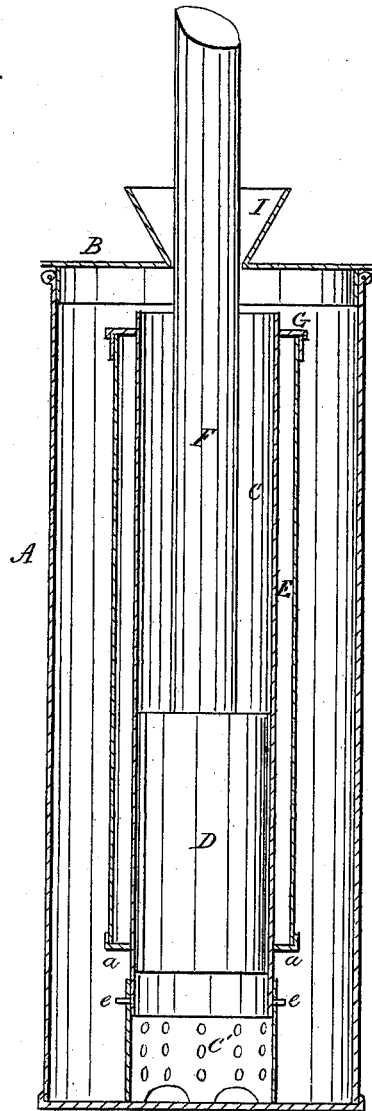


L. SIBERT.  
Churn.

No. 216,111.

Patented June 3, 1879.



WITNESSES  
*A. P. Cowl*  
*L. Bacon*

By *his* Attorney

INVENTOR  
*Lorenzo Sibert*  
*W. Morris Smith*

# UNITED STATES PATENT OFFICE.

LORENZO SIBERT, OF STAUNTON, VIRGINIA, ASSIGNOR TO DAVID H. EVANS  
AND JOHN A. NOON, OF SAME PLACE, ONE-FOURTH TO EACH.

## IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. **216,111**, dated June 3, 1879; application filed  
February 18, 1879.

*To all whom it may concern:*

Be it known that I, LORENZO SIBERT, of Staunton, in Augusta county and State of Virginia, have invented an Improvement in Churns, of which the following is a specification.

The object of this invention is to simplify the construction of the churn, to facilitate the thorough cleansing thereof, and to provide an improved means of regulating the temperature of the cream, so as to facilitate its conversion into butter regardless of the state of the atmosphere.

Referring to the accompanying drawing, which represents a central vertical section of my churn, A represents the outside casing, which in this instance is made of tin, and cylindrical; but any other suitable form or material may be substituted. B is its cover, provided with a central hole for the piston-rod F of the churn to pass through, and around this hole is a funnel-shaped collar, I, to catch and return the cream that might spurt up around the piston-rod. C is the working-cylinder, arranged concentrically within the cylinder A, and is detachably connected with a fixed foraminated cylinder, C', by the slots and lugs e. D is the piston, made of solid wood or other suitable material, is about one-half longer than its diameter, and fitted within the cylinder C as closely as possible not to cause too much friction between them. E is an annular chamber surrounding the cylinder C, formed by another cylinder, connected with the latter by an annular bottom, a, just above its connection with the foraminated cylinder C', and is provided with an annular cover, G.

Having thus described the construction of my churn, I will now describe its operation. The churn should be filled with cream to within three inches of the top of the working-cylinder C, or just below the cover G of the annular chamber E. The piston D is then worked up and down in the cylinder C, which in its upward motion draws in the cream through the foraminous cylinder C', and in its downward motion forces it rapidly back through the same cylinder, the small holes taking off the matrix and setting the butter free. The piston also rubs off the butter adhering to the inside of the cylinder, and such lumps as will not pass the small holes escape by the larger ones at the bottom of said cylinder.

When the atmosphere (and consequently the cream to be churned) is too cold or too hot, the annular chamber E is to be filled with warm or ice water, as the case may be, to bring it to a proper temperature for churning, and to cause the globules of butter to coalesce and rise to the surface of the butter-milk. This may be done by removing the cover G at the top of said chamber.

By this arrangement of the chamber E the heating or refrigerating property of its contents is all transferred to the cream. Being located around the working-cylinder and within the body of the cream in the outer one, it has no outside surface to radiate to or absorb from the atmospheric temperature.

In this arrangement and construction, it will be seen that after the completion of the churning operation the entire inner structure and working parts of the churn may be removed and separated, the water poured out of the annular chamber, and every part may be thoroughly cleansed. The piston, being solid, will not absorb the cream, to be liable to sour, as is the case with the packing of pistons heretofore used.

A churn of this construction to hold three gallons of cream should be ten inches in diameter and sixteen inches deep, with an inside or working cylinder of four inches diameter, extending upward nearly to the cover of the former. The solid part of the piston should be six inches long and fitting snugly, though not tightly, in the inner cylinder, so as to be nearly air-tight.

These proportions for various-sized churns I have found to be practically good; but I do not confine myself strictly thereto.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The arrangement of the annular chamber E for hot or cold water around and contiguous to the working-cylinder C, and within the body of the cream in the outer chamber, substantially as and for the purpose specified.

In testimony whereof I hereunto set my hand before two subscribing witnesses.

LORENZO SIBERT.

Witnesses:

R. H. PALMER,  
EDWARD ECHOLS.