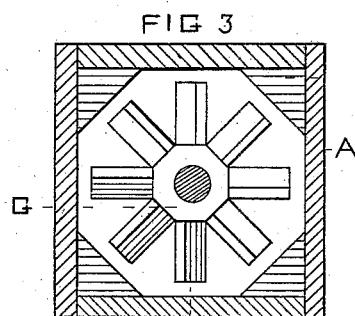
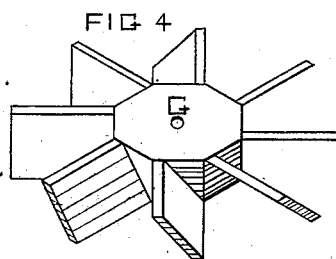
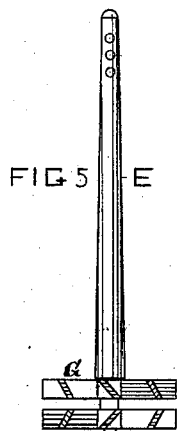
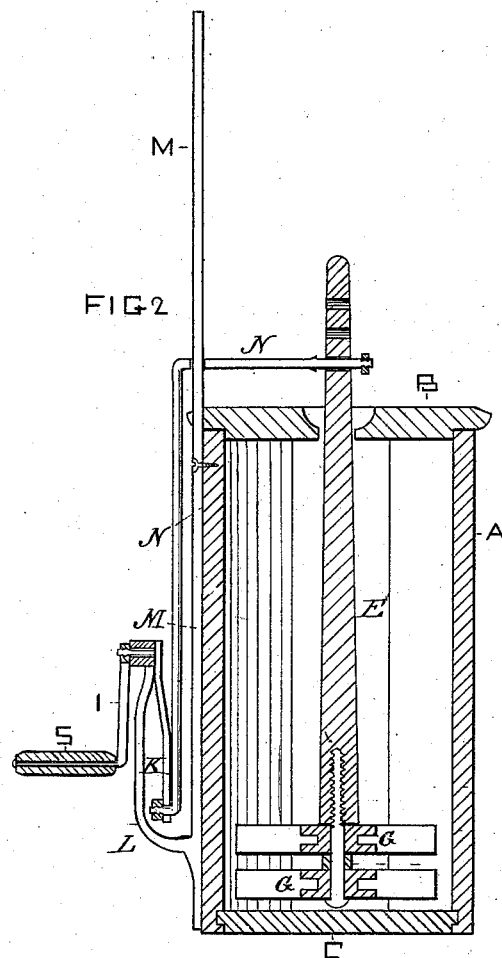
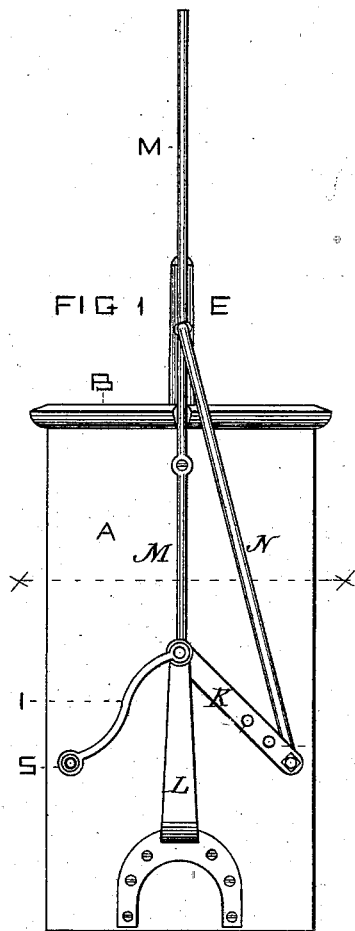


J. E. TAYLOR.
Churn.

No. 217,168.

Patented July 1, 1879.



WITNESSES -

John W. Elstort
James D. Hooker

Joseph Earl Taylor
INVENTOR -

UNITED STATES PATENT OFFICE.

JOSEPH E. TAYLOR, OF FRANKFORT, INDIANA.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. **217,168**, dated July 1, 1879; application filed February 24, 1879.

To all whom it may concern:

Be it known that I, JOSEPH EARLY TAYLOR, of Frankfort, in the county of Clinton and State of Indiana, have invented certain new and useful Improvements in Churns, of which the following is an exact description.

The invention is an improvement in the class of vertical reciprocating churns; and it consists in the construction and attachment to the churn-body of the bearing for the crank-shaft and the guide for the pitman or rod which connects the dasher-staff and crank-shaft.

In accompanying drawings, Figure 1 is a side view, and Fig. 2 a vertical section, of my improved churn. Figs. 3, 4, 5 are detail views.

The churn-body A has a detachable perforated cover, B. Oppositely-rotating dashers G G are attached to the reciprocating shaft or staff E. These parts are not of my invention.

The shaft E is connected with the arm K of a crank-shaft, I, by means of the right-angular rod N. The journal of the crank has its bearing in an arm or bracket, L, which is rigidly attached to the side of the churn-body A, as shown in Figs. 1 and 2. Said arm or bracket L projects first outward and then upward parallel to the side of the body A, and the crank-arm K swings or rotates in the space between them.

A hole is formed in the horizontal arm of connecting-rod N near its angle, to receive the guide-rod M, which is attached vertically to the side of the churn-body A, and extends from the bracket L (with which it is formed

in one piece) upward above the top of the churn. Said rod M serves as a guide for the connecting-rod N during its reciprocation, and the hole through which the rod passes is necessarily made large to allow the vibration of the rod correspondingly with the throw or radius of the crank-arm K.

The bracket L, crank I K, and rod M constitute an attachment which is simple, cheap, easily applied to the churn, and occupies little space.

To operate the churn, the handle S of the outer crank-arm, I, is grasped and rotated, which imparts a combined circular and reciprocating motion to the pitman or connecting rod N, thereby alternately raising and lowering the staff E and its attached dashers G, which latter are caused to rotate in opposite directions during their vertical movements by the action of their oblique arms or blades on the cream.

•What I claim is—

The combination, with the churn-body A, of the attachment consisting of the bracket or arm L, the guide-rod M, crank I K S, and angular rod N, said bracket and guide-rod being rigidly secured to the side of the churn-body, as shown and described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOSEPH EARLY TAYLOR.

Witnesses:

JAMES T. HOCKMAN,
JNO. W. ELSTON.