J. C. TISE & J. H. KESTER.

Churn.

No. 207,085. Patented Aug. 13, 1878.

Fig. 1.

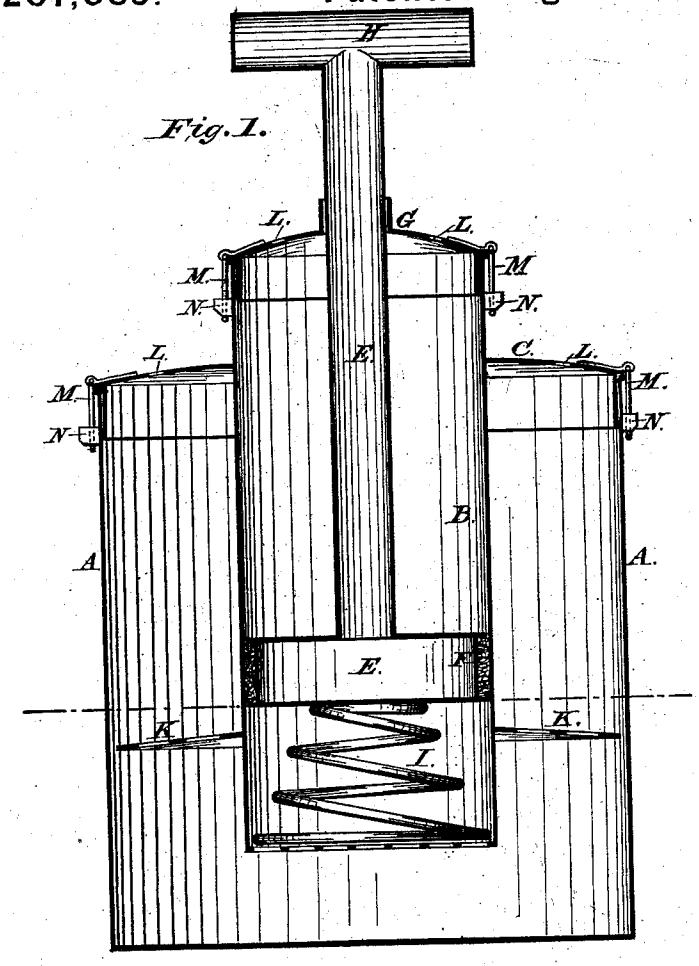
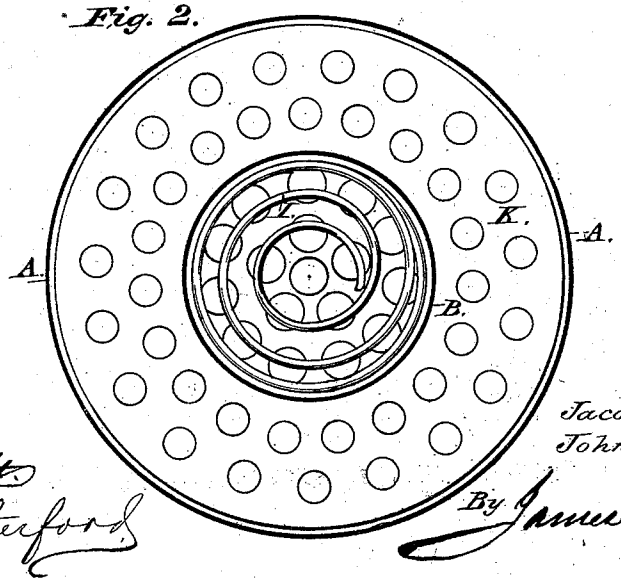


Fig. 2.



Witnesses:

T. C. Brecht.

J. A. Rutherford.

Inventors:

Jacob C. Tise,

John H. Kester,

By James L. Norris

Attorney.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JACOB C. TISE AND JOHN H. KESTER, OF WINSTON, NORTH CAROLINA.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. **207,085**, dated August 13, 1878; application filed July 24, 1878.

To all whom it may concern:

Be it known that we, JACOB C. TISE and JOHN H. KESTER, of Winston, in the county of Forsyth and State of North Carolina, have invented certain new and useful Improvements in Churns, of which the following is a specification:

This invention relates to certain improvements in churns; and it has for its object to provide for rapidly and thoroughly agitating the cream, whereby the separation of the butter is greatly facilitated, enabling the butter to be manufactured in much less time and at much less labor than heretofore.

Our invention consists in the combination, with the inner cylinder, of an annular perforated flange, secured to the lower part of said cylinder, which lies in the space between the two vessels, and acts in conjunction with the perforated or foraminous bottom of the inner cylinder to thoroughly agitate the cream and separate the butter therefrom.

Our invention also consists in the combination, with the inner cylinder, of a spiral spring, located in the lower part thereof, to take up the shock upon the piston on its downstroke and give it an initial movement on its upstroke, whereby the labor of churning is materially lessened.

In the drawings, Figure 1 represents a vertical sectional view of the improved churn, and Fig. 2 a horizontal sectional view thereof.

The letter A represents the outer or cream vessel, which, in the present instance, is made cylindrical in form, although this is not essential, and the said vessel may be constructed of any suitable material.

The letter B represents a concentric cylindrical vessel passing through the cover C of the vessel A, to which it is attached, and extending into said vessel, terminating near the bottom thereof. The said vessel B is provided with a perforated or foraminous bottom for the admission and emission of cream, as more fully hereinafter explained.

The letter E represents a piston provided with packing F, and adapted to be reciprocated in the inner cylinder by means of the piston-rod E′ passing through the cover G of the inner cylinder, and provided with a handle, H, on its top.

Within the inner cylinder, and resting upon its bottom, is located a spiral spring, I, which receives the piston on its downward stroke, relieving the shock and giving the piston its initial upward movement.

The letter K represents an annular flange located near the lower end of the inner cylinder, and secured thereto. Said flange is perforated, and sits in the space between the two vessels when the same are in place.

The covers of both cylinders are perforated, as shown at L, to admit air and emit air, and said covers are provided with hinged bails M, which may be turned down over the lugs N on the respective vessels, so as to confine the covers securely in place.

The operation of our invention will be readily understood in connection with the foregoing description.

On reciprocating the piston the cream will be alternately drawn into and forced out of the cylinder through the perforated bottom. The cream is also forced in opposite directions alternately through the foraminous flange by the action of the piston, whereby it is thoroughly agitated and the butter rapidly and effectively separated.

What we claim is—

1. In combination with the outer vessel, the inner vessel, its perforated bottom, piston, and piston-rod, the annular perforated flange secured to the inner vessel, substantially as and for the purpose specified.

2. In combination with the inner cylinder and its piston, the spiral spring located in said cylinder, as and for the purposes specified.

In testimony that we claim the foregoing we have hereunto set our hands in the presence of the subscribing witnesses.

JACOB CICERO TISE.
JOHN HENRY KESTER.

Witnesses:
D. H. STARBUCK,
B. Y. RAYLE.