J. PARKER.

Churn.

No. 35,540. Patented June 10, 1862.

Fig. 2.

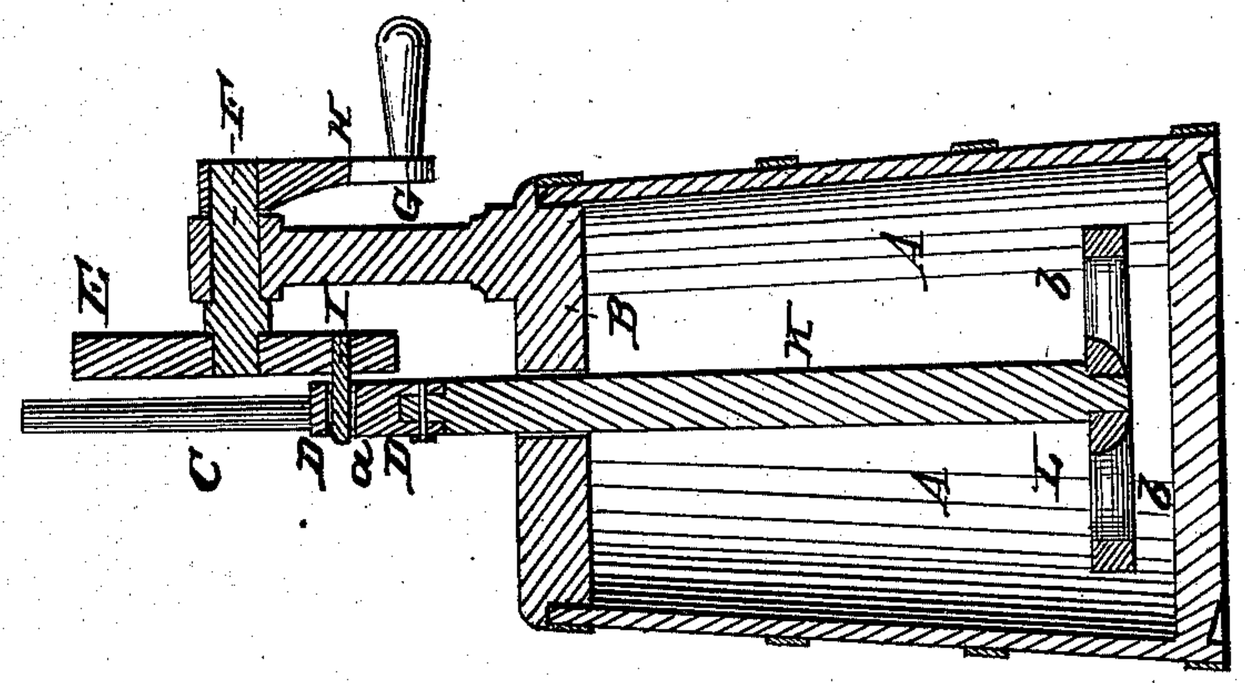


Fig. 3.

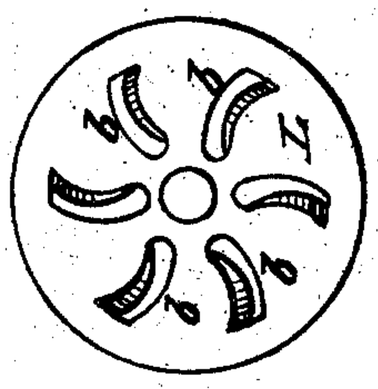


Fig. 4.

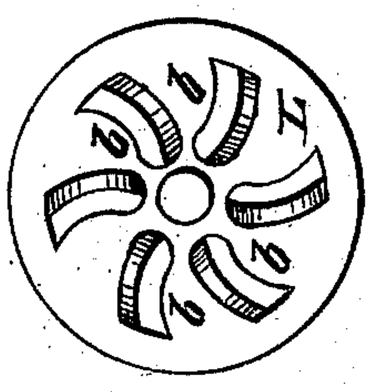
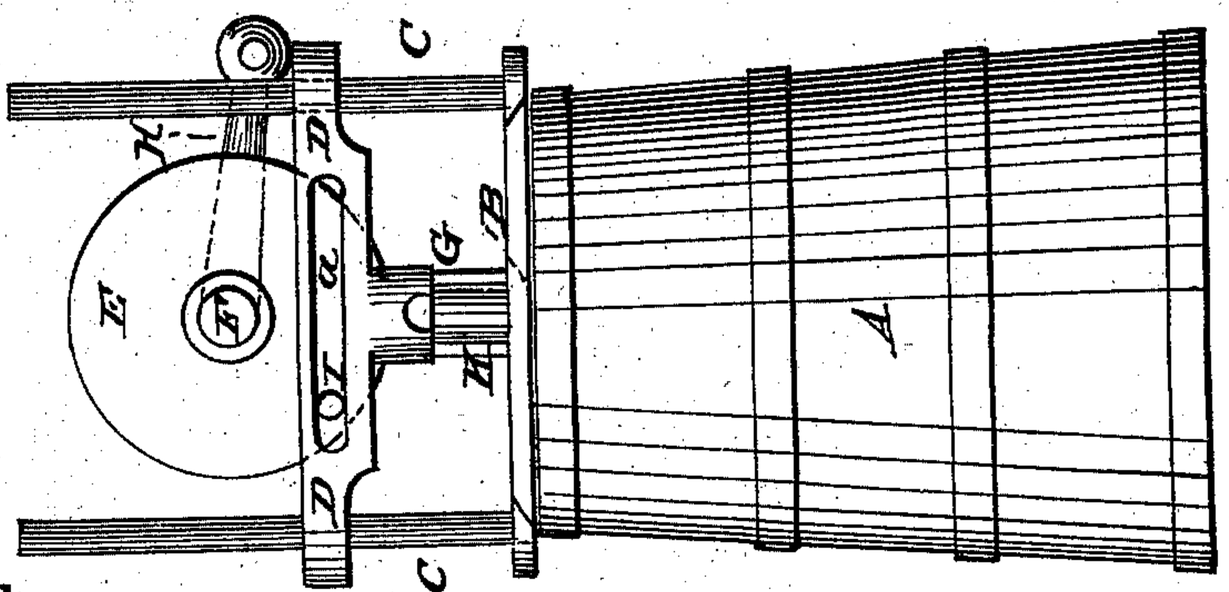


Fig. 5.

Fig. 1.



Witnesses:
R. H. Eddy
F. P. Hale Jr.

Inventor.
Jonathan Parker.

UNITED STATES PATENT OFFICE.

JONATHAN PARKER, OF BIDDEFORD, MAINE.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. **35,540,** dated June 10, 1862.

To all whom it may concern:

Be it known that I, JONATHAN PARKER, a citizen of the United States of America, and a resident of Biddeford, in the county of York and State of Maine, have invented an Improved Churn; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a side elevation, and Fig. 2 a transverse and vertical section, of it. Fig. 3 is a top view, and Fig. 4 a bottom view, of the dasher. Fig. 5 is a transverse section through one of the dasher-openings.

My invention has reference to the construction and operation of the dasher; and it consists in making the dasher with orifices so inclined or arrnged within it as to produce spiral currents in the cream while the dasher may be in the act of being either lifted upward or forced downward.

In the drawings, A represents an upright tub provided with a cover, B, from the top of which two posts or standards, C C, are projected vertically. These standards pass through a cross head or bar, D, which should be so applied to them as to be capable of being moved freely up and down on them. The said bar D is slotted lengthwise, as shown at *a*, and arranged alongside of a circular disk or wheel, E, which is affixed at its center to one end of a horizontal shaft, F, which is supported by and so as to be capable of revolving freely in another post, G, erected on the cover B. A crank, H, is affixed on the outer end of the shaft, and is so arranged with respect to a pin or stud, I, (which extends from the face of the wheel E and into the slot *a*,) as to be about horizontal when such pin is either in its highest or lowest position. The arrangement is also such as to cause the cross-head D to descend while the crank is being turned in the lower half of its circle of revolution. From the middle of the cross-head a dasher-rod, K, descends, passes through a hole in the cover, and at its lower end is affixed to a wooden disk or dasher, L. The said dasher is made with a series of perforations, *b b b*, which stand radially, although each is curved longitudinally. Each of these perforations is not made at right angles with the plane faces of the dasher, but is inclined thereto, and each of such perforations is made somewhat wider at bottom than at top, in order that the cream during the downward stroke of the dasher may more readily pass into and through the opening.

The operation of the churn is as follows: While the crank is being turned a reciprocating, rectilinear, and vertical motion will be imparted to the dasher, and the dasher will be forced downward while the crank is being moved through the lower half of the circle of its revolution. This will not only cause the weight or gravitating power of the dasher to assist in effecting its downward stroke, but will cause the dasher to descend with a smart or quick dash or blow into the cream, and thereby facilitate the churning of it. Furthermore, owing to the arrangement of the perforations of the dasher, spiral currents will be produced in the cream during each ascent as well as during each descent of the dasher. Thus the cream, while the dasher may be working either way, will be put more or less in rotation in a manner which, under the action of the dasher in other respects, will contribute materially toward effecting the rapid oxygenation of the cream or production of the butter.

I claim—

The dasher as made with perforations arranged at an inclination to its faces to operate in manner substantially as specified.

JONATHAN PARKER.

Witnesses:

R. H. EDDY,

F. P. HALE, Jr.