

A. W. HALL.

Churn.

No. 55,491.

Patented June 12, 1866.

Fig. 1.

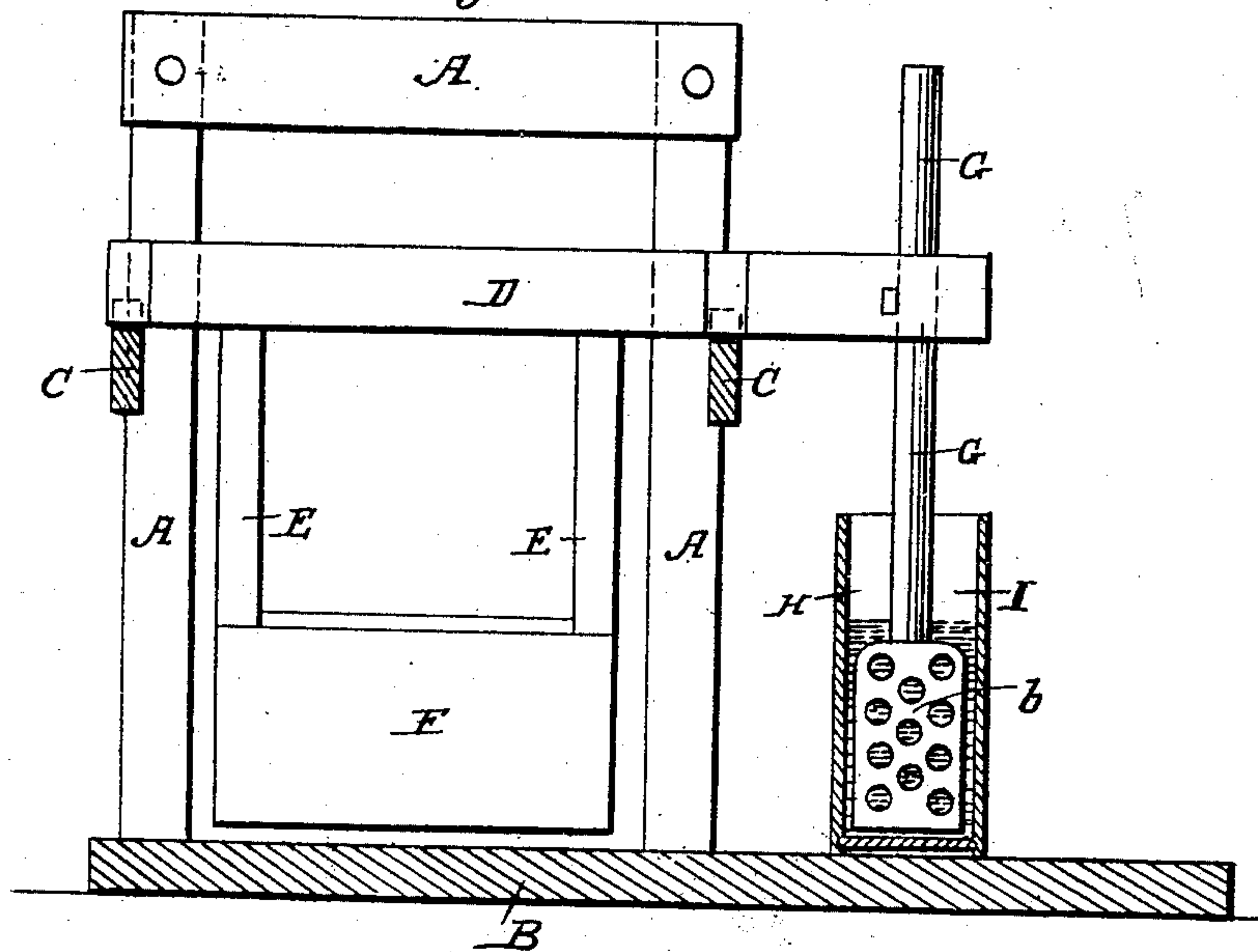
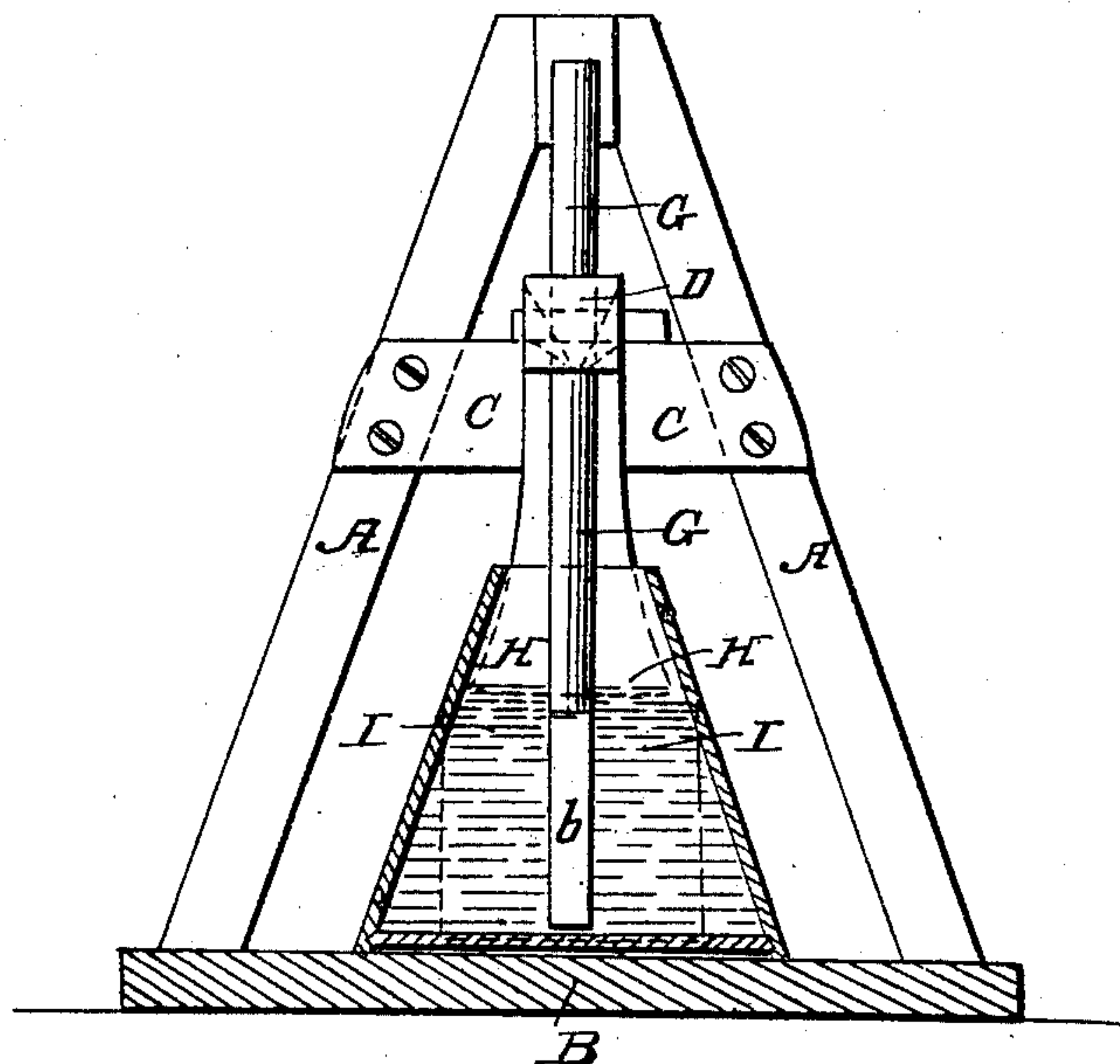


Fig. 2.



Witnesses:

J. W. Connelley
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Inventor:

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UNITED STATES PATENT OFFICE.

ALEXANDER W. HALL, OF NEW YORK, N. Y.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. 55,491, dated June 12, 1866.

To all whom it may concern:

Be it known that I, ALEXANDER W. HALL, of the city, county, and State of New York, have invented a new and useful Improvement in Churns; and I do hereby declare that the following is 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 is a vertical longitudinal section. Fig. 2 is a vertical transverse section.

Similar letters of reference indicate corresponding parts in both figures.

This invention consists in providing for the operation of the swinging or pendulum dasher of a churn by means of a pendulum-weight situated outside of the churn, whereby the power required to operate such swinging dasher is much more conveniently and efficiently applied than by any of the methods heretofore devised, and which in consequence enables the churning operation to be performed with proportionally diminished exertion on the part of the operator.

To enable others to understand the construction and operation of my invention, I will proceed to describe it with reference to the drawings.

A is an upright frame-work of any suitable form and situated upon a base or bed-plate, B. This frame-work, together with its base, is preferably made of wood, but may also be of any suitable material. Fixed upon each end of the said frame-work is a horizontal transverse bar, C, and formed in the upper side of each of these bars, at the center thereof, is formed a shallow notch, these notches being represented in dotted lines in the drawings.

D is a horizontal bar which is placed longitudinally in the upper part of the frame-work A, being supported by the fixed transverse bars C. At those points where this longitudinal bar D come in contact with the said transverse bars C it has its lower edge made sharp, as more clearly shown in dotted lines in Fig. 2, in order to allow the said longitudinal bar D to be easily tilted or rocked, as will be presently further explained. Projecting downward from the under side of the bar D, and within the frame-work A, are two hangers, E, to the lower ends of which is secured a box, F. This box may be provided with a removable cover, and has placed in it a sufficient quantity of stones or other suitable heavy material to give it the desired weight, the box F and hangers

E constituting together a pendulum-weight. One end of the bar D projects out beyond the frame-work A, as shown at *a*.

G is the swinging or pendulum dasher of the churn. The upper end of this dasher G is firmly secured to the end *a* of the bar D by any suitable or convenient means, so that the dasher is thus suspended from the said end *a*.

The blade or lower end, *b*, of the dasher is situated within the body I of the churn, the two opposite sides of the said body being inclined inward toward the top, as shown in Fig. 2, to correspond with the position of the dasher at the ends of its lateral strokes or vibrations.

The operation of the invention is as follows: A swinging motion is communicated to the box F, or, in other words, to the pendulum-weight formed by the said box and by the hangers E, either by pushing or pulling the box F with the foot or with the hands, or by any other suitable means. This, of course, causes the bar D to rock upon the sharp edges thereof in contact with the upper sides of the bars C, as hereinbefore explained, and inasmuch as the dasher G is rigidly attached to the outer end, *a*, of the said bar D, it follows that a swinging or pendulum motion corresponding to that of the pendulum-weight F E is communicated to the said dasher, the blade thereof being moved from side to side in the body I, and agitating or churning the cream contained therein.

When desired the pendulum-weight E E may be connected by means of a suitable cord or string with the arm of a rocking-chair, and receive its impulse from the motion communicated to the chair by the occupant thereof, while by increasing or diminishing the contents of the box F the weight of the said pendulum may be proportioned to the quantity of cream in the body I of the churn, and consequently to the resistance of the cream to the movements of the dasher G.

What I claim as new, and desire to secure by Letters Patent, is—

Providing for the operation of the swinging dasher G by means of a pendulum-weight applied outside of the churn and in connection with the said dasher, substantially as herein set forth.

ALEX. W. HALL.

Witnesses:

A. LE CLERC,
J. W. COOMBS.