

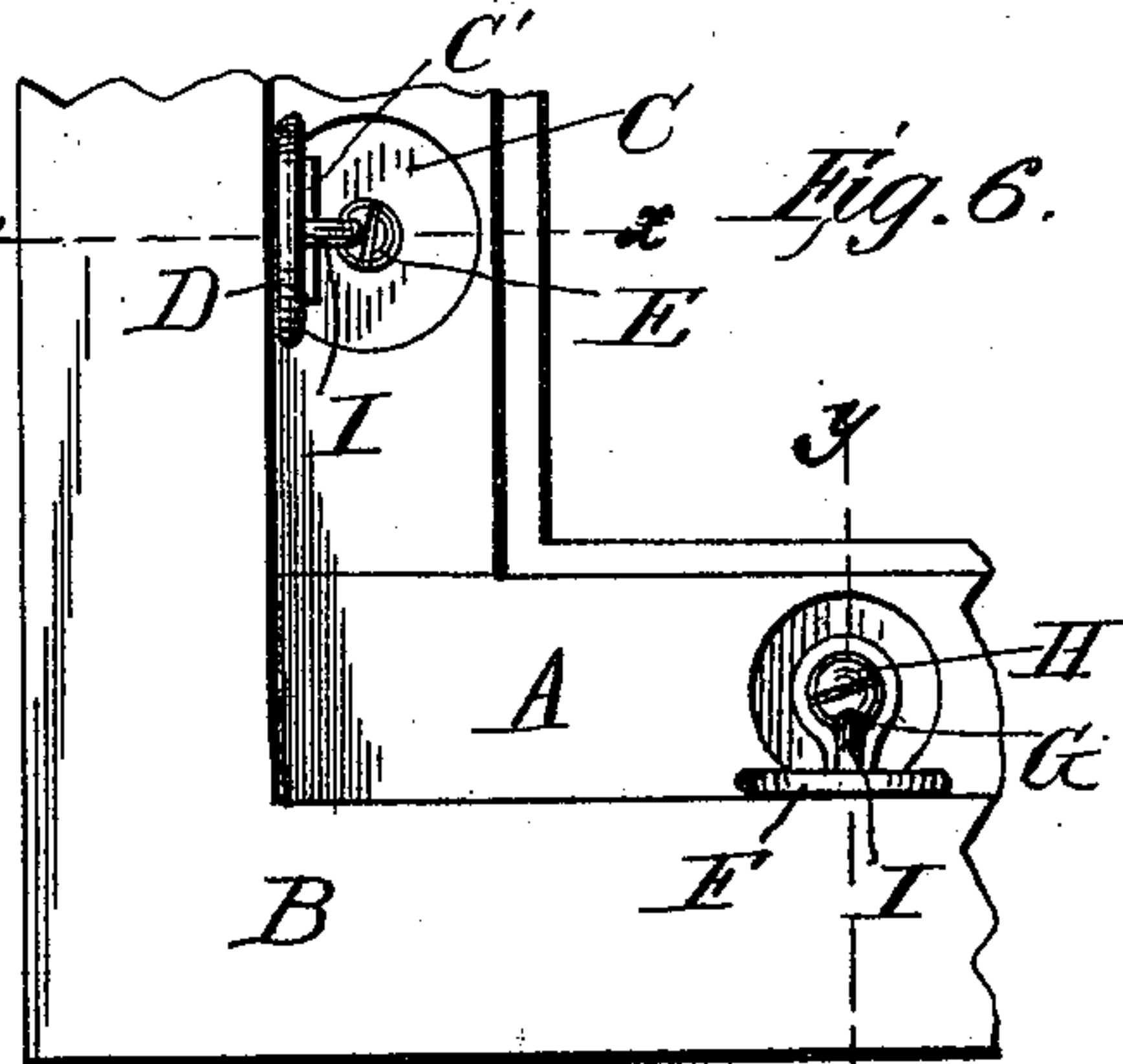
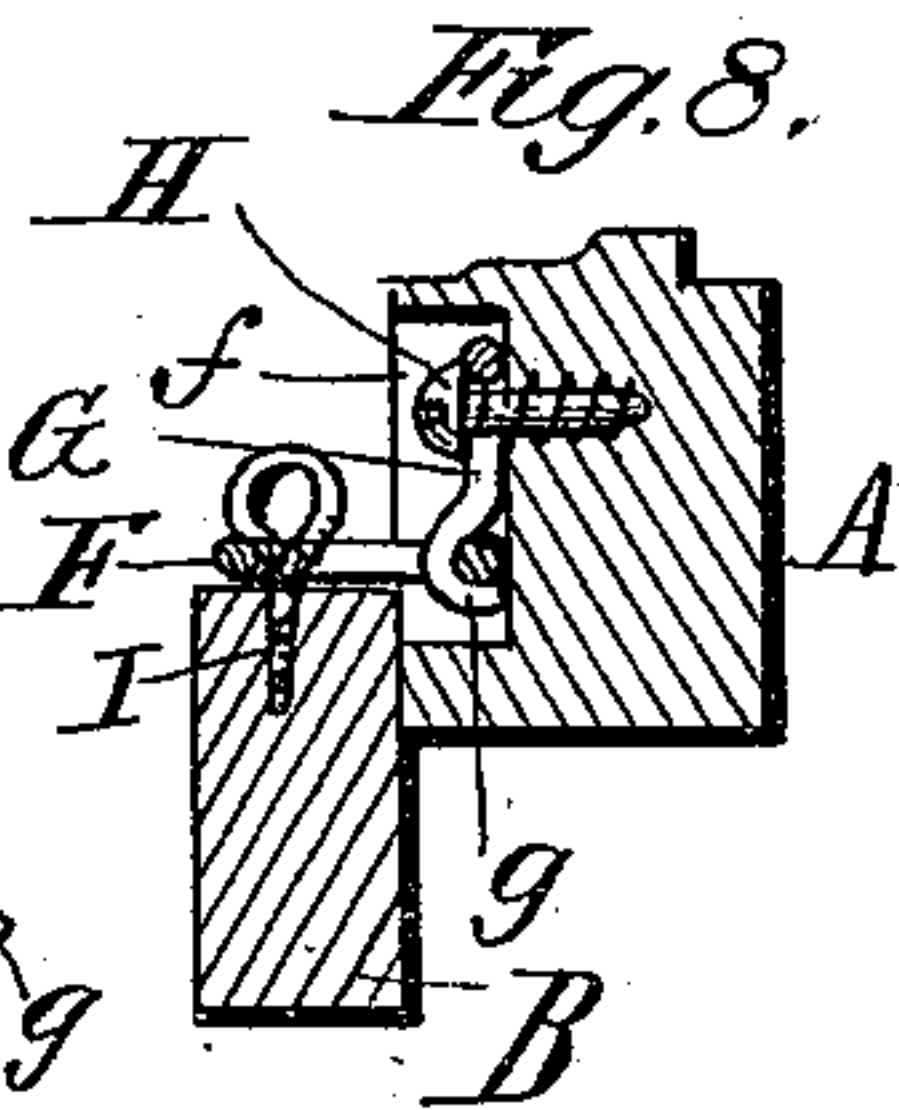
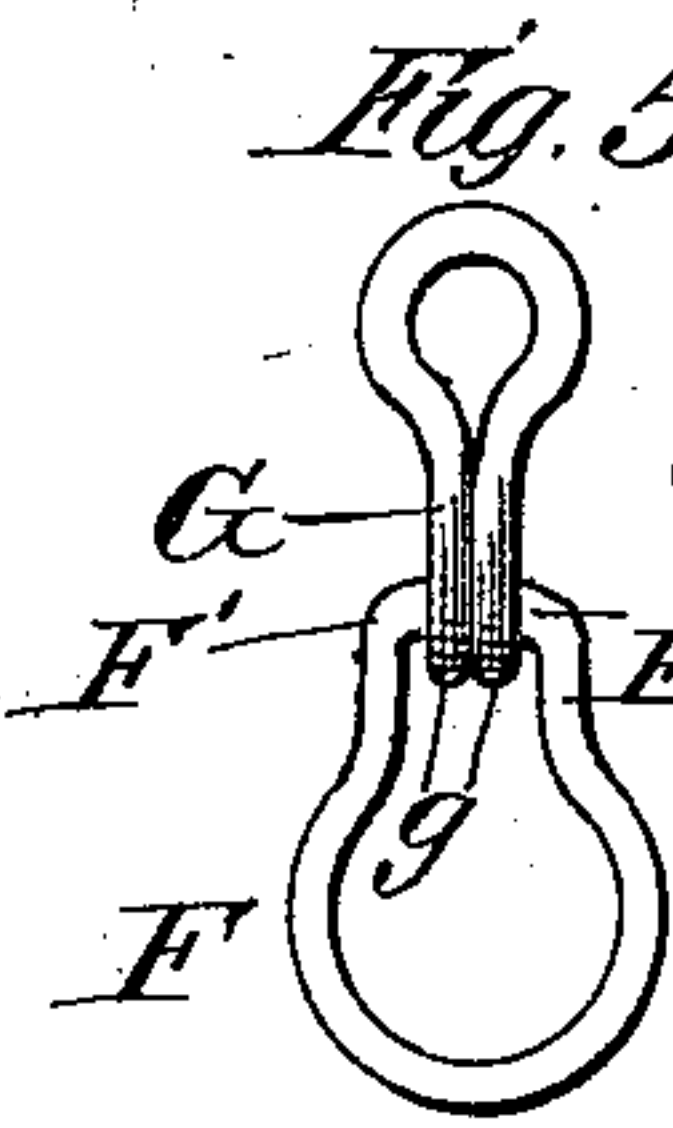
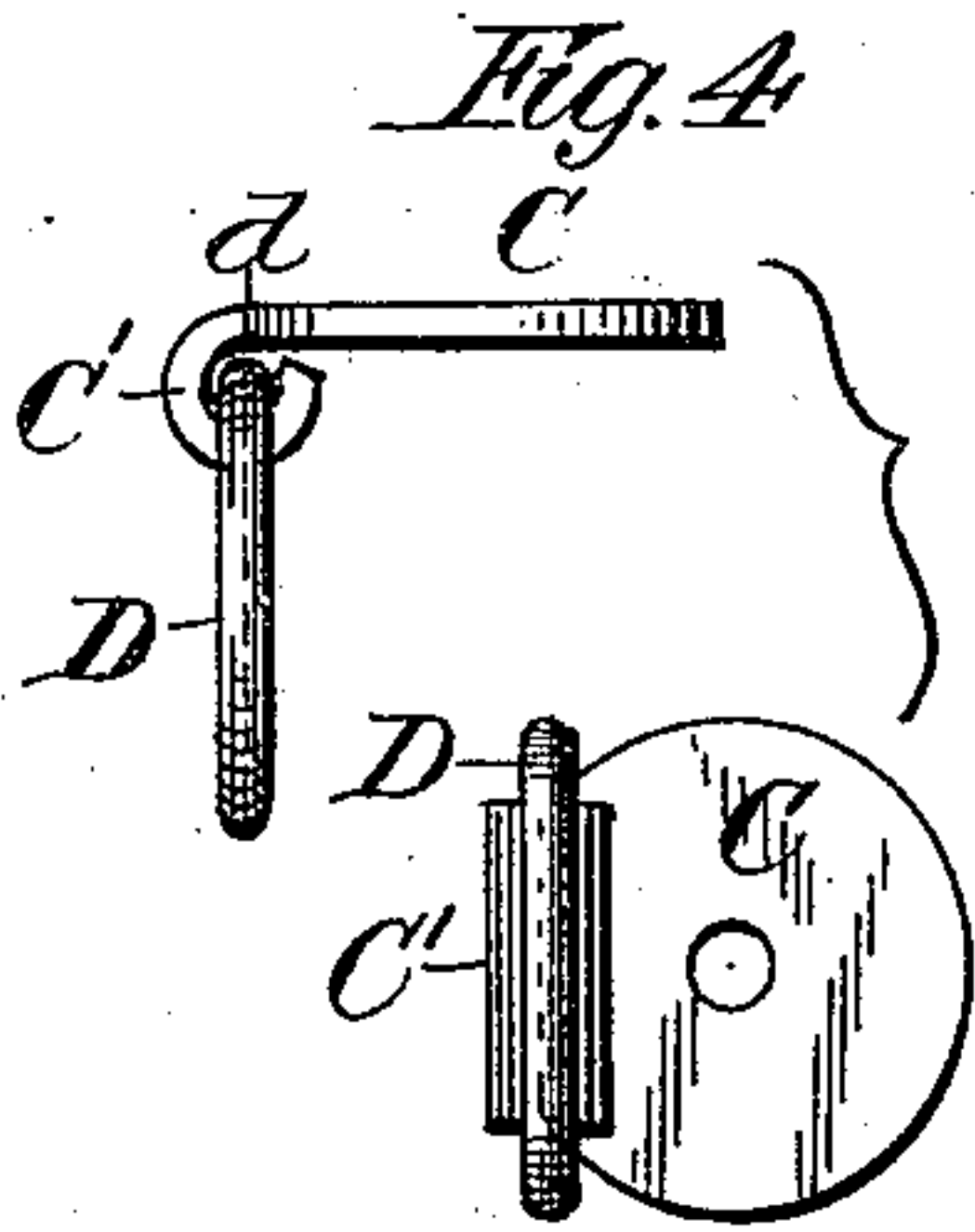
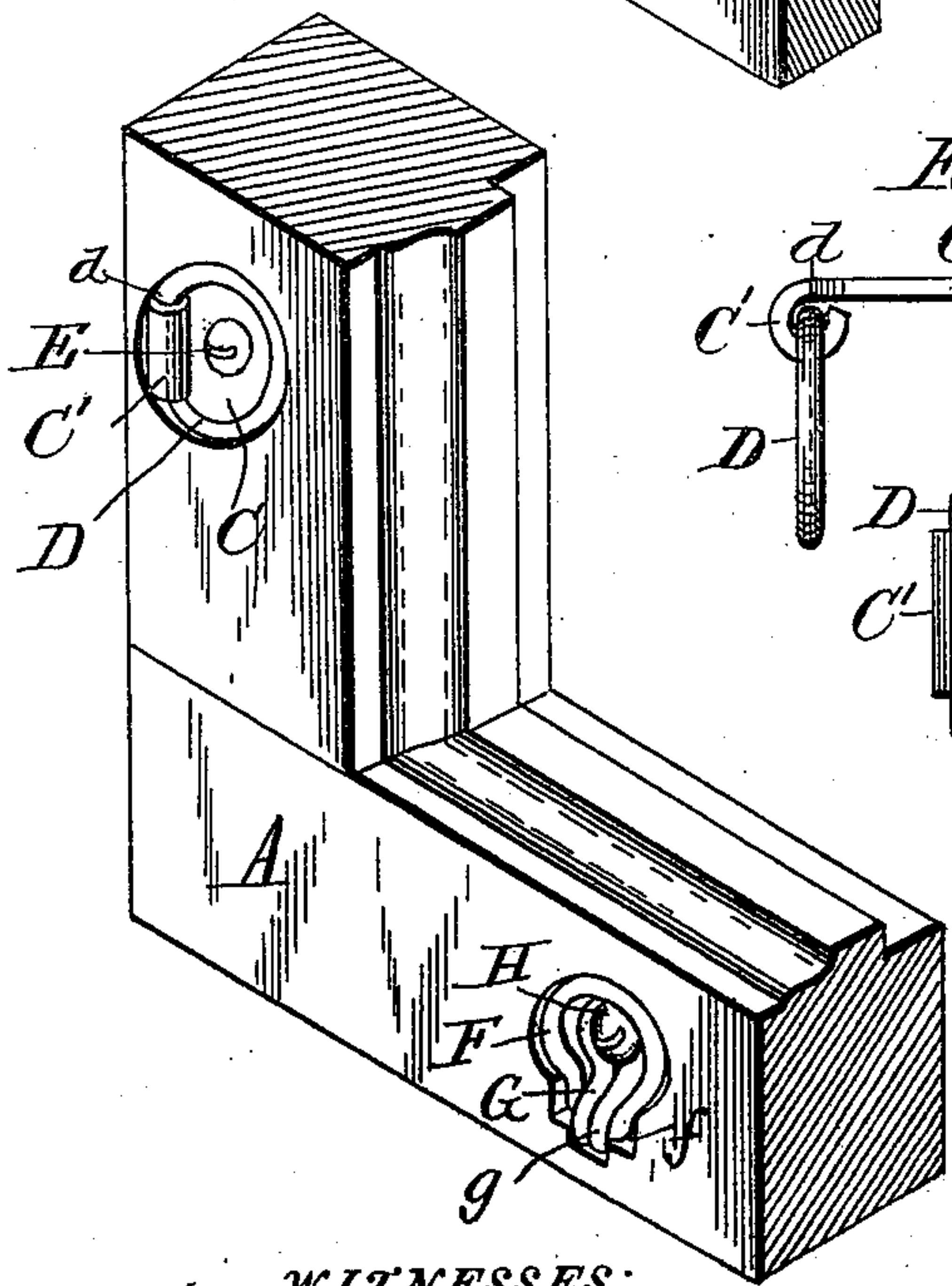
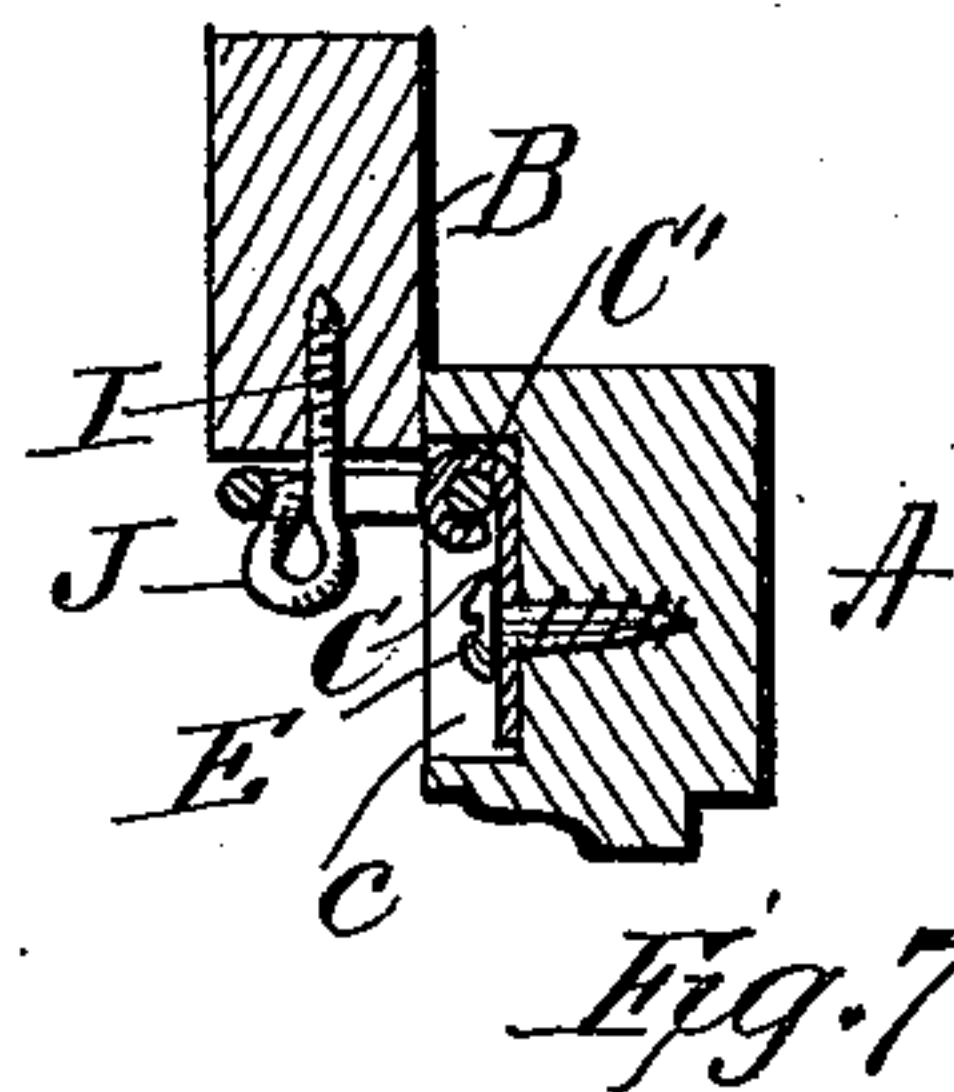
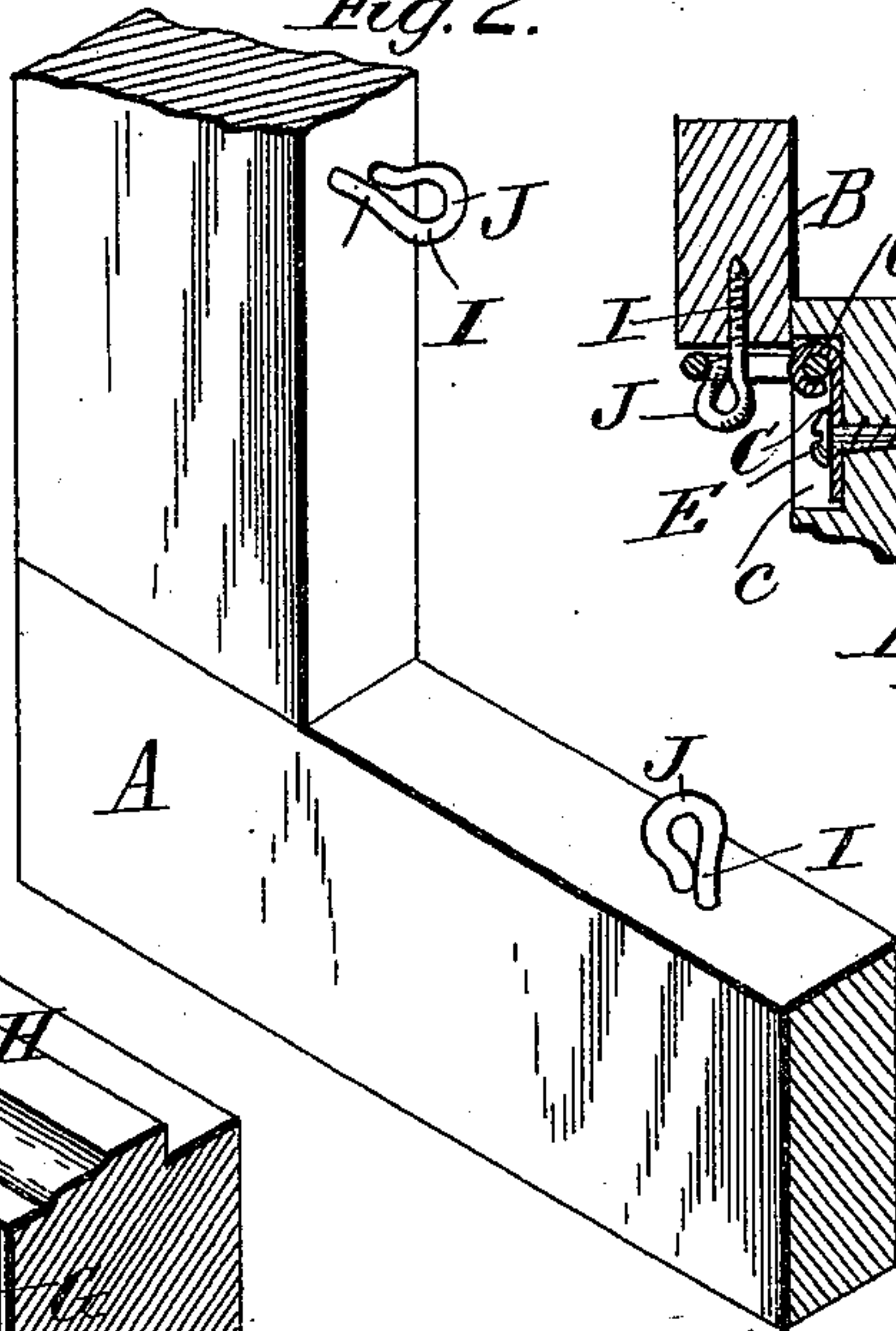
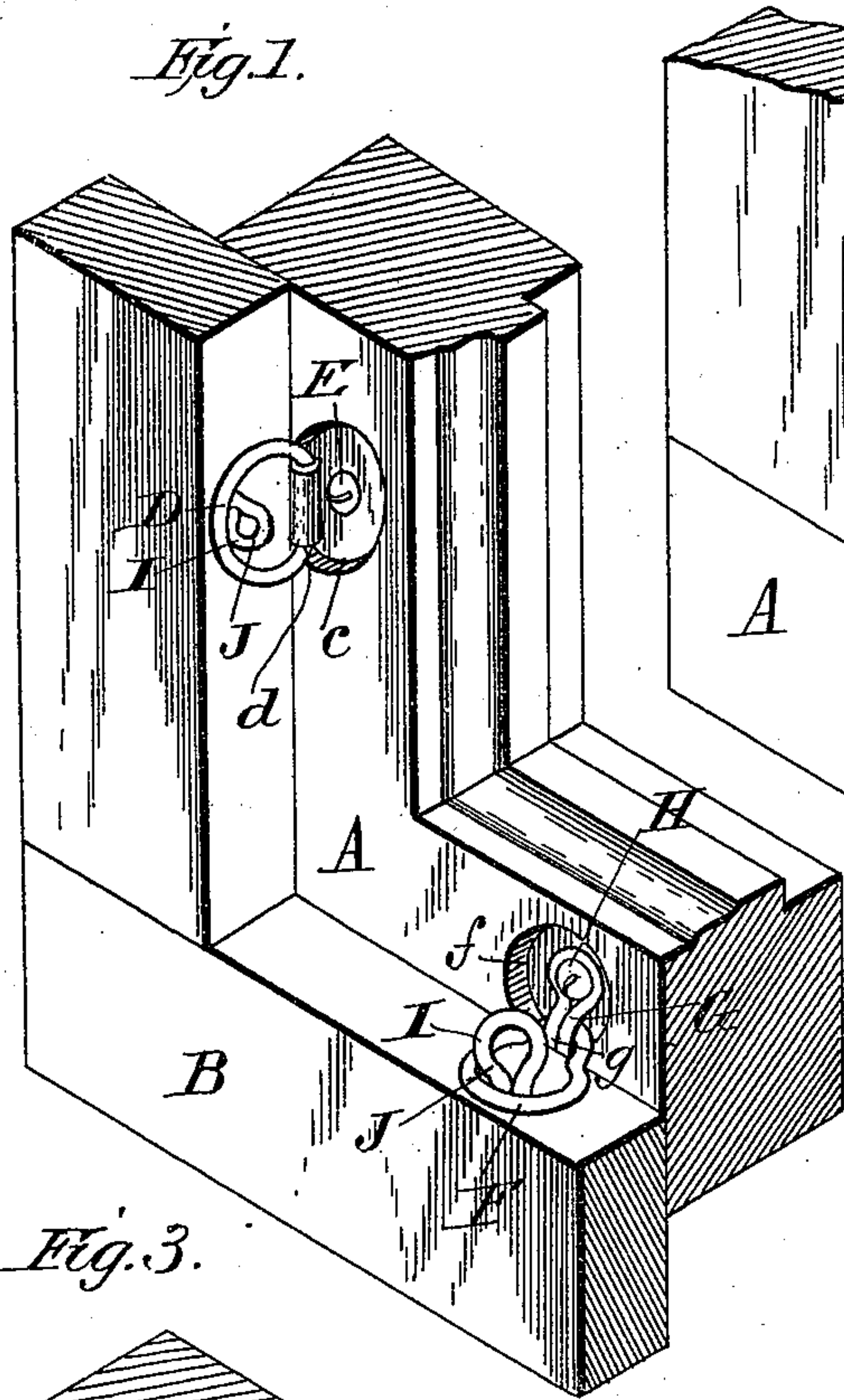
(No Model.)

F. S. GRAVES.  
SHUTTER FASTENER.

No. 545,488.

Patented Sept. 3, 1895.

*Fig. 2.*



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

FREDERICK S. GRAVES, OF NORTH HANCOCK, MAINE.

## SHUTTER-FASTENER.

SPECIFICATION forming part of Letters Patent No. 545,488, dated September 3, 1895.

Application filed November 27, 1894. Serial No. 530,118. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK S. GRAVES, a citizen of the United States, and a resident of North Hancock, in the county of Hancock and State of Maine, have invented certain new and useful Improvements in Shutter-Fasteners for Windows; and I 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 perspective view of one of the lower corners of a window equipped with my improved fastening device, showing the shutter-frame in position upon the window-casing. Fig. 2 is a similar view of the window-casing with the shutter-frame removed. Fig. 3 is a perspective view of one of the lower corners of the shutter or screen frame, showing the turn-buttons which interlock with the fasteners on the window-casing. Figs. 4 and 5 are detail views of the fastening devices appertaining to the window-casing, but removed therefrom the better to show their peculiar construction and combination of parts. Fig. 6 is a front elevation of part of a window-casing with its appropriate screen-frame in position. Fig. 7 is a transverse sectional view on line *xx* in Fig. 6, and Fig. 8 is a transverse sectional view on line *yy* in the same figure.

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

This invention relates to devices for fastening shutters or screen-frames (so-called "fly" or "mosquito" frames) to window frames or casings; and it consists in the specific construction of the improved fastening devices, which will be hereinafter more fully described, and their combination with the window frame or casing and the detachable shutter or screen frame, as hereinafter more fully set forth and claimed.

In the accompanying drawings, the reference-letter A denotes a screen-frame or shutter-frame, and B the corresponding part of a window casing or frame. The corners of the frame A are recessed, as shown at *c* and *f*, forming circular (or approximately so) recesses for the insertion of the appropriate

fasteners. I have on the drawings shown two forms of these, one being simply a modification of the other and both operating precisely alike—viz., the form of fastener represented in Fig. 4—comprising a flat circular back plate C, of any suitable metal, having a wing or lateral extension on one side, which is bent and doubled upon itself, so as to form a hinge eye or sleeve C' for the attachment of the locking-ring D. One side of the latter is made straight, as shown at *d*, for insertion through the hinge-sleeve C', and the hinged ring D D' is of such dimensions that when folded back into its circular recess *c* and up against the flat back plate or hinge-plate C, (which is fastened in the bottom of the recess *c* by means of a headed screw E,) as illustrated in full line in Fig. 3, it will rest completely within said recess, so that the front side or face of frame A will be perfectly smooth and even.

The modified form of this fastening device shown in Fig. 5 consists also of a wire ring or bail F; but instead of the circular metal back plate C the bail F is hinged upon a wire loop G, fastened in the bottom of the recess *f* by means of the headed screw H and having its parallel arms bent to form eyes *g g* for the insertion, laterally, of the inwardly-bent ends F' F' of the hinged fastening-bail F. When this bail is not in use, it is folded down flat against the bottom of its appropriate recess *f*, encircling the hinge-loop G, as illustrated in full line in Fig. 3.

The shutter-frame or screen-frame B is provided at points opposite to the hinged folding fasteners on frame A and registering therewith with eccentric turn-buttons or catches I I, consisting of short pieces of stout wire inserted into the wood of the frame, so as to turn readily therein, and bent at their projecting free ends to form eccentric heads J, adapted to be inserted through and interlock with the hinged fastening-rings appertaining to frame A, as illustrated in Figs. 1, 6, 7, and 8, which show the shutter-frame or screen-frame in position upon the window frame or casing. By turning the heads J at right angles, giving each a one-quarter turn after they have been inserted through their appropriate registering fastening-rings, they will overlap and securely interlock with the



latter, thus firmly uniting the two frames A and B, and yet in such a manner that the one may readily and instantly be detached and removed from the other.

5 It will be obvious that the location and arrangement of the hinged fastening rings or bails and their interlocking eccentrics may be reversed—that is to say, the rings may be hinged in recesses made in frame B and the  
10 eccentric turn-buttons fastened in the corresponding parts of frame A—without departing from the spirit and object of my invention, the operation of the fastening devices being precisely the same in both cases and it being  
15 optional which modification is to be given the preference.

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

The combination with the frame A, formed 20 with circular recesses *c, f*, the loops G, consisting of a piece of wire with its extremities bent inwardly forming eyes, the headed screws for fastening the loop to the frame and the bail F, having inwardly bent end F', jour- 25 naled in said eyes, of the window casing B, and the eccentric catches I, consisting of a piece of wire screw threaded at one end and engaging with the casing and the opposite end bent into an eye, substantially as de- 30 scribed.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

FREDERICK S. GRAVES.

Witnesses:

J. W. PATTERSON,

JOHN A. HAYDEN.