

(No Model.)

A. FARLEY.
CHURN.

No. 335,802.

Patented Feb. 9, 1886.

Fig. 1.

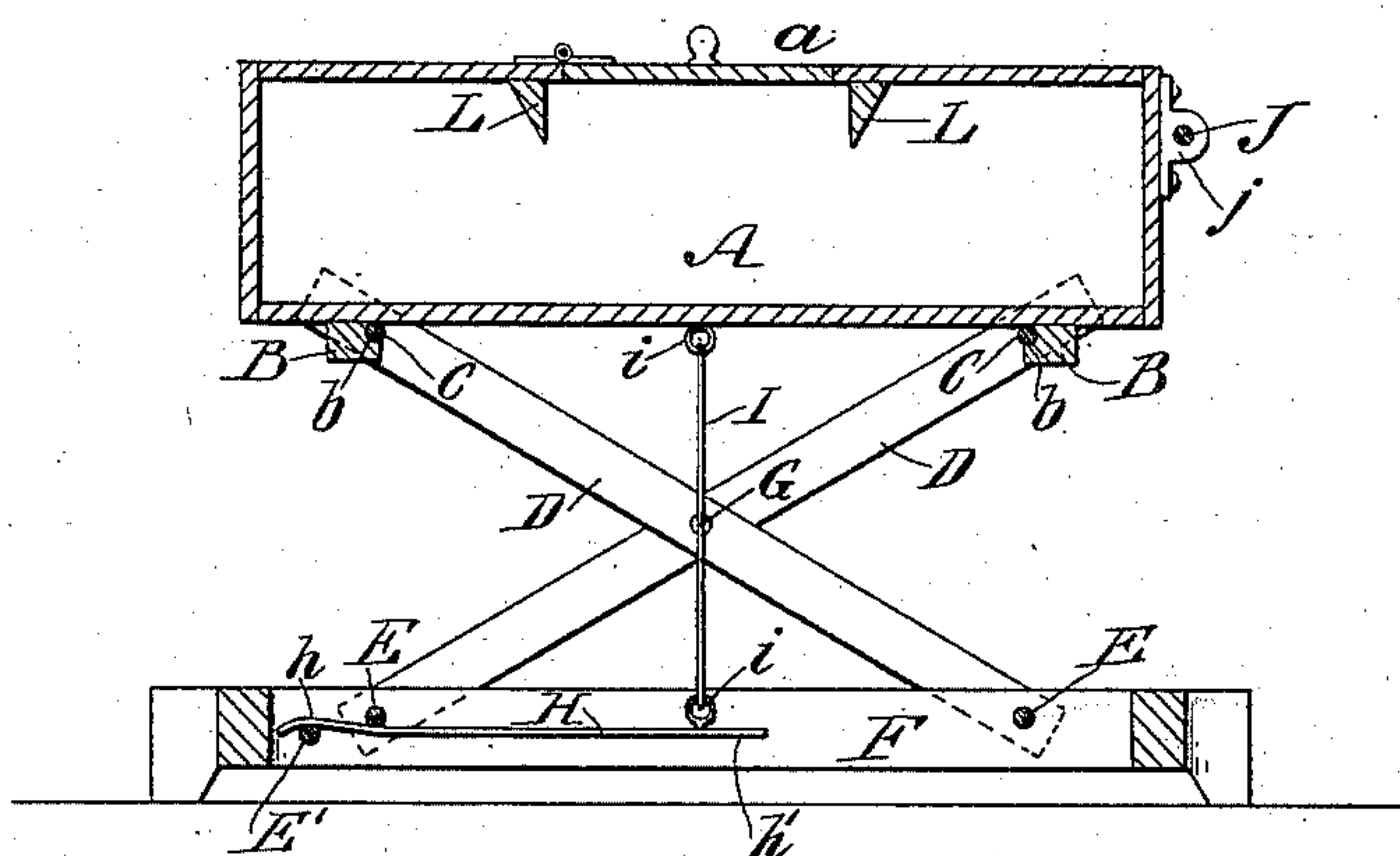


Fig. 2.

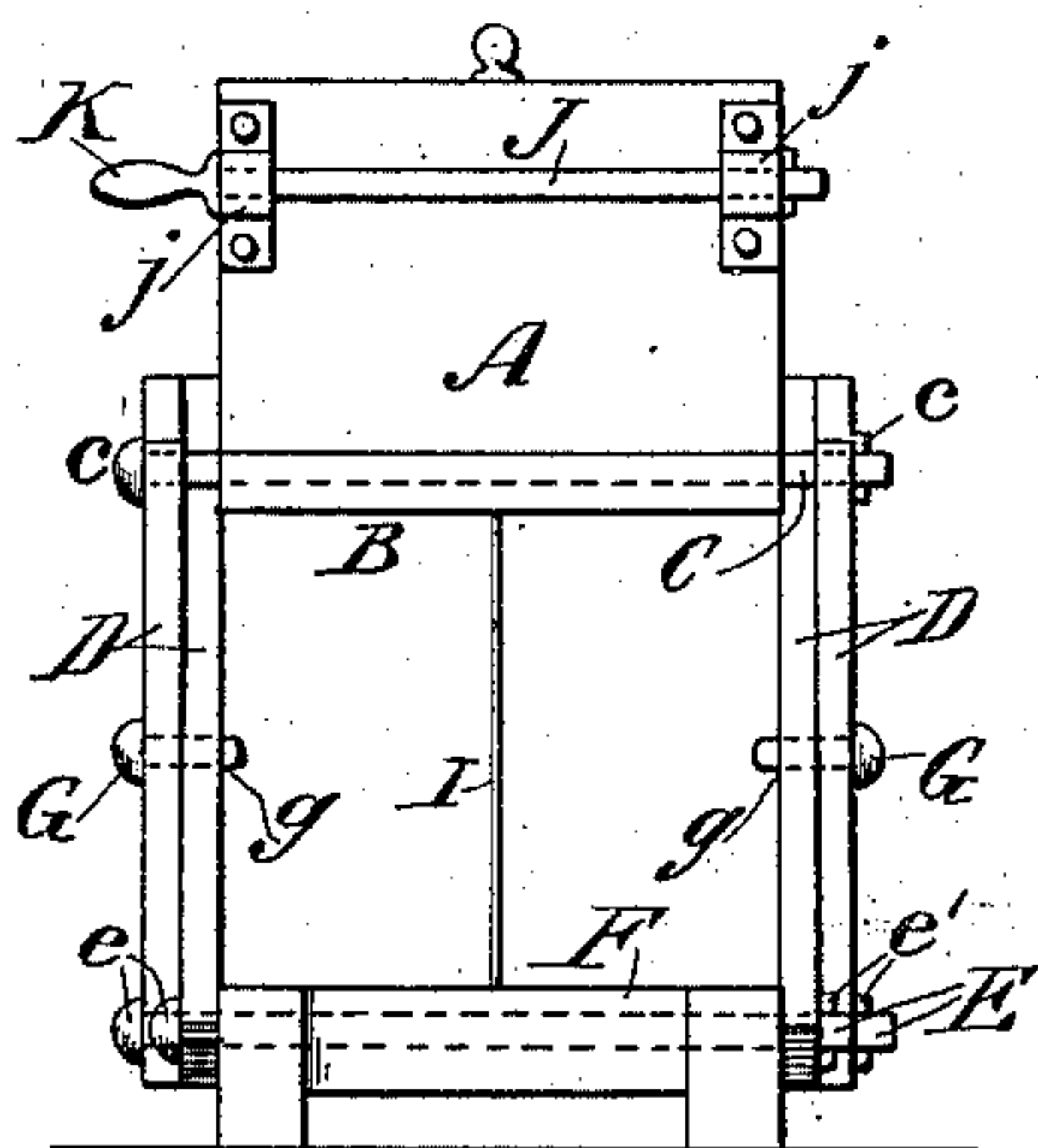
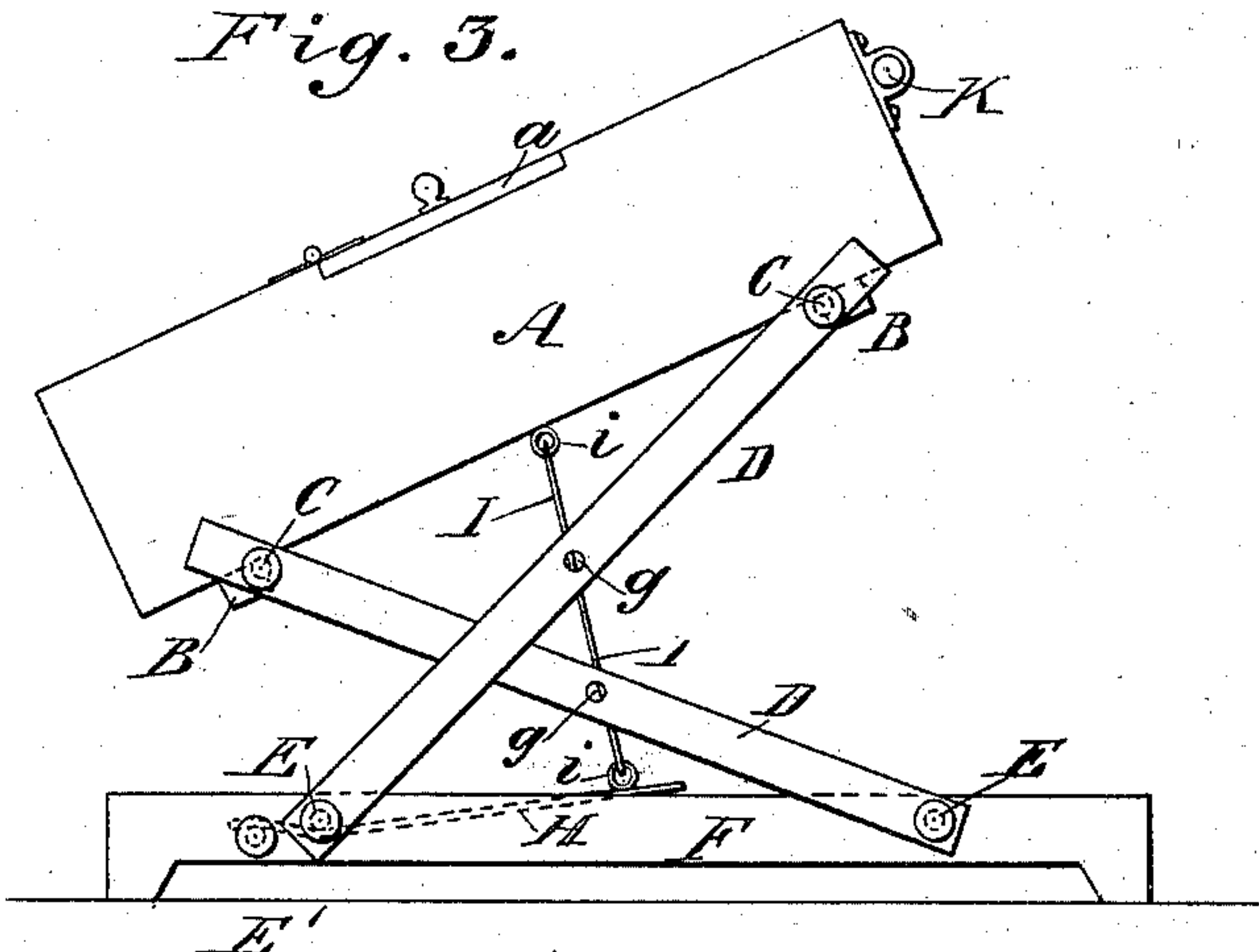


Fig. 3.



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CHURN.

SPECIFICATION forming part of Letters Patent No. 335,802, dated February 9, 1886.

Application filed June 11, 1884. Serial No. 134,533. (No model.)

To all whom it may concern:

Be it known that I, ALMER FARLEY, of Coomer, in the county of Niagara and State of New York, have invented a new and Improved Churn, of which the following is a full, clear, and exact description.

The object of my invention is to provide a simple, inexpensive, and durable churn, which will bring the butter quickly, and may be packed away in small space when out of use or for transportation.

The invention consists in particular constructions and combinations of parts of the churn, including its supporting swing-frame and the attachments of the churn-body to the frame, the whole making an efficient churn adapted to be worked by an endwise-rocking motion and with little fatigue to the operator, all as hereinafter fully described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal sectional elevation of my improved churn with the churn-body locked in horizontal position. Fig. 2 is an end view of the churn, and Fig. 3 is a side view illustrating the operation of the churn.

The letter A indicates the body of the churn, which is or may be made considerably longer than it is wide, and preferably in the rectangular form shown, and has a suitable lid, *a*, covering an opening through which the churn-body may be charged and emptied.

B B indicate cross-cleats, which are screwed or otherwise fastened to the bottom of the churn-body near each end. The cleats are formed with a groove or rabbet, *b*, on their inner upper edges next to the churn-body, in which grooves *b* the cross-rods C, connecting the upper ends of opposite rock-bars D, may rest.

There are two pairs of rock-bars, D D, one pair at each side of the churn-body, and the bars of each pair are crossed and are pivoted at their lower ends by cross-rods E to the base frame or support F of the churn. The base F, rock-bars D, and rods C thus form a supporting-frame for the churn-body, and the pivotal connections of the bars D at their opposite ends on the rods C E allow the churn-body to be

rocked and inclined endwise both ways in working the churn.

The cross-rods C have suitable heads, *c*, at one end, and are fitted with pins or keys *c'* at the opposite ends, so as to tie the upper ends of the rock-bars D together at opposite sides of the churn-body for preventing side play of the body. The pivot-rods E have like heads, *e*, and keys *e'*, to tie the lower ends of the bars D to the base F.

The rock-bars D have central holes, *g*, through which pins G may be passed—when the holes *g* of each crossed pair of bars D are brought to coincide—for holding or locking the churn-body A in horizontal position while charging or emptying it.

H is a spring, made of a plate of metal or wood, and held at one end, *h*, between cross-rods in the base F. The pivot-rod E may serve above the spring, with a rod, *E'*, below it, to hold the end *h* of the spring, the other end, *h'*, of which extends to about the lengthwise center of the base F and the churn-body. A rod, I, connects the free end *h'* of the spring to the churn-body at about its center, any suitable hooks or staples, *i*, being used to make the connections at the ends of the rod. A spiral spring may be used to connect the churn-body to the base, if desired; but the plate-spring shown is preferred.

J is a handle-bar, held in cleats *j j* at the ends of the churn-body, and so as to be grasped at any point in its length to work the churn by an operator in standing position, and I extend the bar J to form a side handle, K, as a hand-grasp to work the churn by an operator seated at one side of the churn.

Angular cream-deflecting plates L L, which may be fixed either to the inner face of the churn-body top or to its lid *a*, may be used or not, as desired.

The operation is as follows: To set the churn up for use, the churn-body A is held by its handle J, and the farthest cleat B is hooked by its rabbet or groove *b* into its raised cross-bar C, on which bar the churn-body is swung upward, and above the point to which the churn is rocked in working it, until the cleat B, next the handle, can be slipped under the other or nearest cross-bar C, which passes into the groove or rabbet *b* of the latter cleat.

The churn-body now is brought to horizontal position and there locked by passing the pins G into the coinciding holes of the crossed pairs of side bars, D. The cream now is placed in the churn-body, the pins G are removed, and the churn-body, by means of the handle J, or by direct push on it, is rocked forward and over endwise on one pair of opposite side bars, D D, which inclines the churn-body and causes a downflow of the cream against its lower end with force sufficient to cause the current of cream to react upward against the top of the churn-body, whence it is deflected downward by the top alone or by the top and the plate L, when the latter is used, and caused to impringe forcibly and in an upward direction against the down-flowing cream at the bottom of the churn-body. When the churn-body is carried backward by the tension of the spring H, and is rocked downward on the other pair of side bars, D D, the cream is acted upon in like manner at the other end of the churn-body, and these alternate rocking movements of the churn-body will so thoroughly agitate the cream that the butter will come quickly. The reaction of the spring H, by assisting the swing of the churn-body both ways, greatly lessens the labor of the work. When the churning is finished, the pins G may again be set in the bars D D to lock the churn-body in horizontal position for convenient removal of its contents.

The churn-body may easily be disconnected from the cross-rods C and spring H, and the side bars, D, may then be folded down flat, or nearly so, at the outside of the side bars of the base F, when pivoted outside, as shown, or within the base when pivoted inside of the side bars. The entire churn thus may be dismembered quickly and packed away in small

space when out of use or for transportation, and may as quickly be set up again for use when required.

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

1. The combination, with rock-bars pivoted at their lower ends to a base and having their upper ends connected by rods, of a box provided with transverse cleats on its bottom, near the ends thereof, for engaging the rods of the rock-bars, to hold the box on the said rock-bars, substantially as described.

2. In a churn, the combination, with a suitable base and cross-bars pivoted thereto and having their upper ends connected by rods, of a churn-body provided with cleats on its bottom having grooves in their inner upper edges, substantially as herein shown and described.

3. In a churn, the combination, with a base, cross-bars pivoted thereto and having their upper ends connected by rods, and a churn-body provided with grooved cleats on its bottom, of a spring connected to the said base and churn-body, substantially as herein shown and described.

4. In a churn, the combination, with a base, cross-bars pivoted to said base and having their upper ends connected by rods, and a churn-body having grooved cleats on its bottom, of a spring secured to the base, and a connecting-rod secured to the free end of the spring and to the churn-body, substantially as herein shown and described.

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Witnesses:

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