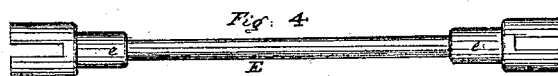
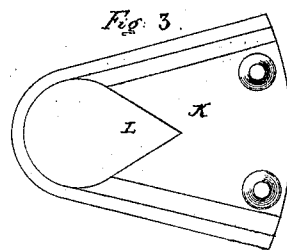
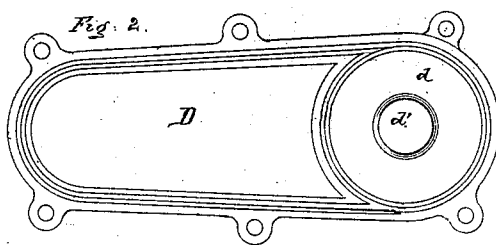
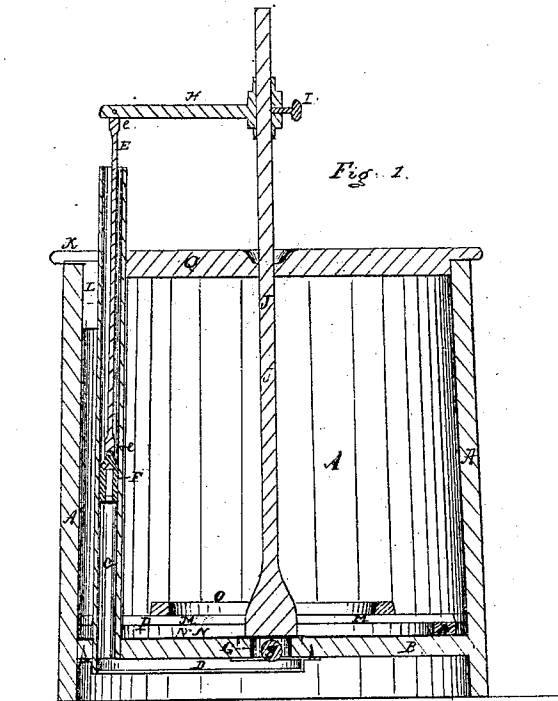


S. S. CASE.
Improvement in Churns.

No. 114,922.

Patented May 16, 1871.



Witnesses:
W. H. Pinckney
Ch. J. Cuyton

Inventor:
S. S. Case
By Andrew H. Harris
Attys.

United States Patent Office.

SCHUYLER S. CASE, OF MARION, NEW YORK.

Letters Patent No. 114,922, dated May 16, 1871.

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, SCHUYLER S. CASE, of Marion, in the county of Wayne and State of New York, have invented new and useful Improvements in Churns; and I do hereby declare the following to be a full, clear, and exact description thereof sufficient to enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawing forming part of this specification.

Nature and Object of the Invention.

My invention relates to that class of churns in which air is forced into the milk by means of a tube, with piston and valves operated by the same power that moves the churn-dasher; and it has for its object to greatly simplify and improve the construction of such churns and their appliances, as will be hereinafter more fully explained.

In the accompanying drawing making part of this specification—

Figure 1 represents a vertical sectional view of my invention.

Figure 2 is a plan view of metallic air-conductor to convey the air from the tube to the valve at the bottom of the churn.

Figure 3 is a plan view of metallic clip for securing the air-tube to the churn.

Figure 4 shows the piston and its connections or coupling.

Like letters of reference indicate corresponding parts.

In the drawing—

A represents the body of the churn, made in the ordinary manner, provided with a bottom, B, which is sufficiently elevated from the bottom rim of the churn-body as that a space is left between said bottom and the surface or plane upon which the churn may stand for a purpose which will hereafter appear.

C is a tube, secured near one side of the churn, passing up through the cover Q and down through the bottom B.

D is a shallow metallic pan (let it be termed a conductor) of an oblong shape, one end of which is covered by a circular plate, *d*, pierced by an aperture, *d'*, said aperture having sloping or beveled sides.

This conductor is secured to the under side of the bottom B, which is sufficiently raised, as above, for this purpose, so that one of its ends covers the lower opening of the tube C, and the other end covers an opening in the center of the churn-bottom, marked G, the center of the aperture *d'* exactly coinciding with the center of the opening G.

The opening G is furnished with a ball, *g*, which fits upon the beveled aperture *d'* and forms a ball-valve.

The tube C is provided with a piston, E, and plunger, F, the said plunger having a valve opening downward for the admission of air, and operating, by motion of the piston, to drive the compressed air through the conductor and past the ball-valve into the churn at a point immediately under the center of the dasher.

The piston is connected to the handle J of the dasher by means of a cross-piece, H, provided with a collar and set-screw, I, which secure it at any desired height.

The tube C is held in place by means of a metallic clip, K, the form of which is clearly shown in fig. 3.

Soldered or otherwise fastened to said clip is a vent-tube, L, to regulate the quantity of air forced into the churn.

At or near the bottom of this vent-tube is an opening or a series of perforations, which allows the air in the pipe or tube C to pass out until the plunger F passes the perforations at or near the bottom of the vent-tube L. Thus, by stopping the vent-tube at the top and the plunger passing down the pipe or tube C, a larger volume of air is forced into the churn than would be if the vent-tube was open.

I make the piston E of wood, and provide the connections or couplings *e e*, which are constructed to fit on the wooden rod, as shown at fig. 4. This makes a durable and lasting coupling, not liable to get out of order.

Having thus described my invention, I will state that I do not broadly claim the forcing of air by means of a tube and piston into a churn to facilitate the collection of the butter, for this is old. My object is to improve upon Letters Patent of the United States, No. 83,815, granted to me November 3, 1868; therefore,

What I do claim, and desire to secure by Letters Patent, is—

1. The clip K, constructed as described, and provided with a vent-tube, L, to regulate the quantity of air forced into the churn, substantially as and for the purpose set forth.

2. The clips K, with vent-tube L, in combination with the conductor D, dasher O, connecting-bar H, tube C, plunger F, piston E, the whole arranged substantially as herein shown and described.

To the above I have signed my name this 14th day of June, 1870.

SCHUYLER S. CASE.

Witnesses:

GEORGE BAKER,
J. K. JOHNSON.