

E. CALDWELL.
Churn.

No. 216,780.

Patented June 24, 1879.

Fig. 1.

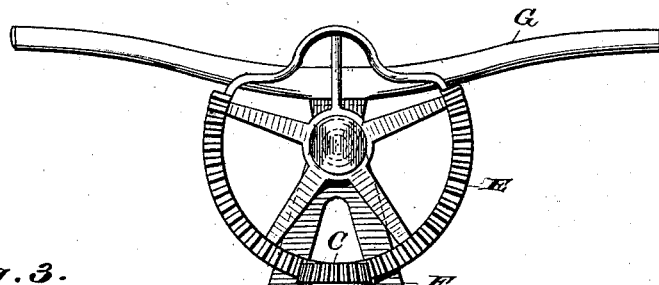


Fig. 3.

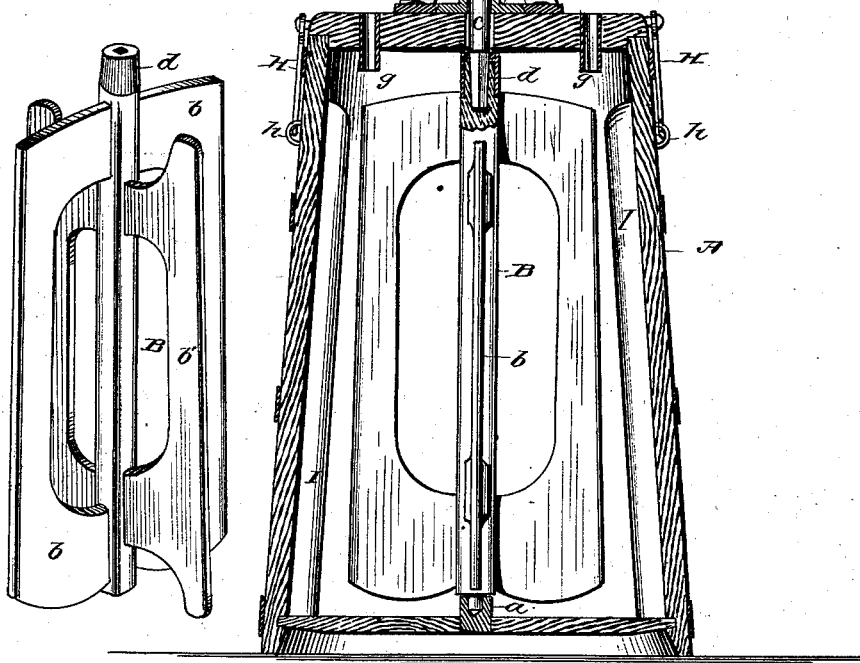
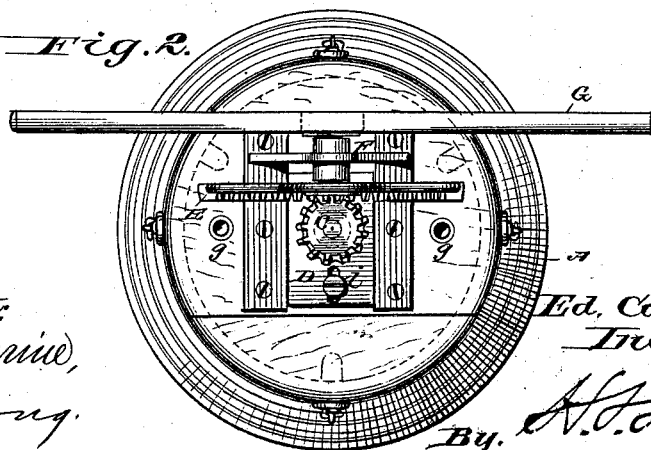


Fig. 2.



Attest:
H. L. Perrine,
C. M. Long.

Ed. Caldwell
Inventor.

By. H. A. Hot.
Atty

UNITED STATES PATENT OFFICE.

EDWIN CALDWELL, OF MARION, INDIANA.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. **216,780**, dated June 24, 1879; application filed December 12, 1878.

To all whom it may concern:

Be it known that I, EDWIN CALDWELL, of Marion, in the county of Grant and State of Indiana, have invented certain new and useful Improvements in Churns; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a vertical section of churn; Fig. 2 a plan view, and Fig. 3 a perspective, of dasher detached from churn.

My invention relates to churns in which the dasher has a reciprocating rotary motion; and it consists in the peculiar construction and combination of parts, as hereinafter more fully set out.

In the accompanying drawings, the letter A indicates the body of the churn, having a step, *a*, in the bottom thereof. In this step rests the shaft B of the dasher, the wings *b b'* of which are of peculiar construction. The wings *b'* fit, as it were, between or within the openings in the wings *b*, so that between the blades of the wings and the shaft are formed openings of different sizes, the small openings being at right angles to the large openings, or, in other words, the openings are alternately large and small. By thus constructing the dasher I have found that the most beneficial results are derived therefrom. This dasher is held in an upright position within the churn by the shaft *c* of a pinion, C, the shaft passing through the top of the churn and its lower shoulder end resting in a thimble, *d*, in the top of the shaft. This pinion-shaft passes through a collared opening in a sliding plate, D, on the top of the churn, and the pinion C rests on the collar. The collar to the plate is to afford a support for the pinion which rests on the collar, and whose shaft passes therethrough and is held firmly in an upright position and braced by

the collar. This collared plate has in it a slot, through which and into the top of the churn is passed a screw, *i*. The object of this is to render the plate adjustable sidewise, so that it may be moved to or from the segmental wheel E, thereby either wholly or partially freeing the pinion from contact with the teeth of the wheel. By this arrangement the pinion with its shaft is readily removed from contact with the dasher, and rendered easy of insertion in the hole therein when the operating mechanism is being replaced in position after it has been removed for any purpose.

This pinion gears with a segmental wheel, E, which is journaled in a standard, F; and to the axle of this wheel passing through the standard there is connected the lever G, for operating the wheel, and through it and the other mechanism communicating motion to the churn-dasher.

Passing through the top of the churn are tubes *g*, for admitting air to the interior of the churn.

The top is made in sections, so that one section may be removed and access had to the interior of the churn without disturbing the operating mechanism, and is held securely to the body of the churn by hooks H and eyes *h*.

To the sides of the churn are secured vertical ribs I, which assist in breaking the cream.

The churn thus constructed is very simple, cheap, and effective.

Having described my invention, what I claim is—

The combination of pinion C and its shaft *c* with collared sliding plate D, segmental wheel E, and lever G, and with the dasher, constructed as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

EDWIN CALDWELL.

Witnesses:

JOHN SECRIST,
JOS. W. STOUT.