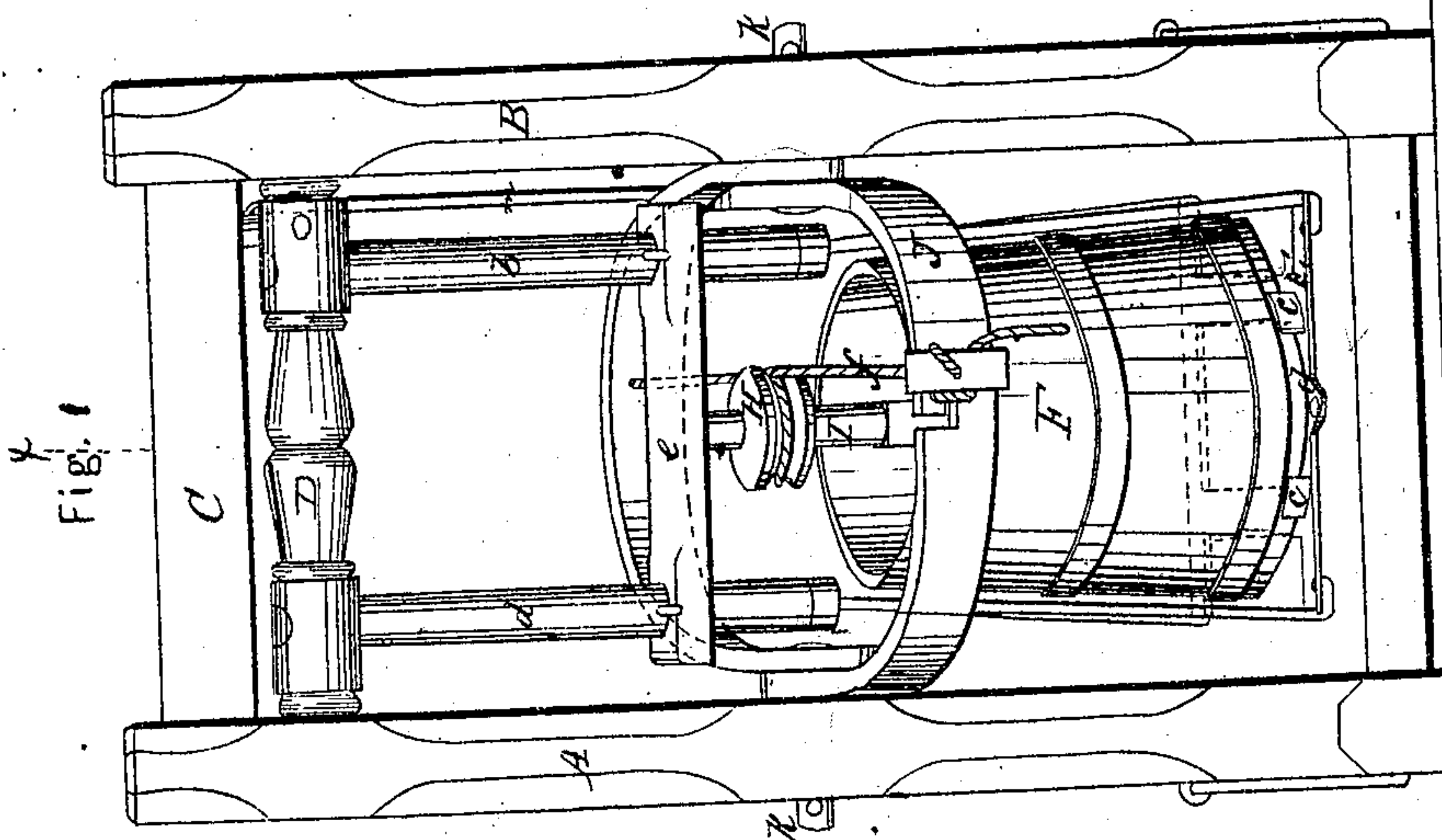
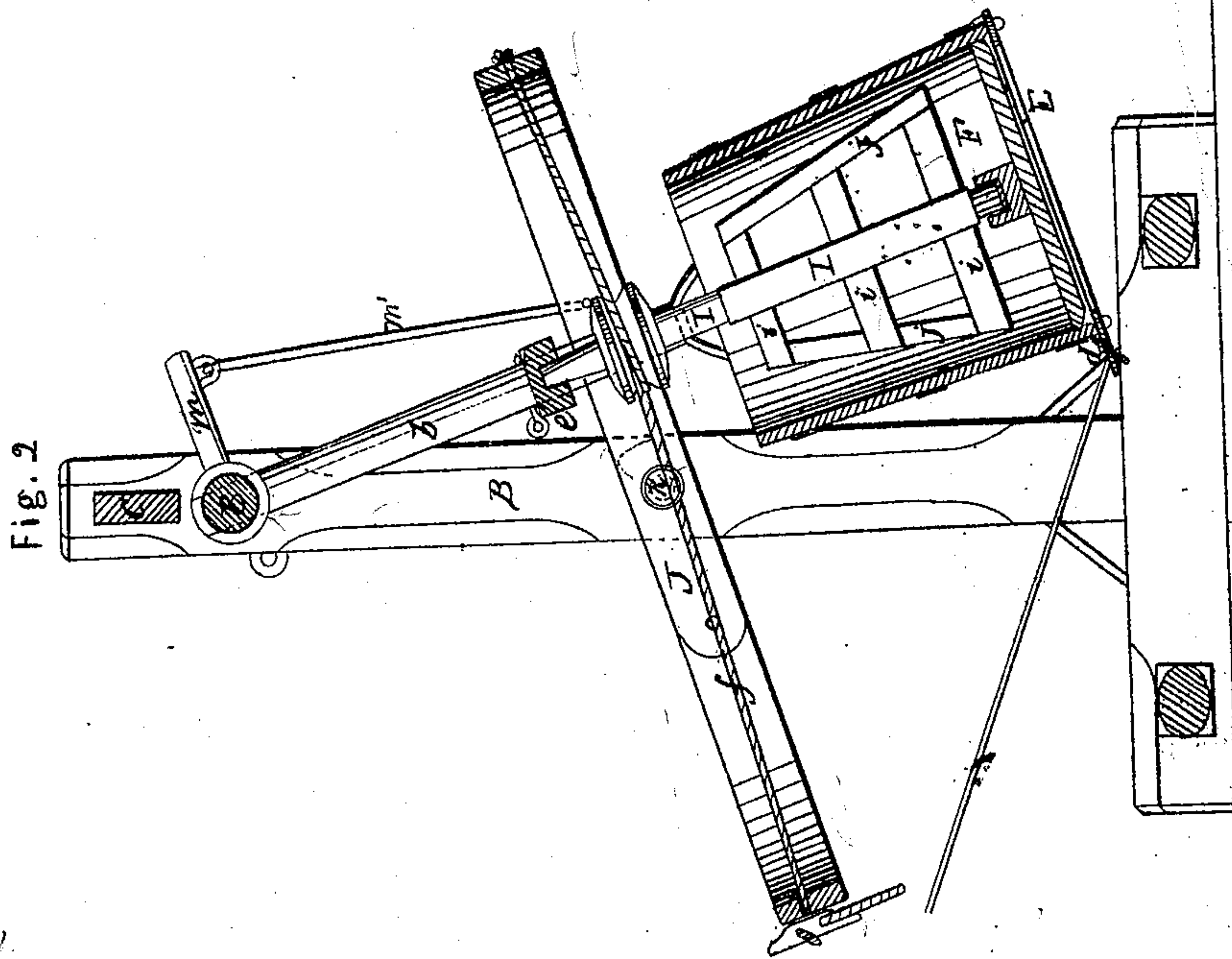


G. A. Dabney.
Impr'd Churn.

No 34,567

Patented Mch 4. 1862.



Witnesses:

W. Loomis
Geo. Reed

Inventor:

G. A. Dabney
per Munroe & Co
attorneys

UNITED STATES PATENT OFFICE.

G. A. DABNEY, OF SAN JOSÉ, CALIFORNIA.

IMPROVEMENT IN APPARATUS FOR OPERATING CHURNS.

Specification forming part of Letters Patent No. 34,567, dated March 4, 1862.

To all whom it may concern:

Be it known that I, G. A. DABNEY, of San José, in the county of Santa Clara and State of California, have invented a new and Improved Churn; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents my improved churn and means for operating the same by a perspective view. Fig. 2 is a vertical section of the same taken at the line *x x* of Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

To enable others skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A B represent two uprights which project from a suitable base and are connected together at top by a cross-bar C, the whole together constituting a frame in which the working parts of the churn are arranged and operated.

D is a horizontal shaft journaled in between the uprights A B, immediately under the cross-bar C. Suspended from this shaft D by two arms *a b* is a platform E, which supports the barrel F of the churn and on which the barrel is secured and prevented from independent movement by projections *c*, which, if desired, may be provided with set-screws.

A handle attached to the platform by means of the eye *d*, or it may be to the arm *m*, serves to impart a swinging motion to the frame and churn.

The stem I of the dasher extends through the lid of the barrel, and is journaled at its upper end in a cross-head *e* and at its lower end is stepped into a suitable cavity in the bottom of the barrel. The cross-head is fitted so as to be slid up on the round arms of the swinging frame to allow the dasher to be removed from the barrel, and it is secured in position to form a bearing for the upper end of the stem of the dasher when in use by a pin passed horizontally through each of the arms above or through the cross-head.

A pulley H is secured on the stem of the

dasher above the lid, around which a cord *f*, stretched in the horizontally-pivoted frame J, is wound, which cord, as the swinging frame is moved back, causes the dasher to rotate alternately in opposite directions. One end of this cord is so arranged that it can easily be released for the purpose of tightening the cord or when it is desired to take the cord off in order to remove the dasher.

The dasher consists of three (more or less) horizontal arms *i* of varying lengths, the shortest being at the top, mortised into the stem and connected together at their upper ends by blades *j*, which converge toward the top of the stem.

The frame J, in which the cord is stretched, is in bow form and is attached to the inner sides of the uprights of the frame by pivots *k k*, and it connects with the arm *m* by means of a hooked rod *m'*, whereby it is kept in the proper position relatively to the churn, so as to be always at right angles thereto to prevent undue friction of the cord on the pulley and allow it to work with the same freedom at the ends as at the middle of the stroke.

The operation is as follows: The cream being at the proper temperature is placed in the barrel and a swinging motion imparted thereto, which motion, by means of the cord acting on the pulley, causes the dasher to revolve alternately in opposite directions, causing a continual concussion and reaction, and thus serving to break the cream very effectually and convert it into butter in a very short time.

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

The arrangement of the vibrating frame J, arm *m*, and connecting-rod *m'*, in combination with the cord *f*, dasher I *i j*, tub F, and swinging frame E *a b*, constructed and operating in the manner and for the purpose herein shown and described.

G. A. DABNEY.

Witnesses:

SOLOMON CHERRY,
W. F. STEWART.