

(No Model.)

J. L. TAYLOR.

CHURN.

No. 339,495.

Patented Apr. 6, 1886.

Fig. 2.

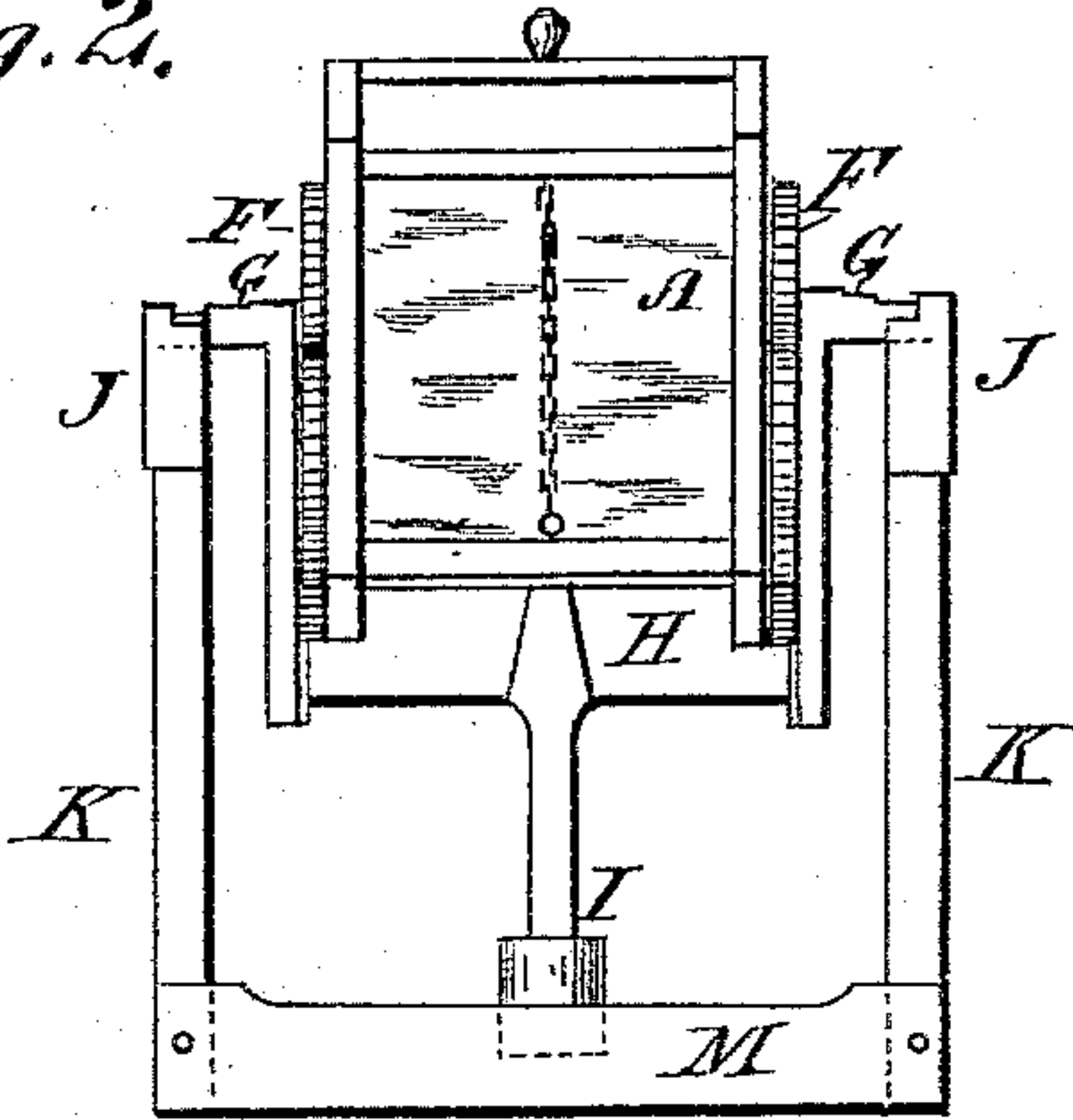


Fig. 1

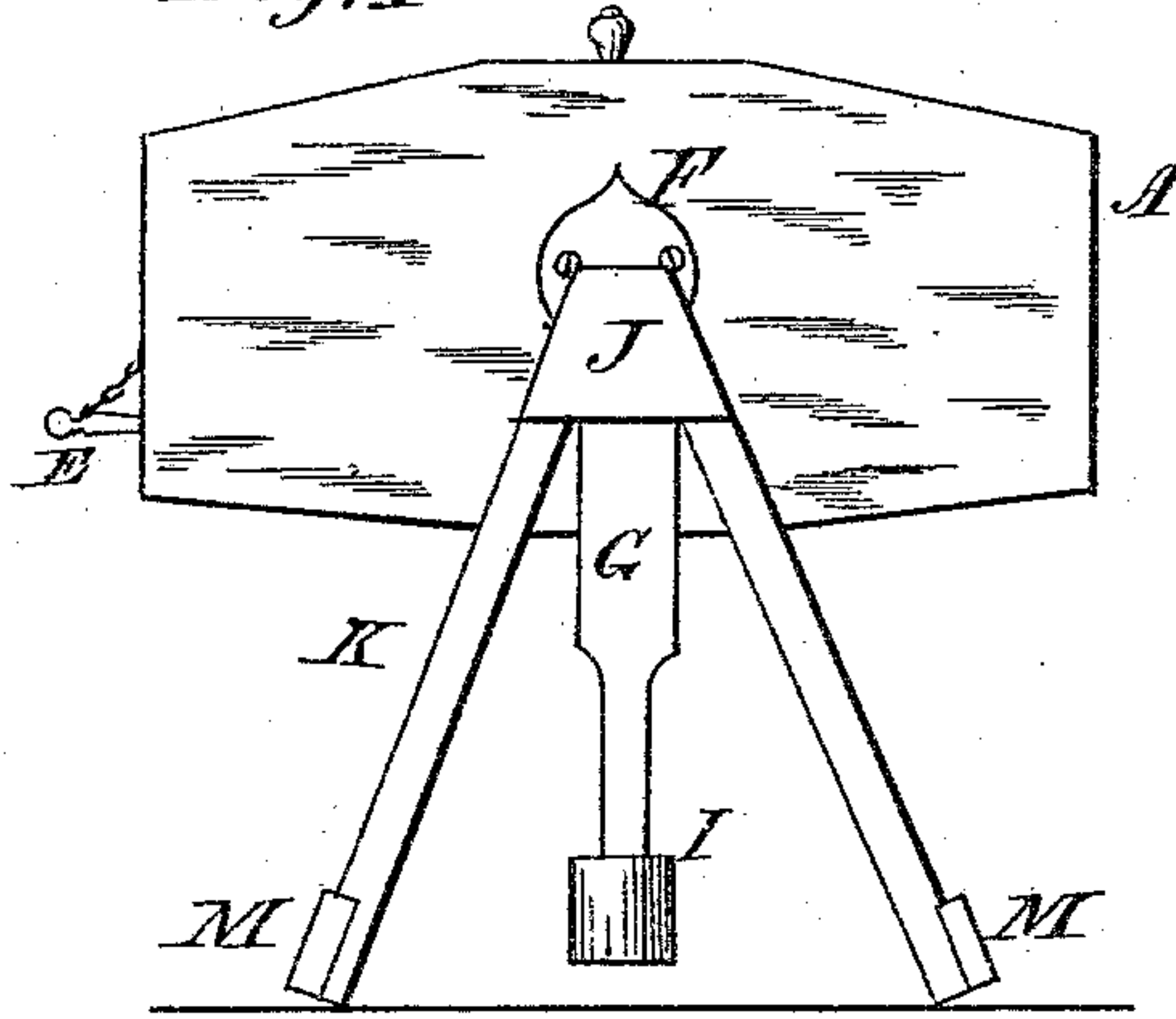


Fig. 4

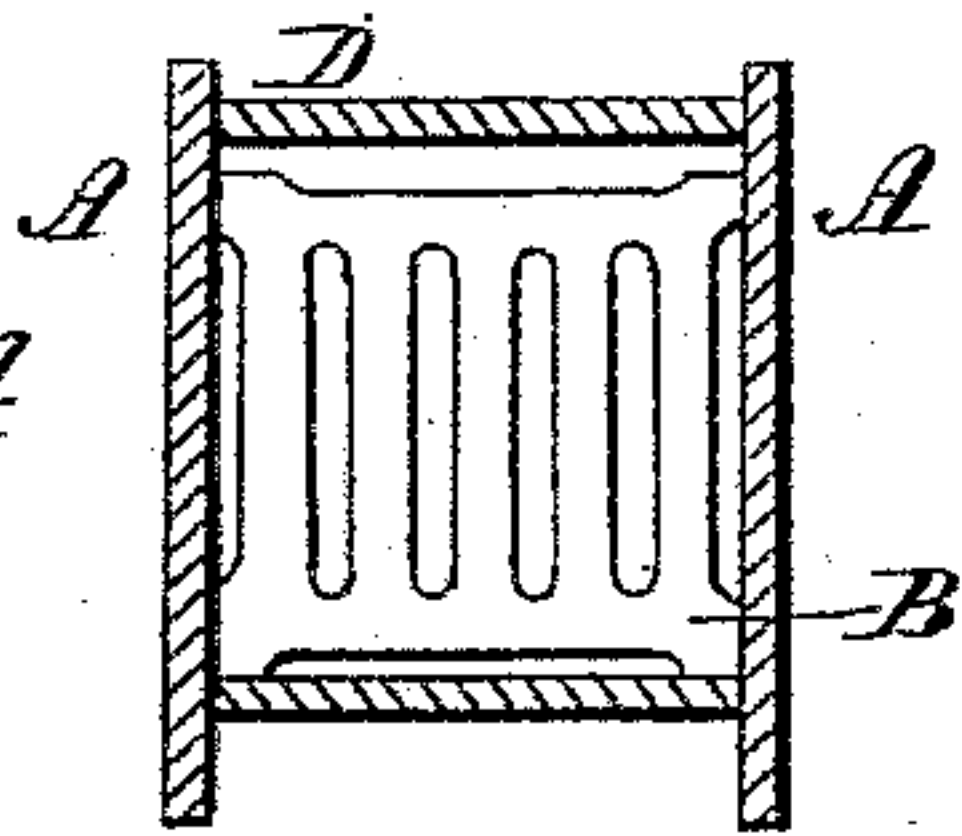


Fig. 3.

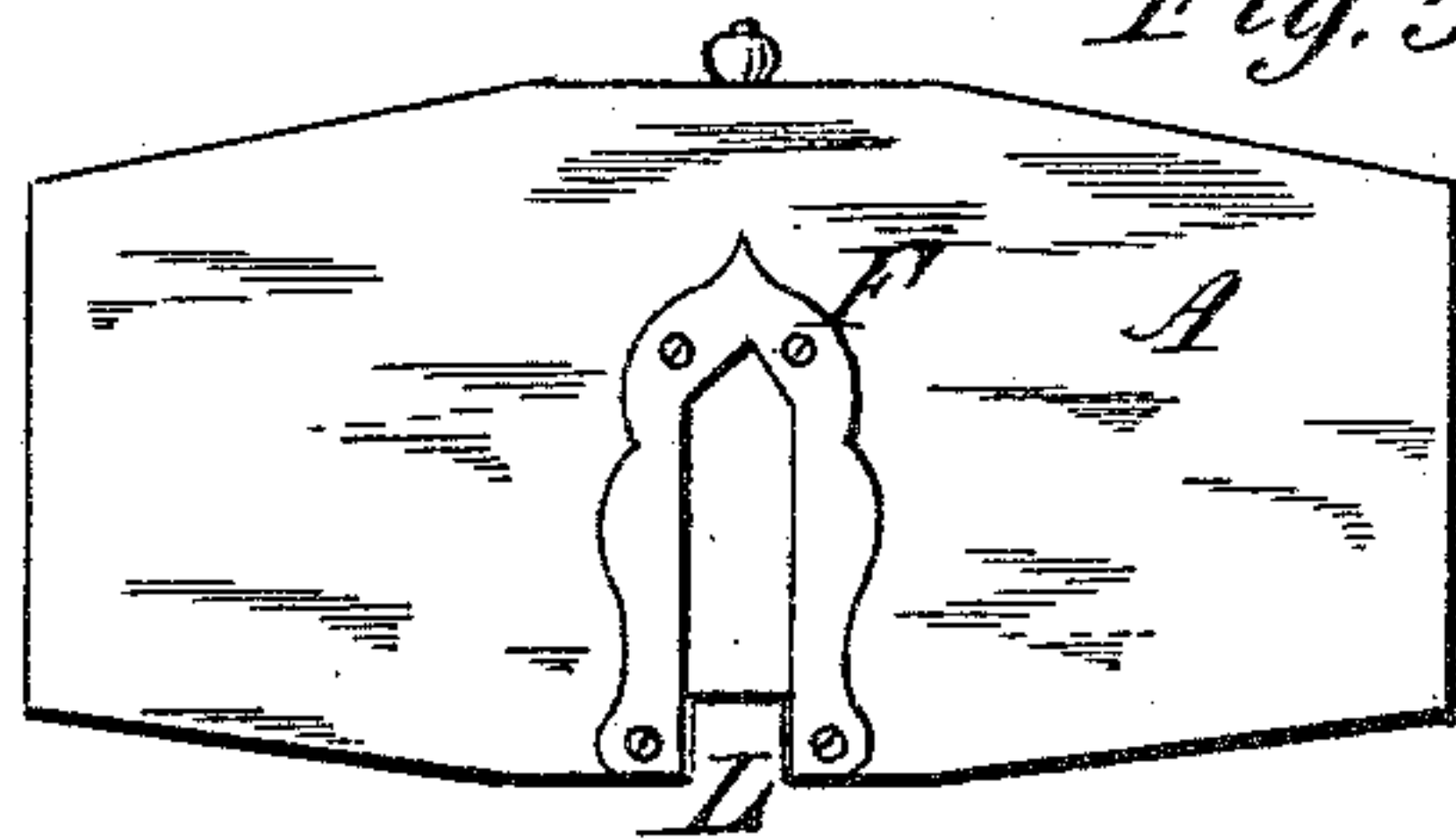
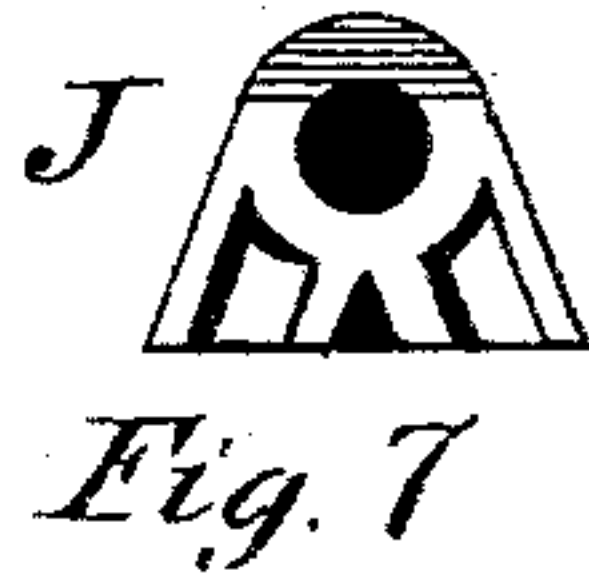
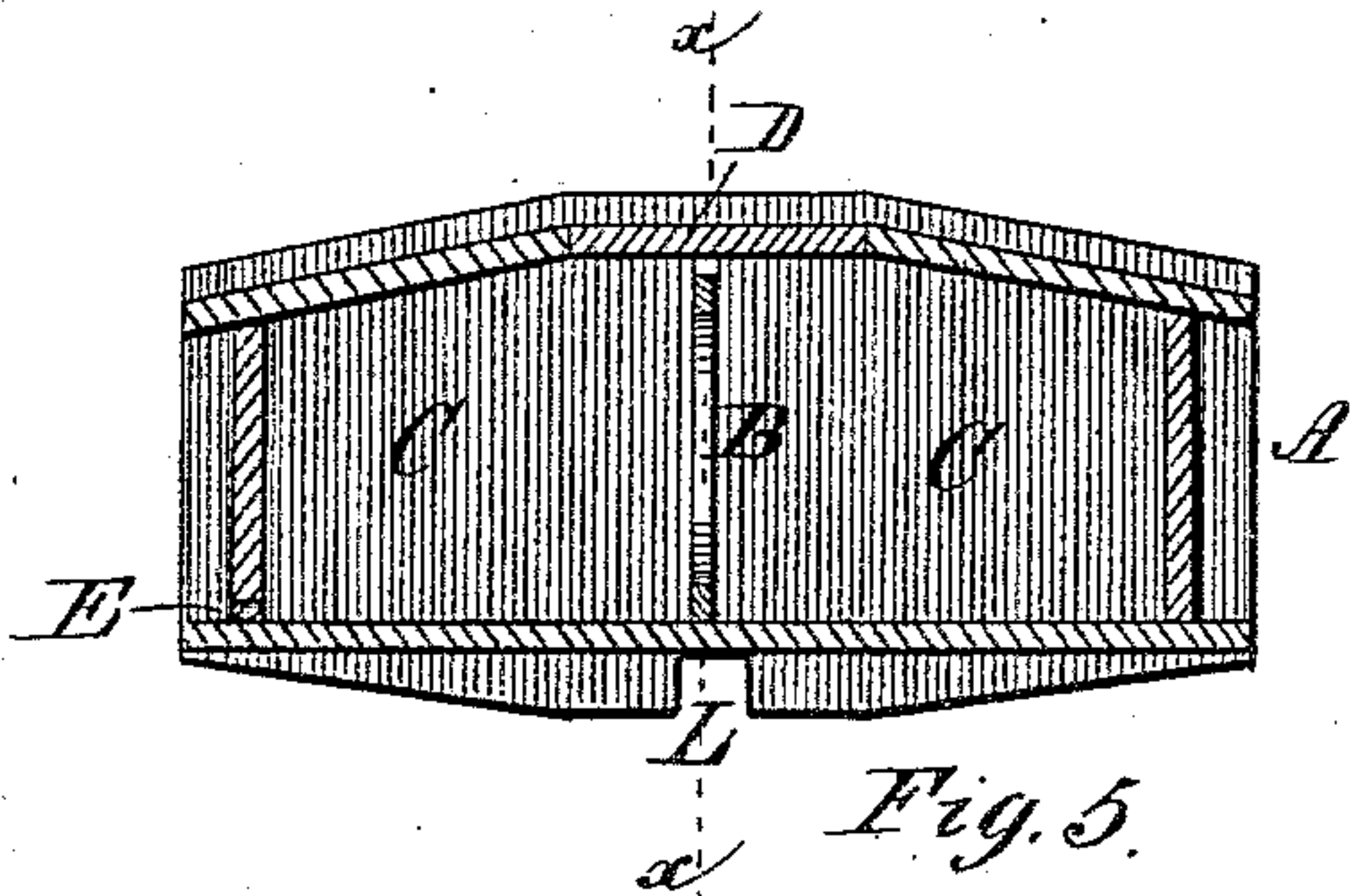
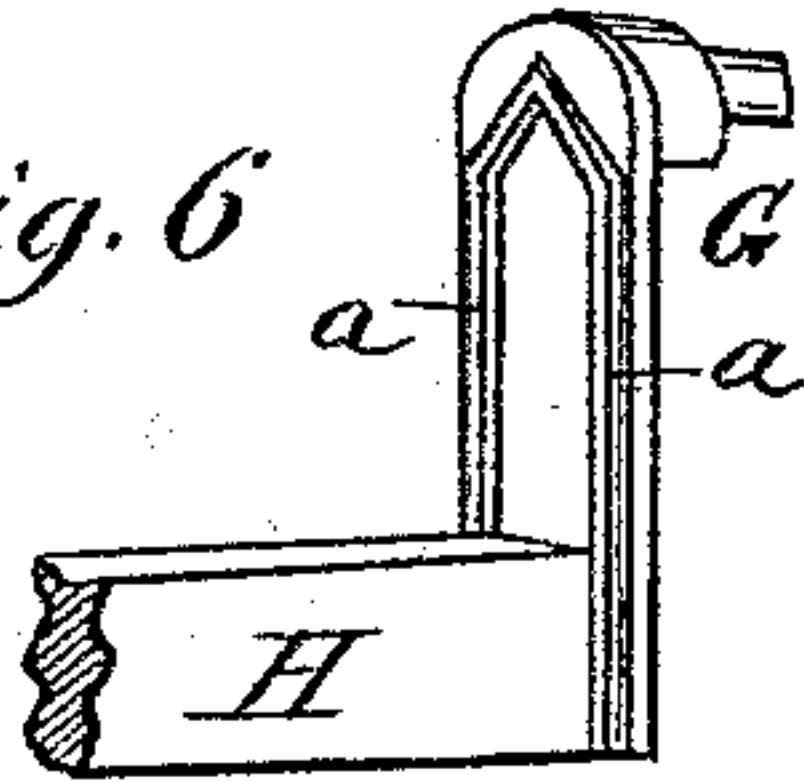


Fig. 6



Witnesses

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By W. Bruce  
His att'y



# UNITED STATES PATENT OFFICE.

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## CHURN.

SPECIFICATION forming part of Letters Patent No. 339,495, dated April 6, 1886.

Application filed July 20, 1885. Serial No. 172,083. (No model.) Patented in Canada July 18, 1884, No. 19,842.

*To all whom it may concern:*

Be it known that I, JAMES LACHLAN TAYLOR, of Hamilton, in the county of Wentworth, in the Province of Ontario, Dominion  
5 of Canada, have invented certain new and useful Improvements in Churns; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same.

10 The invention relates to improvements in that class known as "oscillating churns," and which will be simple in construction, durable, convenient to remove from the stand when not in use, easy to clean, and remove butter, &c.,  
15 and have such an easy movement in the operation of churning that a child can operate it with comparative ease.

Heretofore a churn has been constructed in which the tub or body was mounted or hung  
20 in a stirrup pivoted to the frame and provided with a pendulum to assist in the oscillation of said tub or body; but this I do not claim, my invention consisting, essentially, in the combination, with a churn-body having a  
25 notch and provided with bearing-plates upon its sides, of trunnion-plates having ribs projecting from their inner faces, a cross-bar, and a frame having bearings, all substantially as hereinafter described.

30 By reference to the drawings, forming part of this specification, it will be seen that Figure 1 represents a side elevation of my churn. Fig. 2 is an end elevation; Fig. 3, a side elevation of the body only detached from the frame.  
35 Fig. 4 is a section of the body through the line *x x* of Fig. 5. Fig. 5 is a longitudinal section of the body of the churn. Fig. 6 is a perspective view of one of the trunnion-plates. Fig. 7 is an inside elevation of one of the  
40 trunnion-bearings.

A is the body of the churn, constructed in one whole compartment with a flat bottom, divided in the center by a cream-breaker, B,  
45 into two cream-apartments, C C. The said cream-breaker B is cut from a solid piece of wood, having a number of vertical openings cut in it to allow the cream to pass through. Vertical grooves are cut in the sides of the  
50 body of the churn in the center, and the breaker is inserted therein and held stationary during the operation of churning. At the

same time it can be easily withdrawn from the grooves for cleaning, airing, &c.

D is a cover for the opening at the top of the churn.

E is an outlet for the buttermilk, provided with an ordinary stopper.

F F are metal plates of the form shown clearly at Fig. 3, and are secured to the outside central portion of the churn. The inside  
60 portions of the said plates are  $\wedge$ -shaped, and are so constructed as to rest upon correspondingly-shaped trunnion-plates G, affixed to a swinging weighted cross-bar, H, to which a  
65 pendent weight, I, is attached in the center, the whole forming a swinging frame, journaled by the trunnion ends of the plates G into  
70 suitably-constructed metal bearings, J, affixed at the top of a stationary frame, K K, which carries and supports the whole.

L L are square notches cut in the side pieces of the body of the churn, into which the cross-bar H enters when the body is placed thereon  
75 for the operation of churning, and it will be observed that the trunnion-plates G are provided in their inside face with a raised projection or ribs, *a a*, projecting from the inner  
80 face of the trunnion-plates. These ribs are formed near to and parallel with each edge of said plate, as shown in Fig. 6, and near  
85 the top of the latter they converge to a point, forming a  $\wedge$ -shaped ridge on the trunnion-plate, upon which rests the correspondingly-shaped inner portion of the metal bearing-plates F, which are attached to the body  
90 A of the churn. These two devices—viz., the notches receiving the weighted cross-bar H and the above-mentioned device—secure the body A firmly to the swinging frame, which is composed of the trunnion-plates G G, cross-  
95 bar H, and weight I.

M M are cross-braces connecting the legs of the stationary frame.

To enable others skilled in the art to construct the said churn, the dimensions of the  
100 body may be about twelve by thirty-four inches over the top. The stand or stationary frame consists of four pieces one and one-fourth by one and one-fourth inch, held together by two cross-pieces let into the uprights. The tops of the said uprights are inserted into the metal castings, secured with a screw in



each piece, the said castings serving a two-fold use—viz., acting as a box or bearing for the trunnions to work in, also to hold firm the upper ends of the frame or stand K K.

5 The weight is attached to cross-bar H, which connects the trunnion-plates, and may be a combination of wood and iron, or all iron, if desired. The cream-breaker is cut from a solid piece of wood having open vertical slots

10 cut in it. A handle will be affixed to one end of the body to assist in operating the churn.

The operation of my churn is so simple as to require very little additional description. When the cream is placed in the churn

15 through the opening in the top and the cover closed, the churn is set oscillating on its trunnion-bearings, and for this purpose there may, if desired, be a handle affixed at one end of the churn. As one end of the body rises the

20 cream is dashed through the cream-breaker into the opposite end, and when that end is

elevated the cream is dashed back again through the breaker, and so on until the operation of churning is completed, which usually is accomplished in from four to twenty min- 25 utes, according to the temperature.

Having thus described my churn and its advantages, what I claim as my invention is—

In an oscillating churn, the combination, with the churn-body, having a notch, L, and 30 provided with bearing-plates F upon its sides, of the trunnion-plates G, having ribs *a a* projecting from their inner faces, the cross-bar H, and the frame K, having bearings J, substantially as described. 35

Dated at Hamilton, Ontario, Canada, this 19th day of August, A. D. 1884.

JAMES L. TAYLOR.

In presence of—

ALBERT MUNRO,  
WM. BRUCE.