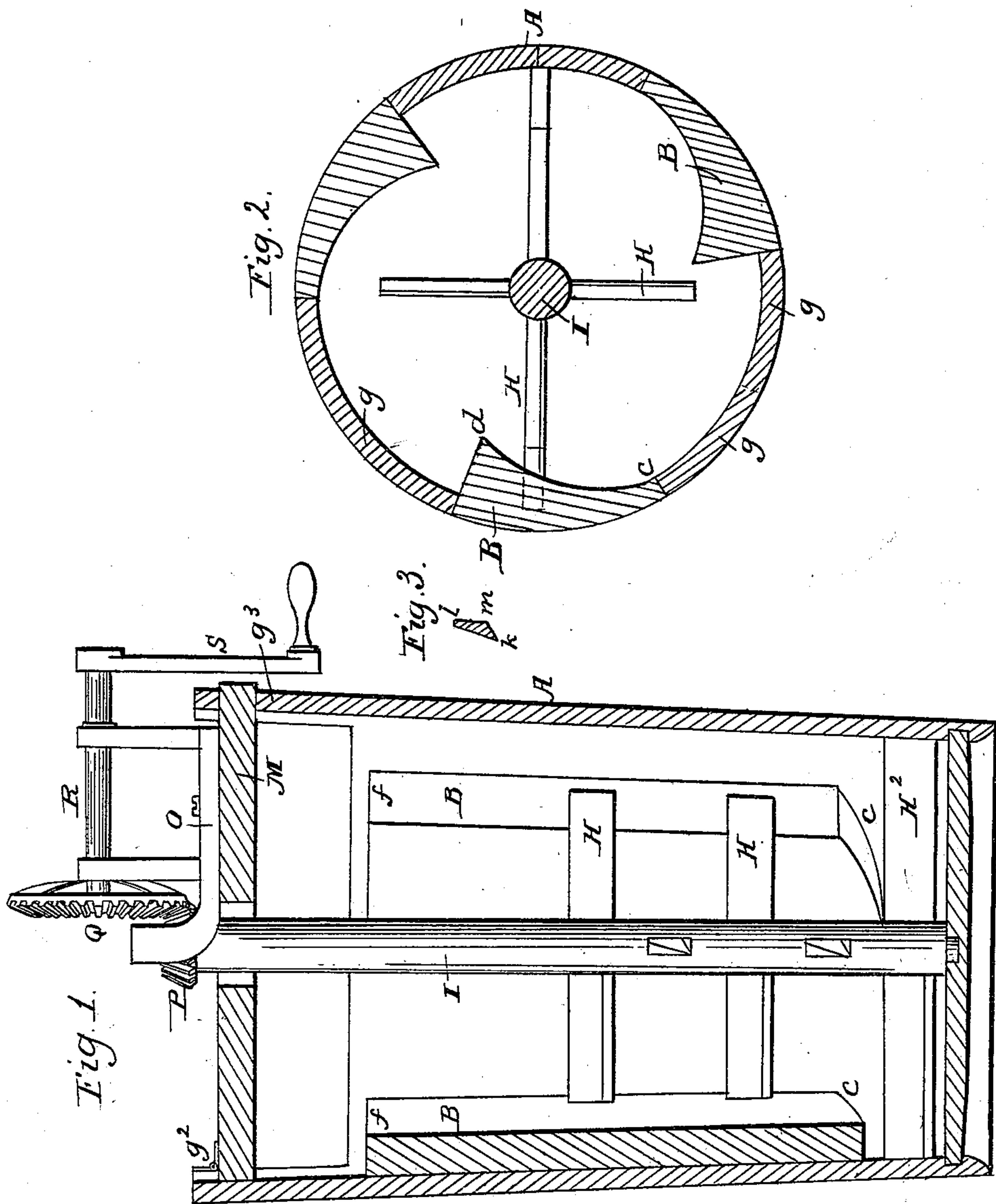


T. A. JEBB.

Churn.

No. 26,109.

Patented Nov. 15, 1859.



Witnesses:
H. H. Furber
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Inventor:
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UNITED STATES PATENT OFFICE.

THOMAS A. JEBB, OF BUFFALO, NEW YORK.

CHURN.

Specification of Letters Patent No. 26,109, dated November 15, 1859.

To all whom it may concern:

Be it known that I, THOMAS A. JEBB, of the city of Buffalo, in the State of New York, 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 construction thereof, reference being had to the annexed drawings, making a part of this specification, in which—

Figure I, is a longitudinal section. Fig. II, is a transverse section. Fig. III, is a cross section of the dash blades or wings.

A represents a cylindrical tub which forms the body of the churn. The novelty in this part of my improvement consists in the peculiar formation of the stave B. This stave is made much thicker on one edge than the other—its thinner edge being equal in thickness to the ordinary stave of which the body of the churn is made. From its thin edge it gradually rises, or increases in thickness on the segment of a circle (or nearly so) as represented by the line $c-d$, so that this thick segmental part projects inwardly toward the center. The projecting segment thus formed does not extend to the whole length of the stave—it is shortened at the bottom and beveled upward as represented at e so as to allow the under dash blade to revolve under it. It is also shortened at the top as shown at f , forming a plane shoulder for the cover to rest upon. Three (or more) of this kind of stave is used in the construction of the churn. The spaces between them being occupied by staves of ordinary construction as shown at (g .) This stave (B) is formed of one solid piece of wood thus leaving no interstice in the stave for the milk to lodge in and get sour.

The beater or “dash” is composed of five slats or dash blades (more or less) passing through and supported by a perpendicular shaft, I. These wings or blades are arranged in the shaft one above the other and alternately at right angles to each other. The length of the lower wing or blade (H^2) is equal (or nearly so) to the inside diameter of the churn at its bottom, while the blades above are made shorter, or equal to the diameter of a circle which will just clear the thickest segmental part of the stave B. Two faces of the wings or blades are beveled in opposite directions as represented by the lines $k-l$ and $k-m$ Fig. III.

The lower end of the shaft runs in a bearing in the bottom of the churn as shown at

(n) and the upper end has a bearing in the gear frame O. P shows a bevel pinion on the upper end of the shaft and Q a bevel wheel on shaft R, operated by crank S.

The gear frame (o) rests upon the cross piece M, and the cross piece is hinged to the long stave as shown at g^2 , and the other end rests upon a shoulder upon the opposite long stave as shown at g^3 . The gearing is thus supported above, and does not come in contact with the cream, and may be raised from, and liberate the shaft I for cleaning &c. by turning upon the hinge g^2 .

Operation: A large or small quantity of cream or milk may be put into the churn. The dash blades are caused to revolve by turning the crank S, the bevel face ($k-l$) of the blade striking against the cream causing a portion of it to pass up the incline face ($k-l$) and fall down on the line ($l-m$) while a portion is thrown from B, to B, with a rebound, and a portion forms an “eddy” and backward current in the “lee” of the thick edge of, B. The body of the cream or milk is thus divided and subjected to different motions in different directions and is not subjected to any violence which will disturb the globules of butter as most naturally formed. The lower dash blade H^2 being made long so as to pass under the bevel shoulder (e) will prevent the milk from lodging or resting on the bottom forward of the thick part of the stave B—and the distribution of the cream in different currents flowing in different directions by the combined action of the long and short blades and stave B causes a circulation of air through all its parts and quickly changes it to butter of the best quality—the butter as soon as formed gently rising to the top of the milk.

I claim—

1. The arrangement of the short dash blades H and long dash blade H^2 relatively to each other and to the segmental stave B, so that the short dash blades will revolve within, and the long dash blade under, the lower beveled end of the segmental stave, substantially as herein set forth.

2. I claim the arrangement of the dash blades H and H^2 relatively to the staves B for all purposes substantially as herein set forth.

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Witnesses:

W. H. FORBUSH,
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