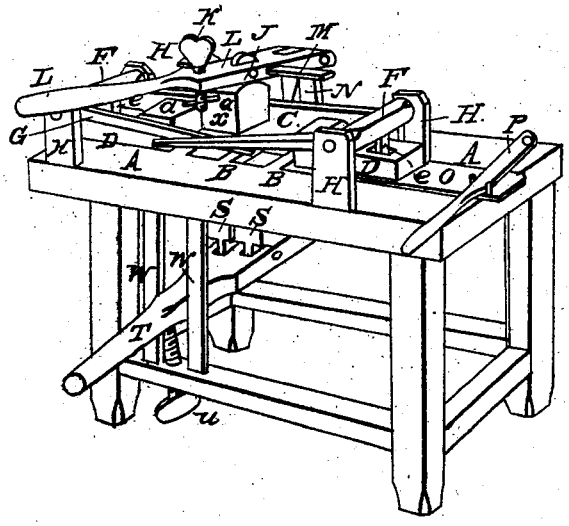
2 Sheets—Sheet 1.

T. D. GAIL.

Butter Worker.

No. 1,815. Patented Oct. 10, 1840.



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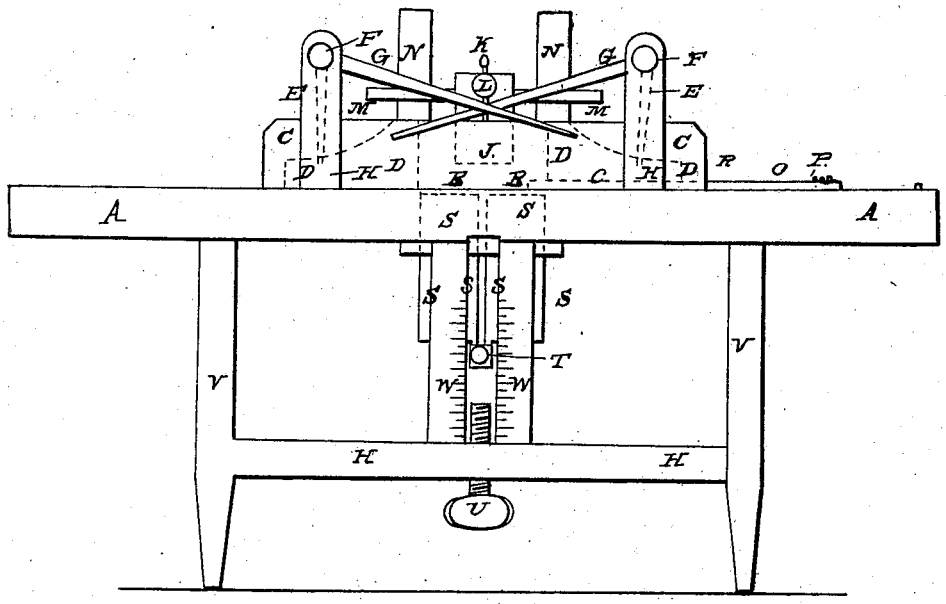

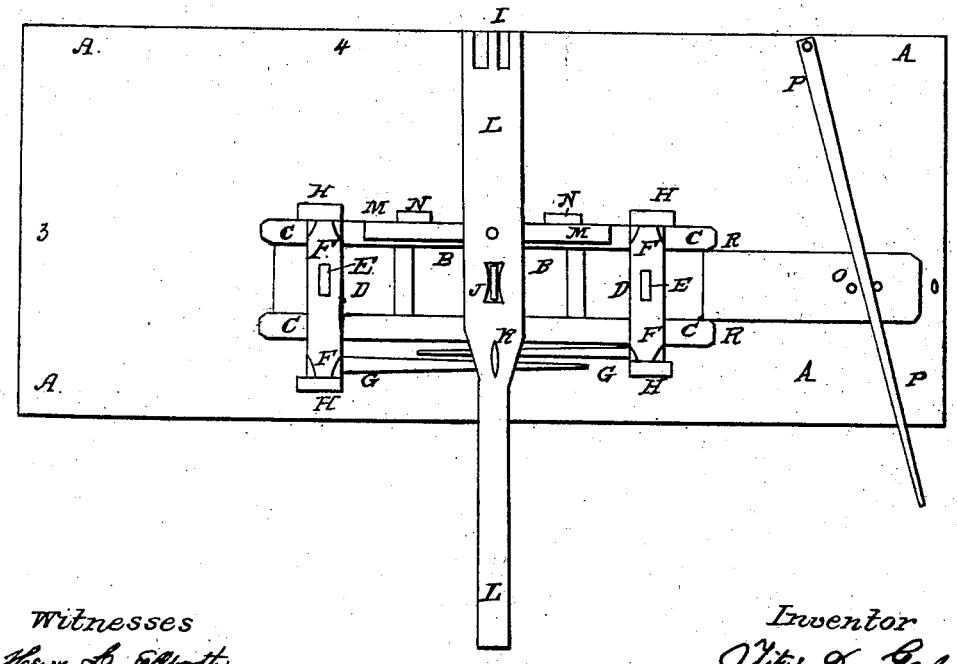

Witnesses
Henry L. Ellsworth.

Inventor
Titus D. Gail.

UNITED STATES PATENT OFFICE.

T. D. GAIL, OF EDEN, NEW YORK.

MODE OF WORKING AND PRESSING BUTTER.

Specification of Letters Patent No. 1,815, dated October 10, 1840.

To all whom it may concern:

Be it known that I, TITUS D. GAIL, of Eden, in the county of Erie and State of New York, have invented a new and improved machine which I denominate a "butter working and pressing machine," the design of which is to work and press the butter after it has been churned, so as to separate all buttermilk therefrom and to form it into balls or lumps of any determinate size and weight, and thus to prepare it for market; and I do hereby declare that the following is a full and exact description of said machine.

I make a table of plank supported upon suitable legs; a convenient size for the top of this table is three feet in length, eighteen inches in width; and about three inches in thickness; through this table, at an equal distance from its sides, and about 14 inches from the left hand of said table, I make two openings, near to, but separted from each other by a partition; they may be rectangular, and measure about three by four inches on their sides; these openings constitute boxes or molds, into which the butter, after being properly worked, is to be pressed. They have pistons fitted into them, which extend down below the table, where a lever is attached to them by means of which they may be brought up flush with the top of table, or depressed to any distance below it, so as to constitute the bottoms of molds, for receiving and forming the balls or lumps of butter. Upon the top of this table I form a trough, within which the butter is to be worked and pressed; the sides of this trough consists of two boards about 5 inches wide, extending along close to each side of the boxes or molds, and being about two feet in length; its ends consist of tar blocks or pistons fitting in between the side boards, which blocks or pistons are made to slide back and forth by means of levers. There is also a piston or block for working and pressing the butter vertically, which is attached to a lever that crosses the trough and is worked up and down as required.

In the accompanying drawing Figure 1 is a perspective representation of the machine; Fig. 2 a longitudinal elevation of it; and Fig. 3 a plan or top view.

In each of these figures where like parts are shown they are designated by the same letters of reference.

In Fig. 1 the front side board of the trough is omitted for the purpose of showing the interior, the back side board is seen at C.

A A is the table; B B, the boxes or molds, the part marked B B, being the upper ends of the pistons S, S, which exactly fit the molds, and which are raised and lowered by the lever T. Under this lever there is a gage screw U, to regulate the distance of its descent, and, consequently the capacity of the molds, which distance may be designated by divisions on the guide pieces or scale posts W, W, Fig. 2.

D D, are the piston blocks which form the ends of the trough, and which are to be made to slide back and forth in the following manner.

H, H, are posts which sustain two rollers or rock shafts F F. From these descend two short arms E E, the lower ends of which play loosely in mortises in the piston blocks D D.

G G, are long arms which extend horizontally from the rollers F F, and which are to be worked up and down by means of the lever L L, in the following manner.

K is a thumb screw which passes through the lever L L, and this has a pin *a*, *a*, passing through it. When this lever is depressed the pin *a*, *a*, is made to stand at right angles with, and under, the levers G G, and when the lever L is moved up and down, the pistons D D, will be thereby caused to slide in and out.

H is a block or piston attached to this lever and working on a fulcrum pin at I. The standard to which the back end of the lever L is hinged, swivels around and thus admits of the piston or block H, being moved horizontally, as well as up and down, within the trough. N, N, are two upright studs placed in the rear of the trough to guide the lever and check it in its horizontal motion along the trough.

M is a cross bar passing loosely through a mortise in the lever L, and plying or bearing against the front of the studs N N.

By the foregoing arrangement of the respective parts of my machine, when the butter required to be worked is placed in the trough, under the block or piston H, by elevating and depressing the lever L, L, the pistons D D, will force and compress the butter in conjunction with the block or pis-

ton, H, and that in the most perfect manner will work out, or extract the buttermilk therefrom. When the butter is ready to be molded, the pistons S S, are to be depressed to the proper point, and the butter will then be forced into the molds, when the molds are filled a thin slide or cutter O, situated under one of the pistons D, is forced forward by the lever P, and the butter will thereby be cut off, and smoothed level with the surface of table or tops of the molds. It may then be printed, and the balls or lumps delivered from the molds by raising the pistons S, S.

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

1. The combination of the horizontal pistons D, D, working within the side boards C, C, and operated by the levers G, G, as herein set forth; and also the vertical block or piston H, attached to and operated by the lever L.

2. Likewise the table A A, constructed with boxes B B, all as above described.

3. And in combination with the foregoing the box or mold pistons S, S; and the slide O, for the purpose herein set forth.

TITUS D. GAIL.

Witnesses:
THOS. P. JONES,
A. MCCREARY.