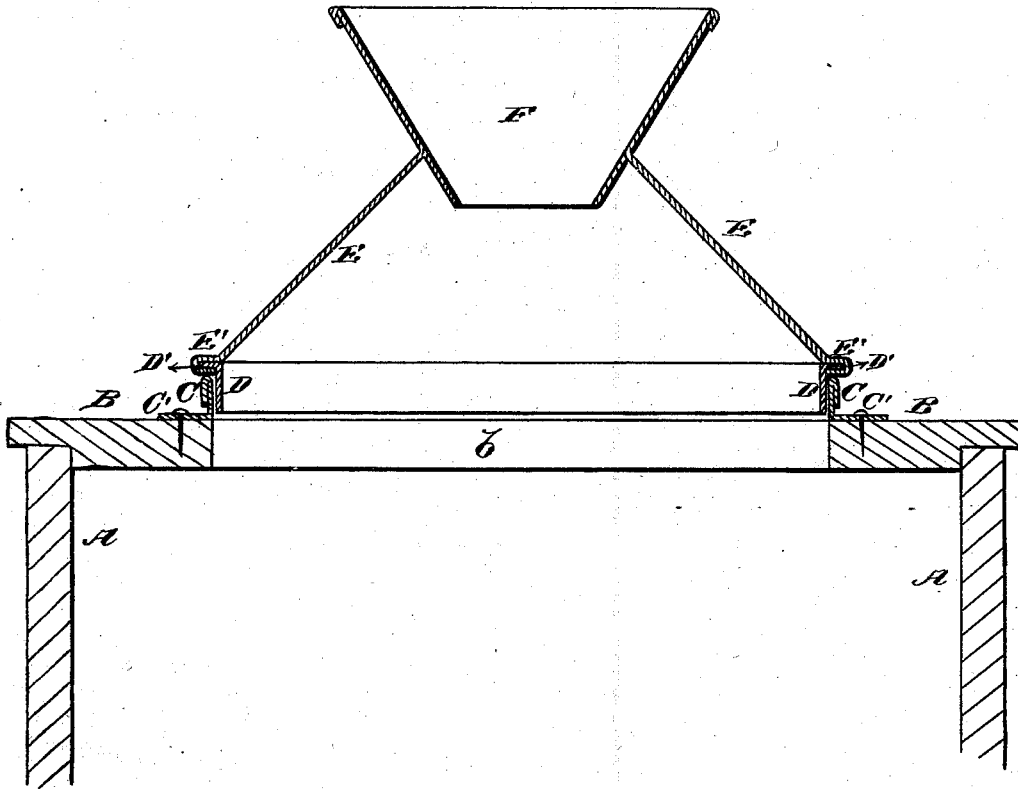


J. H. GRAY.
CHURN ATTACHMENT.

No. 187,619.

Patented Feb. 20, 1877.



WITNESSES
A. Bates
George C. Upham.

INVENTOR.
James H. Gray
Gilmore, Smith & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE

JAMES H. GRAY, OF WASHINGTON, IOWA.

IMPROVEMENT IN CHURN ATTACHMENTS.

Specification forming part of Letters Patent No. 187,619, dated February 20, 1877; application filed December 9, 1876.

To all whom it may concern:

Be it known that I, JAMES H. GRAY, of Washington, in the county of Washington and State of Iowa, have invented a new and valuable Improvement in Churn Attachments; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making a part of this specification, and to the letters and figures of reference marked thereon.

The figure of the drawing is a representation of a central vertical section of my churn attachment.

The nature of this invention consists in the construction and attachment of a conoidal churn-cap, whereby the milk, cream, or other liquid within a common dasher-churn is prevented from being splashed out of the top of the same, as hereinafter described.

In the accompanying drawing, A designates the upper part of the churn-box of an ordinary vertically-operating dasher-churn; and B designates the cover or top of the same, provided with a large central opening, *b*. C designates an annular rim surrounding said opening *b* on the upper side of said cover, and attached thereto by means of tacks, screws, or their equivalents, passing through a horizontal exterior annular base-flange, *C'*, which is made in one piece with said rim C. D designates a ring, which sets snugly within said annular rim C, and which is provided on its upper edge with a horizontal exterior flange, *D'*. Said flange *D'* is clasped by a bent attaching-flange, *E'*, on the exterior of the base of conoidal cap E. Said cap is open at the top, where it receives the lower end of funnel F, which is rigidly attached thereto.

Said funnel admits the cream or milk which is to be churned, and also the water to be used in cleansing the churn, while the conoidal cap E prevents said liquids from being splashed out during the operation of churning.

If said churn-cap and attached parts are made sufficiently large in diameter, it may be set directly upon the top of the churn-box A, discarding the cover B.

The said funnel F, conoidal cap E, and ring D may be made of glass, tin, or any suitable substance. The attachment between said ring D and annular rim C may be made by means of an L-shaped slot in one of said parts, and a headed stud in the other, or by means of any known equivalent device, whereby the said parts may be locked together by turning said ring D in one direction, and unlocked by turning it in the other. The said cap and attachments constitute an independent article of manufacture and sale. Said cap may be made dome-shaped, instead of conoidal.

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

The conoidal churn-cap E, provided with a funnel, F, and bent attaching-flange *E'*, in combination with the ring D, having the exterior horizontal flange *D'*, and the annular rim C, having its upper edge bent over, and provided with a horizontal exterior base-flange, *C'*, for attachment to the churn-body, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JAMES H. GRAY.

Witnesses:

D. J. DEWEY,
FRANK H. GRAVES.