

No. 623,165.

Patented Apr. 18, 1899.

J. C. LAWSON.

MACHINE FOR CUTTING, FORMING, AND DELIVERING BLOCKS OR PATS OF BUTTER.

(Application filed Jan. 27, 1898.)

(No Model.)

2 Sheets—Sheet 1.

Fig: 1.

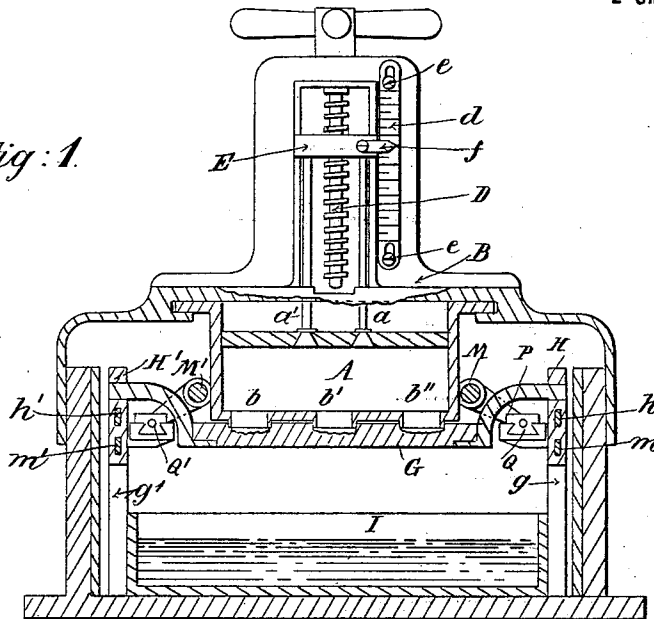
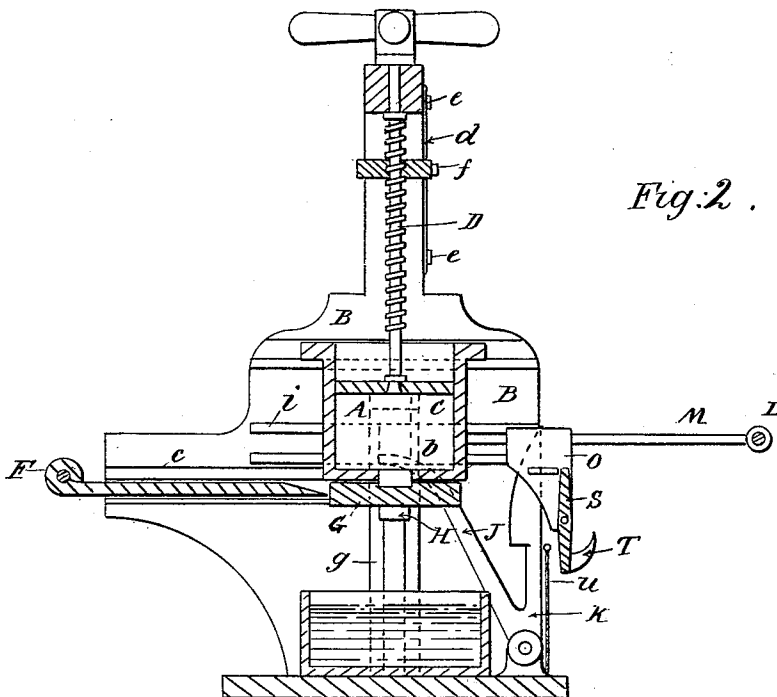


Fig: 2 .



Witnesses
alpha Bell
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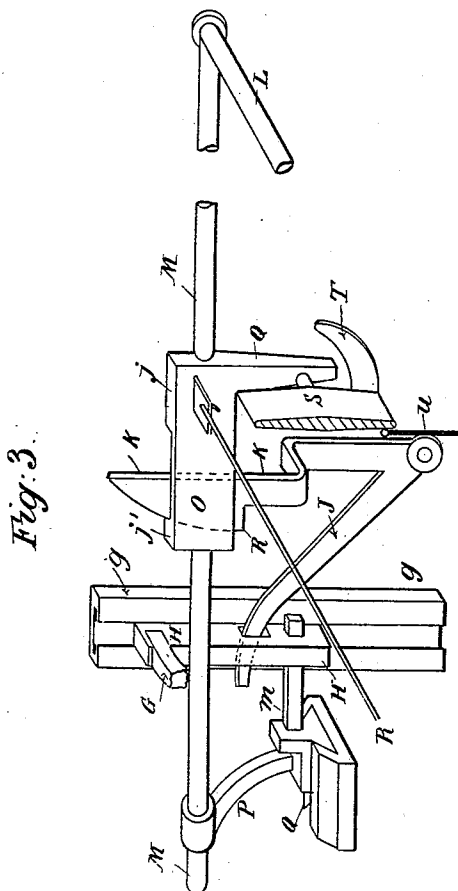
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UNITED STATES PATENT OFFICE.

JOHN CHARLES LAWSON, OF LONDON, ENGLAND.

MACHINE FOR CUTTING, FORMING, AND DELIVERING BLOCKS OR PATS OF BUTTER.

SPECIFICATION forming part of Letters Patent No. 623,165, dated April 18, 1899.

Application filed January 27, 1898. Serial No. 668,213. (No model.)

To all whom it may concern:

Be it known that I, JOHN CHARLES LAWSON, engineer, a subject of Her Majesty the Queen of Great Britain, residing at No. 34 Norton Folgate, London, England, have invented an Improved and Useful Machine for Forming, Stamping, Cutting, and Delivering Pats or Blocks of Butter or Oleaginous Matter, of which the following is a specification.

My invention relates to improvements in machines for cutting, forming, and delivering blocks or pats of butter or like oleaginous matter as a continuous process, and has for its object the stamping, equalizing, cutting, and delivery of several such pats or blocks with one double movement. I attain these objects by the mechanism illustrated by the accompanying two sheets of drawings, in which—

Figure 1 is a front sectional elevation of the machine, showing the stamps in pressing position. Fig. 2 is an end sectional elevation showing the relative positions of the parts when the aforesaid stamps are in pressing position; and Fig. 3 is a perspective view of one side of the lever-gear, locking, cutting, and delivery mechanism not drawn to scale.

Similar letters refer to like parts throughout the several views.

A containing vessel A is mounted within a frame B and is arranged to hold the butter or oleaginous material. A plunger C fits it accurately and is caused to press upon the mass therein contained by means of a screw D, nut E, and guide-rods *a a'*. When the oleaginous material is placed in A in a loose or broken state, a certain degree of homogeneity is required, and to that end I provide a closing-plate F, Fig. 2, working in slides *c*, and this may be pushed inward to cover the two, three, or more holes *b b' b''* in the container A. A certain amount of pressure may then be applied to the plunger C by the screw D without any of the contained matter exuding from the holes *b*. When the pressure has produced the required homogeneity, the scale *d* may be moved so that one of its marks coincides with the index *f* on the nut E. Then each descending mark will indicate an exact amount of oleaginous material exuded with each rotation of the screw D. The clos-

ing-plate F is then withdrawn and held back in the position shown by Fig. 2 until the container A requires to be filled again. A stamp G, with recesses corresponding to the orifices *b b' b''* in the container A, is carried by slides H H', working in guides *g g'*, so that it may be alternately pressed against the orifices *b b' b''* or lowered into a water-tank I. A slot *h h'* in each of the slides H H' admits the curved end of a cranked lever J, which is connected by a common axis to a second lever K. Fig. 3, Sheet 2, best explains the movement of these levers and the details of their arrangement. A cross handle-bar L, attached to two sliding rods M M', carries upon each rod a bracket O, having two stops *j j'*, which engage with the top of the lever K, and thus as L is pressed inward or pulled outward the slides H H' are lowered or raised, respectively, by the action of the lever J. Projecting arms P P' operate slides Q Q', carrying bolts *m m'*, which are shot into the slides H H' when they are raised, and the stamp G is thus held tightly against the orifices *b b' b''* while the oleaginous matter is being pressed into its recesses by the depression of the plunger C. The distance of the stop *j*, Fig. 3, from the lever K upon the full withdrawal of L allows of the bolt *m* being unlocked from the slide H before it is caused to descend by the combined action of levers J and K. A cutting-wire R tightly stretched is attached to each of the brackets O and adjusted to pass closely under the orifices *b b' b''* in A, and in its extreme inward stroke tipping the inclined edge of the closing-plate F, which is always damp from its proximity to the stamp G, which rises from the water-trough I each time that the handle-bar L is pulled out, and thus cleans said wire R. A beveled tipping plate S is pivoted to the bracket O and is unequally balanced, so as to fall over when the metal horn T, fixed to one end, is clear of a guide-rib attached to the frame. A tipping piece *u* is arranged so as to turn the plate S in a horizontal position when the handle-bar L is pressed inward until the horn T engages with the guide-rib, and is thus carried under the blocks or pats to receive them when cut off by the wire R, and to deliver them upon the return or outward movement

by tipping them upon a traveling sheet of paper or into receptacles of card or metal placed ready to receive them.

The method of operation is as follows: In 5 the position of the various parts shown by the drawings a depression of the plunger C by rotation of the screw D, indicated by the index *f* and scale *d*, causes a certain predetermined amount of oleaginous matter to be pressed 10 into the mold or stamp G through the orifices *b b' b''*, said stamp being then locked by the bolts *m m'*. Then the handle-bar L is moved inward and the mold or stamp G, carried by the slides H H', descends into the water-tank 15 I, the first part of said movement being to withdraw the bolts *m m'*. The tipping plate S is now horizontal, and is so held by the horn T and advances under the protruding blocks or pats which fall upon it when cut off by the 20 stretched wire R. The return or outward movement of L withdraws the tipping plate S, carrying the separated blocks or pats, which are discharged upon its tilting at the end of the stroke into or upon a suitable receptacle. 25 The stamp or mold G is then again locked in position ready for a repetition of the foregoing action. The closing-plate F is only used when the container A is first filled.

When unstamped blocks are required, the 30 stamp G may be dispensed with, and the tipping plate may carry paper or metal boxes or cases to receive them and deliver them as the handle-bar L is moved.

I am aware that prior to my invention machines have been made in which cutting-wires 35 have been used to separate blocks or pats of oleaginous material when the latter has been forced out in a continuous mass from a container, and therefore I do not broadly claim such a device; but 40

What I do claim, and desire to secure by Letters Patent of the United States, is—

1. The combination in a machine for forming, stamping, cutting and delivering pats of 45 oleaginous material of a container A with two or more orifices in its base, a plunger C operating in said container, a nut E having an

index and scale, vertical guide-rods *a, a'* connecting said plunger and nut, a screw D passing through said nut and adapted on rotation 50 to move the nut vertically, a stamp or mold G, hand-operated levers adapted to raise or lower said mold, and means for automatically locking the same in position substantially as set forth. 55

2. The combination in a machine for forming, stamping, cutting and delivering pats of oleaginous material, of a cross-handle L, bars M M' connected to said cross-handle, brackets O attached to said bars, levers J K adapted 60 to be operated by the motion of said brackets, slides H, H' operated by said levers, a mold-box G carried by said slides, a plunger C adapted to force the material to be acted on against said mold-box and a container A, in 65 which said plunger operates substantially as set forth.

3. The combination in a machine for forming, stamping, cutting and delivering pats of oleaginous material, of a plunger C, mold-box 70 G adapted to receive the material acted on by said plunger, brackets O, a handle-bar connecting said brackets, a system of levers and slides connecting said brackets to said mold-box and adapted to operate the latter, tipping 75 plates S carried by said brackets, and a cutting-wire R, carried and operated by said brackets substantially as set forth.

4. The combination in a machine for forming, stamping, cutting and delivering pats of 80 oleaginous material, of a cross handle-bar L, brackets O, connected by said handle-bar, slides H, H', levers connecting said slides and brackets, a plunger C, mold-box G adapted to receive the material acted on by said plunger, and operated by said slides, and locking- 85 bolts *m m'* connected to said handle-bar and adapted to lock said mold-box in position substantially as set forth.

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Witnesses:

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WM. O. BROWN.