

S. HEWIT.

Churn.

No. 54,343.

Patented May 1, 1866

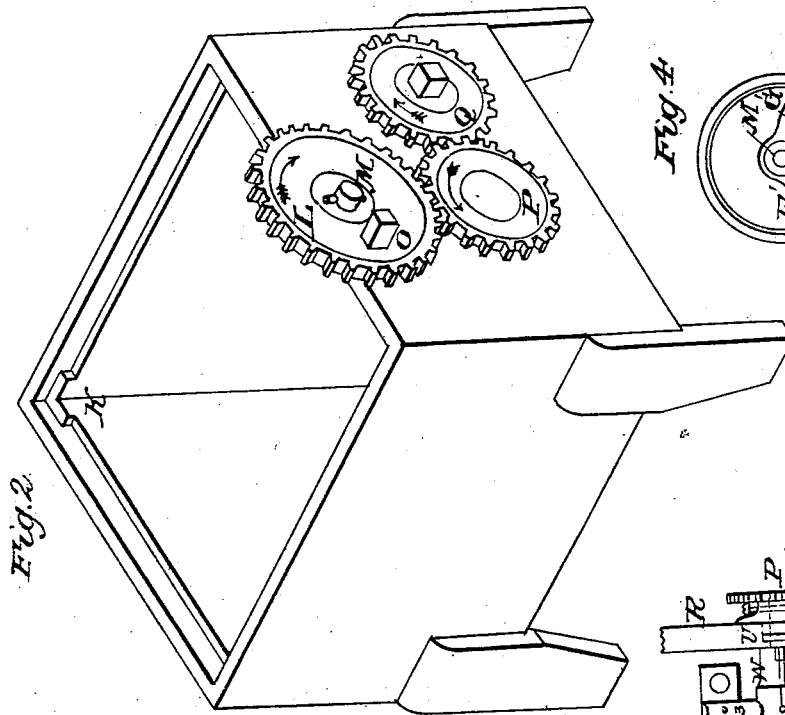


Fig. 2.

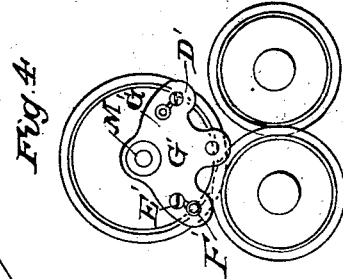


Fig. 4.

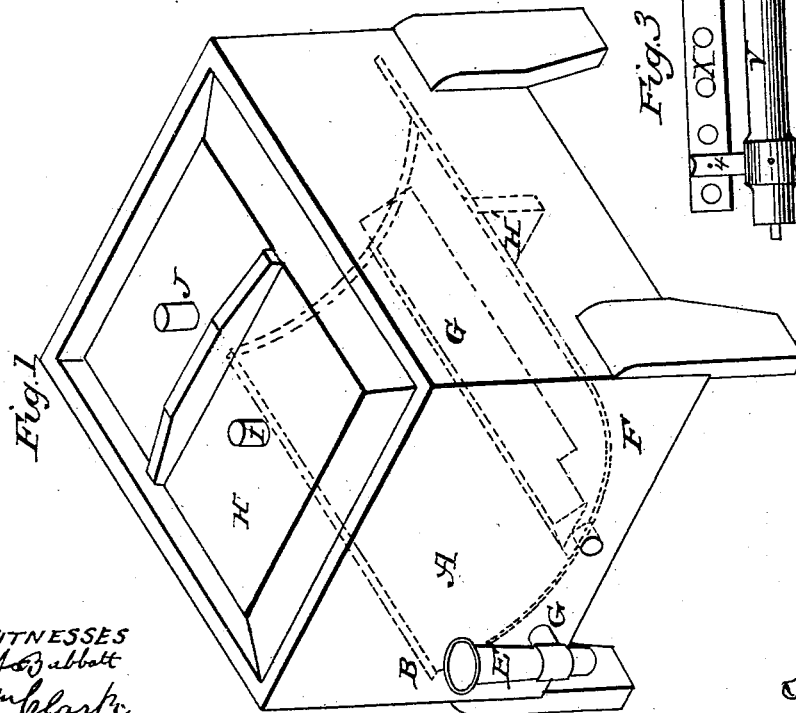


Fig. 1.

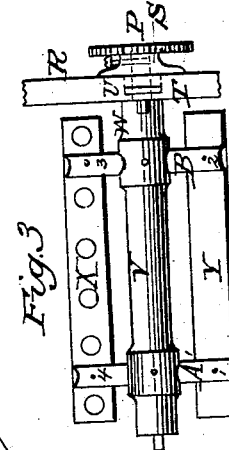


Fig. 3.

WITNESSES  
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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. 54,343, dated May 1, 1866.

*To all whom it may concern:*

Be it known that I, SILAS HEWIT, of the town of Seneca Falls, in Seneca county, State of New York, have invented a new and Improved mode of Constructing Churns; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, and to the letters of reference marked thereon.

The object of this invention is to lessen the time and expense ordinarily incurred in making butter from cream; and it consists in the following points: first, the gearing the two paddles together; second, the mode of tightening the bearings by means of a stuffing-box; third, shifting the position of the driving-wheel stud so as to cause it to engage another wheel, and by this means reverse the direction of the paddles; fourth, the mode of constructing the paddles or dashers; fifth, the mode of grooving into wood the zinc bottom; sixth, the mode of conveying the water to the water-chamber; seventh, the bridge under the zinc bottom for the purpose of supporting the same; eighth, raising the lid a small distance from the bottom of the rabbet in which it is placed by means of small pieces in the corners, for the purpose of additional ventilation, and to let the cream flow freely back into the churn; ninth, the break or triangle-piece on the bottom of the churn, all of which I will proceed to describe.

Figure 1 is a perspective view or elevation of said churn. Fig. 2 is another perspective view thereof without the top, showing the gears and their relations to each other. Fig. 3 is a geometrical plan of one of the paddles or dashers and its immediate connections. Fig. 4 shows the stand of the driving-wheel and how the same is changed so as to reverse the directions of the paddles.

In Fig. 1, A is the zinc bottom, (shown in red dotted lines,) and is grooved into the sides of the frame-work, as shown at B, the distance of the flat horizontal portion (shown between the two rows of red dotted lines) on all the sides, and cemented in that position. C is a break, triangular in form, placed on the bottom of the churn for the purpose of changing the direction of the current and elevating it, so that it will come in contact with the dash

on the opposite side. D is a hole for letting out the buttermilk. E is a tube, used for the purpose of charging the water-chamber F with warm water in any case when that may be required to facilitate the operation of churning. Said chamber occupies the space immediately beneath the zinc and main bottom of the churn, and the side pipe, G, opens into the same.

The top H has two air-tubes, I and J, opening into the churn, for the purpose of allowing the air to circulate freely among the cream while in the process of churning. The top H rests at each of the four corners on small pieces placed in the bottom of said rabbet, one of which is shown at R, Fig. 2.

In Fig. 2, L is the driving-wheel, having its bearings on the stud M. From the plane of said wheel is projected a square stud, O. The two wheels P and Q engage each other, and the wheel P and the driving-wheel L also engage. The shaft of the wheel Q extends from the face of the said wheel, in form like the stud O in the wheel L. Onto either may be slipped a crank for operating the churn. The shafts of the two wheels O and P extend through the side of the churn, as shown in Fig. 3.

In Fig. 3, R is the woodwork of the side of the churn. S is the flange-box secured to the side R, one portion of which is inserted into the side, as shown at T. The hole allowing the portion T of the box S to enter the side is bored nearly through, and between the end of box S and the bottom of the hole is a space, U. This space is filled with cotton-waste or other fibrous material packed firmly in, so that no leakage of the cream from within can occur.

Those portions of the shafts P and Q projecting from the plane of the inside are made square, and the shaft V, on which the dash or paddle is constructed, has a socket, W, fitted thereto.

The paddles X and Y are let into the center of the arms A' B', and pins 1 2 3 4 put through both. Said arms are circular in form, and fit firmly into the holes bored for them in the shaft V, and are there secured in their proper places by means of the pins 5 6.

The stand O', Fig. 4, from which project the bearings M from the driving-wheel L, is made adjustable, for the purpose of disengaging the two wheels P and L, and causing the wheels L and Q to engage for the purpose of revers-

ing the direction of the paddles. This is accomplished by drawing the screws D' and E', and moving the stand over until, without taking out the screws, the heads thereof will occupy the spaces F' and G' in said stand.

The bridge H' is for the purpose of supporting the zinc bottom, (shown partly in red dotted lines, Fig. 1.)

Having above described the construction and mode of operating my invention, what I claim as new, and wish to secure by Letters Patent, is—

1. The beaters X Y, in combination with the

triangular break G, as and for the purpose specified.

2. The shifting-gear L, in combination with the gears P Q and beaters X Y, as and for the purpose specified.

3. The bridge H', for supporting the zinc bottom, as described.

4. The blocks K in each corner, for the purpose set forth.

SILAS HEWIT.

Witnesses:

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