

(No Model.)

H. J. BAILEY.
CHURN.

No. 301,949.

Patented July 15, 1884.

Fig. 1.

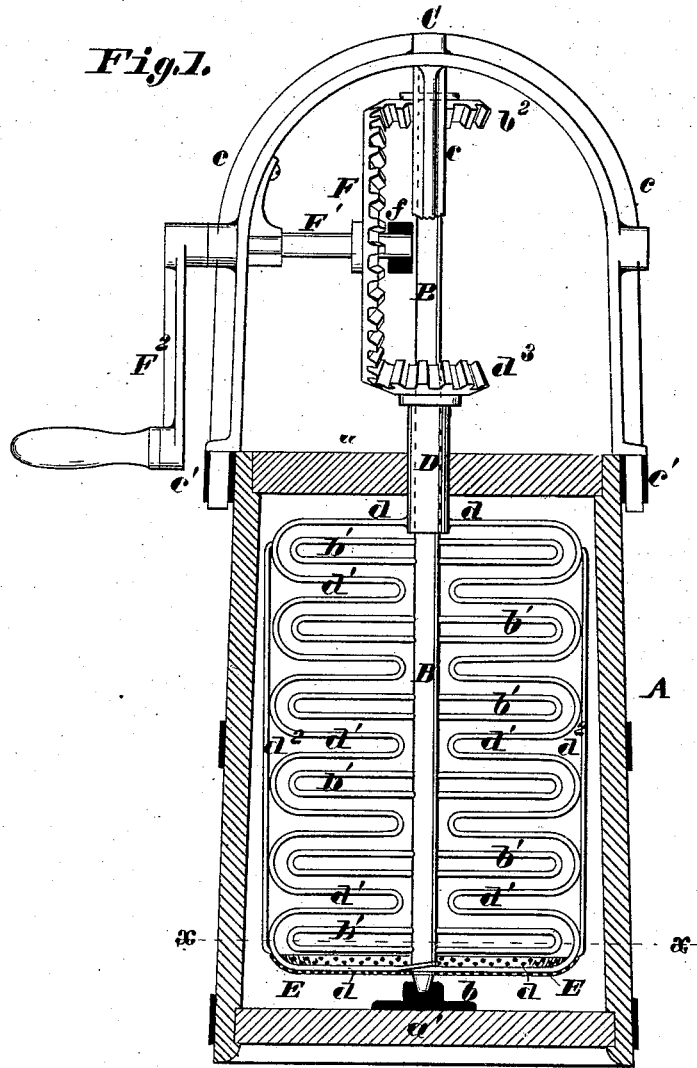
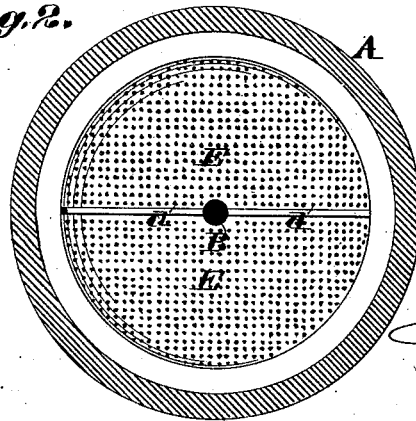


Fig. 2.



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UNITED STATES PATENT OFFICE.

HUGH J. BAILEY, OF GLENCOE, MISSOURI.

CHURN.

SPECIFICATION forming part of Letters Patent No. 301,949, dated July 15, 1884.

Application filed August 29, 1881. (No model.)

To all whom it may concern:

Be it known that I, HUGH J. BAILEY, of Glencoe, in the county of St. Louis and State of Missouri, have invented a certain new and useful Improvement in Churns, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to those churns which are provided with a vertical shaft having horizontal beaters or arms, and turning in a sleeve supporting a frame, which is also provided with beaters or arms extending between the beaters or arms of the shaft and turning around the shaft.

My improvement consists in combining, in a churn, a vertical shaft whose beaters or arms are formed of lateral loops of wire set vertically, a frame constructed wholly of wire and looped to form the inwardly-extending lateral arms set vertically between the shaft-arms, a perforated metal saucer secured to the frame, and vertical strengthening-wires, as herein-after set forth.

In the drawings, Figure 1 is a vertical section of my churn. Fig. 2 is a horizontal section of same on line *x x*, Fig. 1.

A is the body of the churn, which is of common construction, having a cover, *a*, and bottom *a'*.

B is a vertical shaft, stepped at bottom in a suitable bearing-block, *b*, secured to the bottom of the churn. The shaft has bearing at top in a bracket, C, which is supported by its legs *c*, fitting in sockets *c'*, secured to the top of the body A. The shaft carries a number of agitating-arms, *b'*, formed of wire, bent as shown in Fig. 1, and secured to the shaft by solder or otherwise.

D is a short sleeve fitting loosely the shaft,

and having secured to its lower end wires *d*, which are bent, as shown, to form agitating-arms *d'*, which alternate with the arms *b'* on the shaft. The lower ends of the wires *d* are secured to the perforated saucer E, which is located near the bottom of the churn, and has a central hole for the passage of the lower end of the shaft. The arms *d'* are strengthened by strengthening-pieces of wire, *d''*, soldered thereto, as shown. As before stated, the arms *d'* and *b'* turn in the opposite directions. This is accomplished by a bevel-pinion, *d'''*, on the sleeve D, and a similar pinion, *b''*, on the shaft B, both engaging with the same bevel cog-wheel F on shaft F', having bearing in cross-piece *f*, secured to two of the legs *c* of the bracket C and one of the legs *c*, as shown, and having a turning crank or handle, F".

The operating parts, together with the bracket C, may be removed vertically from the churn-body, and the perforated saucer will remove the butter free of the buttermilk. As the saucer turns with the arms of the sleeve, it also assists, as an agitator, in making the butter.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

In a rotary churn, the combination of the shaft B, having lateral wire loops *b*, set vertically, the sleeve D, having a frame formed of lateral wire loops *d'*, set vertically between the shaft-arms, perforated metal saucer E, secured to the frame, and frame strengthening-wires *d'' d'''*, as set forth.

HUGH J. BAILEY.

Witnesses:

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PATRICK McLOON.