J. W. BRADY.

Apparatus for Raising Cream.

No. 204,127. Patented May 28, 1878.

Fig 1

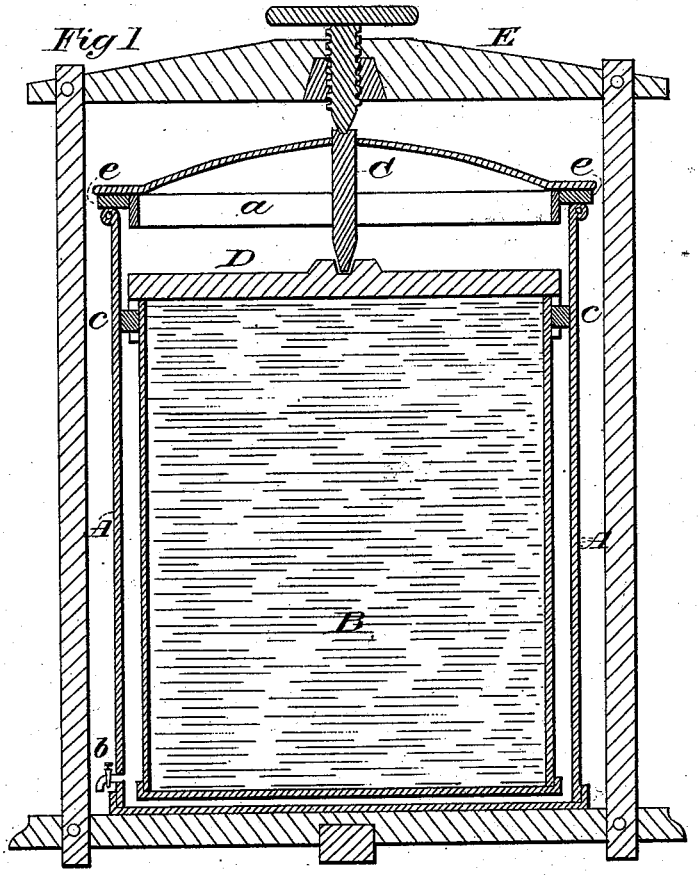


Fig 2

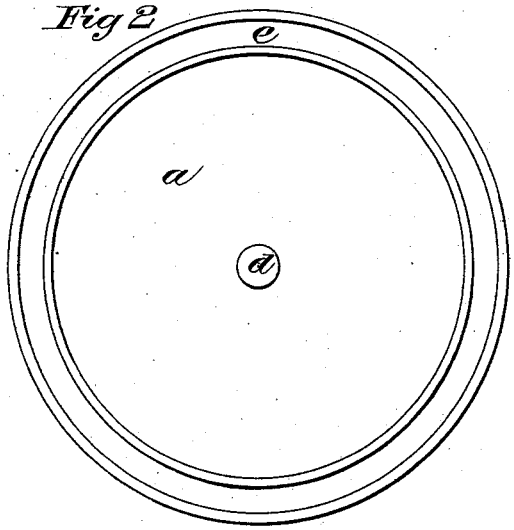
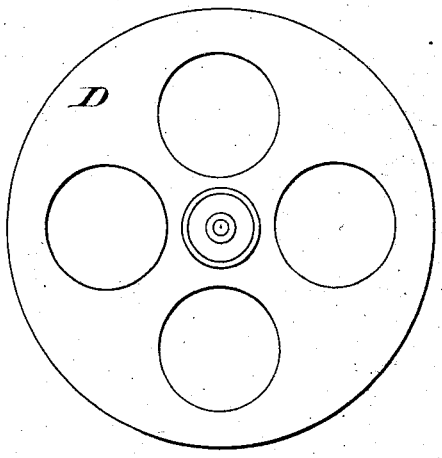


Fig 3



Attest:

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UNITED STATES PATENT OFFICE.

JAMES W. BRADY, OF CATONSVILLE, MARYLAND.

IMPROVEMENT IN APPARATUS FOR RAISING CREAM.

Specification forming part of Letters Patent No. **204,127**, dated May 28, 1878; application filed April 17, 1878.

To all whom it may concern:

Be it known that I, JAMES W. BRADY, of Catonsville, in the county of Baltimore and State of Maryland, have invented a new and useful Improvement in Cream-Raising Apparatus, which improvement is fully set forth in the following specification, reference being had to the annexed drawings, in which—

Figure 1 is a vertical section. Fig. 2 is a plan view of the cover, looking upward; and Fig. 3, a plan view of the cross-head, looking downward.

The object of my invention is to rapidly raise the cream on milk by means of a vacuum, by the combination, in a milk-setting apparatus, of the case A, Fig. 1, with its cover *a*, stop-cock or faucet *b*, the milk-vessel B, with its elastic packing or band *c* around its external periphery, the piston-rod C, and cross-head D, to operate as hereinafter described.

The cover is illustrated more in detail in plan view, Fig. 2, in which *d* is a hole, through which the piston-rod C moves up and down in operating my invention, so packed as to render it air-tight; and *e* is an elastic band or packing to render the cover air-tight.

In Fig. 1, *c* is an elastic band or packing, and may be placed at or near the top or bottom of the vessel, or at both places, if desired. Its purpose is to close the space between the case and milk-vessel, to render the same air-tight.

In operating my invention, the faucet *b* is opened, the milk-vessel B is placed within the case A and forced downward until the elastic band or packing has entered the case, when the faucet *b* is closed and the vessel filled with the milk to be treated. In this position it is held by the imprisoned air in the case. A cross-head, D, as shown in Fig. 1, is then placed on the milk-vessel and the cover *a* put on the case. The piston-rod is then inserted in the hole *d*, and after opening the faucet *b* the milk-vessel is forced to the bottom of the case by the screw in the beam of the frame E, when the faucet is again closed, and a vacuum is produced in the case above the milk.

E is a frame that may be used to embrace the case A, to carry the screw H, for depressing the inner vessel.

When the milk has been subjected to the influence of the vacuum for a sufficient time, the faucet *b* is opened and the milk-vessel is forced upward to the top of the case by the atmospheric pressure beneath it, when the cover *a* may be removed and the cream at the top of the vessel be skimmed off.

I do not wish to restrict myself to the particular shape or form of the parts shown, as it is evident that the construction may be changed somewhat without departing from the spirit of my invention. The cross-head may be a single bar instead of a perforated disk, and the cover may be shaped and fitted differently, and the screw and rod C may be one and the same device for operating the inner vessel, or other means than a screw can be used for operating the rod C.

What I claim is—

1. As an improved device for setting milk to raise cream thereon, jointly, an air-tight inclosing cylinder or case, having a stop-cock near the bottom, and a packed piston-rod passing through its cover at top, and a milk-containing cylinder or vessel, properly packed, and operated within said inclosing-cylinder after the manner of a packed closely-fitting piston, by force communicated to it through the medium of the piston-rod, substantially as set forth.

2. In a device for raising cream on milk, the combination of an air-tight inclosing vessel or cylinder and an inner milk-containing vessel or cylinder, closely fitted and packed, so as to make an air-tight joint with the inner surface of the inclosing-cylinder, and mechanism to impart to said cylinder, either or both, sliding movement of the one within or upon the other, after the manner of the tubes of a telescope, with a view to condense or expel the atmosphere from, or to create a partial vacuum within, said cylinder, substantially as described.

J. W. BRADY.

Witnesses:
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