

W. W. GIDDENS.
CHURN.

APPLICATION FILED FEB. 6, 1911.

1,048,523.

Patented Dec. 31, 1912.

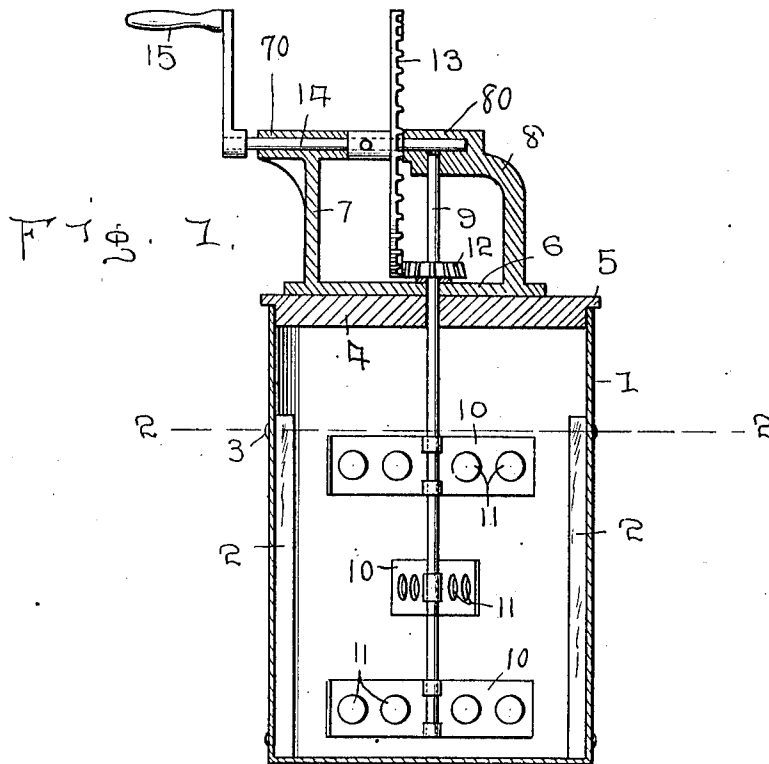
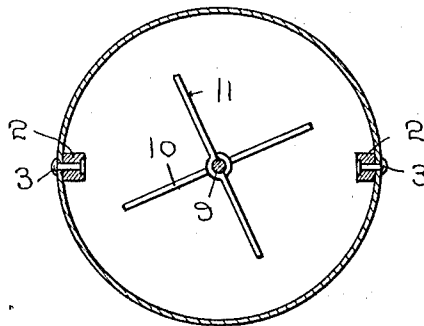


Fig. 2.



WITNESSES:

Thomas Riley
W. J. Fitzgerald

W. W. Giddens ^{INVENTOR}

By *W. J. Fitzgerald Co.,*
Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM W. GIDDENS, OF ADEL, GEORGIA.

CHURN.

1,048,523.

Specification of Letters Patent.

Patented Dec. 31, 1912.

Application filed February 6, 1911. Serial No. 606,914.

To all whom it may concern:

Be it known that I, WILLIAM W. GIDDENS, a citizen of the United States, residing at Adel, in the county of Berrien and State of Georgia, have invented certain new and useful Improvements in 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 make and use the same.

My invention relates to new and useful improvements in churns and more particularly to churns of the rotary type.

The object of my invention is to provide a churn which consists of but few parts which will be cheap and easy to manufacture.

A further object of my invention is to secure the dasher and the operating parts of the churn to the cover so that when said cover is removed, all operating parts of the churn are also removed.

Other objects and advantages of my invention will be hereinafter more clearly set forth.

In the accompanying drawing, I have shown the preferred embodiment of my invention.

In said drawing, Figure 1 is a vertical sectional view through the churn, and Fig. 2 is a horizontal sectional view as seen on line 2—2, Fig. 1.

Referring to the drawing in which similar reference numerals designate corresponding parts throughout the several views, 1 is the body of my churn which is shown as being cylindrical in form. The body 1 is provided with a plurality of vertically extending ribs 2 which may be secured thereto at any desired points by means of rivets 3, or in any other desired manner.

In the drawing, I have shown the body 1 as being provided with two vertically extending ribs which are disposed diametrically opposite each other. I desire it to be understood, however, that I may employ any desired number of ribs. The body 1 is provided with a cover 4 which fits snugly within the upper end of said body and is provided with an outwardly extending flange 5 adapted to hold the cover at the upper end of the body.

Secured to the cover is a frame comprising a base 6, a pair of vertically extending standards 7 and 8, a horizontal sleeve 70 on

the top of the standard 7, a horizontal sleeve 80 on the top of standard 8 and in alinement with the sleeve 70.

Journaled in the base 6 and transversely in the sleeve 80 on the standard 8, is a vertically extending shaft 9, which extends downward through the cover and to a point near the bottom of the body 1. The portion of the shaft 9 disposed in the body 1, is provided with a plurality of fan-like blades 10. The blades 10 may be formed of sheet metal or of other suitable material and are preferably provided with a plurality of apertures 11.

Rigidly secured to the shaft 9 at a point above the base 6 is a gear wheel 12 which is adapted to mesh with a gear 13, which bears on the base 6 and serves as a stop to prevent the shaft slipping downward when in operative position and is secured to a horizontally disposed shaft 14. The shaft 14 is journaled in the sleeves 70 and 80 of the standards 7 and 8 and is provided at one end with a suitable operating handle 15, by means of which the gear 13 may be rotated.

The bore in the sleeve 80 for receiving the upper end of the vertical shaft 9 is communicated with the bore therein for receiving the horizontal shaft 14, whereby when oil is applied to the inner end of the shaft 14 the same will flow inwardly and downwardly through the bores in the sleeve, thus oiling the two shafts with but one operation.

In use, the body 1 is partially filled with cream and the shaft 9 rotated. This results in the blades 10 agitating the cream and the cream will be caused to circulate from the central portion of the body toward the sides of the casing, due to centrifugal force. The cream will also circulate around the body, due to rotary movement of the blades, but will be thrown inward when coming in contact with the strips 2 vertically disposed in said body.

By resting the gear 12 on the base 6, the shaft 9 is suspended therefrom, thereby dispensing with a step bearing in the churn body for the lower end of said shaft, heretofore considered necessary and very objectionable.

From the foregoing, it will be seen that I have provided a churn which consists of but very few parts, the operating parts of the churn being all secured to the cover of the churn and removable therewith.

It will also be seen that the body and the operating parts of the churn are very accessible, so that the same may be thoroughly and easily cleansed when necessary.

5 What I claim as new is:—

A churn comprising the combination of a body and a cover adapted to rest in an opening therein, a plate upon the cover, two rigid standards projecting upwardly from the
10 plate, two horizontal sleeves on the upper ends of the standards and extended toward one another and in alinement with each other, a vertical shaft having its upper end
15 mounted in the under side of one of the sleeves and extending through the plate and the cover, the bore in the sleeve for receiving

said vertical shaft being in communication with the bore forming the sleeve, dashers on said shaft, a gear on the shaft bearing on the plate and suspending the shaft therefrom, a
20 horizontal shaft journaled in the alined sleeves, a gear on the horizontal shaft between the sleeves and meshing with the gear on the vertical shaft, and a handle on the
25 horizontal shaft.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM W. GIDDENS.

Witnesses:

G. M. DEVANE,
T. C. MORGAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."