

No. 606,806.

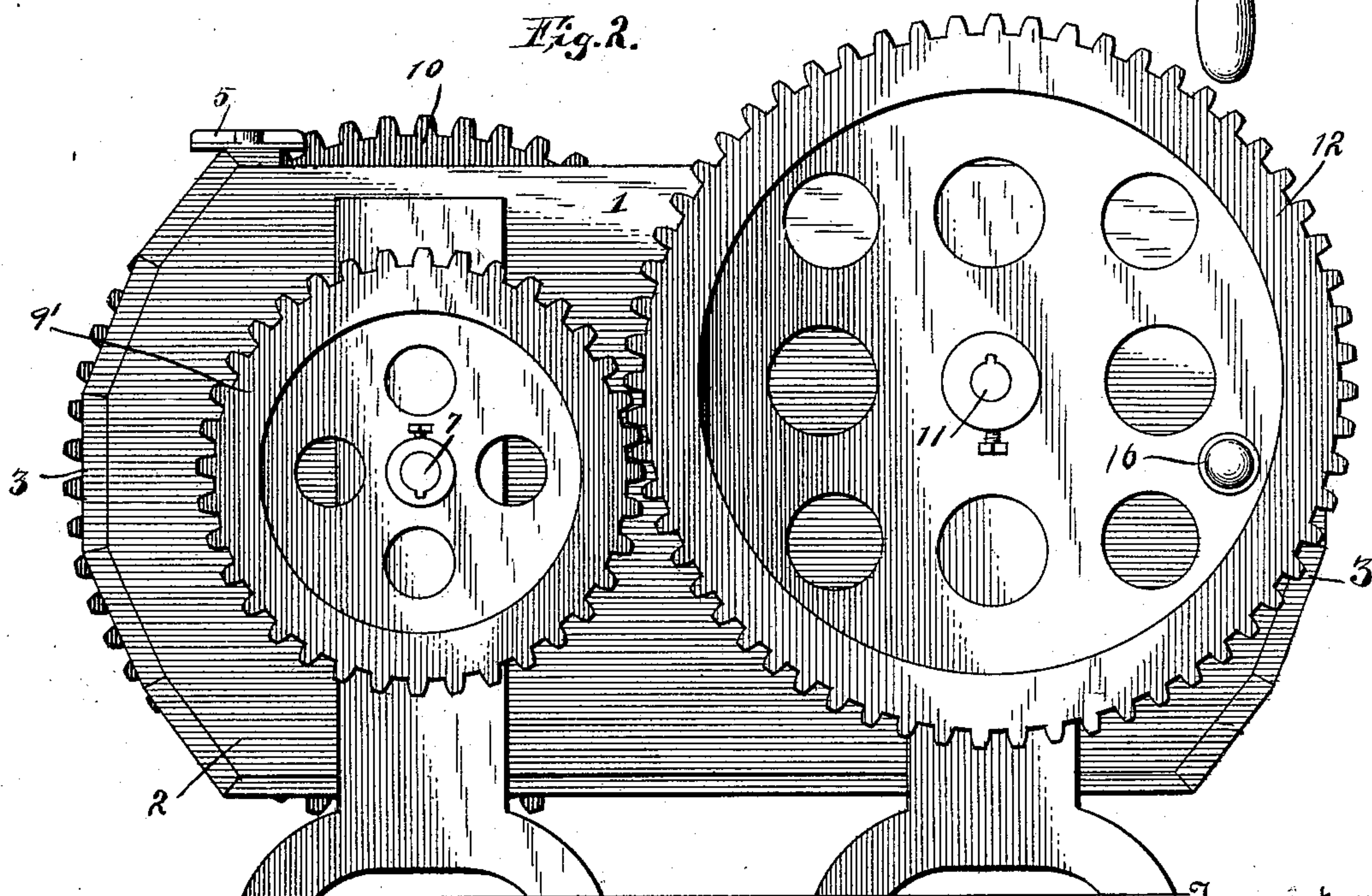
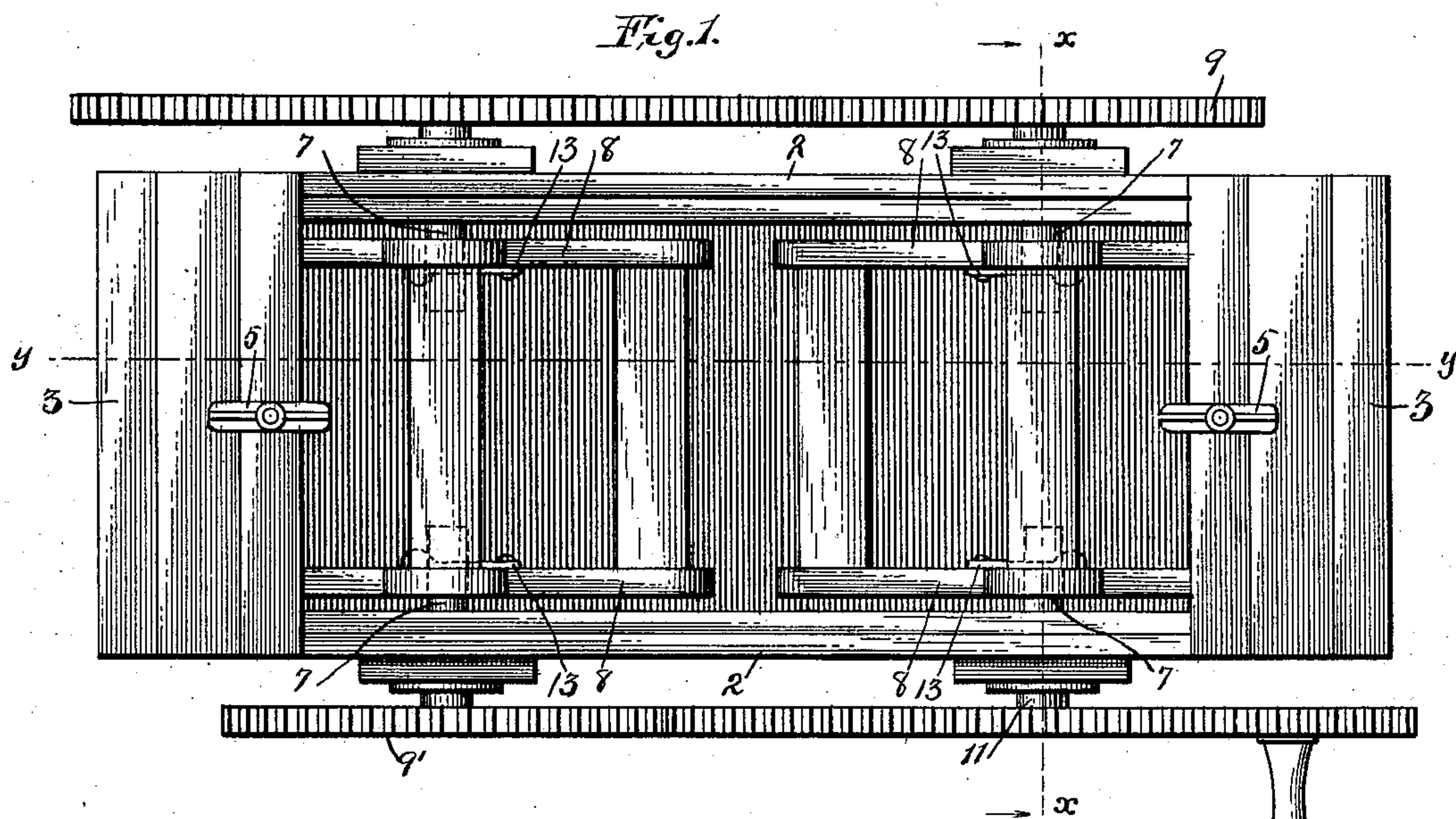
Patented July 5, 1898.

J. LIEBLANG.
CHURN.

(Application filed June 26, 1897.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses
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Victor J. Evans.

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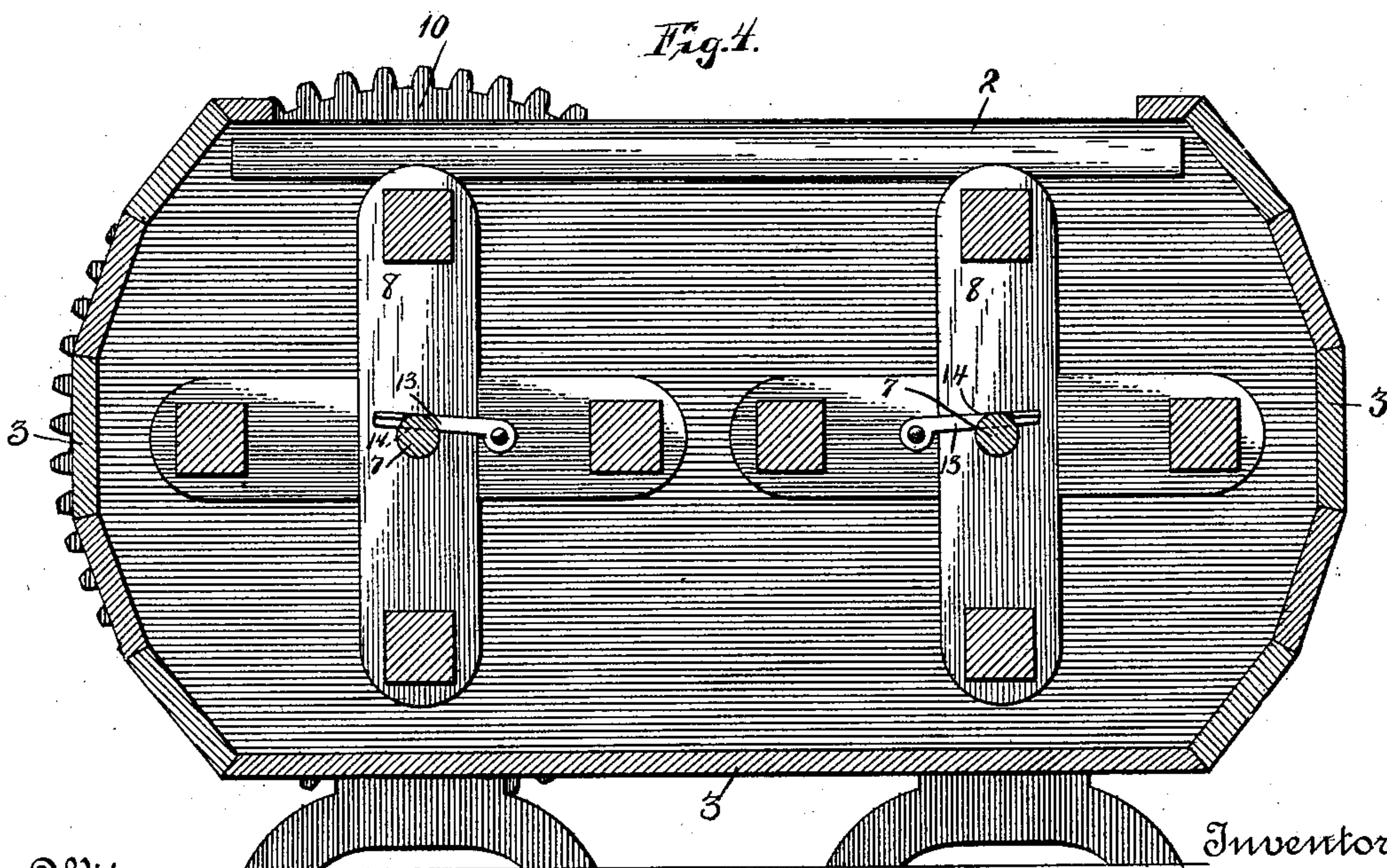
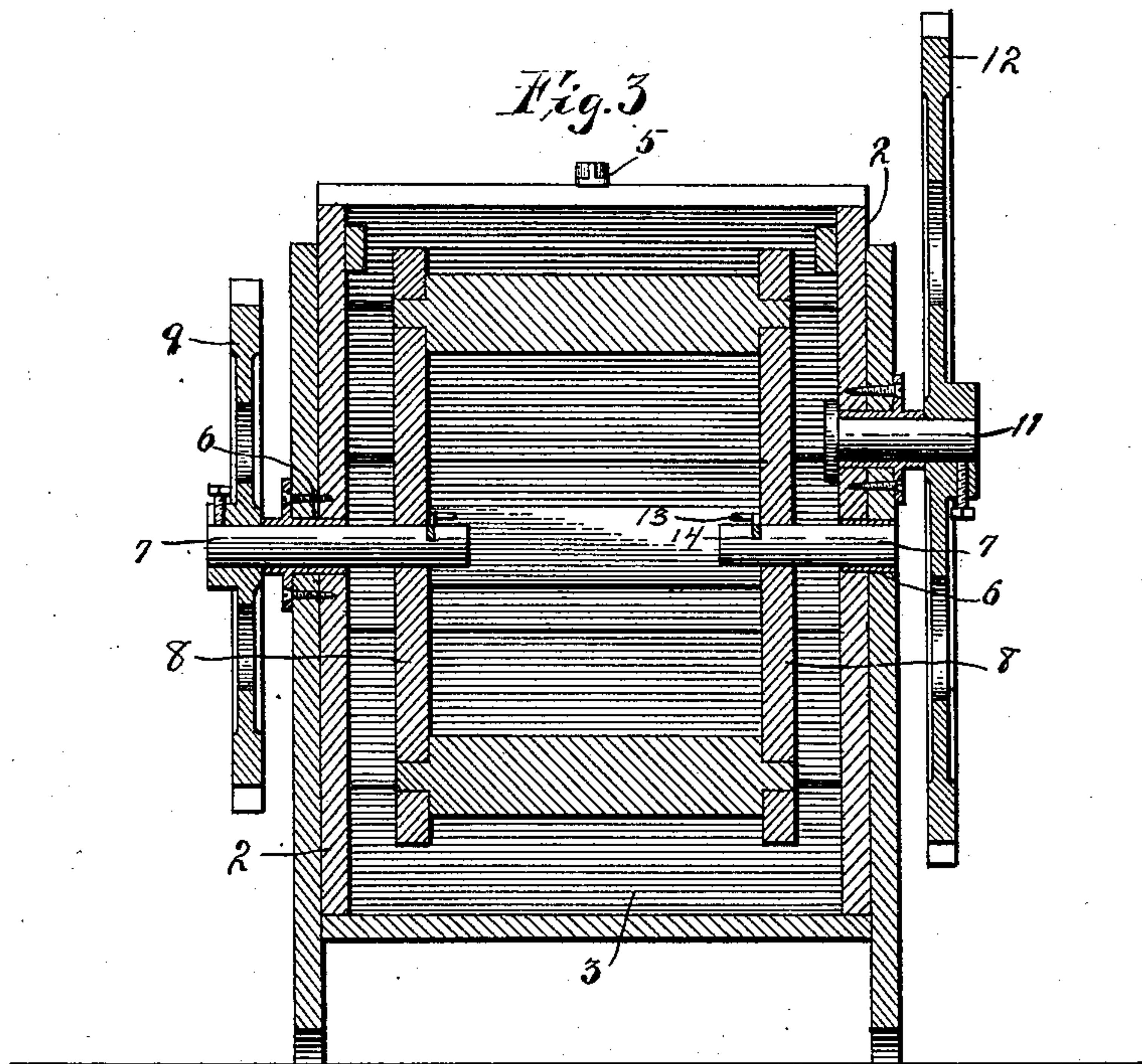
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UNITED STATES PATENT OFFICE.

JOHN LIEBLANG, OF AMITYVILLE, NEW YORK.

CHURN.

SPECIFICATION forming part of Letters Patent No. 606,806, dated July 5, 1898.

Application filed June 26, 1897. Serial No. 642,467. (No model.)

To all whom it may concern:

Be it known that I, JOHN LIEBLANG, of Amityville, in the county of Suffolk and State of New York, have invented certain new and
5 useful Improvements in Multiple-Dasher Churns; and I do hereby 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
10 make and use the same.

This invention relates to improvements in rotary churns, and has for its object to provide a churn of this character with multiplied dashers which are rotated in opposite
15 direction, thereby greatly increasing the agitating power of the dashers, by which means the churning is more expeditiously effected.

My improved churn is of simple construction, and the interior portions are so arranged
20 as to be readily removed for the purpose of cleansing.

In the drawings herewith forming part of this specification, Figure 1 is a top plan view of my improved multiple-dasher churn, the
25 upper part of the casing being removed. Fig. 2 is a side elevation. Fig. 3 is a cross-section on line X X of Fig. 1. Fig. 4 is a transverse section on the line Y Y of Fig. 1.

In the construction of my improved churn
30 I provide a casing 1, consisting of two preferably elliptical side portions 2, which are provided with side and bottom staves 3, so as to form the receptacle for the cream. I next provide a top provided with fastening-but-
35 tons 5. Adjacent to each end of each of the side portions 2, at their longitudinal center, I provide apertures 6, suitable as bearings for spindles 7, two of these spindles being projected from each of the side portions 2. The
40 said spindles are passed through suitable packing-boxes in the apertures 6 in such manner as to prevent the outflow of the cream within the churn. I next mount within the casing 1 and adjacent to each end thereof
45 upon each of said spindles 7 a rotatable dasher 8, each dasher consisting of four radially-extended arms, the ends of the opposite arm portion on each side of the casing being connected by transverse bars of any desired shape
50 in cross-section best adapted for the agitation of the cream.

Upon the ends of three of the exteriorly-

projected spindles 7 I mount rigidly two small and one large gear-pinions, the small pinions being designated as 9 and 9' and the large
55 gear-pinion being designated as 10, one of the said small pinions being mounted so as to be in engagement with the larger pinion upon the same side of the casing. Upon the side of the casing opposite thereto and adjacent to
60 the projected end of the spindle, for which no pinion is provided, I mount, rigidly projected from the side of the casing and at right angles thereto, a spindle 11, upon which I provide a rotatable gear-wheel 12, the same so mounted
65 as to be in engagement with the small pinion upon that side of the casing. I also provide suitable key-fastenings for securing rigidly said pinions and gear-wheels upon their respective spindles. I next provide means for
70 securing the rotatable dashers 8 upon their respective spindle. This I effect by a latch 13, pivoted in a suitable manner upon the inner surface of each of said dashers, adapted to be depressed into a transverse slot 14, ad-
75 jacent to the end of each of said spindles.

The gear-wheel 12 is provided upon its outer surfaces adjacent to its periphery with a spindle rigidly secured thereto, upon which I
80 mount a suitable crank-pin 16.

The operation of my device is as follows: The dashers having been placed in proper position and the gear-pinions secured in engagement with each other and with the gear-wheel 12, the latter is rotated by means of the
85 crank-pin 16, which will cause the dashers 8 to rotate in opposite direction or toward each other. By such opposite rotation the cream in the churn will be thoroughly agitated and the churning will be more expeditiously ef-
90 fected with the least amount of exertion on the part of the person operating the churn. As soon as the process of churning is complete the spindles 7 are withdrawn and the dashers 8 elevated out of the churn, thereby
95 permitting the effective cleansing of the interior.

Having thus described my invention and its construction, what I claim as new, and desire to secure by means of Letters Patent, is— 100

An improved multiple-dasher churn, consisting of a receptacle for cream, a detachable cover therefor, spindles projected through the side walls of said receptacle, rotatable

dashers secured upon the opposite ends of
said inwardly-projected spindles, means for
rigidly securing said dashers upon said spin-
dles, a gear-pinion secured upon the exterior
5 ends of each of three of said spindles, a rotata-
ble gear-wheel secured upon a spindle pro-
jected from one of the side walls of the cream-
receptacle the said gear-wheel adapted to en-
gage with the adjacent gear-pinion and the
10 pinions upon the opposite side of the casing
adapted to engage with each other, the gear-
ing so arranged as that the rotation of the

gear-wheel will effect the opposite rotation of
the dashers, the whole constructed, arranged
and adapted for operation, substantially as 15
herein shown and described.

In testimony whereof I have signed this
specification in the presence of two subscrib-
ing witnesses.

JOHN LIEBLANG.

Witnesses:

JOHN D. CAPEN,
E. HATHAWAY.