

G. S. RAREY.

Churn.

No. 20,089.

Patented April 27, 1858.

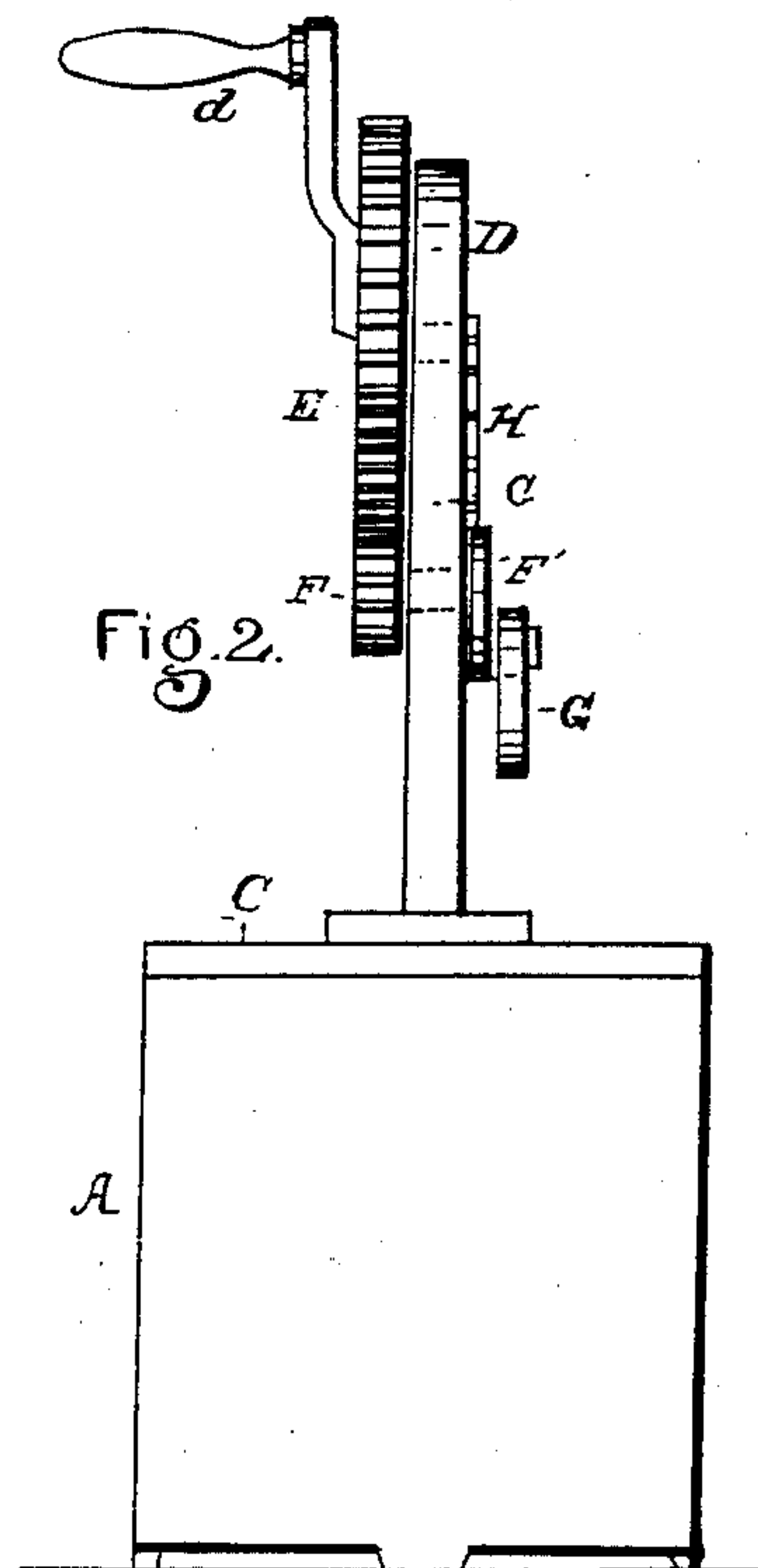
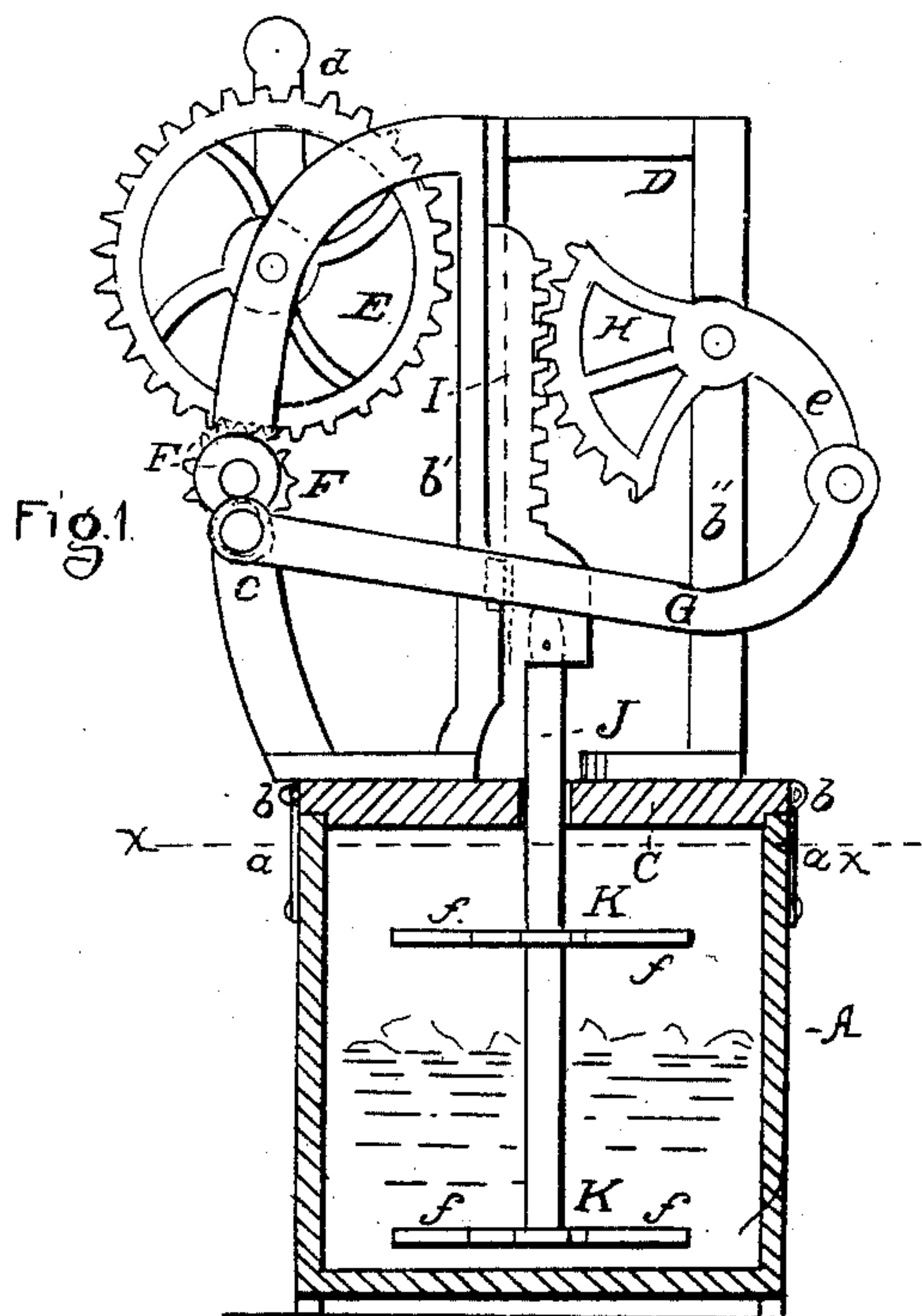
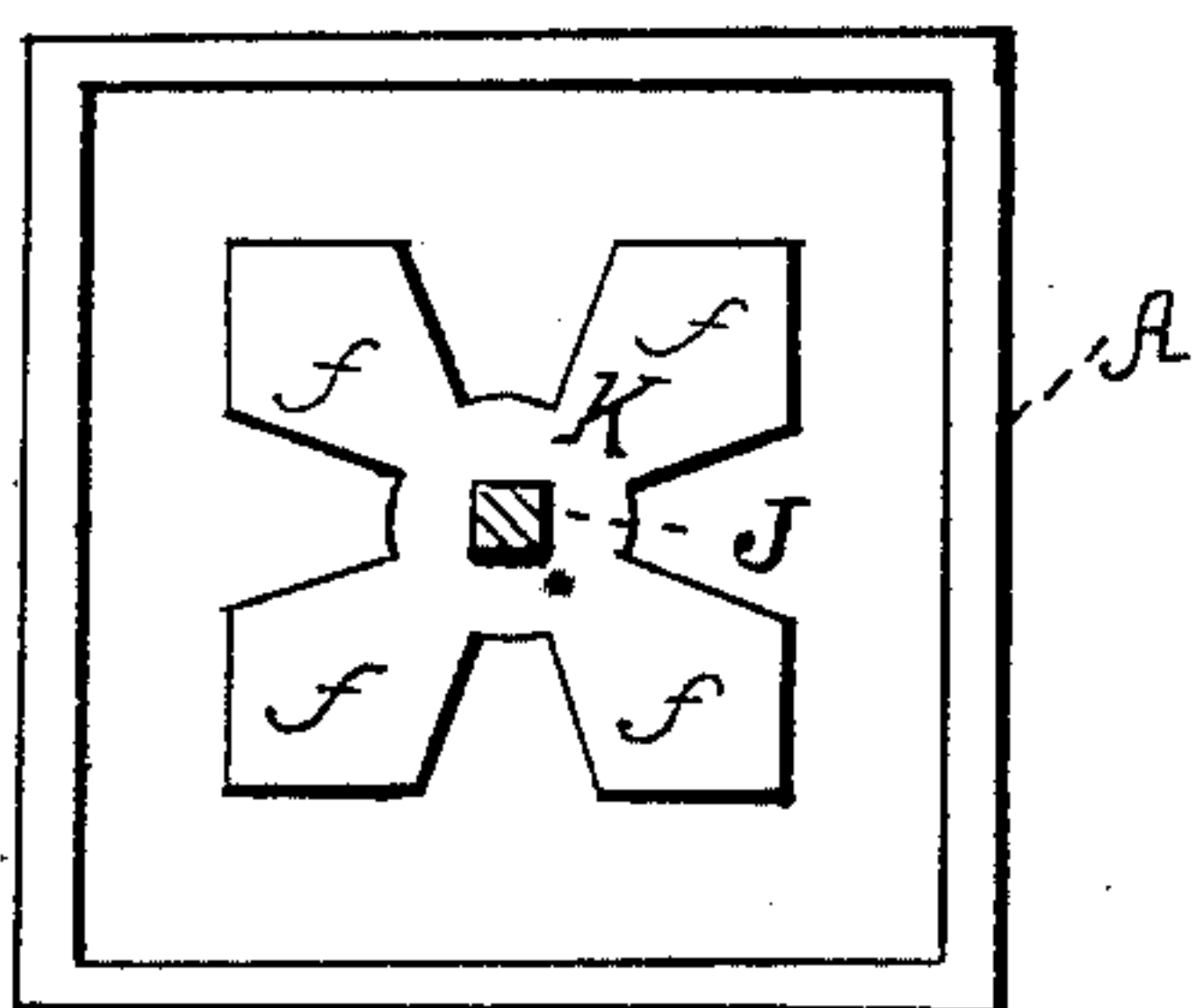


Fig. 3.



UNITED STATES PATENT OFFICE.

G. S. RAREY, OF COLUMBUS, OHIO.

CHURN.

Specification of Letters Patent No. 20,089, dated April 27, 1858.

To all whom it may concern:

Be it known that I, G. S. RAREY, of Columbus, in the county of Franklin and State of Ohio, have invented a new and Improved Churn; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a vertical central section of the churn box, the working parts of the churn being attached but not bisected. Fig. 2, is an end view of ditto. Fig. 3, is a horizontal section of ditto, taken in the line x, x , Fig. 1.

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

This invention consists in a novel means employed for giving a reciprocating motion to a vertical dasher from a rotating driving shaft, whereby the necessary length of stroke may be given the dasher and also the requisite speed with but a moderate expenditure of power.

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

A, represents the case or box of the churn which may be of quadrilateral form constructed of wood and of any proper dimensions.

C, is the lid or cover of the case or box A. This lid or cover extends over the whole of the upper end of the case A, and is secured down on it by hooks a , which are attached to the case and which fit in eyes or staples b , attached to the edges of the lid or cover, see Fig. 1.

To the upper surface of the lid or cover C, a frame D, is attached. This frame may be of metal and it is permanently attached to the center of the lid. The frame is formed of two uprights b' , b'' , and a bar c , slightly curved, the bar and uprights being in the same plane connected by horizontal bars at the upper and lower ends. The frame D, may all be cast in one piece.

To the curved bar c , of the frame D, a toothed wheel E, is attached, said wheel having a crank handle d , secured to it. The wheel E, gears into a pinion F, the axis of which also is fitted in bar c , and has a crank pulley F', on it. To the crank pulley F', one end of a connecting rod G, is attached, and the opposite end of this rod is attached to the curved arm e of a toothed segment H, the axis of which is attached or fitted to the upright b'' , of the frame D.

I, is a rack bar which is fitted over a way or guide formed on the upright b' . The rack bar I, is allowed to slide freely up and down on the upright b' . The toothed segment H, gears into the rack bar I, and to the lower end of said rack bar the dasher rod J, is attached. The dasher is formed of two plates or boards R, recessed or notched to form projecting arms f , as shown in Fig. 3. The dasher however may be constructed or arranged in various ways.

The operation is as follows:—By turning the wheel E, motion is given the crank pulley F', through the medium of the pinion F, and the rod G, gives a vibrating motion to the segment H, which in turn gives a reciprocating movement to the dasher rod J, through the medium of the rack bar I. This is a simple device and a good length of stroke with a quick speed may be given the dasher K, and by a very direct means so that not much power can be lost by friction.

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

Operating or giving the dasher K, a reciprocating rectilinear motion from the driving rotary wheel E, through the medium of the pinion F, crank pulley F', connecting rod G, segment H, and rack bar I, arranged to operate as shown and described.

G. S. RAREY.

Witnesses:

JNO. W. MARCY,
C. M. MILLER.