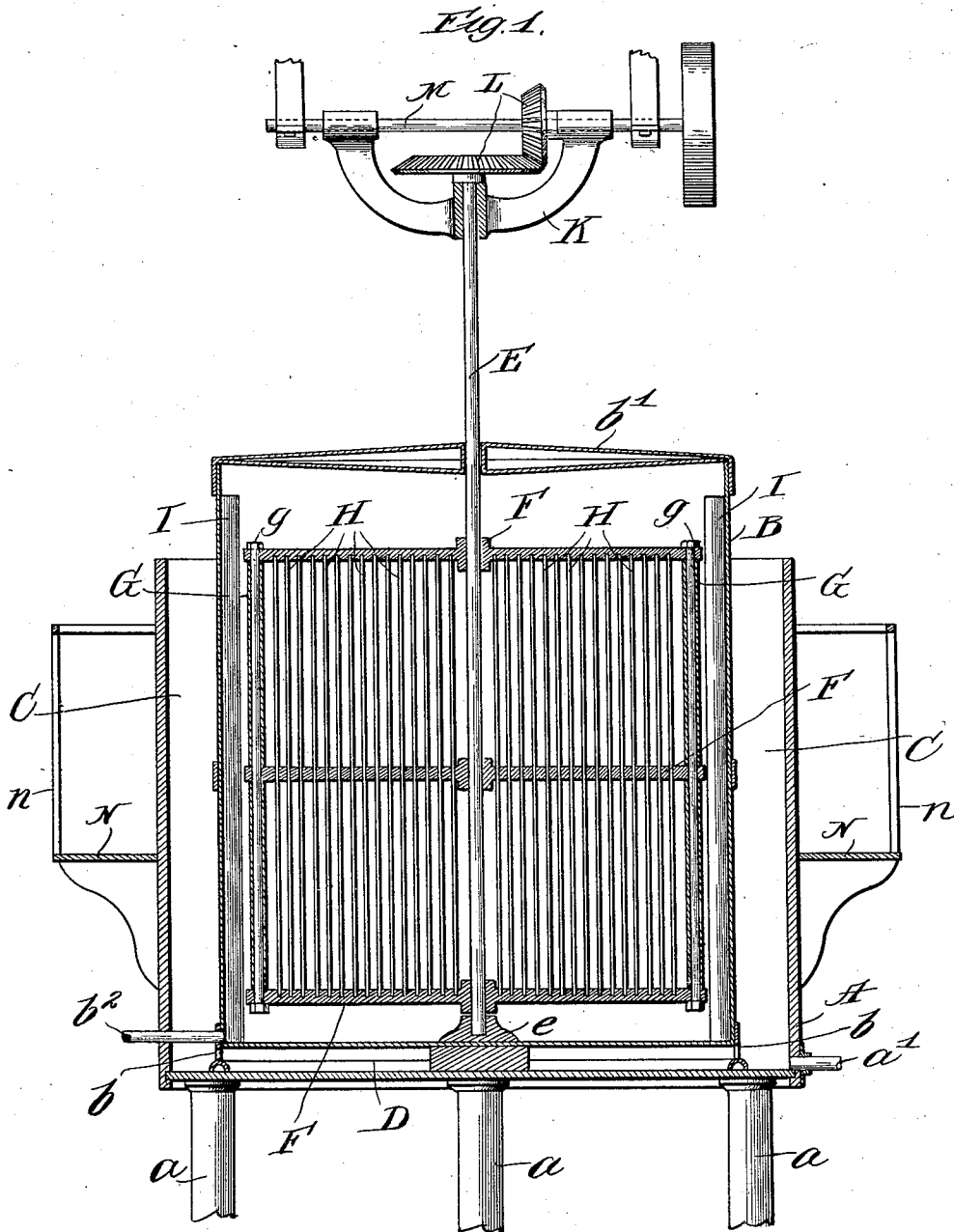


C. F. McEWAN.
AGITATING MACHINE.
APPLICATION FILED DEC. 22, 1910.

1,007,367.

Patented Oct. 31, 1911.

2 SHEETS—SHEET 1.



Witnesses:
Geo. H. H. H. H. H.
Geo. R. H. H. H.

Inventor:
C. F. McEwan
By *M. C. Roberts*
his Atty

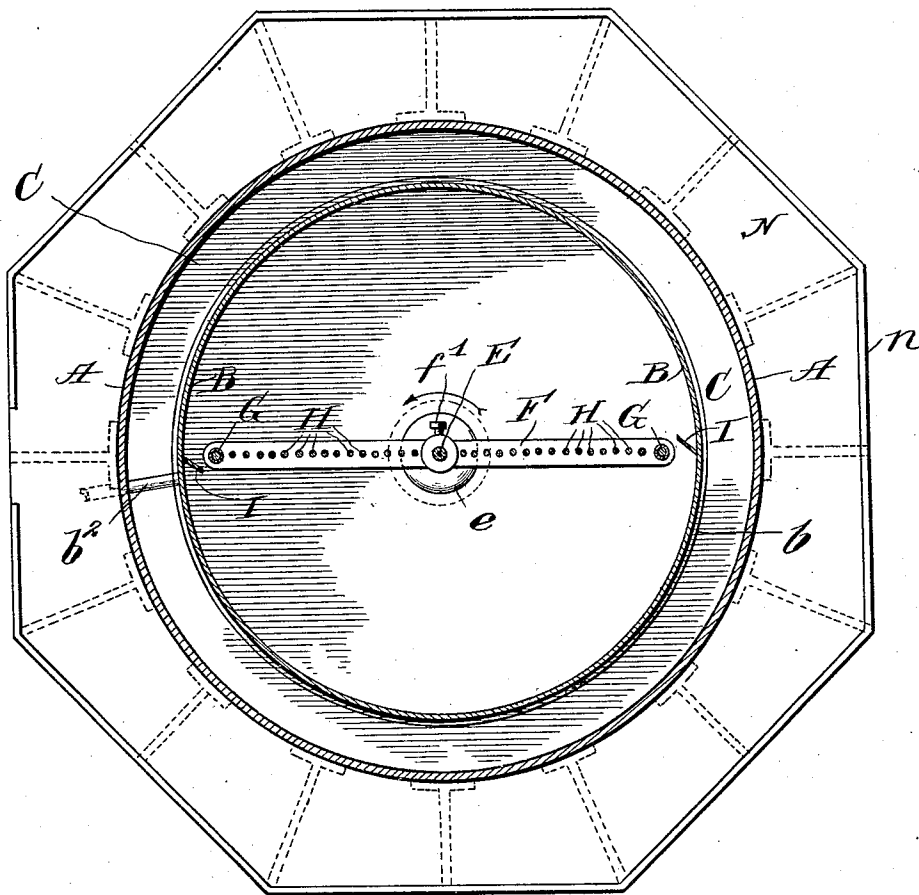
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2 SHEETS—SHEET 2.

Fig. 2.



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UNITED STATES PATENT OFFICE.

CHARLES F. McEWAN, OF MARENGO, ILLINOIS, ASSIGNOR TO BORDEN'S CONDENSED MILK COMPANY, A CORPORATION OF NEW JERSEY.

AGITATING-MACHINE.

1,007,367.

Specification of Letters Patent.

Patented Oct. 31, 1911.

Application filed December 22, 1910. Serial No. 598,788.

To all whom it may concern:

Be it known that I, CHARLES F. McEWAN, a citizen of the United States, residing at Marengo, in the county of McHenry and State of Illinois, have invented certain new and useful Improvements in Agitating-Machines, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to agitating machines for use in breaking up thick heavy fluids, such as milk, cream, etc., and consists in the arrangements and organizations of parts hereinafter described and then pointed out in the appended claims.

In the accompanying drawings which illustrate a practical embodiment of the several features of my invention—Figure 1 is a view partly in elevation and partly in vertical cross-section showing an agitating machine constructed in accordance with my invention, and Fig. 2 is a top plan view thereof with parts in section.

Referring to the drawings the reference letter A indicates a tank, preferably round, of any suitable dimensions and material providing a liquid containing receptacle supported upon a base or foundation such for example as the legs *a* and having an outlet *a'*.

The reference letter B denotes an inner tank or reservoir, preferably of metal and of the same contour as but smaller than the outer tank in which it is supported upon a perforated or skeleton base *b* so as to leave a circular surrounding chamber C about its body and a lower chamber D below its bottom for brine or ice or other cooling material. The tank B is provided with a removable top or cover *b'*, and with an outlet *b''*.

A shaft E is supported at its lower end centrally of tank B in a bearing *e* fastened to the bottom of the tank, and projects through a suitable opening or hole in the cover. The shaft E carries a plurality of radial arms F secured thereto by any suitable means such as the set-bolts *f'*, and forming the agitator frame. The ends of the arms are perforated and metal tubes G are set between the ends of the arms, and rods *g* pass through the tubes and through the perforations in the ends of the arms and are headed over or otherwise suitably formed at their ends. A series of metal rods H,

preferably from one-eighth to five-sixteenths of an inch in diameter, are strung between the arms F, passing through the middle arm and being seated in the upper and lower arms, to constitute the agitating fan. The tubes G space the arms apart, and when the parts are assembled the rods *g* securely hold them in assembled position and relation. The agitating fan does not fill the cross-sectional area of the reservoir B which is provided on its inner wall or face with stationary metallic strips I set at an angle, preferably of about 80 degrees to the face of the reservoir and inclined in the direction of rotation of the fan for the purpose of deflecting or throwing the fluid contents inwardly toward the center of the reservoir as the agitating fan sweeps it around, the direction of rotation of the latter being indicated by the arrow in Fig. 2.

It is of course understood that the number of deflecting strips and their form and arrangement may be varied without departing from the scope of this invention.

The shaft E is driven by any suitable means; the reference K denotes a three-way frame secured to any suitable support and which provides a bearing for the upper end of the shaft which is driven by bevel-gears L from a line shaft M journaled in the frame K and driven from any suitable source of power. When the shaft is rotated in the direction of the arrow in Fig. 2 the agitator or fan is correspondingly rotated and moved through the fluid contents of the reservoir to break it up, the deflecting strips throwing the fluid inwardly toward the center as the fan brings it around.

The outer tank may be provided with a suitable platform N for the attendant or operator, having a suitable railing *n* having an entrance.

I claim:—

1. In an agitating machine, an outer tank and an inner tank providing a space or chamber around the inner tank, an agitating fan rotatably mounted in the inner tank, stationary deflectors on the inner wall of the inner tank and inclined in the direction of rotation of the agitating fan, and means to rotate the fan.

2. In an agitating machine, an outer tank, an inner tank of less size than and supported above the bottom of the inner tank to provide a cooling space or chamber

around and below the inner tank, stationary
deflectors on the inner wall of the inner tank
and inclined in the direction of rotation of
the agitating fan, an agitating fan rotatably
5 mounted in the inner tank, and means to
rotate the fan.

3. In an agitating machine, a reservoir
having a central bearing, a shaft rotatably
mounted in the bearing, means to rotate the
10 shaft, a plurality of radial arms mounted
on the shaft, spacing tubes between the
outer ends of the arms, rods passing through
the tubes and arms to hold the parts together,
and a plurality of rods mounted on the arms
15 in spaced relation.

4. In an agitating machine, a reservoir

having a central bearing, a shaft rotatably
mounted in the bearing, means to rotate the
shaft, a plurality of radial arms mounted
on the shaft, spacing tubes between the outer
ends of the arms, rods passing through the
tubes and arms to hold the parts together,
a plurality of rods mounted on the arms in
spaced relation, and angular deflecting strips
20 mounted on the inner wall of the reservoir. 25

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

CHARLES F. McEWAN.

Witnesses:

ALBERT S. NORTON,
ELLSWORTH E. SEWARD.

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