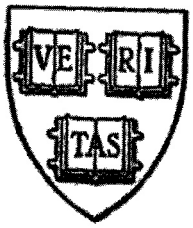

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Volume 11 contains No. 47 part 1, Patent Office—Mechanical.
Volume 12 contains No. 47 part 2, Patent Office—Mechanical.
Volume 13 contains No. 47 part 3, Patent Office—Mechanical.
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Volume 15 contains Report on Commerce and Navigation.
Volume 16 contains No. 14, in quarto.
Volume 17 contains No. 37, in quarto.
Volume 18 contains No. 46, in quarto.

WASHINGTON:
WILLIAM A. HARRIS, PRINTER.
1859.

this invention consists in an arrangement for agitating, cutting, fanning, and separating butter from the serous part of milk.

Claim.—The arrangement of the openings *o* and *v* in the circular part of the fan or beater case, the valve *x*, the gathering valve *h*, the conductor *u*; the whole being arranged and combined as described and represented for the purpose specified.

No. 21,637.—GEORGE H. FARRINGTON, of Xenia, Ohio, assignor to D. B. TIFFANY, of said Xenia.—*Improved Churn.*—Patent dated September 28, 1858.—A represents the box which serves to hold the cream. B B are the dasher-bearers, which are secured to the shafts *a a*. These shafts pass through the bearers and have their bearings in the sides of the box; *c c* are the double concavo-convex dashers, which are concave on the one side and convex on the other, the convex sides being secured by the bearers B B.

Claim.—The employment of the double concavo-convex dashers, constructed, arranged, and operated in the manner specified, and for the purpose set forth.

No. 21,871.—JAMES H. BUMP, of Morris, New York.—*Improvement in Churns.*—Patent dated October 26, 1858 —A is the case or body of the churn, with a lid B, on which a chamber C is formed, which chamber is provided with a lid D. At the centre of the chamber C, and in the lid B of the case A, a vertical tube E is fitted or placed centrally, said tube forming a direct communication between the interior of the case A and chamber C.

Claim.—The arrangement and combination with the churn of a chamber C, through which the air that mingles with the cream is made to circulate substantially as and for the purpose shown and described.

No. 23,093.—CHARLES W. STAFFORD, of Burlington, Iowa.—*Improved Churn.*—Patent dated November 16, 1858.—This churn is operated by means of a segmental rack S working into the pinion N, and to which a reciprocating motion is given around the pivot M by means of lever G. The agitation of the cream is effected by means of the parallel arms 1, 2, 3, 4, and the floats X X X, the latter being set obliquely to the direction of the former, and all standing fixed perpendicularly to the shaft C. Attached to slides, which stand vertically along the ends of the arms 1, 2, 3, 4, is a zone of tin or sheet metal Z Z, having radial projections 10, 10, on its interior surface. This zone is intended to be raised or lowered along the slide, so as to accommodate itself to the quantity of cream in the churn, the upper edge being intended to rise to the surface of the cream, or a little higher, so that the radial projections may gather the butter as it is formed.

The inventor says: I am aware that many of the contrivances described have in some shape been substantially used for a like purpose before. I do not, therefore, claim them separately, except as stated.

But I *claim* the general arrangement and adaptation of parts,

Chueit
US 21871 A

Publication number	US21871 A
Publication type	Grant
Publication date	Oct 26, 1858
Inventors	James H. Bump
Export Citation	BiBTeX, EndNote, RefMan

Classifications (1)

External Links: USPTO, USPTO Assignment, Espacenet

DESCRIPTION (OCR text may contain errors)

.I. H. BUMP.

v Churn.

No. 21,871. Patented Oct. 26,1858.

UNITED STATES PATENT OFFICE.

JAMES H. BUMP, OF MORRIS, NEW YORK.

CHURN.

Specification of Letters Patent No. 21,871, dated October 26, 1858.

To all whom it may concern:

Be it known that I, JAMEs H. BUMP, of Morris, in the county of Otsego and State of New York, have invented a new and Improved Churn; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, making a part of this specification, said drawing being a central vertical section of my invention.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, represents the case or body of the churn, which may be of the usual conical taper form prox'ided with a lid B, on which a chamber C, is formed, which chamber is also provided with a lid D.

At the center of the chamber C, and in the lid 13, of the case A, a vertical tube E, is fitted or placed centrally, said tube forming a direct communication between the interior of the case A, and the chamber C, as shown clearly in the drawing.

F represents the dasher staff, which works through the tube E, and through metal boxes at, (4, attached one to the upper and the other to the lower side of the lid D. The staff F, works singly in the boxes a, a, but a space l), is allowed between it and the aperture which the boxes a, a, cover. The staff F, is hollow, is perforated at its upper part as shown at o, and the dasher G, which is attached to the lower end of the staff is also hollow or has a chamber 1], formed within it, said chamber communicating with the interior of the staff by means of a valve 6, opening downward, the lower box a, is fitted over radial grooves a, made in the bottom of the lid D, to afford a comnnmication between chamber C, and the space 6.

The tube E, in the lid B, is sufficiently larger in diameter than the shaft F, to allow a space f, all around the staff. To the upper side of the lid B, at one side an upright H, is attached, and a lever I, is attached thereto by a fulcrum pin 9. The upper end of the staff F, is attached to lever I, by a pin it, which passes through an oblong slot in the lever to compensate for the

curvilinear movement thereof.

Within the chamber C, a requisite quantity of ice 2', is placed, and a suitable quantity of cream j, is placed within the case A. The operator grasps the lever Land by working it up and down a corresponding movement is of course given the dasher. At every upward movement of the staff F, the air from the chamber C, rushes down within the staff F, into the chamber cl, the valve 0, opening downward, see black arrows, and as the dasher descends the valve 6, closes and the air within will be forced into the cream j, and at the same time the air in the case above the cream will be compressed by the rising of the cream j, owing to the im- 7 mersion of the dasher, and said air will pass up the space f, into the chamber G, and thence into the staff F, through the passages or grooves a", to be again forced down into the cream upon the descent of the dasher.

By this invention it will be seen that the cream will be supplied with a requisite quantity of oxygen a continual current of cold air passing through it. The cream by the absorption of oxygen is fully acetified and the condition for the favorable aggregation of the globules of butter of a superior quality obtained, for the coolness imparted to the air by the ice 2', prevents the tempera ture of the cream from rising, a contingency, which would occur and inferior butter produced provided the air was of an equal or higher temperature with the cream.

I do not claim, broadly, the invention of a hollow dasher rod for the admission of air to the cream.

I do not claim forcing air into cream, or supplying cream, while subjected to the operation of churning with oxygen for this has been previously done; but, having thus described my invention,

What I claim as new and desire to secure by Letters Patent, is

The arrangement and combination with the churn of a chamber C, through which the air that mingles with the cream is made to circulate, substantially as and for the purposes herein shown and described.

JAMES H. BUMP.

Witnesses:

JoNAH DAVIS, DANIEL SMITH.

CLASSIFICATIONS

Cooperative Classification	B01F3/04808

J. H. BUMP.

Churn.

No. 21,871.

Patented Oct. 26, 1858.