

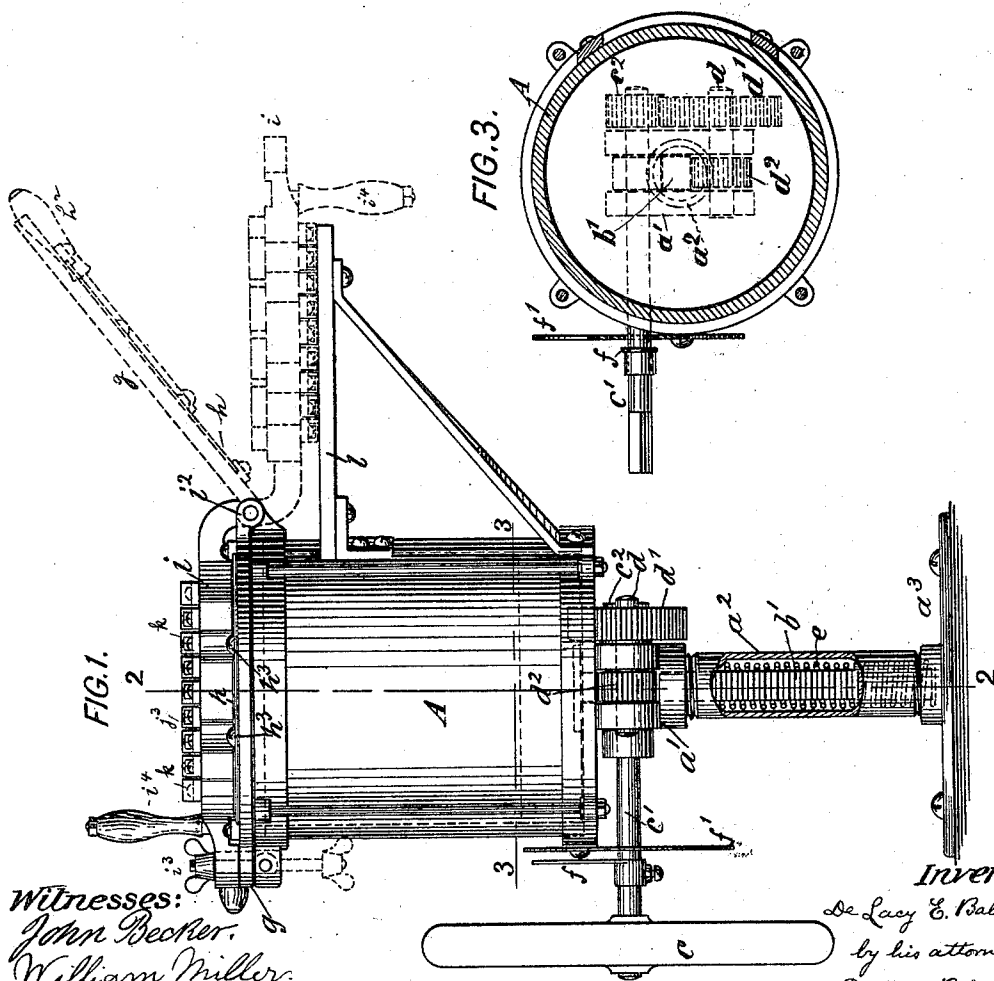
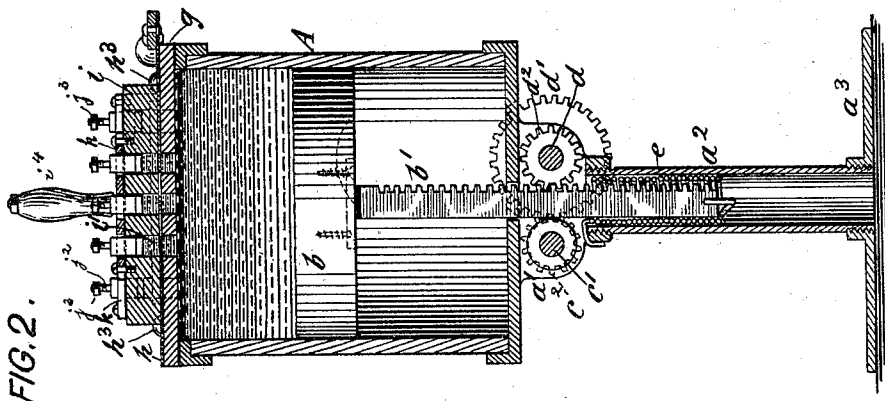
(No Model.)

2 Sheets—Sheet 1.

DE LACY E. BALLAM.
BUTTER MOLD.

No. 585,419.

Patented June 29, 1897.



Witnesses:
John Becker.
William Miller.

Inventor:
De Lacy E. Ballam
by his attorneys
Roeder & Briesen

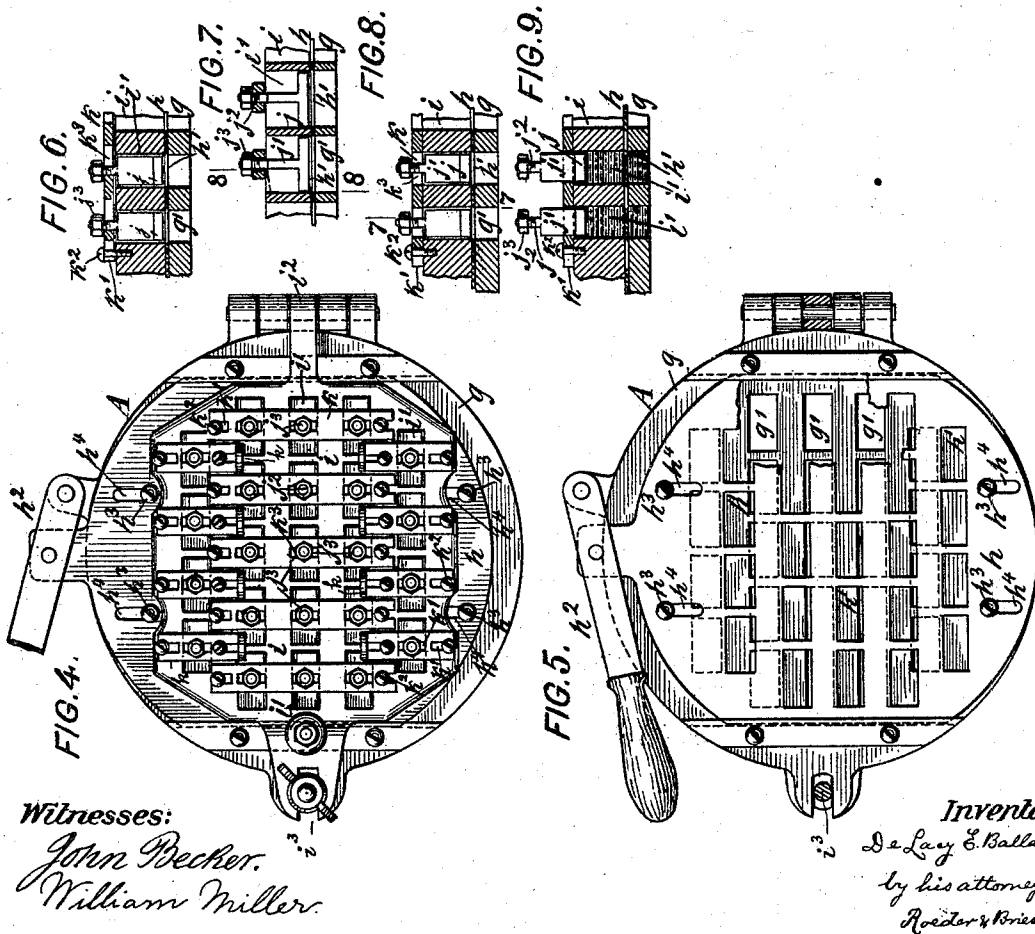
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2 Sheets—Sheet 2.

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BUTTER MOLD.

No. 585,419.

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UNITED STATES PATENT OFFICE.

DE LACY E. BALLAM, OF BROOKLYN, NEW YORK, ASSIGNOR TO ELIAS B. SCHLESINGER, OF NEW YORK, N. Y.

BUTTER-MOLD.

SPECIFICATION forming part of Letters Patent No. 585,419, dated June 29, 1897.

Application filed February 5, 1897. Serial No. 622,098. (No model.)

To all whom it may concern:

Be it known that I, DE LACY E. BALLAM, of Brooklyn, Kings county, State of New York, have invented an Improved Butter-Mold, of which the following is a specification.

This invention relates to an improved apparatus for shaping pats of butter and for molding caramels and other plastic substances in a quick and cleanly manner.

In the accompanying drawings, Figure 1 is a side view of my improved butter-mold; Fig. 2, a vertical section on line 2 2, Fig. 1; Fig. 3, a sectional plan on line 3 3, Fig. 1; Fig. 4, a top view of the machine; Fig. 5, a similar view with the mold-box *i* removed; Fig. 6, a detail section through a portion of the mold-box, showing the plungers locked; Fig. 7, a section on line 7 7, Fig. 8, showing the plungers unlocked; Fig. 8, a section on line 8 8, Fig. 7; Fig. 9, a section similar to Fig. 8, showing the plungers raised and the molds filled.

The letter A represents a vessel adapted to receive in bulk the butter or other substances to be molded and connected by a socket *a'* to a hollow post *a²*, mounted upon the base-plate *a³*. Within the post *a²* is contained a vertically-movable rack *b'*, which projects through the bottom of vessel A and is attached to a piston-head *b*, that snugly fits the vessel A. The rack and piston are actuated by a hand-wheel *c*, the shaft *c'* of which is journaled in the socket *a'* and carries a gear-wheel *c²*, meshing into a larger wheel *d'* on a small parallel shaft *d*, also hung in socket *a'*. Upon the shaft *d* is mounted a pinion *d²*, that engages the teeth of the rack. Thus by revolving the hand-wheel in either direction the piston may be raised or lowered, as will be readily understood. If desired, a spring *e*, inclosed within post *a²* and engaging the rack, may assist the upward movement of the piston, while a pointer *f* on shaft *c'*, traveling over dial *f'*, may serve to indicate the position of the same.

Upon the upper edge of vessel A is supported a hinged head *g*, provided with a number of vertical perforations or open cells *g'* of suitable contour, through which the butter is to be driven by the piston to form the pats. To the upper face of perforated head

g is secured a horizontally-movable sliding cutter *h*, which has openings *h'*, that correspond in arrangement and shape to the openings of the head *g*. The cutter is operated by hand-lever *h²* and is guided and limited in its movement by screws *h³*, engaging elongated slots *h⁴* of the cutter.

Above the cutter *h* there is hinged to the vessel A at *i²* a mold-box *i*, which is perforated to correspond to the head *g*—that is to say, the perforations *i'* in the mold-box extend entirely through the same and register in position and shape with those of the head.

Each of the perforations *i'*, which I will call the "molds" proper, contains a plunger or ejector *j*, which snugly fits its mold. The reduced stems *j'* of these plungers project upwardly out of the mold-box and terminate in screw-shanks *j²*, carrying nuts *j³*. The screw-shank of each plunger is embraced by a slide *k*, which is movably secured to the upper side of the mold-box by guide-pins *k²*, engaging slots *k'* of the slide. Each slide *k* is perforated centrally, as at *k³*, to permit the passage of the stem *j'*, but not of the plunger-head *j*. If either of the slides is moved sideways, so as to project with its inner edge beneath the nut *j³*, Fig. 6, it will lock the plunger *j* in its lowermost position and thus close its mold *i'* to prevent the butter from entering this particular mold. If, however, the slide is moved into its central position, the stem *j'* can pass freely through the slot *k³*, Figs. 7 and 8, and thus permit the plunger to rise and the mold to be filled. This filling will continue until the plunger-head *j* is forced against the lower face of the slide, Fig. 9, so that in this way the plunger-head will form in effect the top of the mold. Thus it will be seen that by means of the peculiar construction of the mold-box described any one of the molds can be closed to exclude the butter from the same while the other molds are being filled.

To the side of the vessel A there is secured a shelf *l*, which is placed at such an elevation as to engage all of the stems *j'* when the mold-box is thrown open and to thus drive the plungers through the molds to eject the pats of molded butter.

In use the cutter *h* is set so that its openings are brought into vertical alinement with

those of the head *g* and mold-box *i*, and the latter is locked to vessel A by clamp *i*³. The vessel A is filled with the bulk of butter or other substance to be molded, and the hand-wheel *c* is turned to raise the piston *b* and force the butter through the perforated head *g* and cutter *h* into the molds *i*¹. When the molds are filled, the cutter is drawn across the butter to sever the molded pats from the bulk, and then the mold-box is thrown open by handle *i*⁴, dotted lines, Fig. 1, to force the plungers through the molds and eject the pats.

What I claim is—

1. In a butter-mold the combination of a vessel with a piston, a transversely-movable cutter, a perforated mold-box above the cutter, and a series of plungers movable within the perforations of the mold-box, substantially as specified.

2. In a butter-mold the combination of a vessel with a piston, a transversely-movable cutter, a perforated mold-box above the cutter, plungers movable within the perforations of the mold-box, and slides adapted to engage and lock the plungers, substantially as specified.

3. In a butter-mold the combination of a

vessel with a piston, a perforated head, a perforated cutter above the head, a perforated mold-box above the cutter, and plungers movable within the perforations of the mold-box, substantially as specified.

4. In a butter-mold the combination of a vessel with a piston, a transversely-movable cutter, a hinged perforated mold-box above the cutter, plungers movable within the perforations of the mold-box, and a shelf projecting laterally from the vessel and adapted to engage the plungers when the mold-box is open, substantially as specified.

5. In a butter-mold the combination of a vessel with a piston, a hand-wheel, pinion and rack for actuating the piston, a perforated head, a perforated cutter, a perforated mold-box, plungers movable within the perforations of the mold-box, slides adapted to engage and lock the plungers, and a shelf projecting laterally from the vessel and adapted to engage the plungers when the mold-box is open, substantially as specified.

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