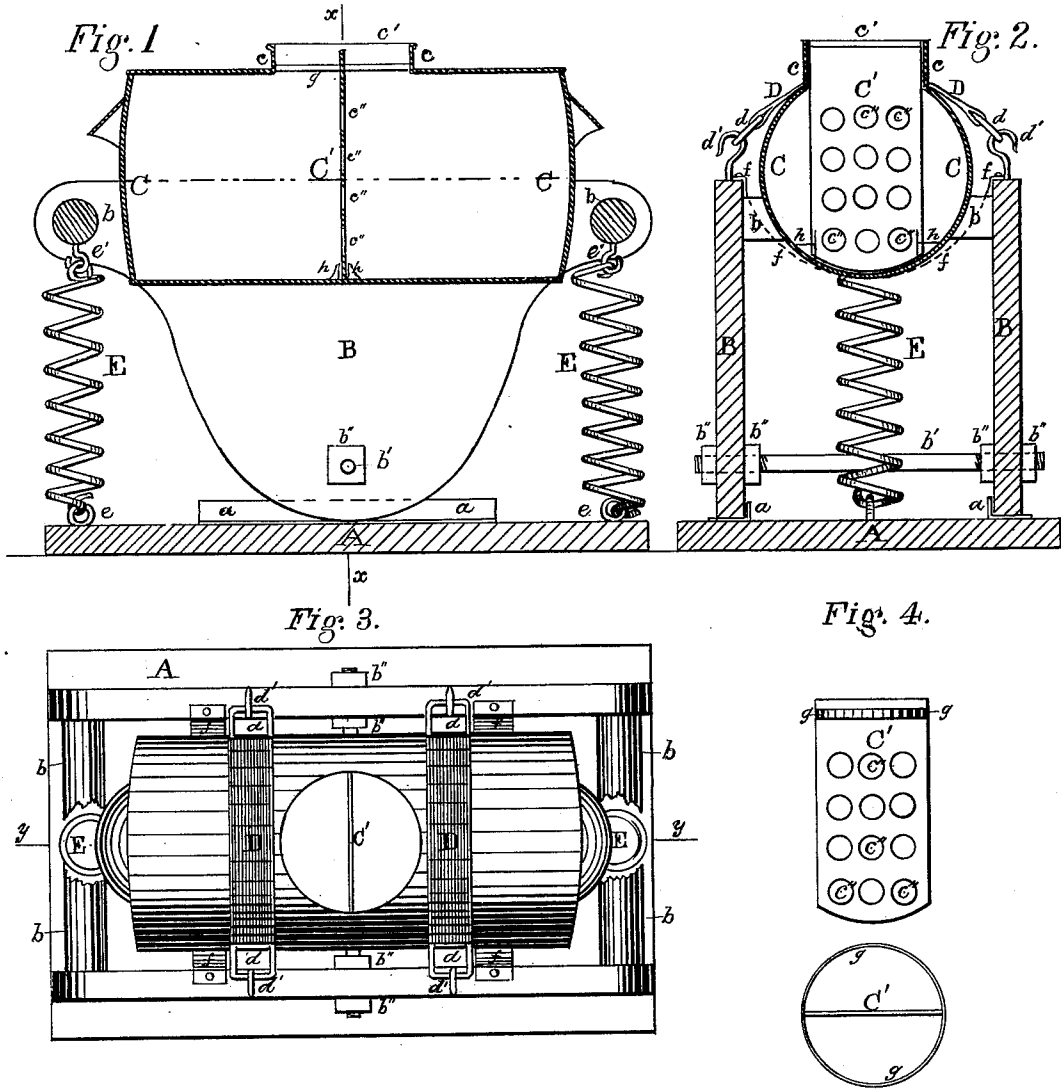


J. M. MATTOON.
Churn.

No. 231,436.

Patented Aug. 24, 1880.



Witnesses
C. Davis
W. H. King

Inventor
J. M. Mattoon
 By *G. L. Bennett*
Atty

UNITED STATES PATENT OFFICE.

JONATHAN M. MATTOON, OF GENEVA, KANSAS.

CHURN.

SPECIFICATION forming part of Letters Patent No. 231,436, dated August 24, 1880.

Application filed December 26, 1879.

To all whom it may concern:

Be it known that I, JONATHAN M. MATTOON, of Geneva, in the county of Allen and State of Kansas, 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to a rocking churn or washing-machine; and it consists, first, of a cylinder supported on a rocking frame, at each end of which frame is a spring, by means of which the operation of rocking is greatly facilitated; and, secondly, in a removable perforated diaphragm being placed within the cylinder, all of which will be hereinafter more fully described, and set forth in the claims.

Figure 1 is a longitudinal vertical section. Fig. 2 is a transverse middle section on line *ax* of Fig. 1. Fig. 3 is a view from the top, and Fig. 4 is an elevation and plan of the diaphragm.

A represents a base-board or table or any platform to support the rocking churn.

B B are two rockers, which are held together by a rod, *b*, at each end. These rods are broken away to show the springs E and screw-rod *b* at the bottom. Any other arrangement of thwarts may be made.

The rod *b'* is sustained by the use of inside and outside nuts, *b'' b''*, on the ends of rod *b'*. From the middle of the end rods, *b b*, are springs E E, which are fastened to the rods and to the platform A. On platform A are two angular plates, *aa*, secured to it, on which the rockers B B rest.

C is a cylinder, made of wood or metal, which is supported between the rockers B B on strips of sheet metal *ff*, and the cylinder is kept down by straps D D, made of elastic, leather, or sheet metal, having at each end loops *dd*, which hook on the hooks *d' d'*, screwed into the top of rockers B B. It will be thus seen that while the cylinder C rests securely in its bed upon the rockers B B, yet it can quickly be fastened in or removed when requisite.

Within the cylinder C is a diaphragm, C', perforated with any number of holes, *c'' c''*.

This diaphragm is sustained in its place by two cleats, *h h*, in the side of the cylinder near the bottom, and by a ring, *g*, within the circular opening *c* at the top of the diaphragm, which ring fits loosely within the circular opening *c*, thus permitting the diaphragm to be readily placed within the cylinder or removed when required.

The springs E E are so attached to the end rods, *b b*, and platform A that they may be easily removed or attached, so that the whole apparatus may be taken apart and placed out of the way when not required for use.

By moving the rocker-frame up and down the springs at once assist the operator, and the material in the cylinder is thrown first to one side and then to the other through the diaphragm. In this case only one diaphragm is used. Any number can be placed between the two ends of the cylinder, and the material can be thus more effectually operated upon.

By removing the diaphragm the whole chamber is clear, and after the butter has been collected from the milk, then a few more actions up and down causes the butter to be still further collected into the mass.

It is obvious that this rocking cylinder can be applied to other uses where a rocking motion is desirable, either for cleansing purposes, such as washing clothes, or for any use for separating any solid substances from a liquid where the specific gravities differ.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a rocking churn or washing-machine, the rocking frame, in combination with the cylinder C, supported on straps *ff* and held down by straps D D, guides *aa*, and springs E E, substantially as and for the purpose described.

2. The rocking cylinder C, supported and held substantially as described, in combination with one or more diaphragms having holes *c''* therein and supported by rings *g*, substantially as and for the purpose described.

In testimony that I claim the foregoing I have hereunto set my hand this 18th day of September, 1879.

JONATHAN M. MATTOON.

Witnesses:

BENJ. PUTNAM,
J. P. DICKEY.