

W. W. GIFT.

CHURNS.

No. 182 185.

Patented Sept. 12, 1876.

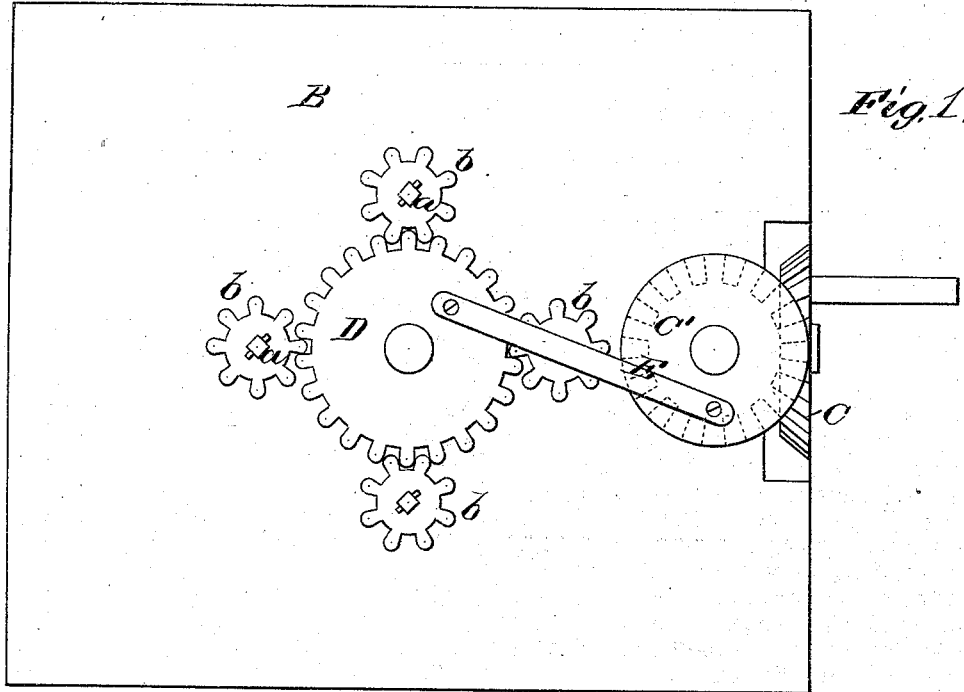


Fig. 1.

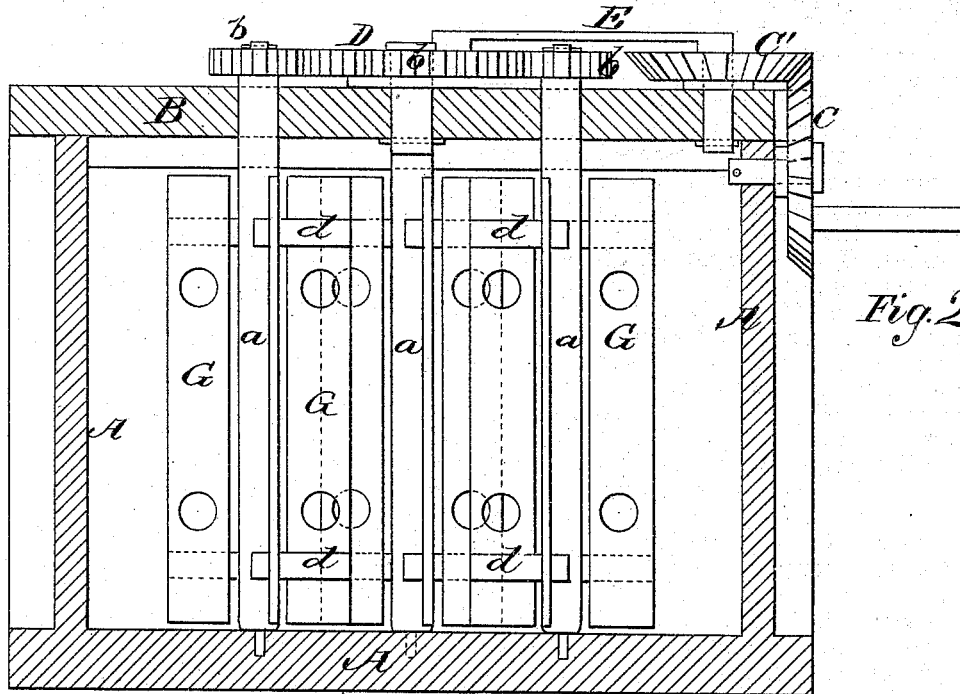


Fig. 2.

WITNESSES

Mary J. Utley.
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UNITED STATES PATENT OFFICE.

WILLIAM W. GIFT, OF HUNTINGTON, INDIANA, ASSIGNOR TO WILLIAM H. ESCHBACH, OF SAME PLACE.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. 182,185, dated September 12, 1876; application filed March 4, 1876.

To all whom it may concern:

Be it known that I, WILLIAM W. GIFT, of Huntington, in the county of Huntington and State of Indiana, 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 drawings is a representation of a plan view of my churn; and Fig. 2 is a vertical central sectional view of the same.

The nature of my invention consists in the construction and arrangement of a churn, as will be hereinafter more fully set forth.

In the accompanying drawing, A represents the box of a churn of any suitable dimensions, and provided with a lid, B. At one end of the box A, near the top, is mounted a miter-wheel, C, which is rotated by a suitable crank, and meshes with a similar wheel, C', mounted on top of the lid B. The wheel C' is, by a pitman, E', connected with a cog-wheel, D, which is mounted in the center on top of the lid. By the turning of the crank the miter or beveled cog-wheel C' receives a continuous rotating motion, which motion, by the pitman E, is communicated to the central cog-wheel in such a manner as to impart thereto a reciprocating rotary motion; or, in other words, it is made to rotate first in one direction and then reversed and rotates in the opposite direction. In the box A are arranged four upright shafts, *a*, in a circle concentric with the wheel D, said shafts passing up through the lid B, and having pinions *b* upon their upper ends, which pinions gear with the center wheel D. On each shaft *a* are secured horizontal arms *d d*, to which are secured vertical perforated boards G, forming the dashers.

It will readily be seen that by the reciprocating rotating motion of the wheel D the dashers receive a rapid reciprocating rotating movement. If the pinions *b* are of the proper size in proportion to the wheel D the dashers will make about one and a half revolution in one direction, and then be reversed and make about the same in the other direction. By this movement of the dashers the cream is kept in violent agitation, breaking the globules therein quickly, and causing the butter to come easily and rapidly.

I am aware that a churn has heretofore been used in which a single dasher is employed, to which an oscillating movement is imparted, and I am also aware that a series of dasher-shafts, arranged circularly, to which a rotary motion is imparted, has been employed, and I therefore lay no claim to such inventions, which differ from my invention in their operation in not creating rapid currents in the cream in opposite directions, which, by impinging against each other, rapidly break up the butter globules.

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

The series of vertical shafts *a*, circularly arranged, and provided with the arms *d*, dashers G, and pinions *b*, in combination with the central gear-wheel D, pitman E, bevel-gear wheels C C', and churn-box A B, whereby a rapid oscillating motion is given to the dashers, substantially as 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.

WILLIAM W. GIFT.

Witnesses:

WILLIAM H. BRUSS,
NATHAN KUELMAN.