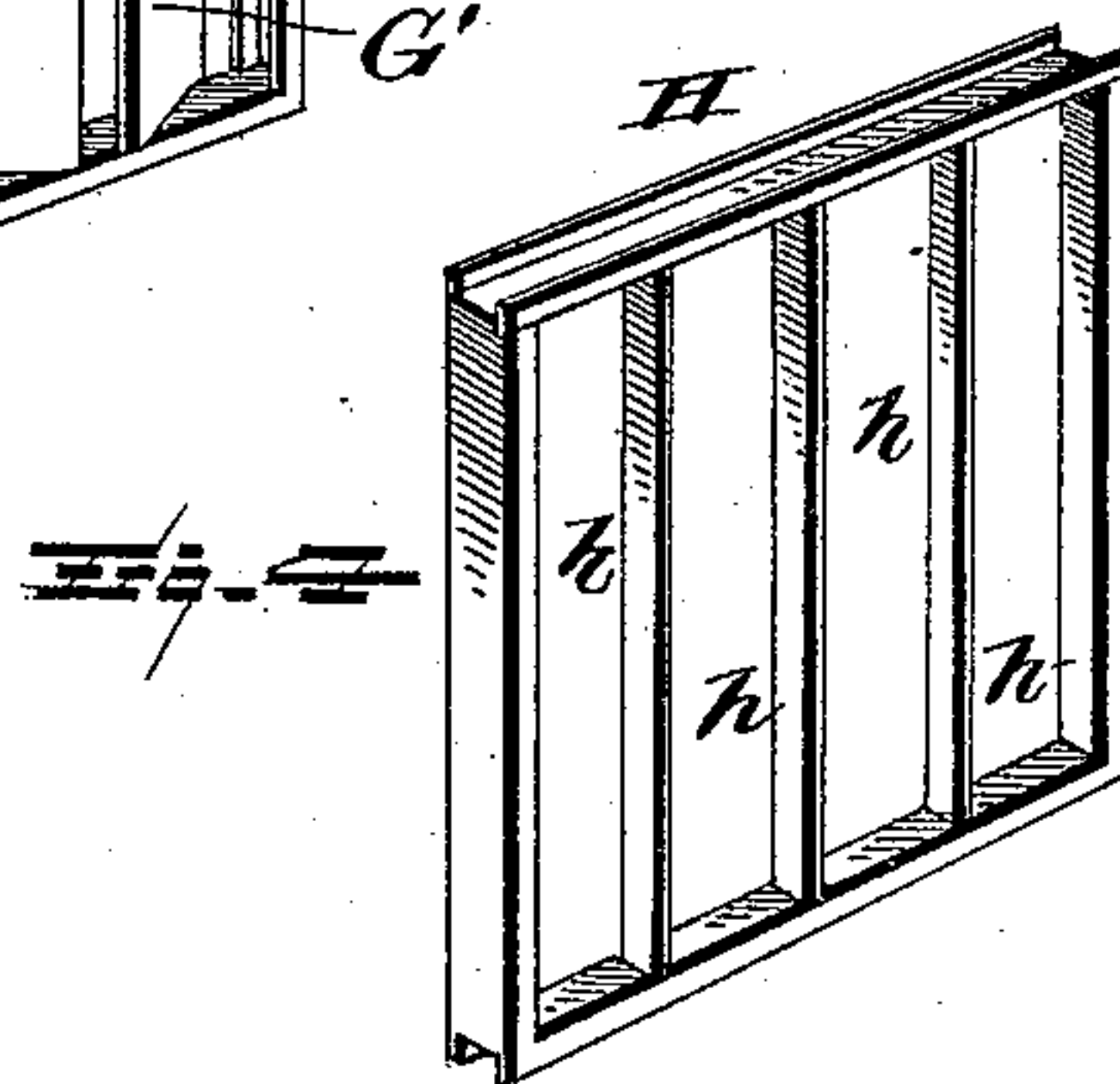
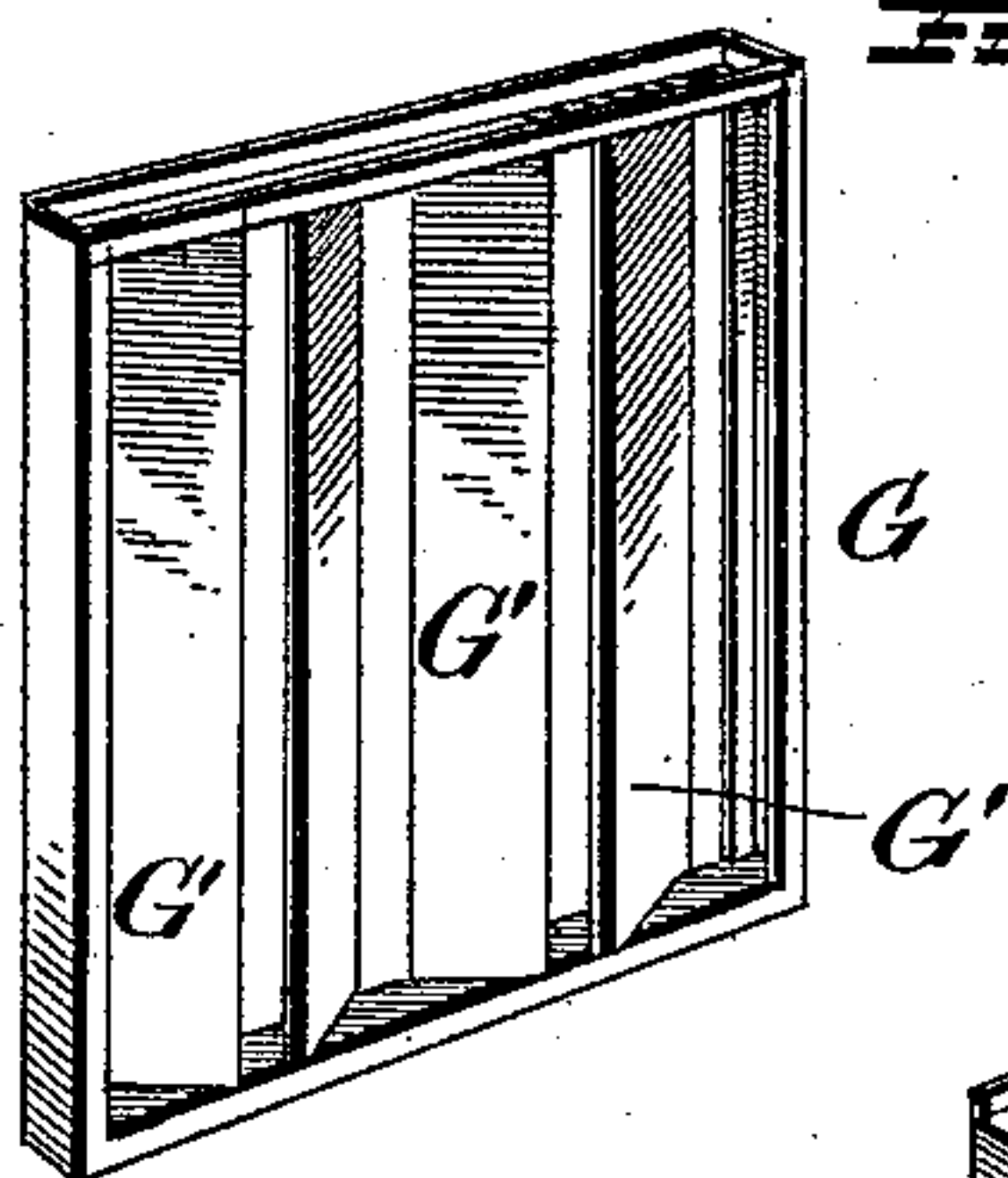
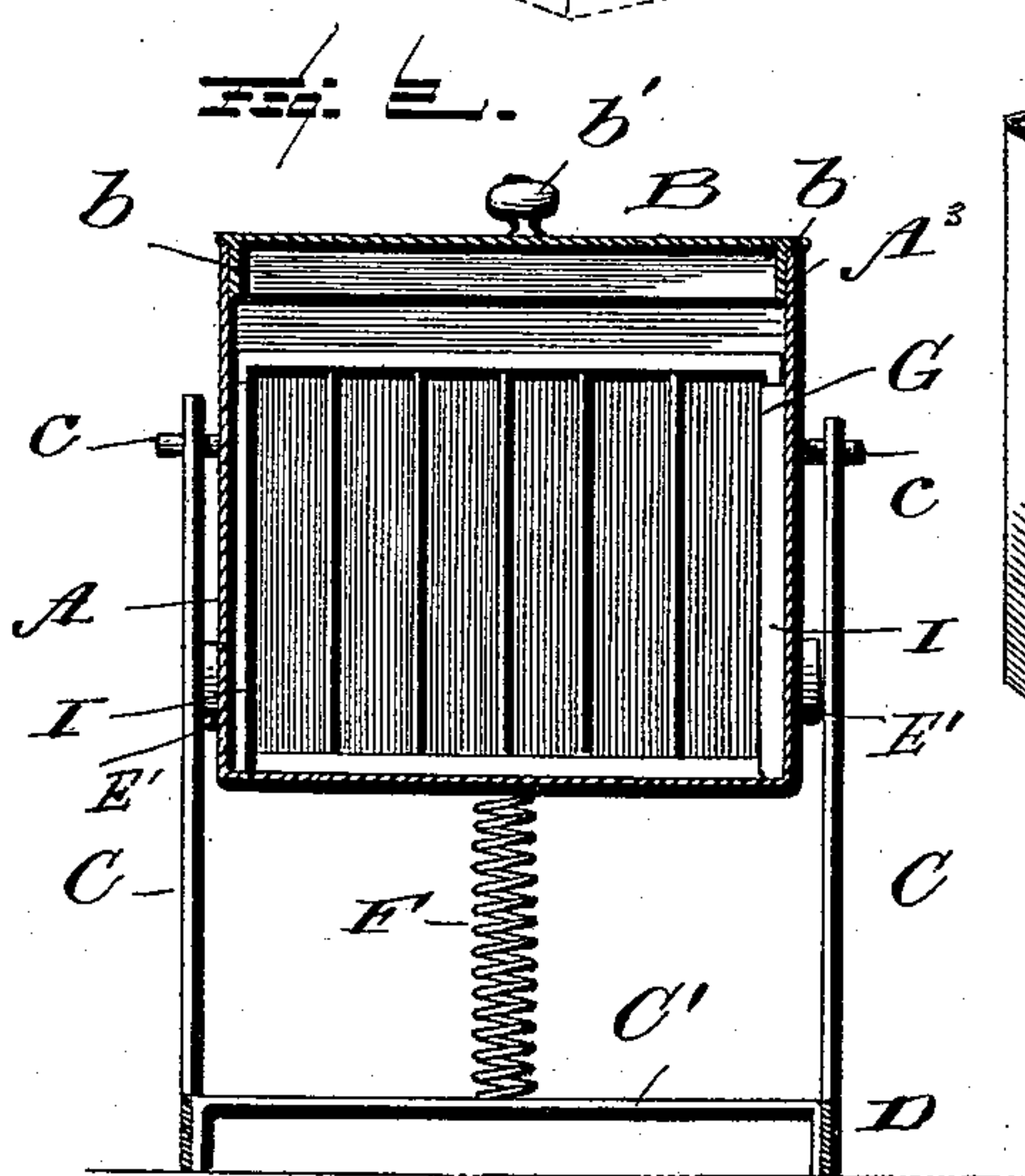
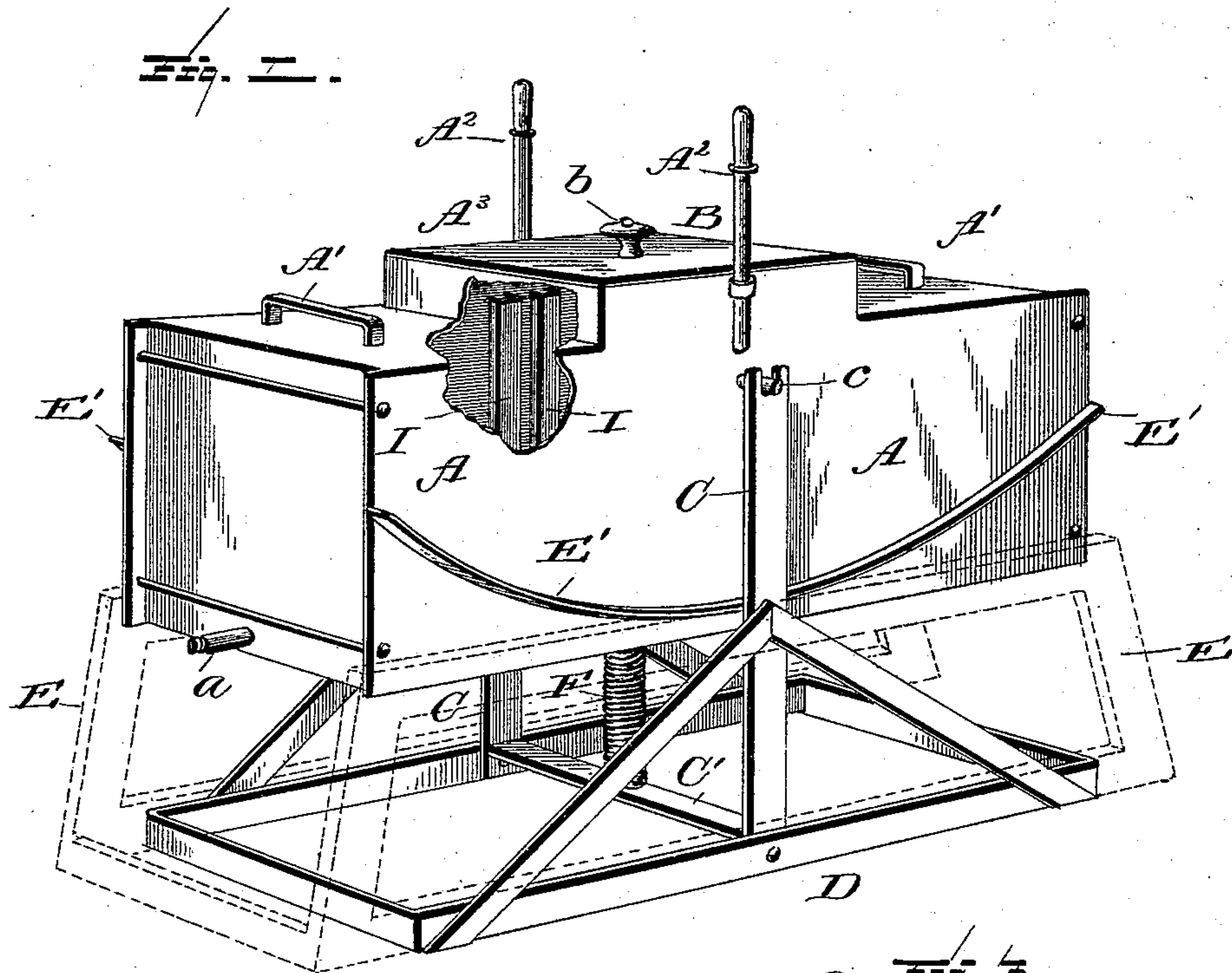


(No Model.)

A. RICHTER.  
CHURN.

No. 487,870.

Patented Dec. 13, 1892.



Witnesses  
L. C. Hills  
E. A. Bond

Inventor  
Alexander Richter,  
By E. B. Stocking  
Attorney



# UNITED STATES PATENT OFFICE.

ALEXANDER RICHTER, OF HOLLYROOD, KANSAS.

## CHURN.

SPECIFICATION forming part of Letters Patent No. 487,870, dated December 13, 1892.

Application filed February 23, 1892. Serial No. 422,498. (No model.)

*To all whom it may concern:*

Be it known that I, ALEXANDER RICHTER, a citizen of the United States, residing at Hollyrood, in the county of Ellsworth, State of Kansas, have invented certain new and useful Improvements in Rocking Churns, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in churns of that class known as "rocking churns;" and it has for its objects, among others, to provide an improved churn of this class in which provision is made against splashing of the cream through the cover when the churn is in operation. For this purpose I form the churn-body with a raised portion, preferably at the center, into which the cover-flange fits.

It has for a further object to so arrange a spring that it will aid the lightest side to return the churn to its normal position, the tendency of the spring being to at all times keep the churn-body in a horizontal position.

Another object is to provide a churn with a butter-maker and butter-worker removably held within the churn-body and which are so constructed as to most effectually and rapidly separate the butter from the milk and the buttermilk from the butter. The butter-maker is of novel construction.

I aim, also, at improvements in the general details of construction of the churn and its several parts.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view of my improved churn, with a portion broken away to better disclose the interior construction. Fig. 2 is a vertical cross-section through the same. Fig. 3 is a perspective view of the butter-maker removed. Fig. 4 is a like view of the butter-worker.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A designates the body of the churn,

which may be of any required capacity, and should be provided with a suitable outlet, as at *a*. It should also be provided with suitable handles, which may be located at any desired point. I have shown two forms of handles *A'* and *A''*. The churn may be provided with either or both.

The churn-body has a raised portion *A<sup>3</sup>* at its longitudinal center upon the top, which may extend any desired distance, and within which is designed to fit the flange *b* of the cover B, as seen in Fig. 2. This construction prevents slopping or splashing out of the cream or milk as the churn-body is rocked, which would occur if the cover fitted flush into an opening in the top of the body on a level with the top. The cover should be provided with suitable knob or handle *b'* by which it may be manipulated.

The churn-body may be supported for rocking in two ways in Fig. 2, and in Fig. 1 by full lines I have shown one way, which is as follows: The body is provided upon each side with a projecting pin or pintle *c* designed to rest in suitable bearings in the upper ends of the uprights C, which may be supported from the floor, or may be, as shown in Figs. 1 and 2, supported by the frame D. The churn-body may be rocked on these pivots by operating it by either sets of handles; or, the body may be rocked on a frame E, (shown by dotted lines in Fig. 1,) the sides of the body being provided with the curved flanges *E'*, designed to rest upon the upper faces of the side bars of the said frame, as shown in Fig. 1. I provide the churn with both the pins and flanges, so as to adapt it for support in either way preferred.

When the body is to be rocked upon the frame E, the frame D is of course removed and said frame E substituted in its place. When the churn is supported upon the pintles in the slots of the uprights C, the flanges *E'* serve to prevent the churn from moving laterally, and thus guiding the churn to keep it true in its rocking movement. The frames D and E are never used together, but they may be used as desired.

F is a spring attached centrally to the under side of the bottom of the churn-body and its other end suitably held—as, for instance, by being connected to a suitable support, as



a cross-bar C' on the frame C, as shown in Figs. 1 and 2. This spring has the tendency to at all times keep the body in a horizontal position, and when the body is rocked it always aids the lightest part to return the body to its normal position. It is important.

G is the butter-maker. It consists of a suitable rectangular framework, between the upper and lower horizontal portions of which are held the vertical blades G', which are arranged angularly at about a right angle to each other, leaving a contracted space between each two blades, as seen in Fig. 3, through which the cream is designed to pass as it comes in contact with the blades. The object of such a construction of butter-maker is that the cream will thus be crowded at the same time it dashes against the blades and forces itself through between the same and is then dashed against the other end of the churn.

H is the butter-worker. It consists of a rectangular frame, between the upper and lower horizontal bars of which are held the vertical bars h, arranged a considerable distance apart, and preferably made of comparatively-thin material, so as to cut the butter as it is dashed against them.

The churn-body is provided at its longitudi-

nal center upon the inner faces of the sides with suitable guide-strips I, as seen best in Fig. 1, for the reception of the butter-worker and butter-maker, which are removably held therein, and which may be replaced one for the other, as may be desired.

The operation will be readily understood from the foregoing description when taken in connection with the annexed drawings, and a detailed description thereof is not deemed necessary.

What I claim as new is—

The combination, with a supporting-frame having oppositely-disposed uprights with open bearings for the support of the pintles of the churn, of a churn-body having centrally-disposed pintles resting in said bearings and beneath said pintles provided with curved flanges on the sides of the churn and adapted to serve as guides in connection with said uprights to prevent wobbling of the churn, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ALEXANDER RICHTER.

Witnesses:

J. W. BAKER,  
W. D. SWING.