of the outer piece, and a shoulder upon one side of the inner piece. The shoulders upon the top and bottom of the outer piece, or that nearest the cylinder, press against the pieces L and K, when at rest, and when the ear of corn or the cob is sufficiently small to pass between the cylinder and the face of the regulator, without pressing against it with sufficient force to move it from its place of rest. These pieces, L and K, prevent these regulators or pressure-blocks from coming in contact with the knobs or spikes upon the cylinder. The shoulder upon the side of the outer piece presses at all times upon or against the shoulder upon the side of the inner piece of the double block or regulator, adjacent and next thereto on the left, and the movement of each is reciprocally affected by the other, inasmuch as no movement can be made by the block on the right, without in some degree affecting the position of the block next adjacent thereto on the left thereof.

To the back of each of these regulators or pressure-blocks is attached a spiral spring, *a*, in the shape of an hour-glass, the other end whereof is fastened to a movable back-board, *b*, which is fitted inside of the frame A for that purpose. The shape of this spiral spring enables these regulators to be moved in various directions with great ease, and to act and react upon each other, as more or less of them are crowded back by the ear of corn, as it is pressed against the face of the blocks while being shelled. These series of regulators or pressure-blocks, being thus each separate from the other, and yet so arranged, relative to each other, as greatly to influence each other, and each having its independent and separate spring, which may yet be acted upon by the movement of the regulator or pressure-block next adjoining the block to which it is attached, form, in their combined operation, when the sheller is at work, a continuous flexible but variable series of springs, the parts whereof readily accommodate and adjust themselves to the shape, size, and length of ear or piece of corn which may, for the time being, be operated upon in front thereof, and this constitutes a great improvement in my corn-sheller, as by this arrangement of pressure-blocks and spiral springs, so many only are brought into operation at the same time as will suffice to act upon the whole length of the unshelled ear or piece of corn, which may, at the time, be in front thereof, the balance thereof remaining at rest, and requiring no motive-power whatever to be used or wasted upon them.

The operation of this improvement is as follows: As the ear of corn is placed in the hopper, it falls between the face of these regulators or pressure-blocks and the cylinder. As the cylinder revolves, the knobs or spikes thereon catch against the ear and turn it, and press it downwards upon the bed-piece *d*. At the same time such portions of the faces of these pressure-blocks as are brought in contact with the ear, press against it and hold it to the cylinder, while the knobs or spikes thereon, with the aid of the sharp corners upon the bed-piece *d*

quickly shell the corn from the cob, and as the ear or cob, as the case may be, is thus caused to roll upon the bed-piece, by reason of the motion thus imparted to it by the cylinder, it at the same time passes downwards, along and upon the said bed-piece *d*, until it reaches the opening E, through which it passes from the machine completely shelled, and drops upon the floor. As the ear or cob passes towards said opening, the pressure-blocks behind it are relieved and at rest, ready for another ear, and this operation is repeated as often as ears are received from the hopper.

Having thus fully described my improvement, and its mode of operation, what I claim as new, and desire to secure by Letters Patent, is—

The series of regulators or pressure-blocks, each with its independent spiral spring, combined and arranged substantially as and for the purpose herein set forth.

JACOB BRINKERHOFF.

Witnesses:
D. WRIGHT,
BENJ. B. SNOW.