N. S. LONG.
Butter-Press.

No. 205,109. **Patented June 18, 1878.**

Fig. 3.

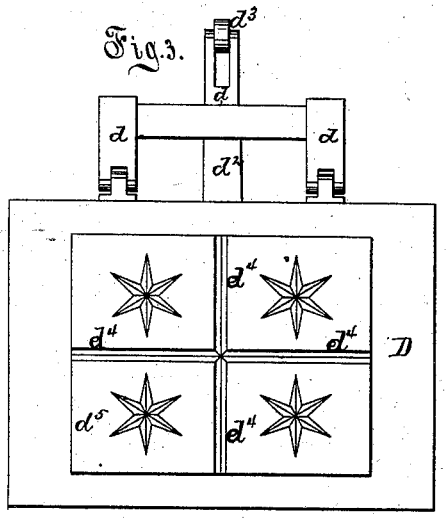
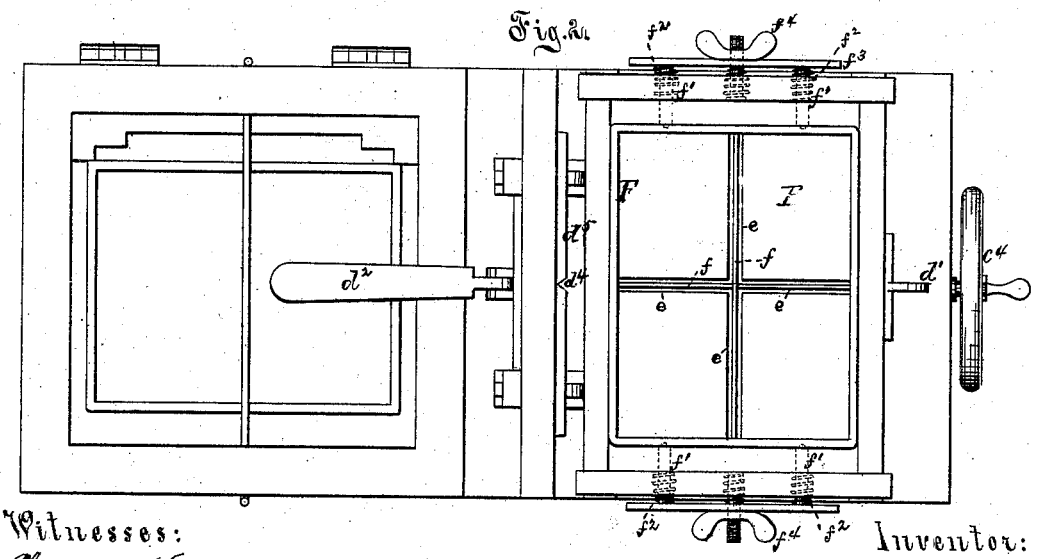


Fig. 1.

Fig. 2.



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UNITED STATES PATENT OFFICE.

NATHAN S. LONG, OF MARYSVILLE, OHIO.

IMPROVEMENT IN BUTTER-PRESSES.

Specification forming part of Letters Patent No. **205,109**, dated June 18, 1878; application filed March 5, 1878.

To all whom it may concern:

Be it known that I, NATHAN S. LONG, of Marysville, Union county, State of Ohio, am the inventor of new and useful Improvements in Butter-Presses, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of a machine embodying my invention. Fig. 2 is a plan of the same, and Fig. 3 is an inner or lower face view of the lid to the mold or press.

My invention relates to a machine for pressing butter into cakes or cubes of a desired and predetermined size; and it consists in the combination of parts hereinafter shown and described, whereby the lid to the mold in which the butter is pressed is closed and fastened or unfastened and opened, and also whereby the butter, before being removed from the mold, is cut or separated into cakes or cubes of any desired dimensions.

A is a table, upon which is mounted a box or mold, B, the box being securely strapped to the table. Within the mold is a vertically-moving presser-block, C, operated by a screw, *c*, which is turned by a bevel-gear, c^1, which meshes into a gear, c^2, on a shaft, c^3, having a hand-wheel, c^4, at the side or end of the table, where it may be conveniently turned by the workman.

D is the lid of the box or mold, to which it is hinged, as shown. In order that said lid may be readily and quickly closed and fastened and unfastened and raised in the operation of my machine, I hinge upon the front edge of the lid the strap or hasp *d*. This hasp is arranged to engage a downwardly-curved stud or pin, d^1, fixed on the front of the mold, while to the lower end of the hasp is pivoted a lever, d^2, (which swings in the loop of the hasp,) upon the upper end of which is formed the cam d^3. When the lid is to be closed, the hasp is closed over the stud d^1, the lever being held at right angles to the hasp, so that the cam escapes the said stud. The hasp being clasped upon the stud, the lever is brought down in line with the hasp and against the side of the mold or box, when the cam d^3 will engage the under side of the stud d^1 and secure the lid tightly in place upon the mold. To open the lid, the lever is again swung at right angles to the hasp, thus releasing the stud and the cam, when the hasp may be swung clear of the pin and the lid raised.

Upon the top of the presser-block C, I place a slab or plate, E, which has the grooves or channels *e* cut in its upper or exposed face, said grooves running across the plate and dividing into the spaces or squares which are to form the dimensions of the pressed butter when cut into cubes or cakes. The under face of the lid is made with grooves d^4, corresponding to the grooves in the plate E.

F is a frame, preferably of metal, across which are stretched the wires *f*, and to which the said wires are secured taut. In place of wires, thin knives, similarly placed, may be employed. The frame F is arranged to rest in the top of the mold or box B, upon a shoulder formed on the top of the walls thereof, and the cutter-wires *f* are so arranged that when the frame is in place on the mold the wires will correspond in direction and position to the grooves in the plate E and the grooves in the lid. The frame is securely held in its place by means of spring-bolts f^1, which project against the sides of the frame on each side through slots f^2 in the rim of the mold, the said bolts being fixed in plates f^3 on the exterior of the mold, which are furnished with thumb-screws f^4, so that the bolts, by turning down the screws, will be forced inward against the frame F, and thus hold it firmly in position.

In operating a press embodying my improvements, the block C is lowered in the mold, butter is placed on the plate E, the frame F is secured in position, and the lid D is securely closed down, as described. The block C is then raised until the butter is properly compressed, when the lid is opened. The block is now still further raised, and carries up the pressed butter against the cutter-wires, thus dividing the butter into sections. When the wires have passed entirely through the butter they enter and rest in the grooves in the plate E. The frame is now released from the bolts f^1, and, together with the plate E holding the sections of butter, is lifted from the block, and, being placed upon the table, the sections of butter are easily removed and packed. In closing the lid the grooves on its under side,

which is raised somewhat at d^5, permit the lid to close tightly, the wire cutters entering and lying in said grooves.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a butter-press having mold-box B, in which works the presser-block C, the combination, with the lid D, of the hinged hasp d, in which is pivoted the lever d^2, carrying the cam d^3, together with the downwardly-curved stud or pin d^1, fixed on the exterior of the said mold-box, all constructed and arranged to operate as and for the purpose described.

2. In a butter-press having the mold-box B, with its presser-block C, and lid D, with its grooves d^4, the plate E, with its corresponding grooves e, and the frame F, with its cutter-wires f arranged to correspond to said grooves, together with the spring-bolts f^1 in slots f^2, and carried by plates f^3, having thumb-screws f^4, all constructed and arranged to operate as and for the purpose specified.

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Witnesses:
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