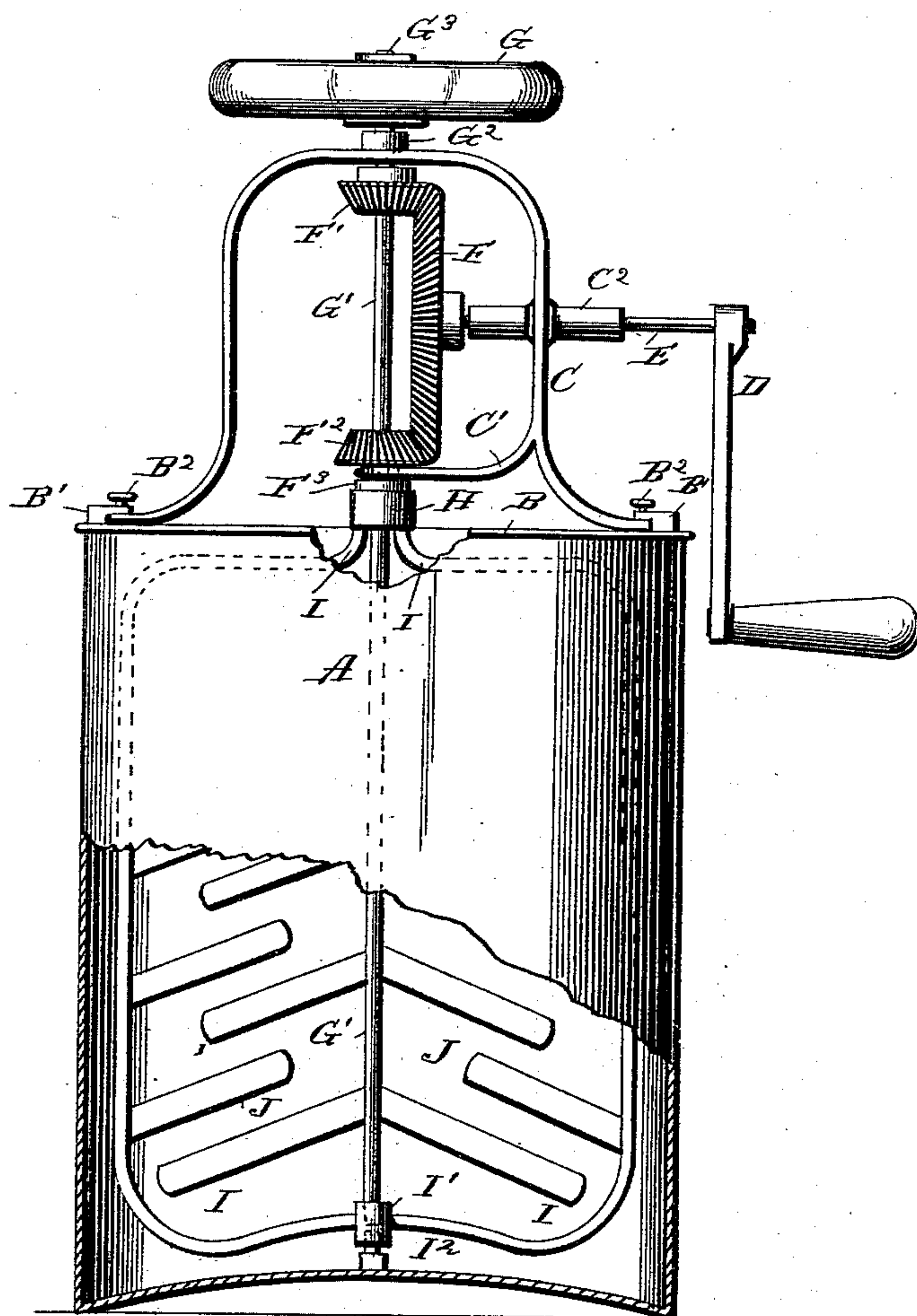


(No Model.)

W. J. HERSOM
CHURN.

No. 439,067.

Patented Oct. 21, 1890.



Witnesses:

C. A. Paeder
J. C. Turpin

Inventor

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UNITED STATES PATENT OFFICE.

WILLIAM J. HERSOM, OF STOCKTON, CALIFORNIA, ASSIGNOR OF ONE-HALF
TO CHAS. D. HARSIN.

CHURN.

SPECIFICATION forming part of Letters Patent No. 439,067, dated October 21, 1890.

Application filed May 16, 1890. Serial No. 352,110. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. HERSOM, a citizen of the United States, residing at Stockton, in the county of San Joaquin and State of California, have invented certain new and useful Improvements in Churns; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification.

The figure is a side elevation of my improved churn, a part of the vessel being broken out to display the dasher.

My invention relates to an improvement in churns; and it consists in the construction, combination, and adaptation of parts, as will be hereinafter more fully set forth, and particularly pointed out in the claim appended.

The letter A represents the vessel which receives the cream.

B is the lid, having on the rim two lugs B' opposite to each other, carrying set-screws B², which secure the feet of a yoke-frame C, having an arm C', which, and the top of the yoke C, forms the center and top bearings for a vertical shaft G', which has a pinion F² loose upon it and resting on the bearing C', beneath which is a neck F³ of the pinion F², attached rigidly to the pinion F² and loose upon the shaft G', and provided with pins which enter the face of a collar H, likewise loose upon the shaft G'.

The pinion F² meshes with a bevel-gear F, which meshes with a bevel-pinion F', which is loose upon the shaft G', and is provided with a neck, which is attached to a collar G², loose on the shaft G', which collar is rigidly attached to the face of a balance-wheel G, having a socket fitting upon the square head G³ of the shaft G'.

The shaft G' has its bottom bearing in a step I² at the bottom of the vessel A, and has a collar I' loose upon it just above the step I². Dasher-wings I are rigidly attached at

their feet to the collar I' and at their heads to the collar H. These wings and the shaft G' within the vessel are provided with suitable blades J, those on the shaft G' being at opposite sides.

The large bevel gear-wheel F has attached to it a horizontal turning-shaft E, having its bearings in a two-part tube C², attached to the sides of the yoke C, and having a handle D at its outer end. By turning the handle D motion is imparted to the gear F, which in turn sets the pinions F' and F² in motion, the pinion F' setting in motion the shaft G' and the pinion F² setting in motion the collar H and its wings I and foot-collar I', thus causing the four sets of blades J—in sets of two—to rotate oppositely to each other, insuring a most thorough agitation of the cream within the vessel.

In order to remove the dasher apparatus, shaft, and yoke from the vessel, the set-screws B² are withdrawn, permitting all the above to be removed, or the shaft G' and the yoke C and attached gearing may be removed from the wings I and the collars H and I'.

The fly-wheel G from its peculiar position gives great aid and force in turning the dasher when the cream becomes stiff.

I am aware that the various parts of my device are old when separately considered, and that many of them have been used in combination, and therefore claim only the parts in the exact construction and particular arrangement hereinafter specifically pointed out.

Having thus described my invention, what I claim is—

The herein-described churn, consisting of the vessel A, the lid B, with the lugs B' and their set-screws B², the yoke C, its arm C', the shaft G', having its upper bearings on such yoke C and foot C' and its lower bearings on step I² at the bottom of the vessel A, the pinion F², loose on the shaft G' and having a neck F³, provided with pins entering a collar H, the gear-wheel F, meshing with the pinion F² and with a pinion F' upon the

shaft G', such pinion being provided with a neck fast to a collar G², which is fast to a balance-wheel G, having a socket setting upon a square head G³ of the shaft G', the wings
5 I I, rigidly attached to the collars H and I', the wings I I and the shaft G' being provided with dasher-blades, and a suitable turning-shaft and handle propelling the gear-

wheel F, all arranged substantially as shown and described. 10

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM J. HERSOM.

Witnesses:

JOSHUA B. WEBSTER,

JAS. T. SUMMERVILLE.