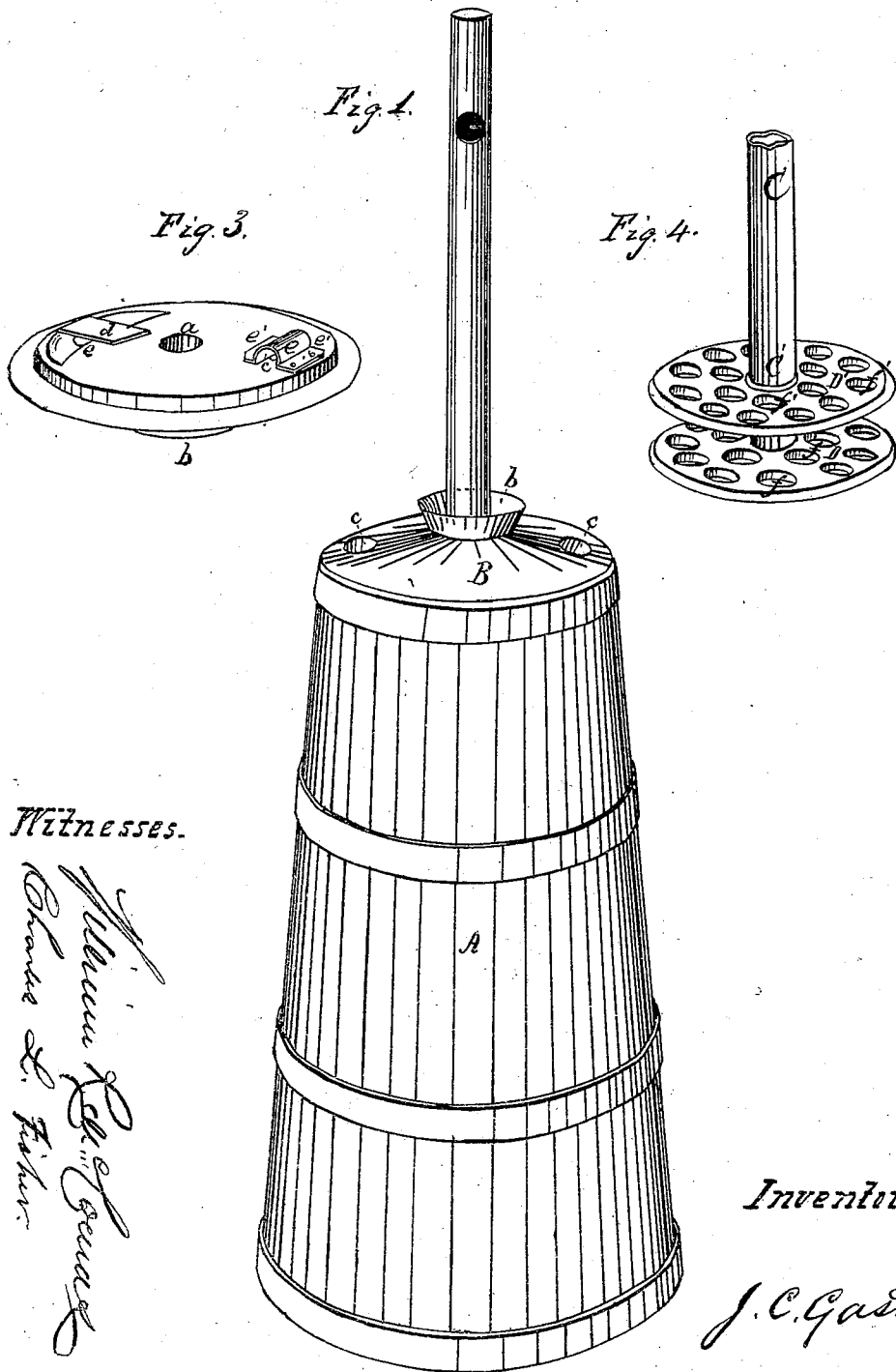


J. C. Gaston. Churn

N^o 72475

Patented Dec. 24, 1867



Witnesses.

Witness
Charles S. Fisher
John P. Brown

Inventor

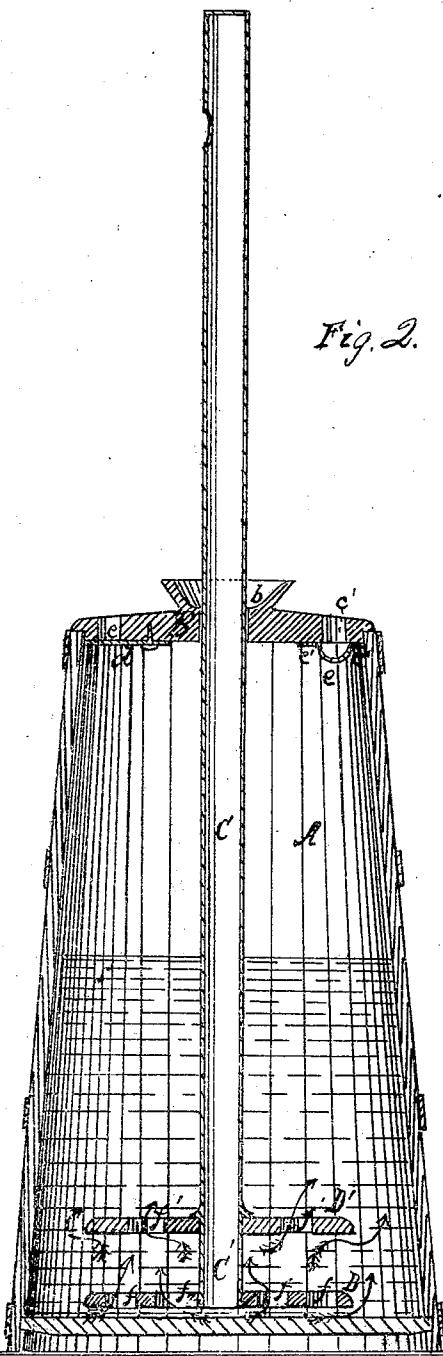
J. C. Gaston.

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Fig. 2.



Witnesses.

William R. L. Lewis
Charles S. Fisher

Inventor

J. C. Gaston

United States Patent Office.

J. C. GASTON, OF CINCINNATI, OHIO.

Letters Patent No. 72,475, dated December 24, 1867.

IMPROVEMENT IN CHURNS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, J. C. GASTON, of Cincinnati, Hamilton county, and State of Ohio, have invented a new and improved Churn, of which the following is a full and clear description, reference being had to the accompanying drawings, making part of this specification.

My improvement in churns relates to the construction of one or more openings in the tops or lids of churns, for the purpose of admitting air into and preventing the milk from dashing out of the churns, which double purpose I effect, by either covering a cylindrical perforation or perforations made in the lids, with pieces of thin metal or wood, securely attached to the inside of the tops or lids of the churns, or by securing pieces of flat metal or wood over the tops or lids, which have greater widths than the diameter of the opening or openings, the edges of the perforations being chamfered off in two opposite directions, to give room for the free passage of air from without to within the churns; and also, to the arrangement of two perforated dash-boards, which are placed one above the other, in such a manner that the perforations in one of them shall be opposite or over the solid parts of the other dash-board, for the purpose of more effectually agitating the milk.

Figure 1 is a perspective view of my improved churn.

Figure 2 is a longitudinal section of the same.

Figure 3 is a perspective view of the lid or cover, showing the covered openings from the inside.

Figure 4 is a perspective view of the perforated churn-dasher attached to the handle.

A is the barrel of the churn, nearly a cylinder in form. It is closed at its upper end by the lid or cover B, about the central perforation *a* of which is the dish *b*, located on the outside of the cover B. To either side of the perforation *a*, through which the handle of the dash passes, are the cylindrical or other desirable-shaped perforations *c* and *c'*, in and through the cover B. The perforation *c* has its edges on opposite sides, on the inside of the cover B, chamfered off, as shown in fig. 3. A piece of metal, *d*, thin, and having a plain surface, is secured to the inside of the cover B, directly over the perforation *c*. The surface dimensions of strip of metal *d* should be at least double the diameter of the perforation it covers. The opposite perforation *c'* is covered with a piece of metal, *e*, of semi-cylindrical shape, and provided with flanges *e'*, which are riveted or otherwise secured to the under side of the cover B. This metal covering, *e*, has a length in the direction of the cylindrical elements at least double the diameter of the opening it covers. To the inner end, *C'*, of the tubular handle C, which is open at either end, are secured the two perforated dash-boards, D and D'. The dash-board D is secured to the extreme end, *C'*, of the handle C. The dash-board D' is likewise secured to the handle C, a few inches above the dash-board D. Each dash-board has the same number of perforations, *f f'*, which are of the same size, and of such a number that the distance from one perforation to the next shall be less than the diameter of the perforation. When located in position, the one above the other, the perforations *f*, in the dash-board D, are in lines parallel with the handle C, directly over the skeleton of the dash-board D', the material part of the dash-board between the perforations. The planes of the dash-boards are at right angles to the handle, to which they are attached.

Operation.

In the process of churning, when the dash is forced down into the body of the milk, numerous currents are caused to flow upward through the openings *f* in the lower dash-board D, and since the openings in the upper dash-board D' are, as heretofore described, over the spaces between the perforations *f*, in the lower dash-board D, each upward current of milk from the perforations *f* is divided into two halves, more or less. On reaching the upper dash-board D', the one part passes through the perforations *f'*, thus relieving the downward pressure and facilitating the operation of churning; the dash-boards D and D' being secured in the usual manner to a suitable handle.

What I claim as my invention, and desire to secure by Letters Patent, is—

The construction and arrangement of two perforated dasher-heads, secured one above the other to the dasher-handle, and having an equal number of perforations, and so placed that the perforations in one head shall be opposite the solid part of the other, substantially as and for the purpose described.

In combination with the above, I claim providing the cover with the air-tube *c*, with a semi-cylindrical-shaped cap, *e*, as and for the purpose set forth.

J. C. GASTON.

Witnesses:

WILLIAM B. McCOMUS.

CHARLES L. FISHER.