

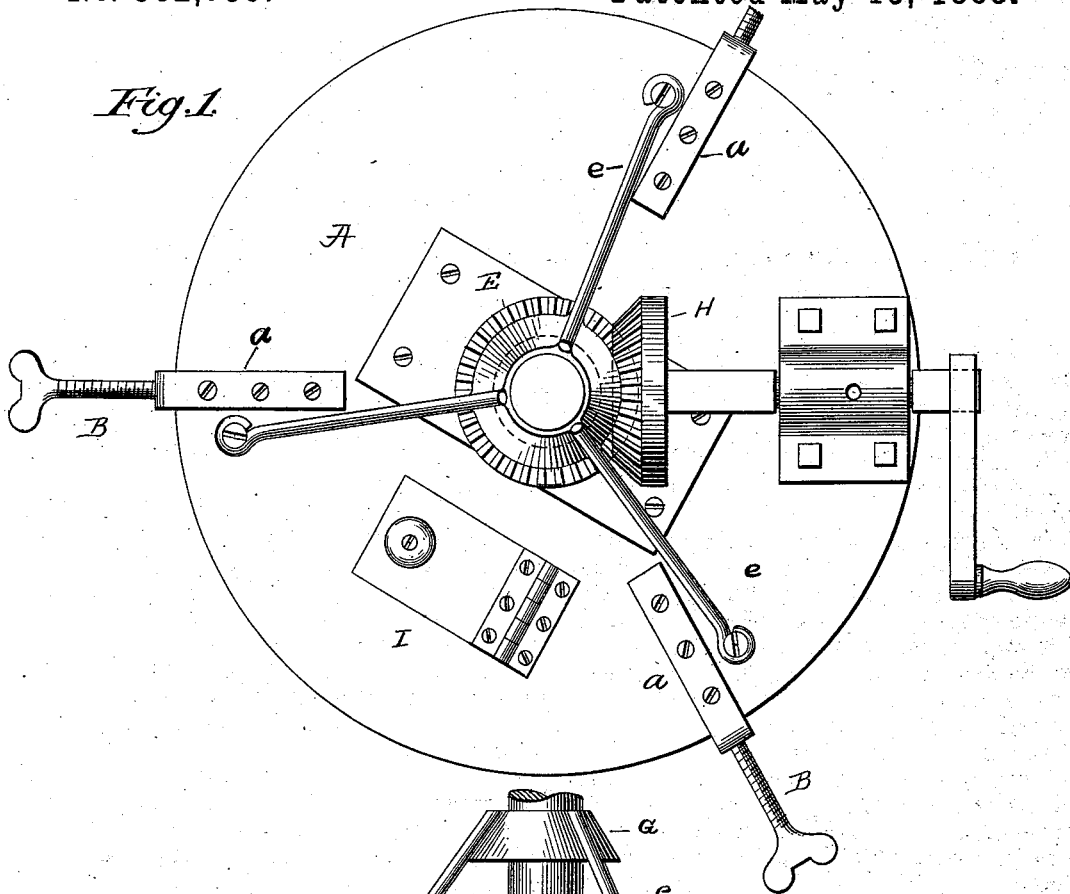
(Model.)

T. I. SMITH.  
CHURN.

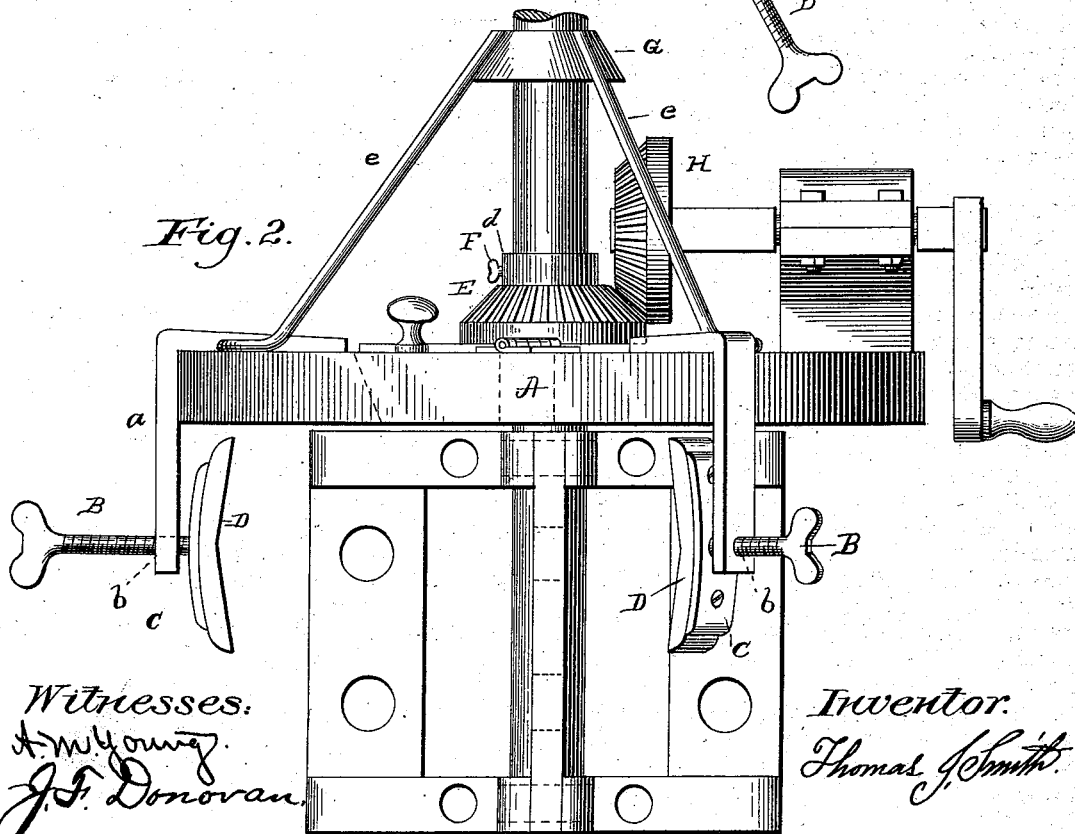
No. 382,739.

Patented May 15, 1888.

*Fig. 1.*



*Fig. 2.*



Witnesses:  
A. M. Young.  
J. F. Donovan.

Inventor.  
Thomas I. Smith.

# UNITED STATES PATENT OFFICE.

THOMAS J. SMITH, OF OMEGA, ASSIGNOR OF ONE-HALF TO EDWARD  
HERRICK, OF KINMUNDY, ILLINOIS.

## CHURN.

SPECIFICATION forming part of Letters Patent No. 382,739, dated May 15, 1888.

Application filed November 7, 1887. Serial No. 254,569. (Model.)

*To all whom it may concern:*

Be it known that I, THOMAS J. SMITH, a citizen of the United States, residing at Omega, in the county of Marion and State of Illinois, have invented certain new and useful Improvements in Churns, of which the following is a description.

This invention has relation to improvements in covers for churn-bodies, means for securing the same in position upon the body, and means for adjustably securing the dasher therein.

The improvements will be fully understood from the following description and claim, when taken in connection with the accompanying drawings, in which—

Figure 1 is a plan view of a churn-cover with my improvements applied; and Fig. 2 is a side elevation of the cover with the dasher attached, the churn-operating mechanism, and means for securing the cover to a churn-body.

Referring by letter to the said drawings, A indicates a cover for a churn-body, which I have shown as of a circular form, although it may be of any suitable form and made from wood or other material.

a indicates angle-irons, which have their horizontal branches secured to the upper side of the cover, and the vertical branches, which depend from the margin of the cover, are provided with internally-threaded eyes, b, to receive thumb-screws or threaded rods B. These threaded rods or screws B, which bear in the threaded eyes b of the depending arms a, have swiveled on their inner ends plates C, which are adapted to receive a wood or other soft facing, D, which are concave on their exposed sides, so as to conform to the external walls of a churn-body when forced against the same by means of the said screws B. I have shown in the present illustration three of these angle-irons carrying securing-screws, and it is obvious that more or less may be used for securing the cover to the body of the churn. This cover is provided with a central vertical aperture for the passage of the dasher-rod, and upon this dasher-rod is placed a horizontal bevel-gear, E, which is adjustably secured

thereon, as will be presently explained. This horizontal bevel-gear E is provided with a central vertical annular flange or tubular sleeve, d, which has a threaded aperture in the side to receive a thumb-screw, F, whereby the said gear is secured to the dasher-shaft.

G indicates a guide for the dasher-rod, which is in the form of a ring, and is firmly held at a suitable elevation above the cover by means of the brace-rods e, which have their lower ends firmly secured to the upper side of the cover, as shown.

H indicates a vertical gear, which meshes with and imparts motion to the horizontal gear secured to the dasher-shaft. This vertical gear has secured to it a horizontal shaft journaled in a suitable box on the cover, and is provided at its outer end with a crank-handle, whereby said shaft may be rotated.

The dasher is composed of an upper and a lower horizontal cruciform section having perforations, and united by vertical end strips which are also perforated.

The cover is provided with a small opening, I, arranged at a suitable point and closed by a hinged door, whereby the operator may introduce water or inspect the contents of the churn during operation.

Having described my invention, what I claim is—

The churn-top having the central vertical aperture and the aperture closed by a door, in combination with the angle-irons having their vertical branches provided with threaded eyes, the threaded rods bearing in said threaded eyes and having plates swiveled on their ends, the guide for the dasher-shaft secured by the braces, as shown, the dasher-shaft, the horizontal gear on the dasher-shaft, having a tubular sleeve, the set-screw for securing the gear to the dasher, and suitable means for rotating the same, substantially as specified.

THOMAS J. SMITH.

Witnesses:

E. G. FORSTER,  
A. M. YOUNG.