

C. COLBY.

Churn.

No. 70,959.

Patented Nov. 19, 1867.

Fig. 1.

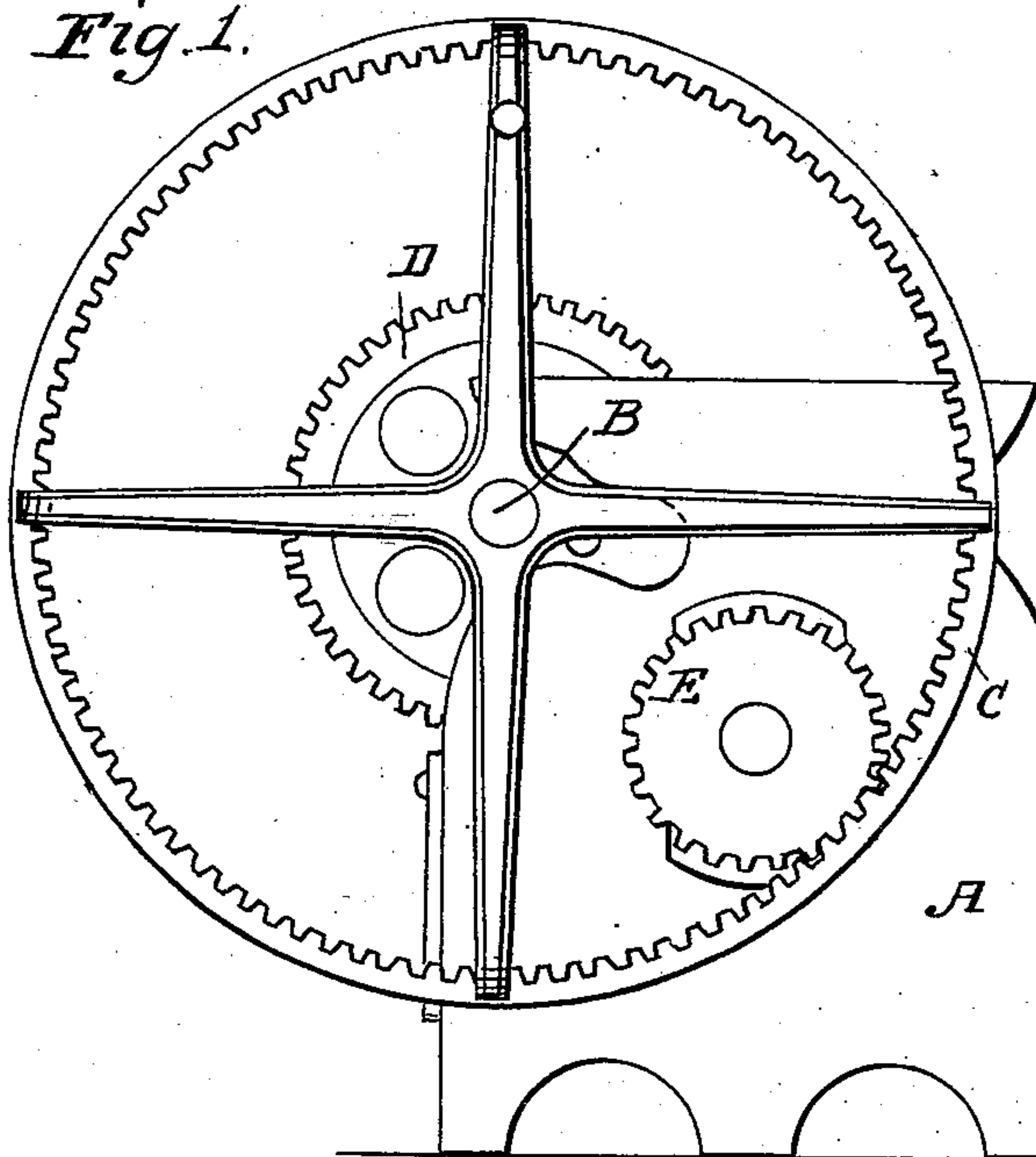


Fig. 2.

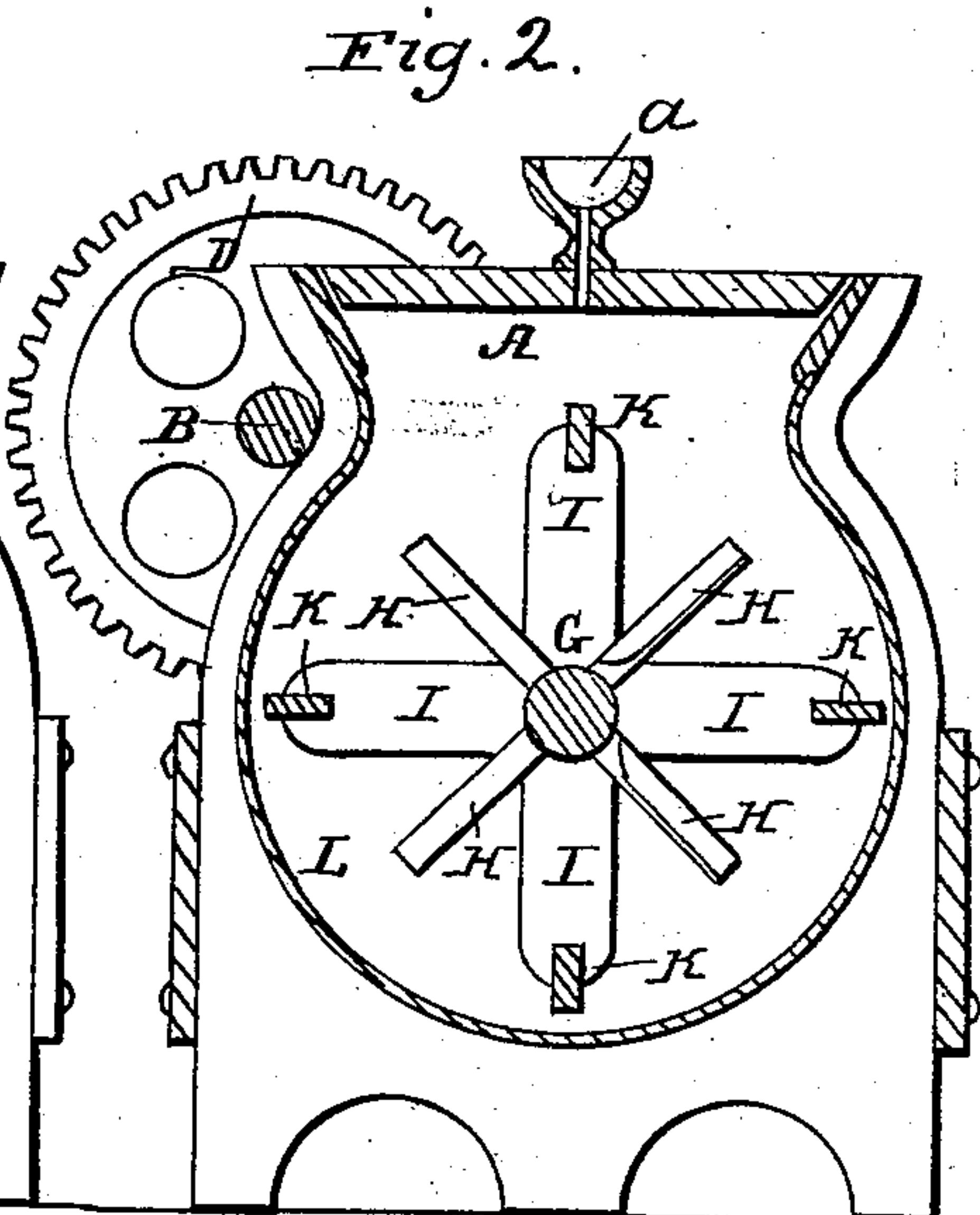
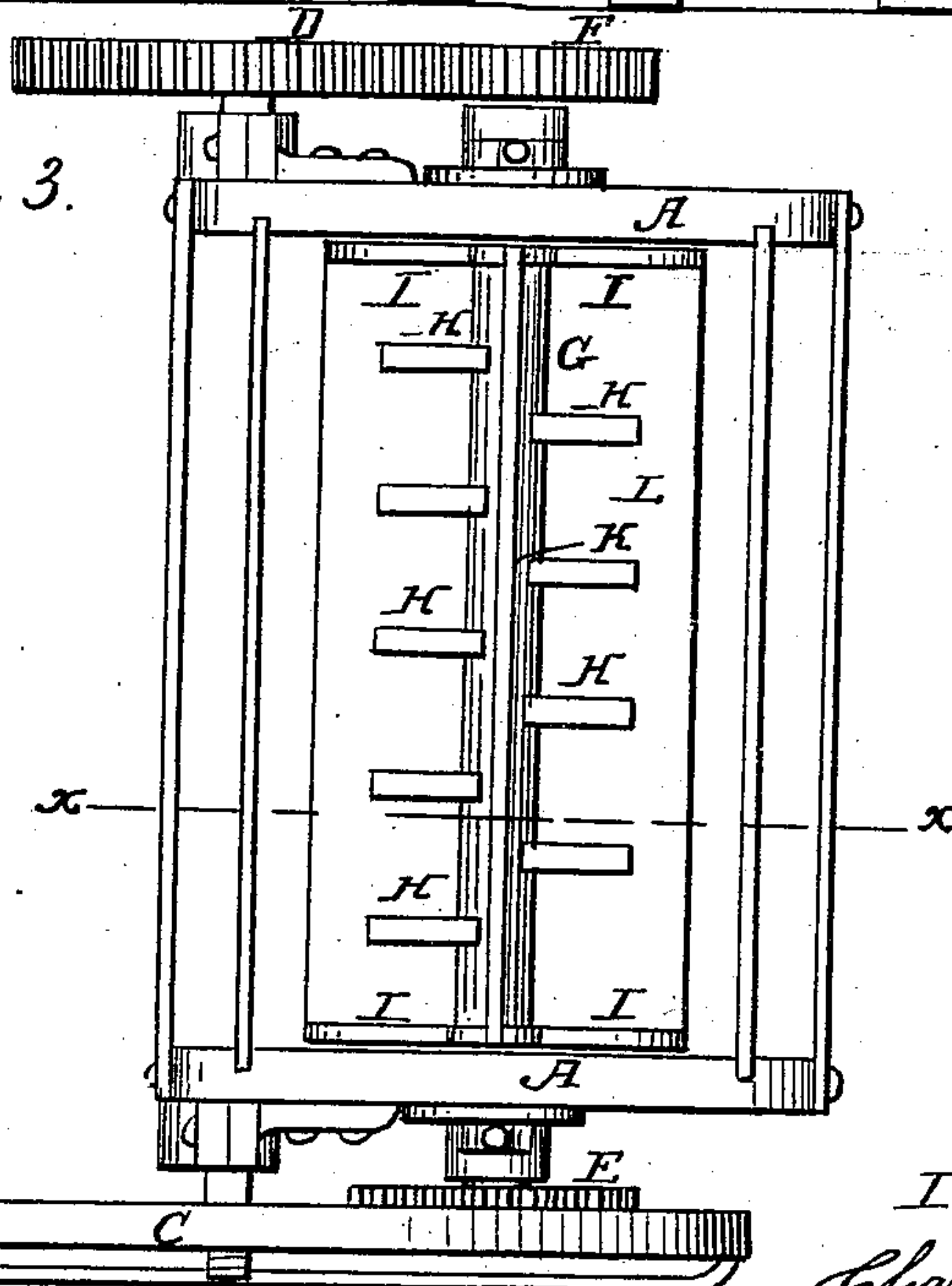


Fig. 3.



Witnesses:

Michael S. O'Neil
C. W. M. Smith.

Inventor:

Charles Colby
Assignee to himself and
Michael O'Neil

United States Patent Office.

CHARLES COLBY, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR TO HIMSELF AND MICHAEL O'NEIL, OF SAME PLACE.

Letters Patent No. 70,959, dated November 19, 1867.

IMPROVEMENT IN CHURNS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, CHARLES COLBY, of San Francisco, county of San Francisco, State of California, have invented certain new and useful Improvements in Churns; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvement without further invention or experiment.

My invention relates to churns, and consists in providing a more efficacious method of dividing and agitating the particles of cream by a system of rotary dashers or arms operating in contrary directions, the one within the other. This is done by constructing a churn with a circular barrel having a shaft passing longitudinally through its centre, at one end of which is a pinion operated by a gear-wheel on the driving-shaft. This central axis carries a set of arms or dashers. Another set of dashers is carried in a contrary direction by a gear and pinion at the other end, their supporting arms being so long that they revolve outside the first-mentioned dashers.

To more fully explain my invention, reference is had to the accompanying drawings, forming a part of this specification, of which—

Figure 1 is an end view.

Figure 2, an end sectional elevation taken through *x x*.

Figure 3 is a plan.

Similar letters of reference indicate like parts in each of the figures.

L is the cylinder or barrel of the churn, having the ends or heads A A, which are carried down so as to serve as supporters upon which it is to rest. B is the driving-shaft, having at one end the geared wheel C and at the other the wheel D. The wheel C has its teeth on the inside, and drives the pinion E which turns the shaft G in the same direction with the shaft B. The arms H H H are attached to the shaft G, revolving with it, and serving as dashers. The wheel D turns the pinion F, and, by means of a short shaft, operates the arms I I I I which carry the dashers K K. These dashers turn outside of the arm H H, and in a contrary direction, so that the cream is thoroughly agitated. The shaft G turns inside the short shaft which carries the arms I I. The ventilator at the top of the churn has a cup-shaped opening, *a*, which catches and returns any cream which may have been thrown out.

I claim the combination and arrangement of the driving-shaft B, gears C and E, with gears D and F at the opposite end of the churn, with the dashers H and K and barrel L, all as described, for the purpose set forth.

In witness whereof I have hereunto set my hand and seal.

CHARLES COLBY. [L. s.]

Witnesses:

M. S. O'NEIL,

C. W. M. SMITH.