H. A. SIMISON.

Churn.

No. 161,166. Patented March 23, 1875.

Fig. 1

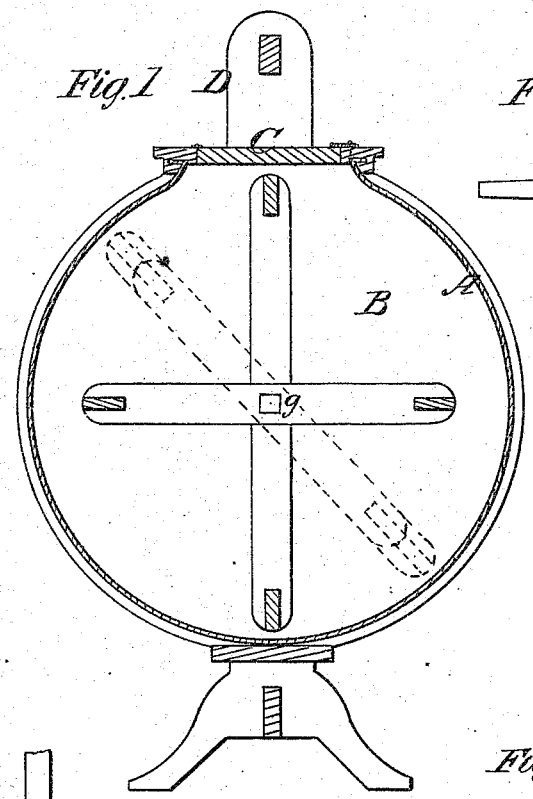


Fig. 2

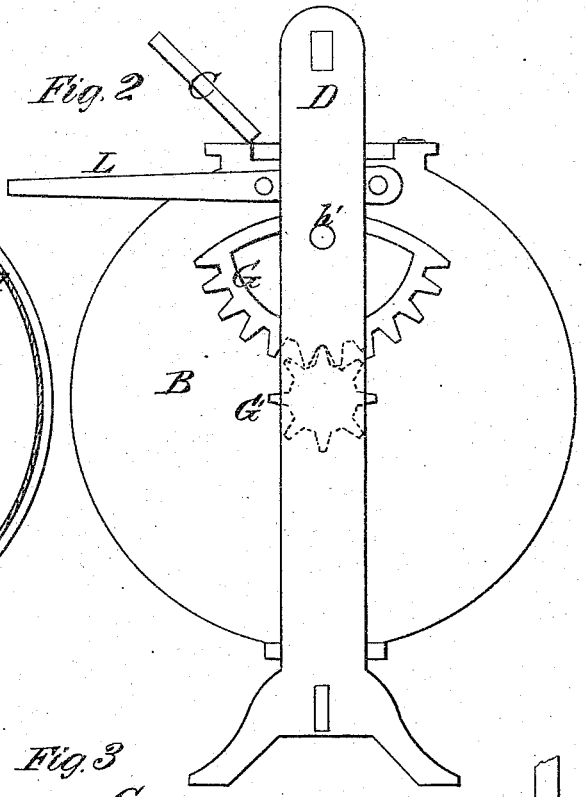
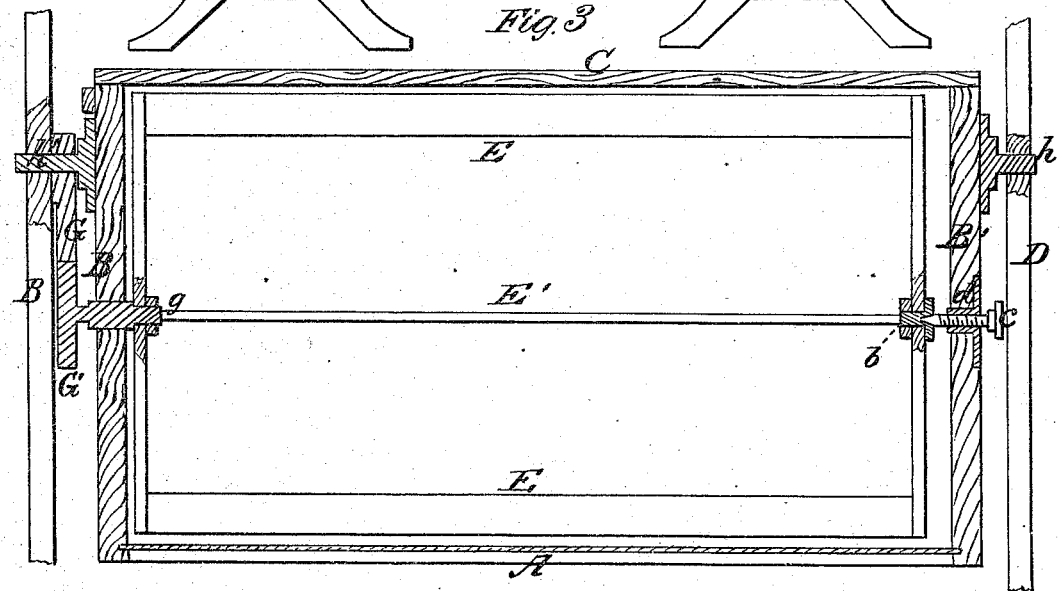


Fig. 3



WITNESSES

E. H. Bates

George C. Upham.

INVENTOR

Hugh A. Simison

By Chipman & Poomer & Co

ATTORNEYS.

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

HUGH A. SIMISON, OF GREENFIELD, OHIO.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. **161,166**, dated March 23, 1875; application filed February 28, 1874.

To all whom it may concern:

Be it known that I, HUGH A. SIMISON, of Greenfield, in the county of Highland and State of Ohio, have invented a new and valuable Improvement in Churns; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a transverse sectional view of my churn. Fig. 2 is an end view, and Fig. 3 a longitudinal central sectional view, of the same.

This invention has relation to churns the boxes of which, as well as the dash-blades, receive oscillating motions; and it consists in the novel construction of the dashers, as will be hereinafter more fully set forth.

In the annexed drawings, A designates the body of the churn-box, with a circular plate of metal secured to two heads, B B′, and having an opening through its upper side, provided with a hinged cover, C. This churn-box is arranged in a horizontal position, and supported by means of two gudgeons, *h h′*, secured to the heads B B′ near the cover C, and having their bearings in vertical standards D D. G designates a toothed segment, which is rigidly secured to the standard D next the head B, and receives through its axis the gudgeon *h′*. (Shown in Fig. 3.) The teeth of this fixed segment engage with the teeth of a pinion, G′, whose axis coincides with the horizontal axis, with which the body A of the churn-box is concentric. The short shaft of this pinion is conical, and passes water-tight through the head B, and its inner end *g* is made square to receive square holes which are made through the radial arms of dash-blades E E′, as shown in Figs. 1 and 3. The arms at the opposite end of the dasher are connected together by a flanged pin, *b*, the flanged end of which receives a pointed end of a screw, C, which screw is tapped through the center of the head B′, and affords an end bearing for the dasher, as shown in Fig. 3. The blades E′ of the dasher are secured to radial arms, which are shorter than the arms of the blades E, so as to allow the four blades and their arms to be folded in the same plane when detached from the shaft *g*, thereby allowing the dasher to be removed from or applied into the churn-box conveniently.

It will be seen from the above description that when the churn-box is oscillated the segment G and pinion G′ will communicate a rapid rotary or oscillatory motion to the dasher, the direction of which motion will be opposite to that which is given to the box A. It will also be seen that when the butter "has come" the dash-blades can be adjusted as indicated in dotted lines, Fig. 1, so as to present broad surfaces for rapidly gathering the butter into a roll.

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

The dashers E E′, made to fit one within the other, and provided with square apertures at one end, in combination with the flanged pin *b*, set-screw *c*, and cone-shaft *g*, substantially as described, and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

H. A. SIMISON.

Witnesses:

GEORGE E. UPHAM,

ROBERT EVERETT.