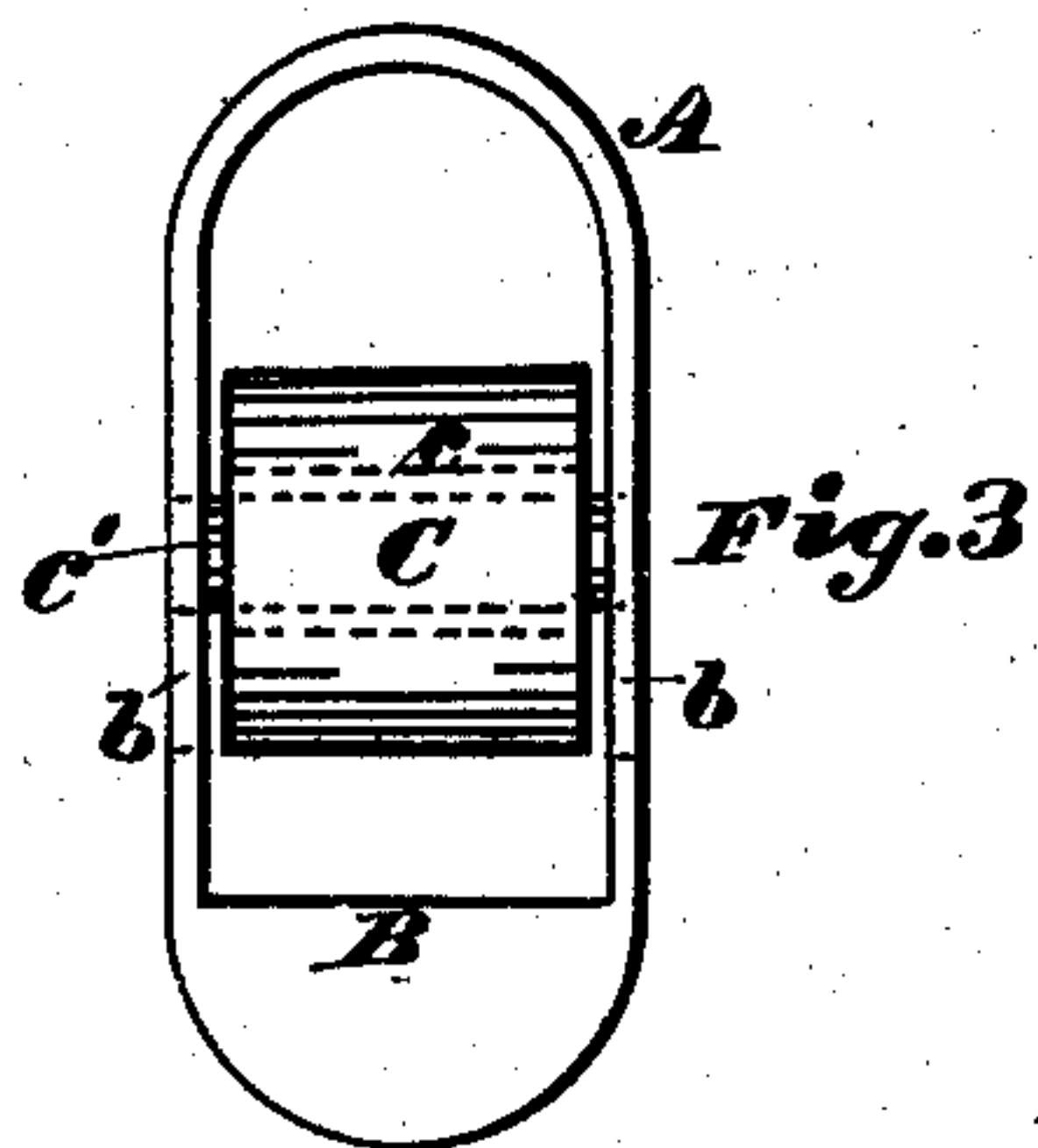
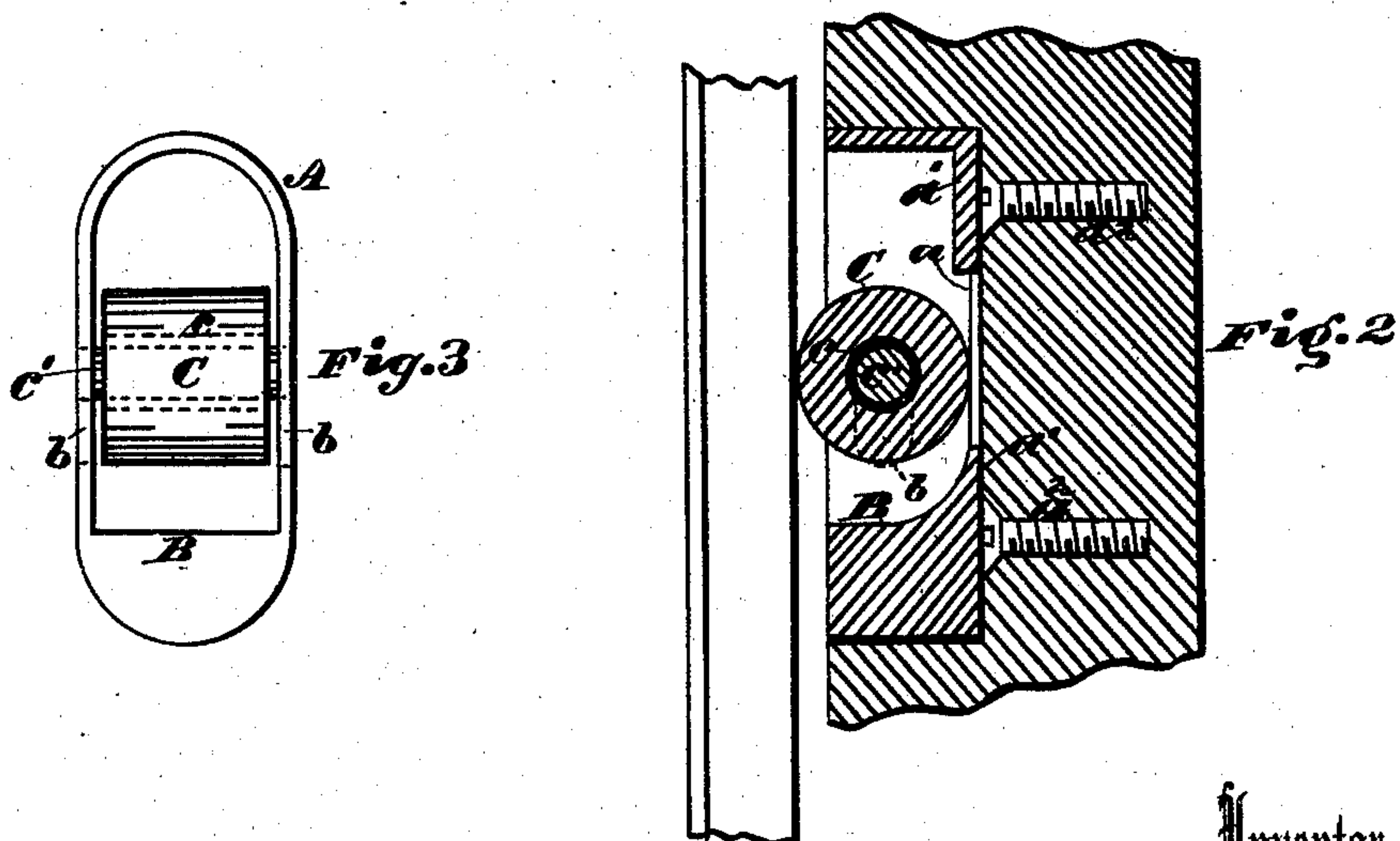
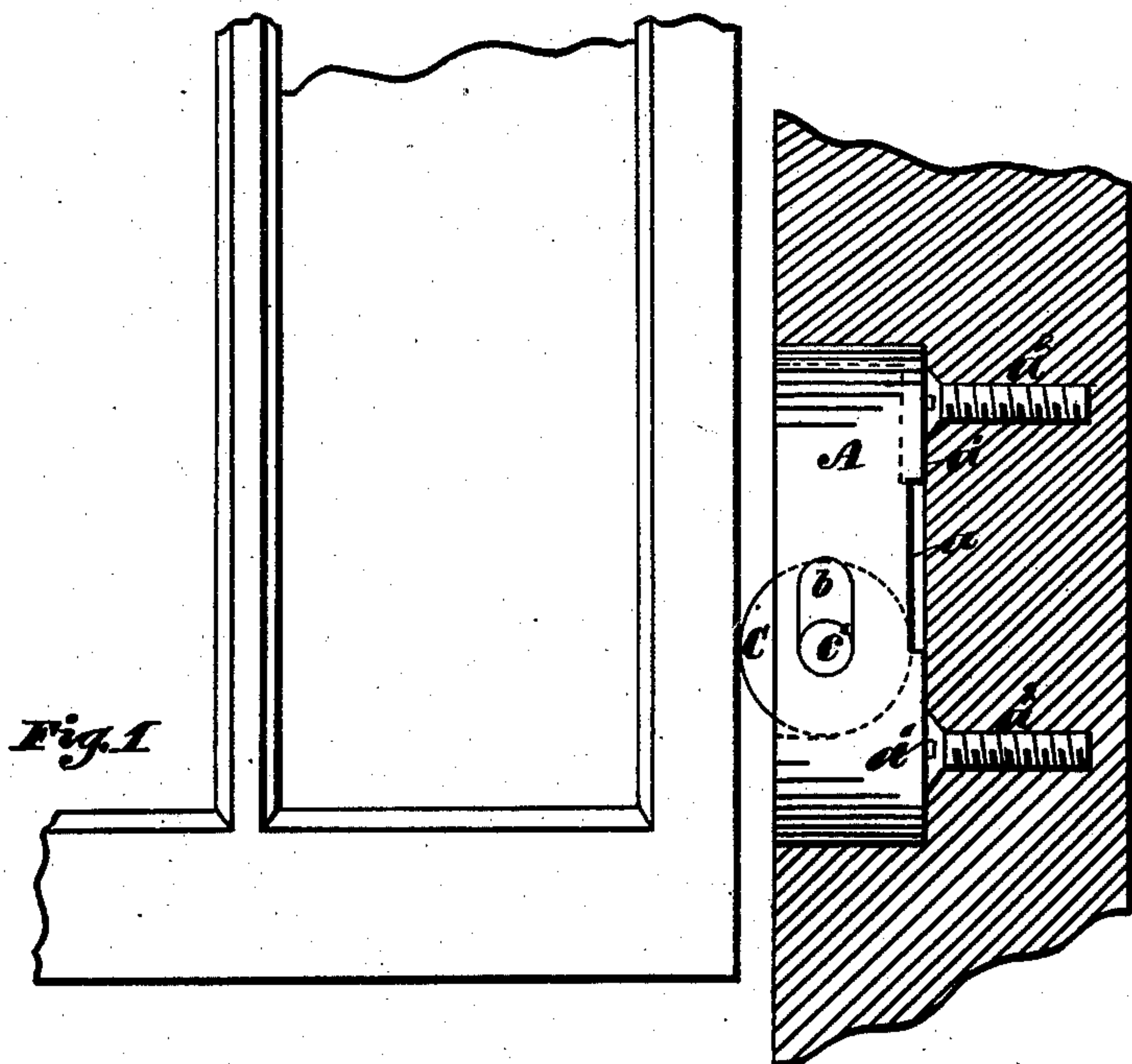


G. L. WAITT.  
SASH-HOLDERS.

No. 194,487.

Patented Aug. 21, 1877.



Witnesses

J. S. McKnight  
Wm. M. McKnight

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# UNITED STATES PATENT OFFICE.

GEORGE L. WAITT, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO  
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## IMPROVEMENT IN SASH-HOLDERS.

Specification forming part of Letters Patent No. **194,487**, dated August 21, 1877; application filed  
January 19, 1877.

*To all whom it may concern:*

Be it known that I, GEORGE L. WAITT, of the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Sash-Holders, of which the following is a specification, reference being had to the accompanying drawing, in which—

Figure 1 is a broken section of a window-frame, showing a side elevation of my invention. Fig. 2 shows a portion of a window-frame and a vertical section of my invention. Fig. 3 is a front elevation of my invention.

The object of my invention is to provide a sash-holder of a simple construction, which may be readily applied to a window-frame for sustaining the sash at any desired elevation, without the use of counter-balances.

My invention consists in the novel construction and arrangement of a case provided with adjusting-screws, and in which is placed an elastic friction-roller, so arranged as to rise in vertical slots and turn freely while the sash is being raised, and to drop down and jam sufficiently in the lower part of the case to hold the sash in the desired position, as will be hereinafter more fully described and definitely claimed.

The case A is made with circular ends for convenience in inserting it in the window-frame, and is provided in the sides with vertical slots *b b*, arranged to receive the ends of the axle *c'*. C is an elastic friction-roller, provided with a metal bushing, *c*, which is fitted closely to the roller, and also to the axle *c'*.

The lower interior portion of the case A is

made of a circular form, making a concave or curved bottom, as shown at B, Fig. 2, into which the roller C drops and jams sufficiently to arrest the descent of the sash. *a*, Figs. 1 and 2, is an opening made in the back portion of the case, on each side of which are heels or projections *a<sup>1</sup> a<sup>1</sup>*, which form two bearing-surfaces.

The case A is mortised in the window-frame near the top of the lower sash or near the bottom of the upper sash, with the projections *a<sup>1</sup> a<sup>1</sup>* resting upon the heads of the wood-screws *a<sup>2</sup> a<sup>2</sup>*. The said screws are adjusted so as to project the case forward more or less, as required, to increase or diminish the pressure of the roller on the sash.

In raising the sash the roller A is elevated until the axle *c* bears against the upper part of the slots *b b*, and continues to revolve as long as the sash is moved upward. When the sash is moved to the height desired, and is released, the roller drops and rests against the curved bottom of the case, in which position it presses against the edge of the sash and holds the same suspended.

What I claim as my invention is—

The case A, provided with the concave or curved bottom B, slots *b b*, opening *a*, and heels or projections *a<sup>1</sup> a<sup>1</sup>*, in combination with the adjusting-screws *a<sup>2</sup> a<sup>2</sup>*, elastic friction-roller C, bushing *c*, and axle *c'*, substantially as herein shown and described.

GEORGE L. WAITT.

Witnesses:

J. S. MCKNIGHT,

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