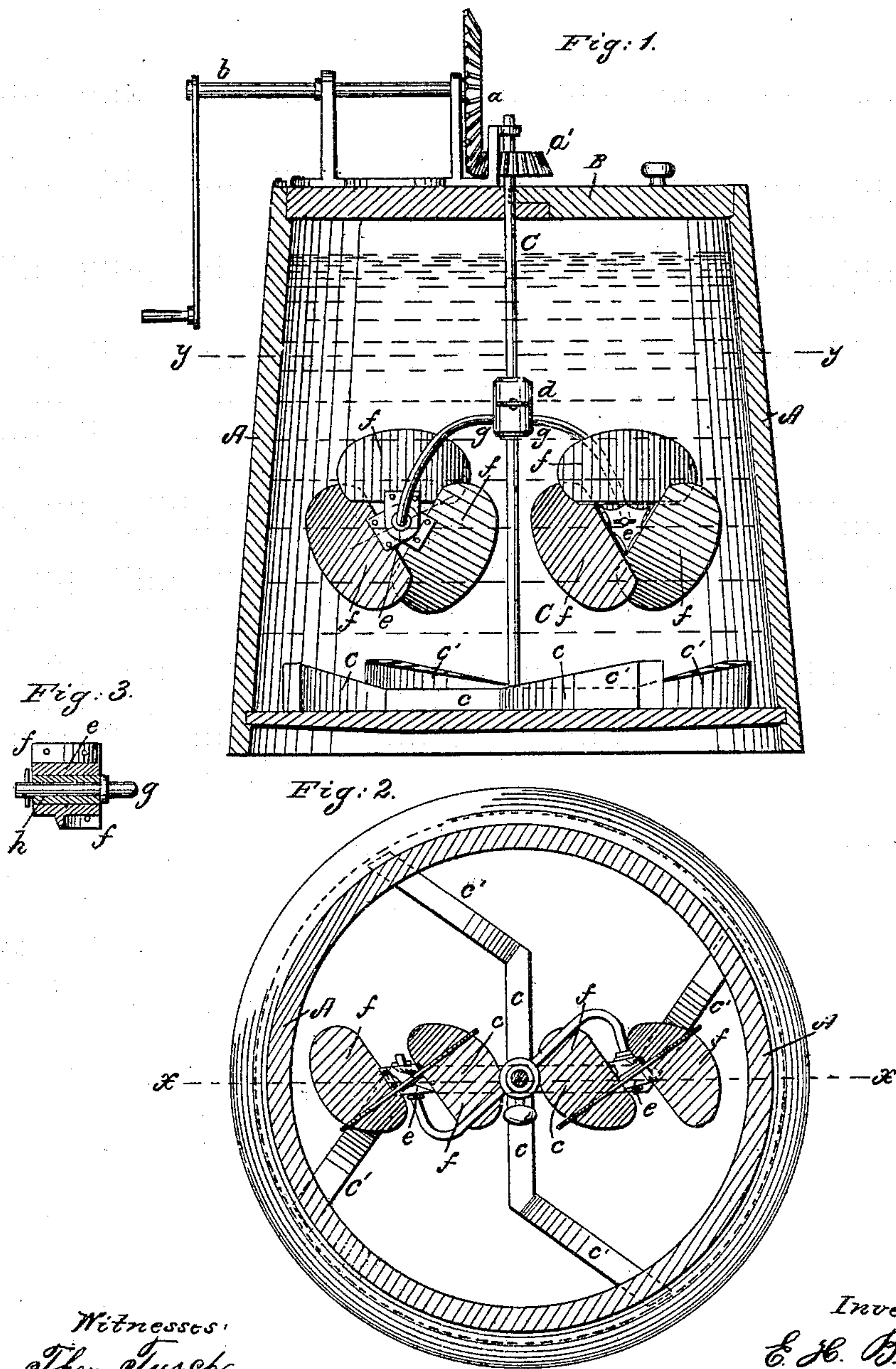


E. H. BECKWITH.

Churn.

Patented Nov. 20, 1866.

No. 59,811.



Witnesses:
 Theo. Tusch.
 Wm. J. Irwin.

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United States Patent Office.

IMPROVEMENT IN CHURNS.

E. H. BECKWITH, OF WESTERVILLE, NEW YORK.

Letters Patent No. 59,811, dated November 20, 1866.

SPECIFICATION.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, E. H. BECKWITH, of Westernville, in the county of Oneida, and State of New York, have invented a new and useful Improvement in Churns, and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical section of the churn of my invention, taken in the plane of the line *x, x*, fig. 2.

Figure 2 is a horizontal section of the same, taken in the line *y, y*, fig. 1.

Figure 3 is a sectional view of a hub detached.

Similar letters of reference indicate corresponding parts.

This invention relates to improvements in the construction of a rotary vertical churn, and consists in the peculiar form and arrangement of the arms supporting the dashers or flutter-wheels and their connections, and also of ribs placed on the bottom of the churn, by which the churn is rendered more efficient, cleanly, and convenient in its management.

A represents a cylindrical upright churn, of the ordinary construction, the top of which is made in the form of semicircular pieces, which fit inside, and rest on shoulders within the periphery. C is a central vertical spindle, stepped in the bottom, and operated by bevel gear wheels, *a a'*, connected with the crank, *b*, on the top of the churn. On the bottom of the churn are fastened four ribs, *c, c, c, c*, which meet at the centre at right angles to each other. The outer ends, *c', c', c', c'*, of these ribs are made to diverge at an angle of about 45° from the diameter, and rise in inclined planes from the points of junction to the extremity at the circumference, so that they are much higher than the cross-ribs, *c, c, c, c*, at the centre. Upon the spindle, B, is fitted a sliding hub, *d*, which is adjusted at any desired height in the churn by a set-screw; and attached to opposite sides of the hub, *d*, are two arms, *g, g*, which curve downwards and outwards, on the ends of which are hung dashers or flutter-wheels, formed of three wooden wings, *f, f, f*, set obliquely or spirally upon metal hubs, *e, e*, with screw or rivet fastenings. The metal hubs, *e, e*, are lined with wooden bushes, *h, h*, as shown in fig. 3, which are fitted to revolve upon the ends of the hanging arms, *g, g*, when the churn is operated. By this arrangement the arms to hang and curve downwards, it is easy to adjust the sliding hub, *d*, with the set-screw, to any position on the spindle, C, according to the height of the cream, without touching the cream with the hand, and the particles of butter do not accumulate upon the arms, but fall back into the cream as they form.

Having thus described my improvements, what I claim as new, and desire to secure by Letters Patent, is—

1. The curved hanging arms, *g, g*, combined with the metal hubs, *e, e*, the wooden bushes, *h, h*, the wooden wings, *f, f, f*, and the sliding hub, *d*, on the spindle C, when arranged in a churn, substantially as and for the purposes herein specified.

2. I claim making the outer ends, *c', c'*, of the cross-ribs, *c, c*, on the bottom of the churn, diverging at an angle from them, and higher than they are made, substantially as herein specified.

E. H. BECKWITH.

Witnesses:

WILLIAM E. OTTO,
JACOB EMRICH.