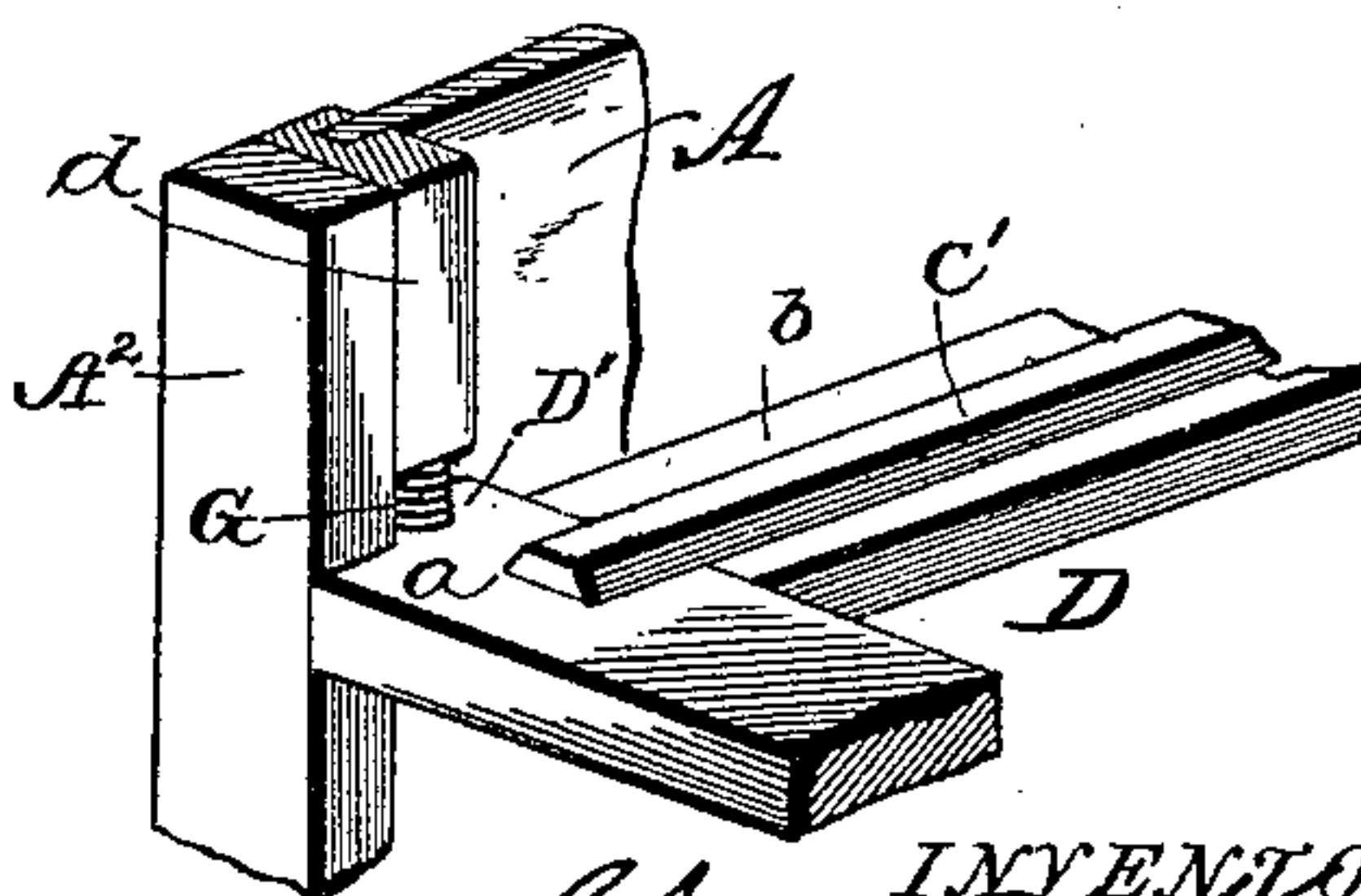
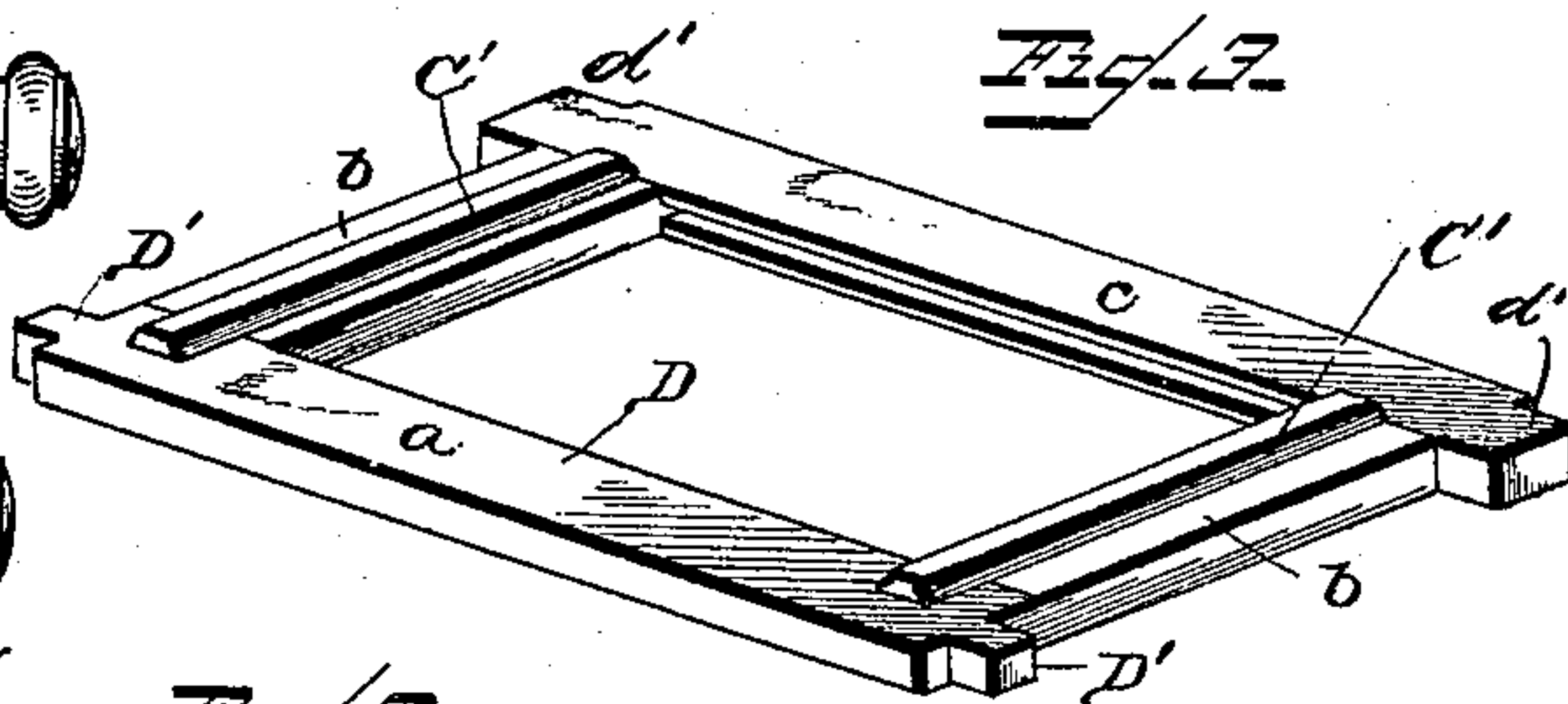
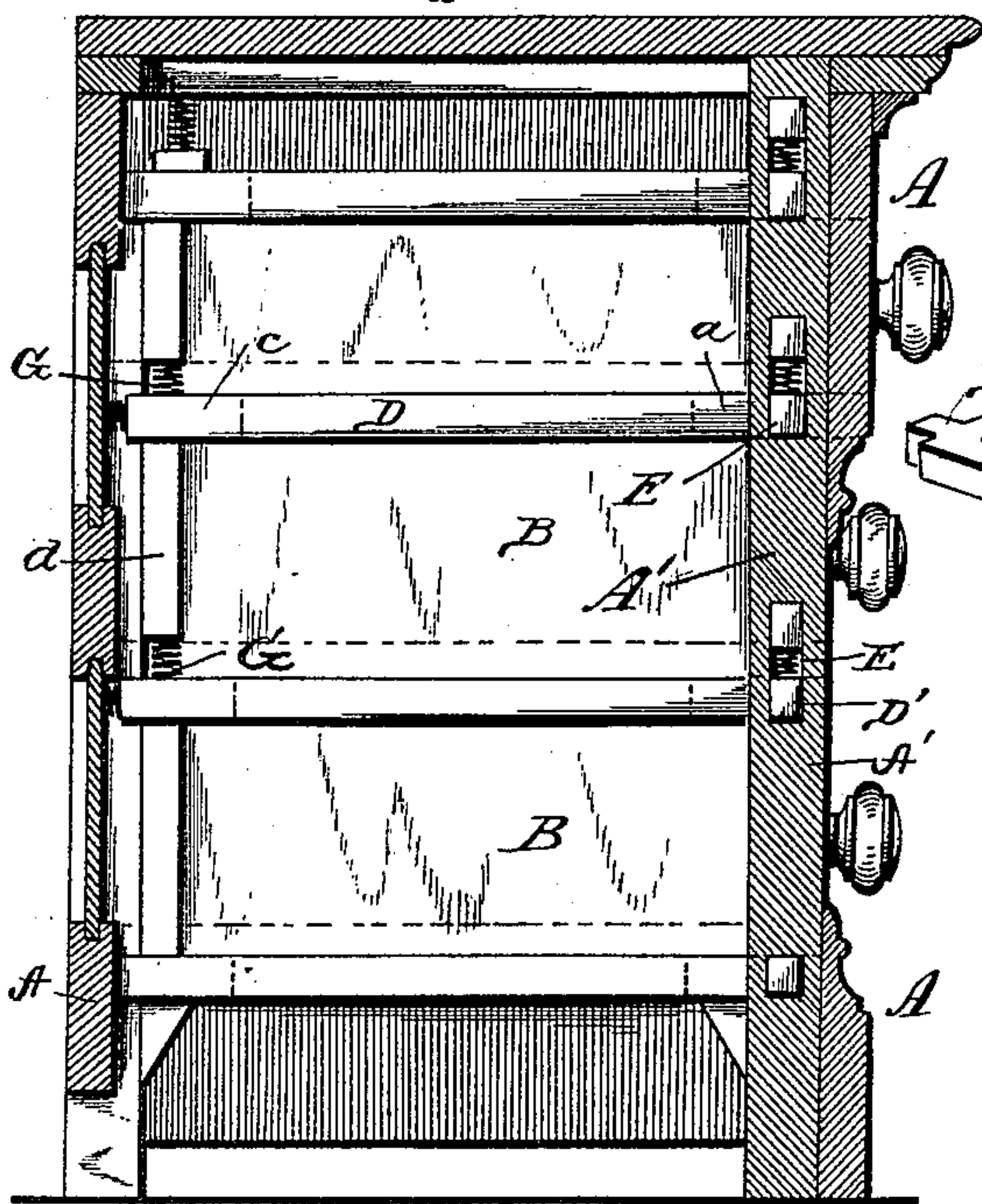


2 Sheets—Sheet 1.

Patented June 11, 1889.



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(No Model.)

2 Sheets—Sheet 2.

C. W. KATHERMAN & R. FOLK.  
BUREAU OR SIMILAR ARTICLE OF MANUFACTURE.

No. 405,166.

Patented June 11, 1889.

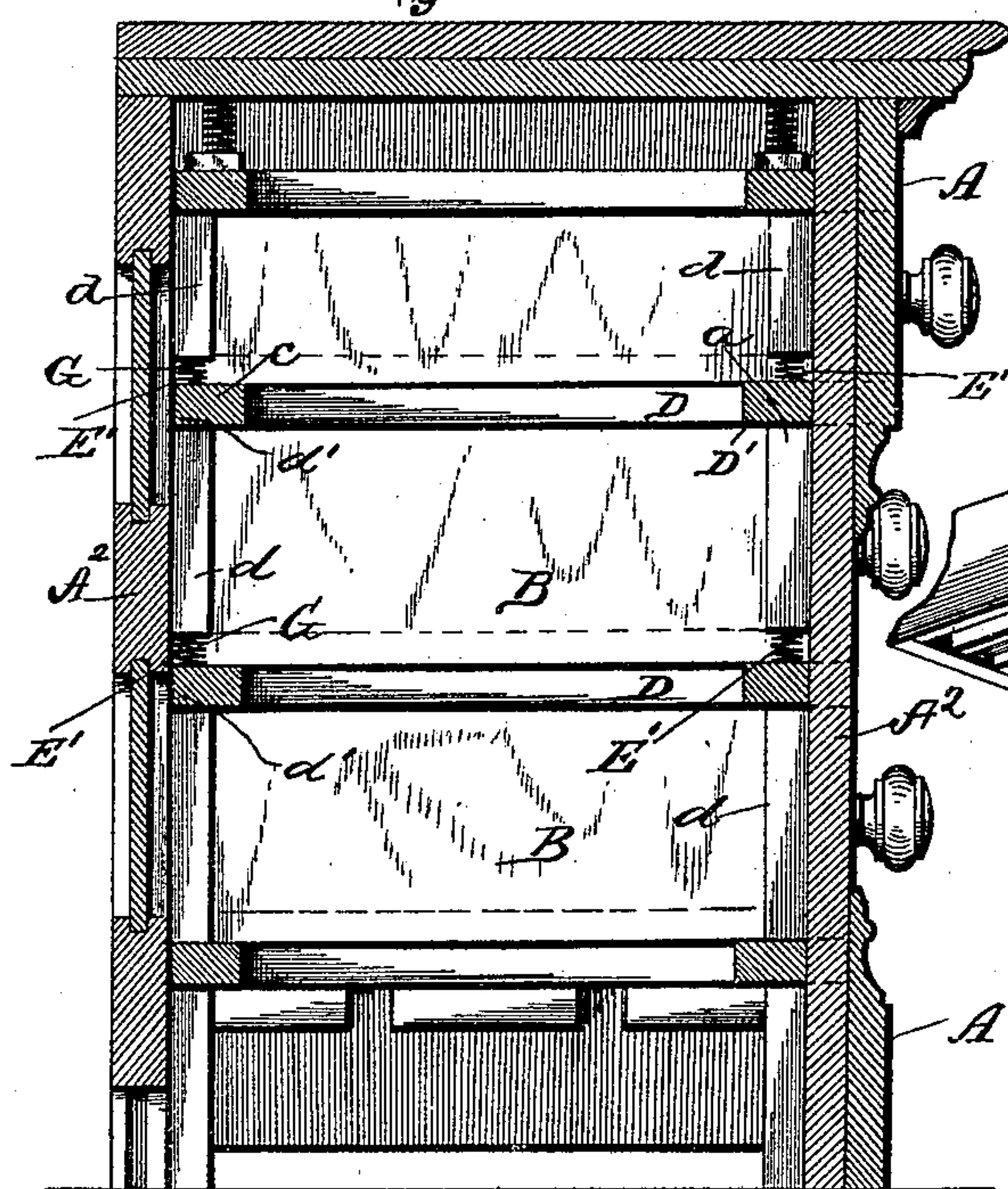
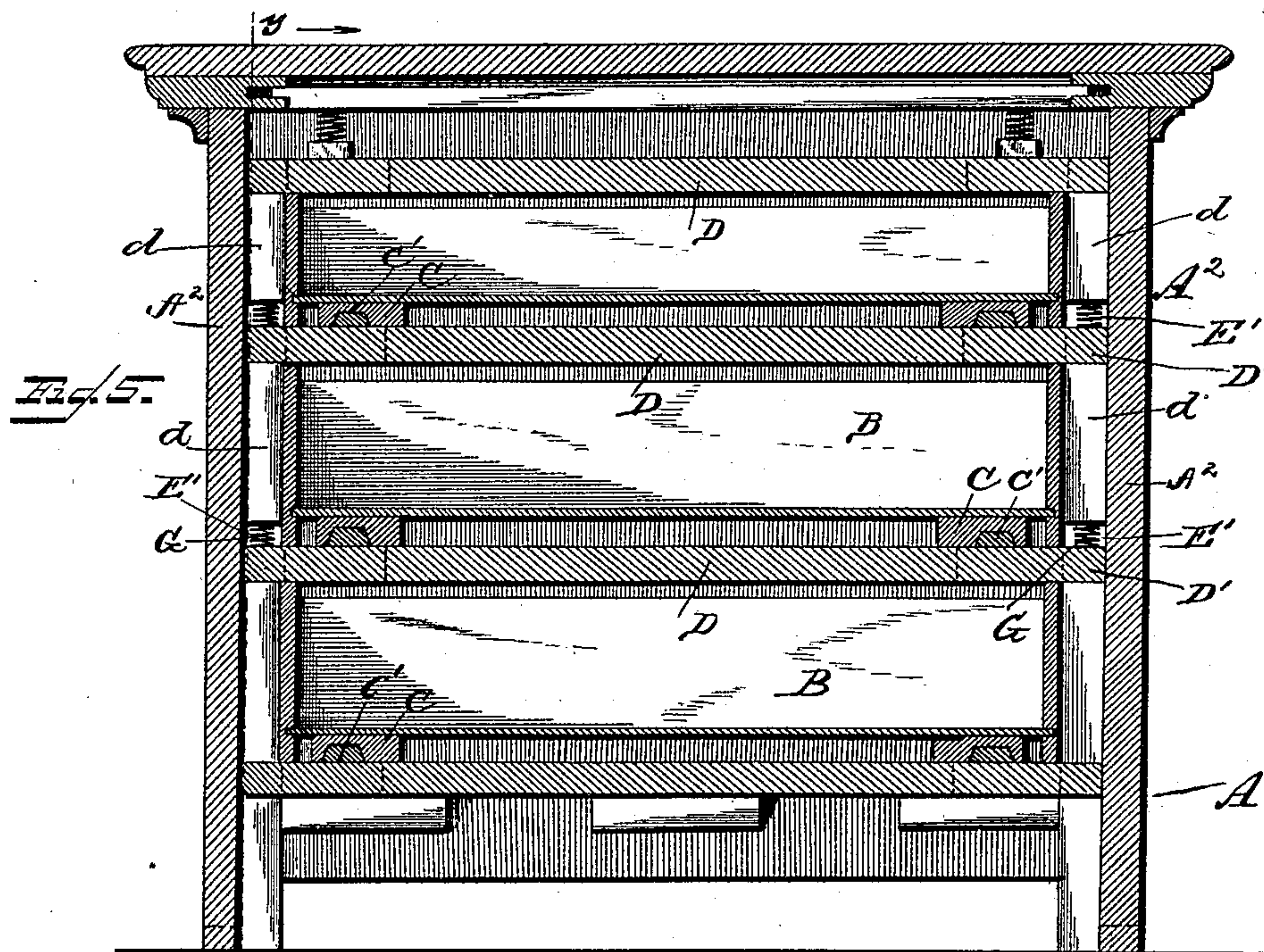
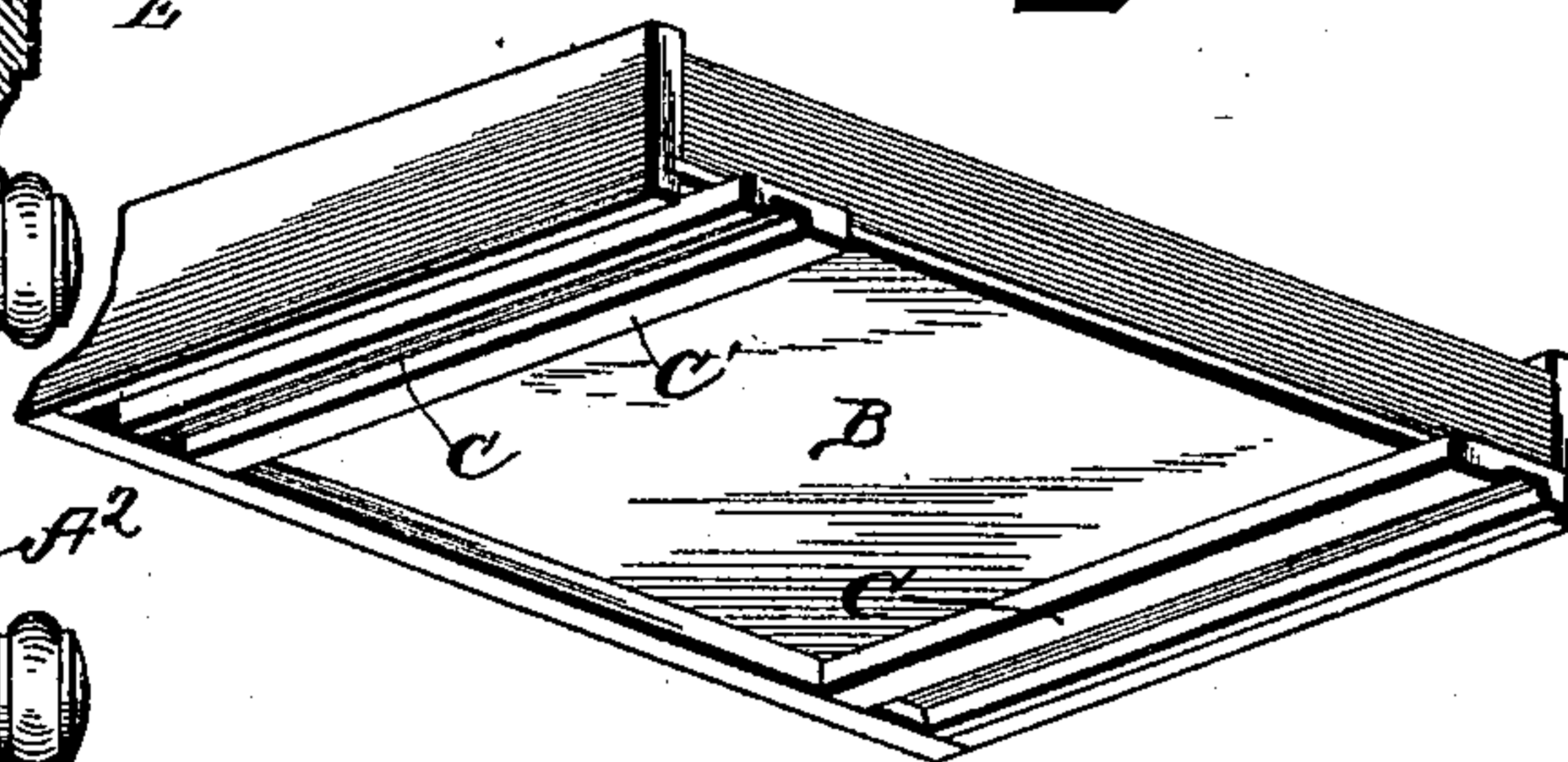


Fig. 6.

Fig. 4.



WITNESSES

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# UNITED STATES PATENT OFFICE.

CHARLES W. KATHERMAN AND REUBEN FOLK, OF WILLIAMSPORT, PENNSYLVANIA.

## BUREAU OR SIMILAR ARTICLE OF MANUFACTURE.

SPECIFICATION forming part of Letters Patent No. 405,166, dated June 11, 1889.

Application filed December 17, 1888. Serial No. 293,861. (No model.)

*To all whom it may concern:*

Be it known that we, CHARLES W. KATHERMAN and REUBEN FOLK, both residents of Williamsport, in the county of Lycoming and State of Pennsylvania, have invented certain new and useful Improvements in Bureaus and Similar Articles of Manufacture; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a longitudinal sectional view on a vertical plane of a bureau embodying our improvement. Fig. 2 is a transverse vertical sectional view on line  $x x$  in Fig. 1. Fig. 3 is a perspective view of one of the yielding drawer-supports removed from the bureau frame or case. Fig. 4 is a perspective view of one of the drawers which, by preference, we use in connection with our improvement, showing the same from the under side. Fig. 5 is a longitudinal sectional view on a vertical plane, illustrating a slightly-modified construction of our improved bureau. Fig. 6 is a transverse vertical sectional view on line  $y y$  in Fig. 5, and Fig. 7 is a perspective detail view.

Like letters of reference denote corresponding parts in all the figures.

This invention relates to so-called "case or drawer furniture"—such as bureaus, chiffoniers, desks, and similar articles of furniture provided with one or more sliding drawers—and has for its object the easy manipulation of the drawers, so that they shall not be liable to bind in the drawer-recesses, and may be pulled out their entire length (or depth) without sagging.

With this end in view our improvement consists in the combination, with the bureau frame or case and its drawers, of one or more automatically movable or yielding frames separating the drawers from one another and forming the supports for the same, substantially as will be hereinafter more fully described and claimed.

In the accompanying drawings, the letter A

designates the outer case or frame of the bureau, which may be of any approved shape or construction, and is provided with the usual openings adapted to receive the drawers B. The latter are preferably, but not necessarily, of the construction shown in Fig. 4—i. e., provided on their underside with parallel grooved cleats C C, the object of which has been fully described in another application for patent bearing date of October 12, 1888, Serial No. 293,862, and as these cleats form no part of our present improvement further description of them herein is deemed unnecessary.

The drawer-recesses are formed by and separated from one another by frames D, each of which consists of a front rail  $a$ , side rails  $b b$ , and back piece  $c$ . These frames are provided with lateral extensions or tongues  $D' D'$ —one on each side—which, if the bureau-case is what is known in the trade as a "solid post" frame, (illustrated in Figs. 1 and 2,) project into mortises or recesses E, cut in the solid side posts  $A'$ ; but if the frame is of the type known as "board end" (illustrated in Figs. 5 and 6) then the equivalent of these tongue-recesses E is formed by attaching a series of blocks  $d$  to the inner side of the board end  $A^2$ , forming the intermediate spaces or recesses  $E'$ , which are in all respects the equivalents of the mortises E in the solid posts. The back corner-posts of the case are in like manner formed with similar inner recesses adapted to receive the rear corners  $d'$  of frames D, so that it will be seen that each of these frames is supported within the bureau-case at its front end by the tongues  $D' D'$ , and at its rear end by the corners  $d'$ , said tongues and corners projecting into their appropriate bearings, formed by the recesses E and  $E'$ . The uppermost drawer bears with its top against a yielding frame located a sufficient distance below the top of the bureau to give it the requisite play.

Within the front and back recesses E and  $E'$  are arranged springs G, of any suitable form and construction, (we have shown spiral springs in the drawings,) which exert downward pressure upon the frame-tongues  $D'$  and corners  $d'$ . It will thus be seen that while the drawers are prevented from displacement



within the bureau-case in lateral or longitudinal directions, yet they are capable of a limited up-and-down play or motion within the bearings E and E' by compression of the  
5 springs G within said bearings or recesses. This yielding capacity of the drawer frames or supports D enables them to adjust themselves automatically to any swelling caused by warping of the drawers, so that all the  
10 drawers of the tier, together with their intermediate supporting-frames D, will adjust themselves automatically relative to one another, to the frames, and to the exterior case in such a manner that no single drawer can  
15 "bind" or stick in its recess through swelling or warping of the wood of either of the supporting-frames or of the drawers.

We prefer to construct the supporting-frames D with parallel raised ways C', adapted  
20 to engage the grooved cleats on the under side of the drawers, (when that form of drawer is used;) but as these form no part of our present improvement, and have been fully described in our other application hereinbefore referred

to, further description of the same in this 25 present application is superfluous.

Having thus described our invention, we claim and desire to secure by Letters Patent of the United States—

1. The combination, with a bureau case or 30 frame, of movable drawer-supports and springs exerting vertical pressure upon the said supports, substantially as described.

2. The combination of a bureau case or 35 frame having recesses formed in the sides thereof, drawer-supports having tongues moving in said recesses, and springs in the recesses for exerting vertical pressure on the said tongues, substantially as described.

In testimony that we claim the foregoing as 40 our own we have hereunto affixed our signatures in presence of two witnesses.

CHARLES W. KATHERMAN.  
REUBEN FOLK.

Witnesses:

J. CLINTON HILL,  
I. N. KLINE.