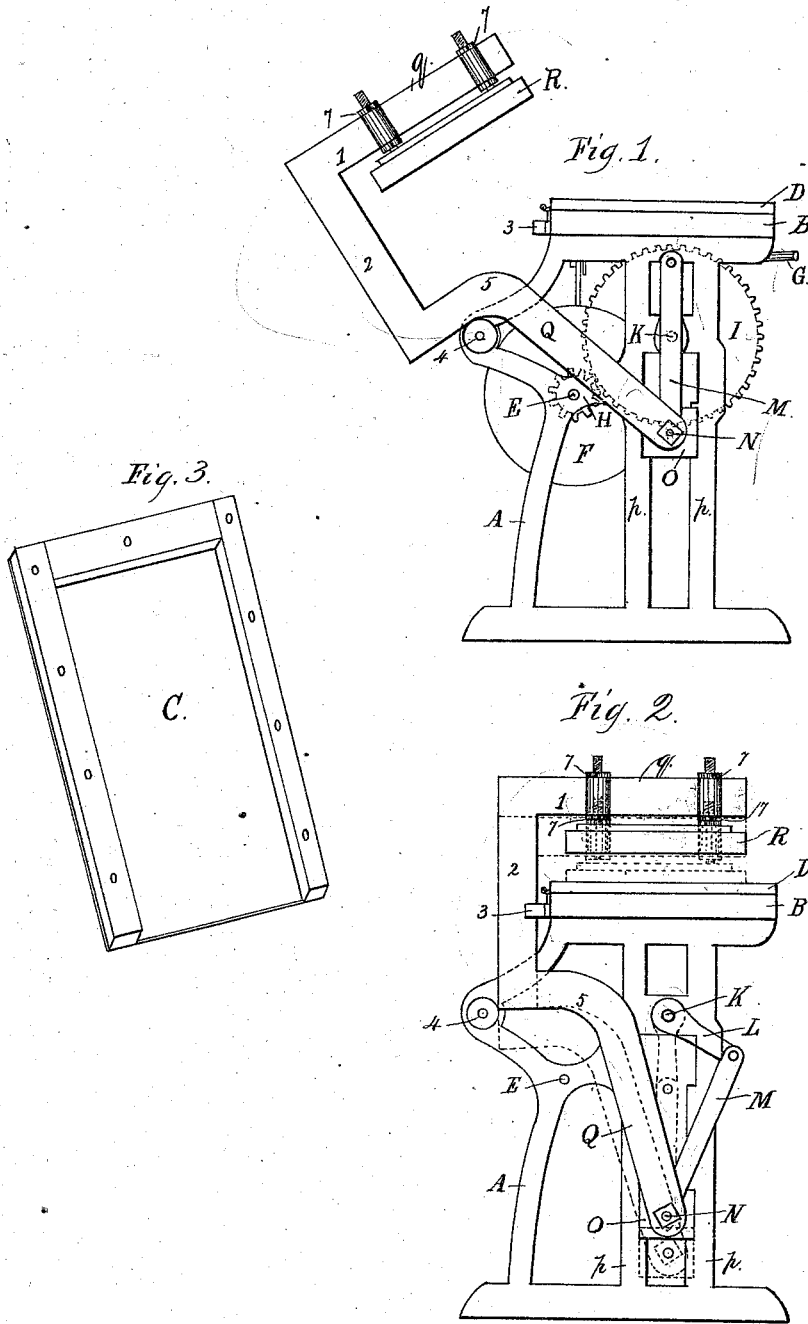


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Meal Molder in the Manufacture of Linseed Oil.

No. 162,826.

Patented May 4, 1875.



WITNESSES

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# UNITED STATES PATENT OFFICE.

AGUR JUDSON, OF NEWARK, NEW JERSEY.

## IMPROVEMENT IN MEAL-MOLDERS IN THE MANUFACTURE OF LINSEED-OIL.

Specification forming part of Letters Patent No. **162,826**, dated May 4, 1875; application filed February 13, 1875.

*To all whom it may concern:*

Be it known that I, AGUR JUDSON, of the city of Newark, county of Essex and State of New Jersey, have invented an Improved Molder for Molding the Meal in the Manufacture of Linseed-Oil; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

The object of my improvement is to give to the platen which presses down the meal in the mold preparatory to its being placed in the hydraulic press a positive, defined, and automatic movement, as hereinafter set forth, whereby it shall be brought forward until it is directly over the mouth of the mold, and then caused to descend in a right line into the box containing the meal and give it the requisite pressure, and then to move away to permit the operator to remove the mold with the meal from the machine. To this end my invention consists in the combination, with peculiarly-shaped swinging levers or brackets, which support the platen, of a vertically-reciprocating guide-bar, to which these levers are pivoted, this bar being connected by connecting-rods to cranks upon a revolving shaft.

In the drawings, Figure 1 shows an end view of a molding-machine having my improvement applied thereto, the crank being at its highest point, and the platen thrown back and supported or upheld upon its guide-rollers; Fig. 2, an end view when the platen is brought to a position directly over the mold and ready to descend, the dotted lines showing the same parts when the crank is at its lowest point and the platen is giving its pressure upon the meal in the box. In this view the pulley and gears are not shown. Fig. 3 is a perspective of the box.

A is an appropriate frame; B, the bed of the table; C, the ordinary removable mold or box for holding the meal, and for removing it from the table to the hydraulic press; D, the ordinary hinged frame, usually provided with side guiding-ledges to facilitate the sliding in of the ordinary bottomless frame or box, by which the meal is conveyed into and deposited in the box C, ready to be molded. These

parts need not be further described, as they are well known. E is the shaft which I prefer to use as the driving-shaft; F, a driving-pulley thereon, and which, by means of a sleeve attached thereto, may, by means of a hand-lever, G, and any ordinary clutching device, be at will thrown out of connection with the pinion H on the shaft, to stop the working of the machine, while the pulley continues to be driven from its prime motor. The pinion H engages with the large gear-wheel I on the crank-shaft K, and to the crank L on this shaft is pivoted a connecting-rod, M, whose lower end is pivoted on a cross bar or rod, N, which extends across the machine. This bar N is supported in slides O, (one on each side of the frame,) and which are grooved to run on the edges of the vertical parts *pp* of the frame; and on each of the outer ends of this same bar N is pivoted the lower end of a swing-lever, Q, the upper or bracket portion *q* of these levers having adjustably fastened to them the platen R, whose office is to press the meal in the box C. The levers Q are not positively attached or connected to any other part of the mechanism, and are positively operated only by the vertically-reciprocating movement of the rod or bar N; but in order to insure the forward movement of the platen, so as to bring it to the proper elevated position immediately over the box, and next a positive vertical descent in right lines, that it shall not fail to enter the box and compress the meal contained therein, and then a vertical rising out of the box, and finally an upward and backward movement to clear the box, I construct the parts as follows: The levers are each made with a horizontal portion or bracket, 1, to support the platen, with a vertical portion, 2, to run between a fixed guide, 3, on the table, and a roller-guide, 4, on the frame, and compelling a strictly vertical movement to the required extent. The remainder or lower portion of the lever is bent or curved inward from the vertical part, as shown at 5. The guide-rollers 4, it will be seen by referring to Fig. 1, serve as rests or supports to uphold the levers and platen when thrown back. When, upon turning the shaft, the slides O and their bar N are moved downward, the bent part 5 of the levers ride upon the rollers

until the back edges of the vertical parts 2 pass the roller. At this stage the front edges of the parts 2 have come in contact with the rear edge of the table, or entered the slot of a guide, 6, thereon, and the further downward movement of the slides, of necessity, draws the platen down in a vertical line, the guides 6 and guide-rollers 4, in connection with the vertical movement of the slides, preventing any variation from that line. The degree of pressure given by the platen may be adjusted at will by means of the adjusting-nuts 7 7 and screw, by which it is secured to the swing-levers. When the platen is raised its own gravity causes its levers to bear against the rollers 4, and it tends to fall backward, each

lever resting by its bent portion upon the rollers as soon as its vertical part has risen to the tops of the rollers.

It is evident that variations may be made from the mere mechanical details of construction without departing from the spirit of my invention.

I claim—

In combination, the platen-supporting levers Q, guide-rolls 4, slides O, connecting-rods M, and cranks L, and their shaft, substantially as and for the purpose described.

AGUR JUDSON.

Witnesses:

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