2 Sheets--Sheet 1.

W. H PRICE & R. HOOVER.

Reciprocating Churn.

No. 164,034. Patented June 1, 1875.

Fig 1.

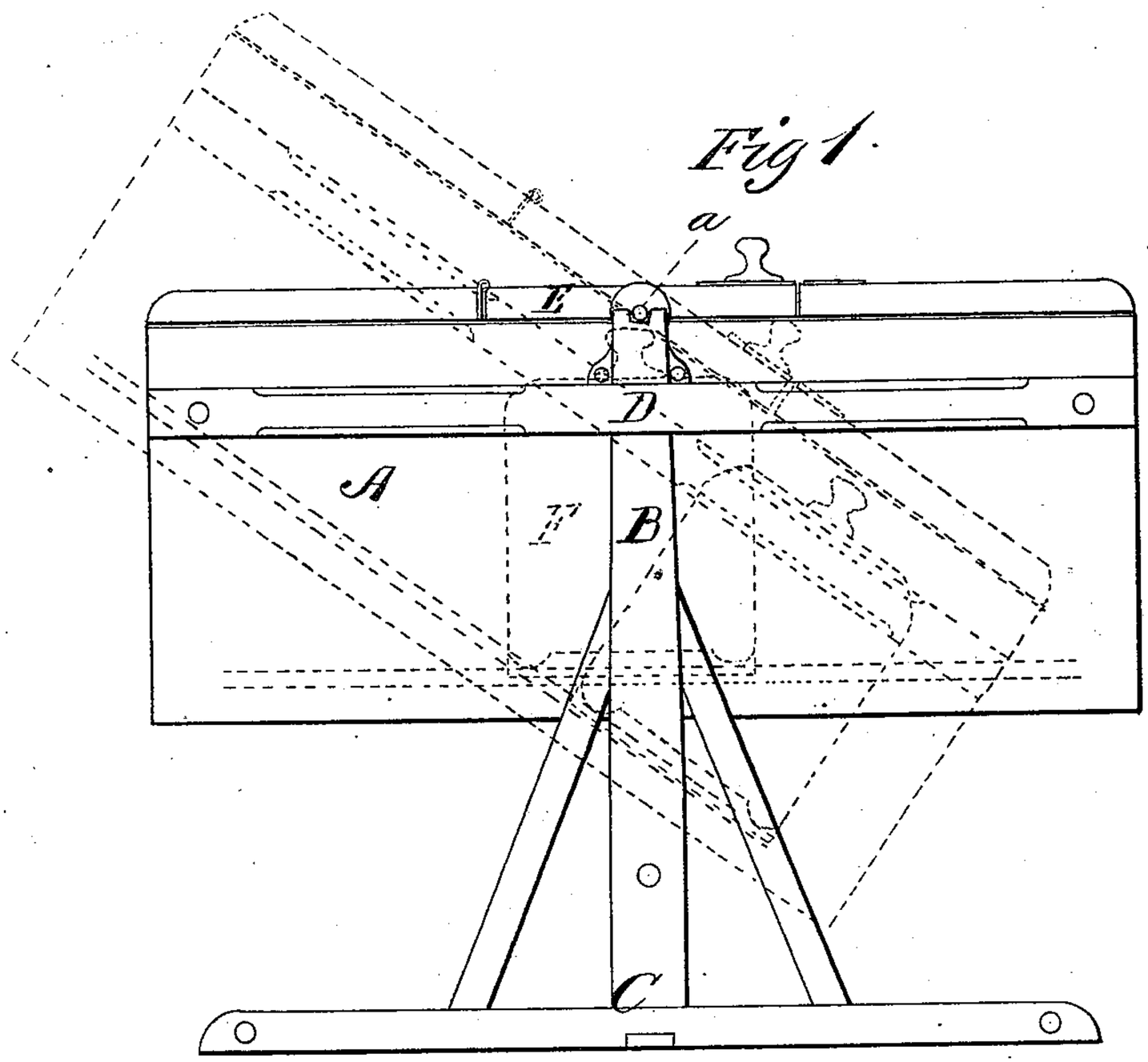
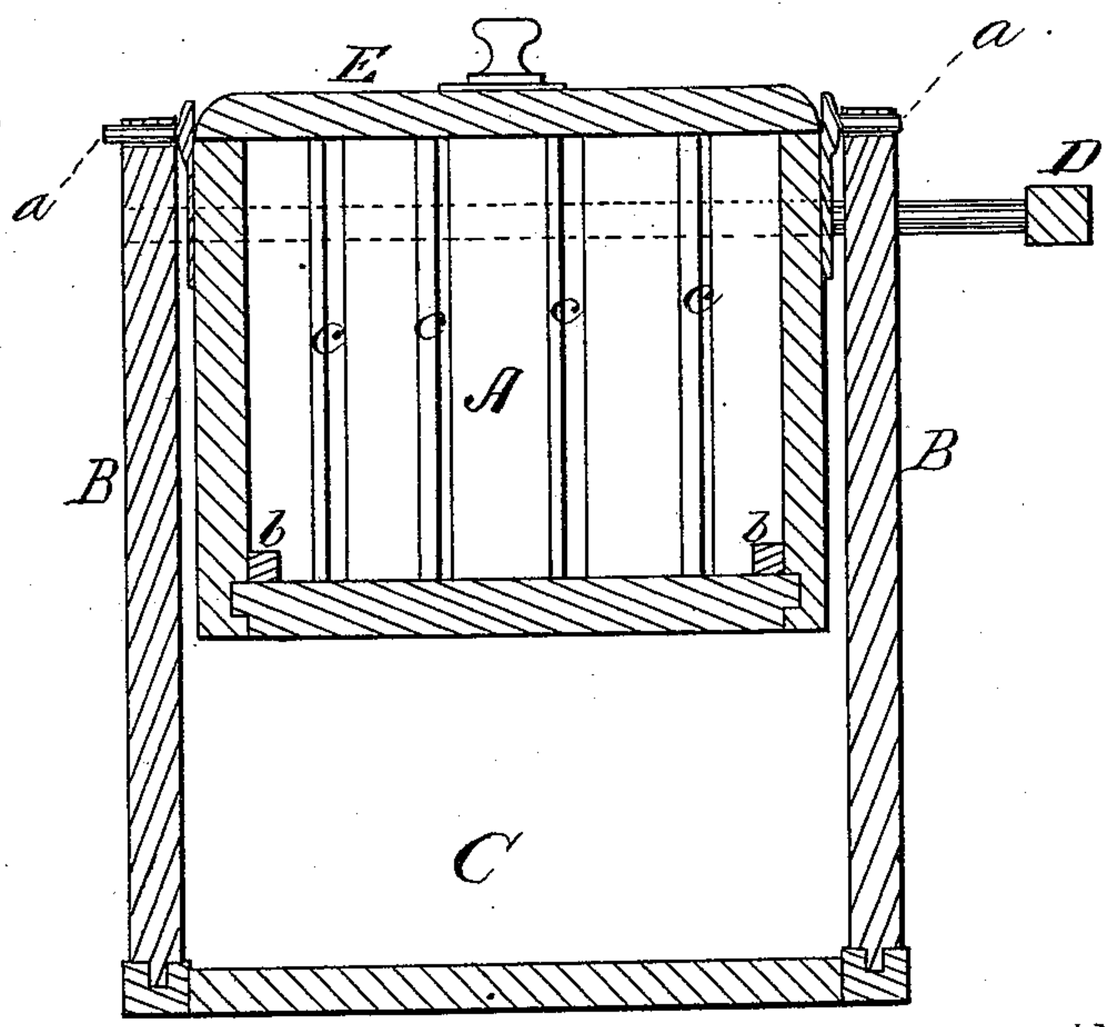


Fig 2



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2 Sheets--Sheet 2.

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Fig 3

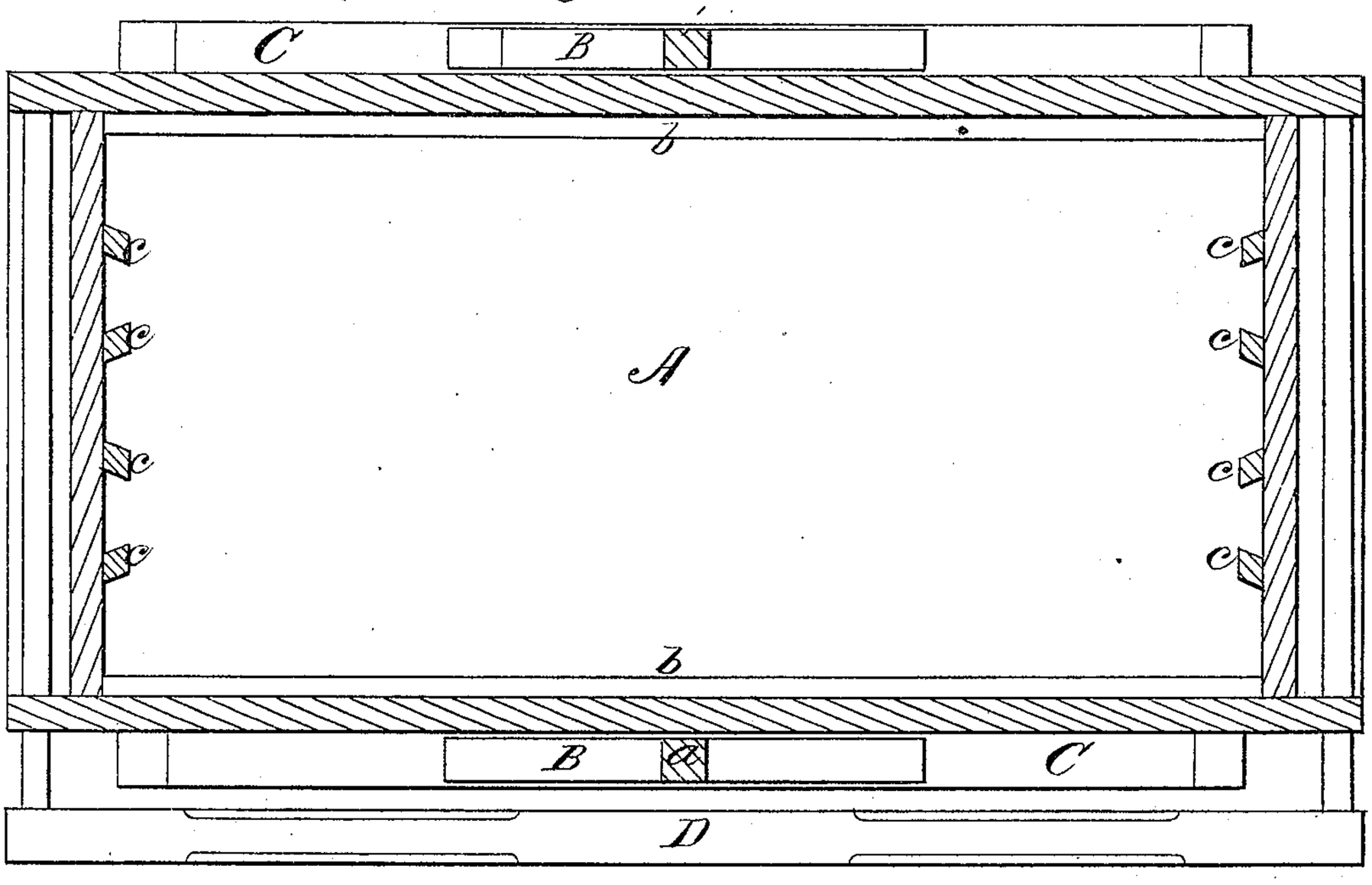


Fig 4

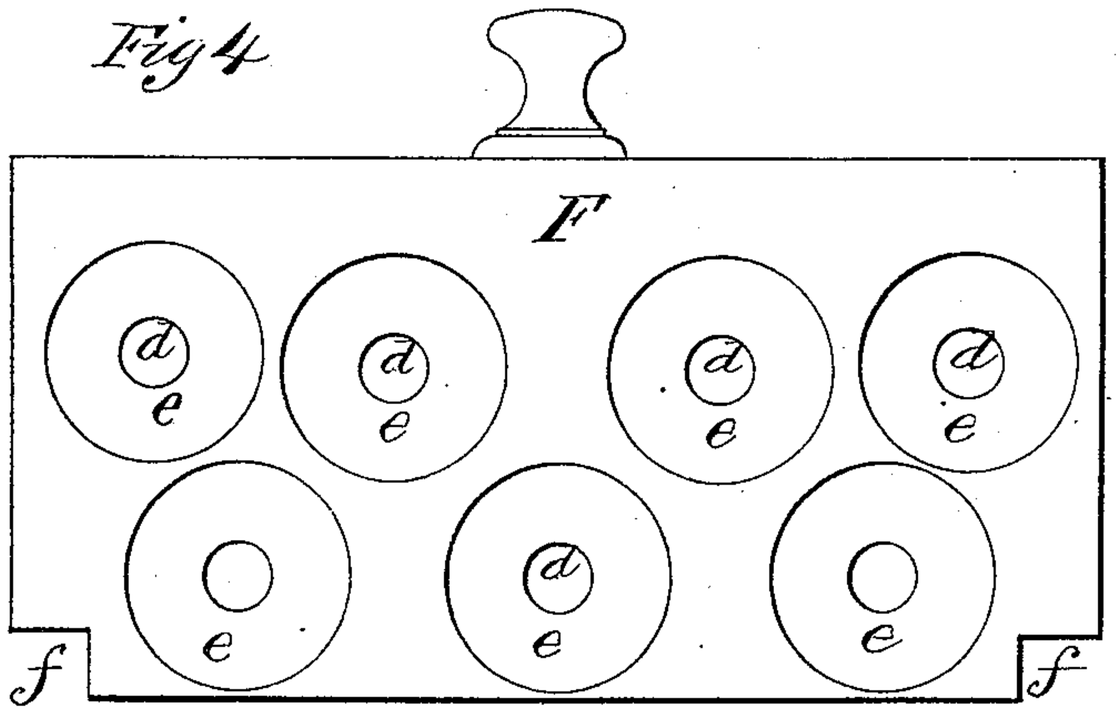
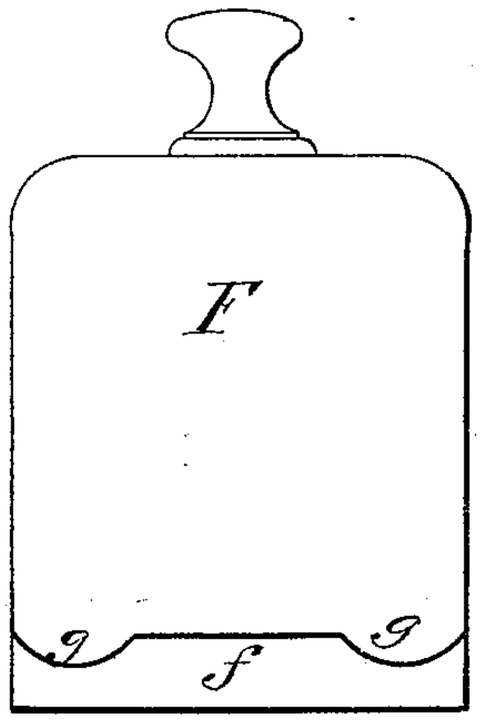


Fig 5



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UNITED STATES PATENT OFFICE.

WILLIAM H. PRICE AND RUDOLPH HOOVER, OF SCHELLSBURG, PA.

IMPROVEMENT IN RECIPROCATING CHURNS.

Specification forming part of Letters Patent No. **164,034**, dated June 1, 1875; application filed March 13, 1875.

To all whom it may concern:

Be it known that we, WILLIAM H. PRICE and RUDOLPH HOOVER, both of Schellsburg, in the county of Bedford and State of Pennsylvania, have invented a new and valuable Improvement in Washing-Machines and Churns; and we 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 side view of our machine. Fig. 2 is a transverse vertical sectional view of the same, and Fig. 3 is a longitudinal vertical sectional view. Figs. 4 and 5 are detail views.

This invention has relation to improvements in devices for churning cream for the manufacture of butter; and the nature of the invention consists in combining with an oscillating cream-box a detached perforated block or dasher, adapted to be received within the said box, and to slide to and fro within the same in accordance with the oscillations of the same box, thereby thoroughly stirring up the cream and breaking up the butter-cells, all as will be hereinafter more fully explained.

In the annexed drawings, A designates a preferably oblong rectangular cream-box, having centrally-arranged journals *a*, adapted to be received in bearings in the upper ends of uprights B of a stand, C. The two ends of this box are designed to be of equal weights, so that when it is not oscillating under the impulse imparted thereto through the medium of a handle, D, (shown in Fig. 1,) it shall preserve a horizontal position. It is also provided with guiding-strips *b*, arranged at the angles of its sides and bottom, and with other strips, *c*, rigidly secured to its ends at a suitable distance apart, and in a position perpendicular to the bottom of the said box, for a purpose hereinafter made clear. F indicates a detachable block in the nature of a dash, which is of such dimensions as to be snugly received within the said cream-box in a position transverse to its length. This block is preferably of wood, and is of considerable thickness, for the purpose of adding to its weight and affording it a broad base, whereby it may be maintained in an upright position; but it may be made of some non-corrodible metal, if we so elect. It is also provided with a number of transverse perforations, *d*, having cup-shaped ends *e*, and has a rabbet, *f*, at each end, whereby the bottom of the dasher is allowed to rest upon the bottom of the box, or nearly so, which rabbets are each provided with downwardly-projecting, preferably arched, knobs *g*, for the purpose of lessening the friction of the said blocks upon their guide-strips *b*.

We use our improved churn in the following manner, to wit: The cream is placed within the box, and then the dash-block through a hinged door, E, in the top thereof. The latter is then closed, and the box is caused to rock upon its frame by the operator having hold of the handle D. During the oscillation thus produced the dash-block will gravitate downward from end to end of the box in succession, and in accordance with the tilt or inclination of the same, and the cream will be thus violently dashed to and fro against the ends of the cream-box and through the perforations, breaking up the butter-cells, and causing a speedy separation of the caseine and watery parts therefrom. When the butter begins to form it will naturally form at the ends of the cream-box; but strips *c*, while aiding materially in breaking up the cells, will effectually prevent the block or dasher D from adhering to the ends thereof, and allow it to gravitate downwardly and uninterruptedly at each change of inclination.

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

1. In a churn, the gravitating dash-block F, having perforations *d*, in combination with an oscillating or rocking cream-box, substantially as specified.

2. The strips *c* in a rocking cream-box, A, in combination with a gravitating dash-block, substantially as specified.

In testimony that we claim the above, we have hereunto subscribed our names in the presence of two witnesses.

WILLIAM H. PRICE.
RUDOLPH HOOVER.

Witnesses:
HENRY W. FISHER,
WILLIAM M. PEARSON.