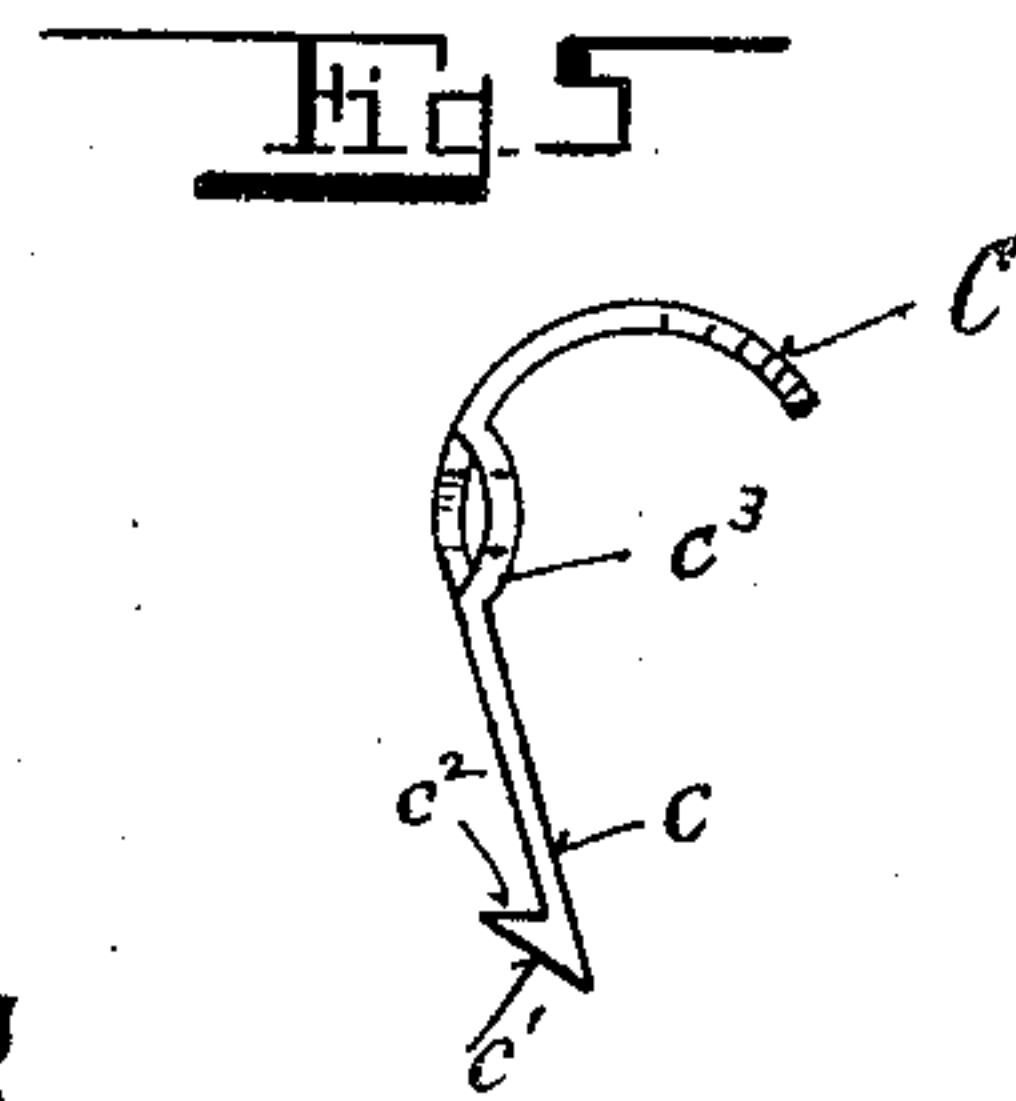
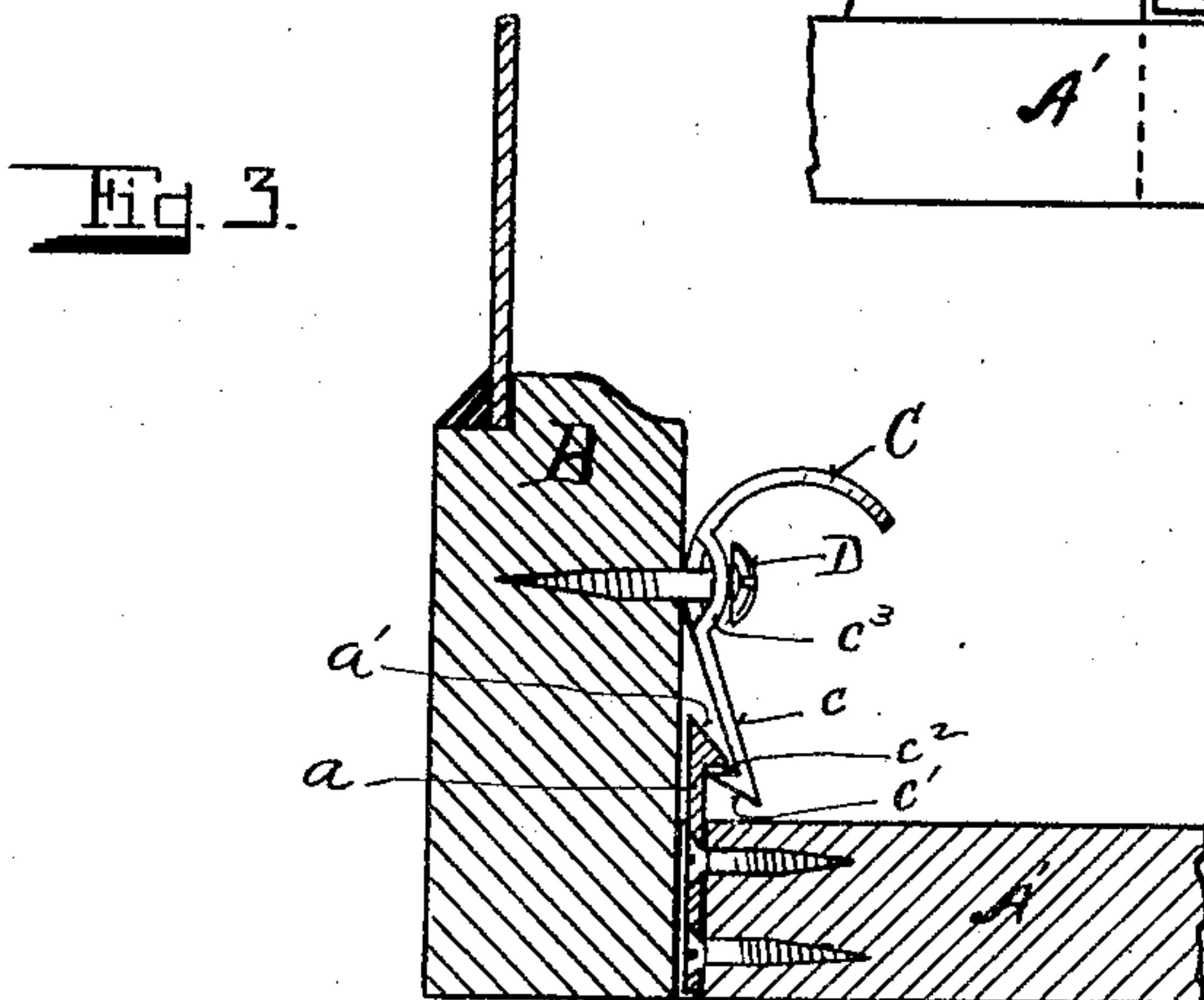
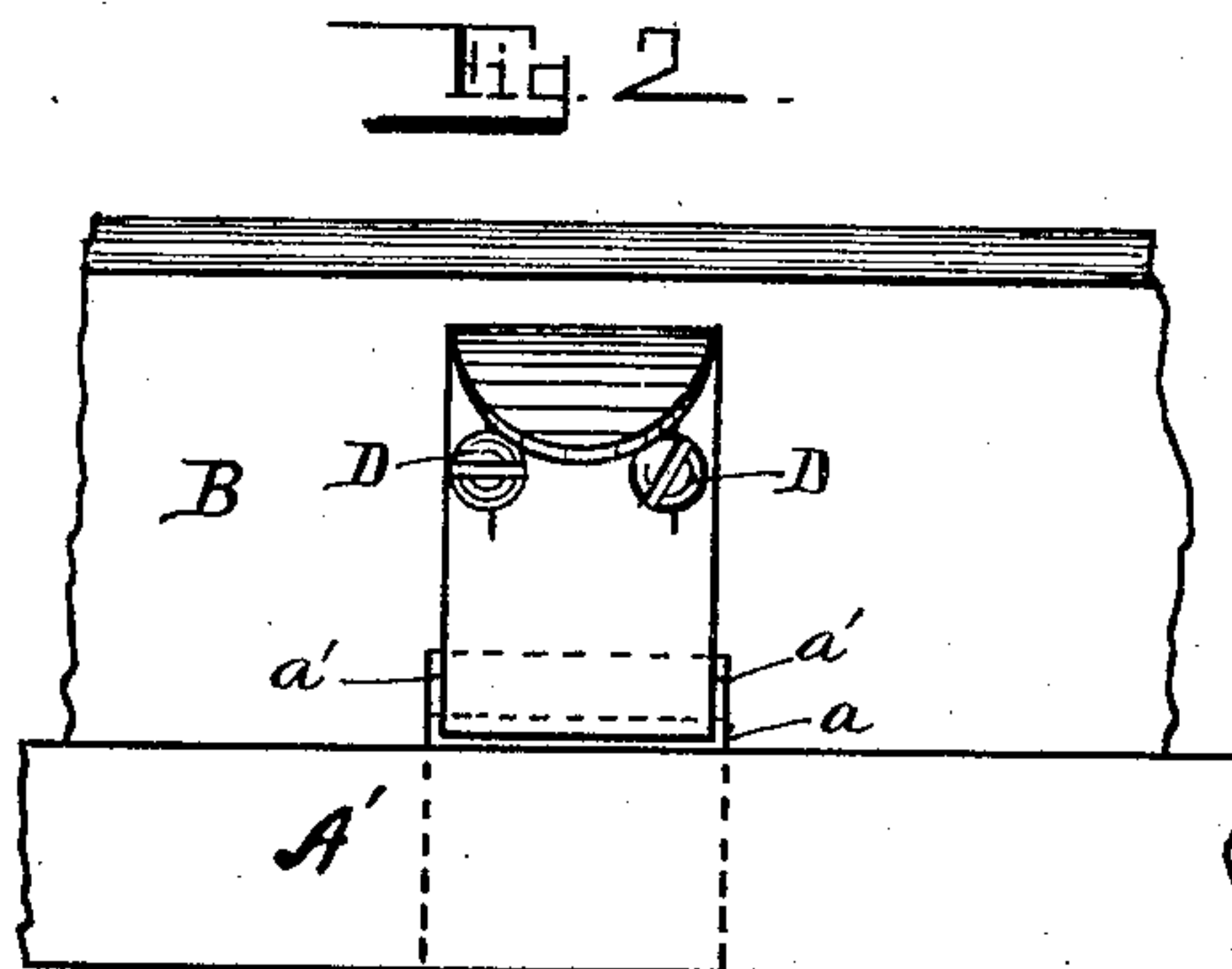
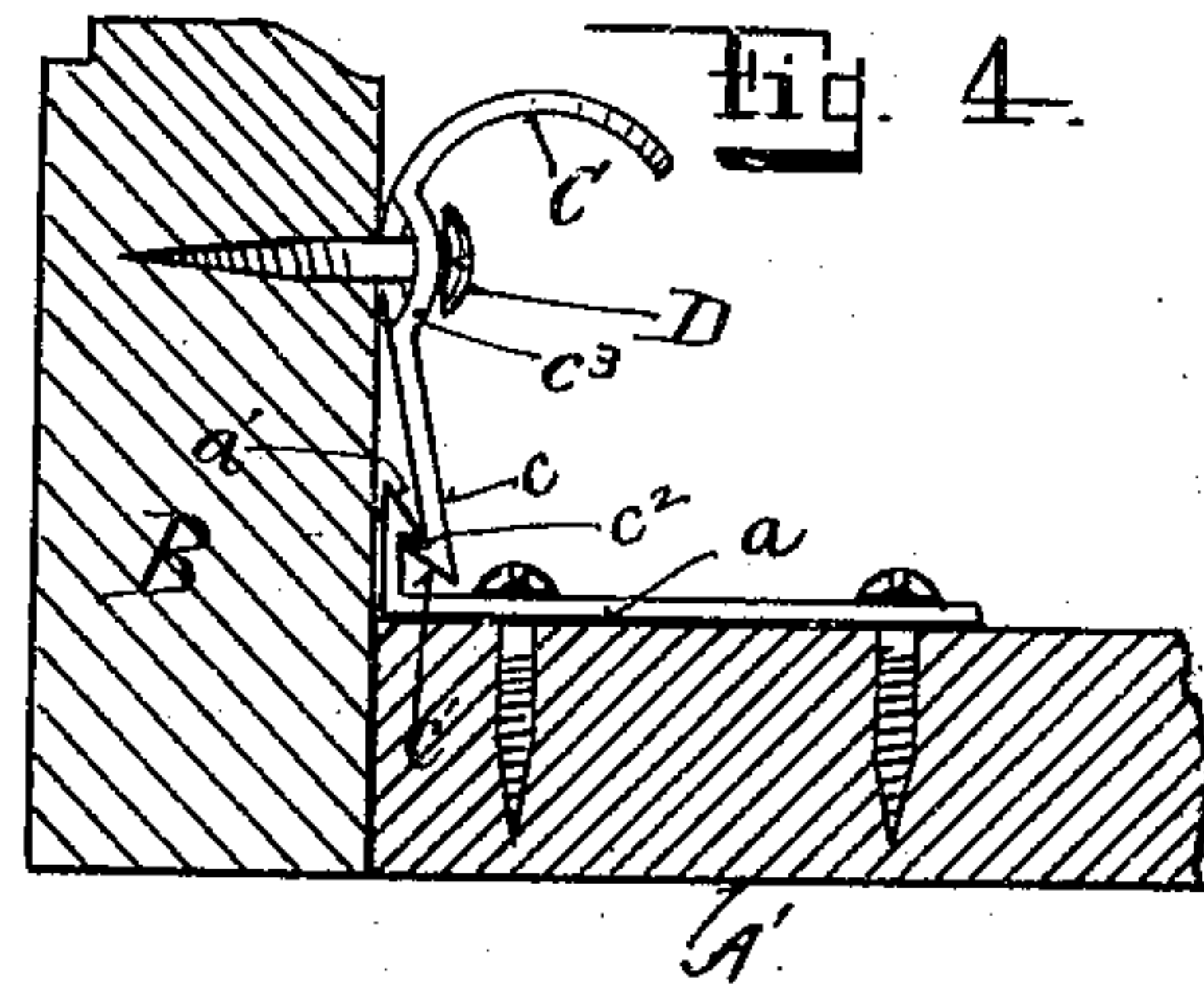
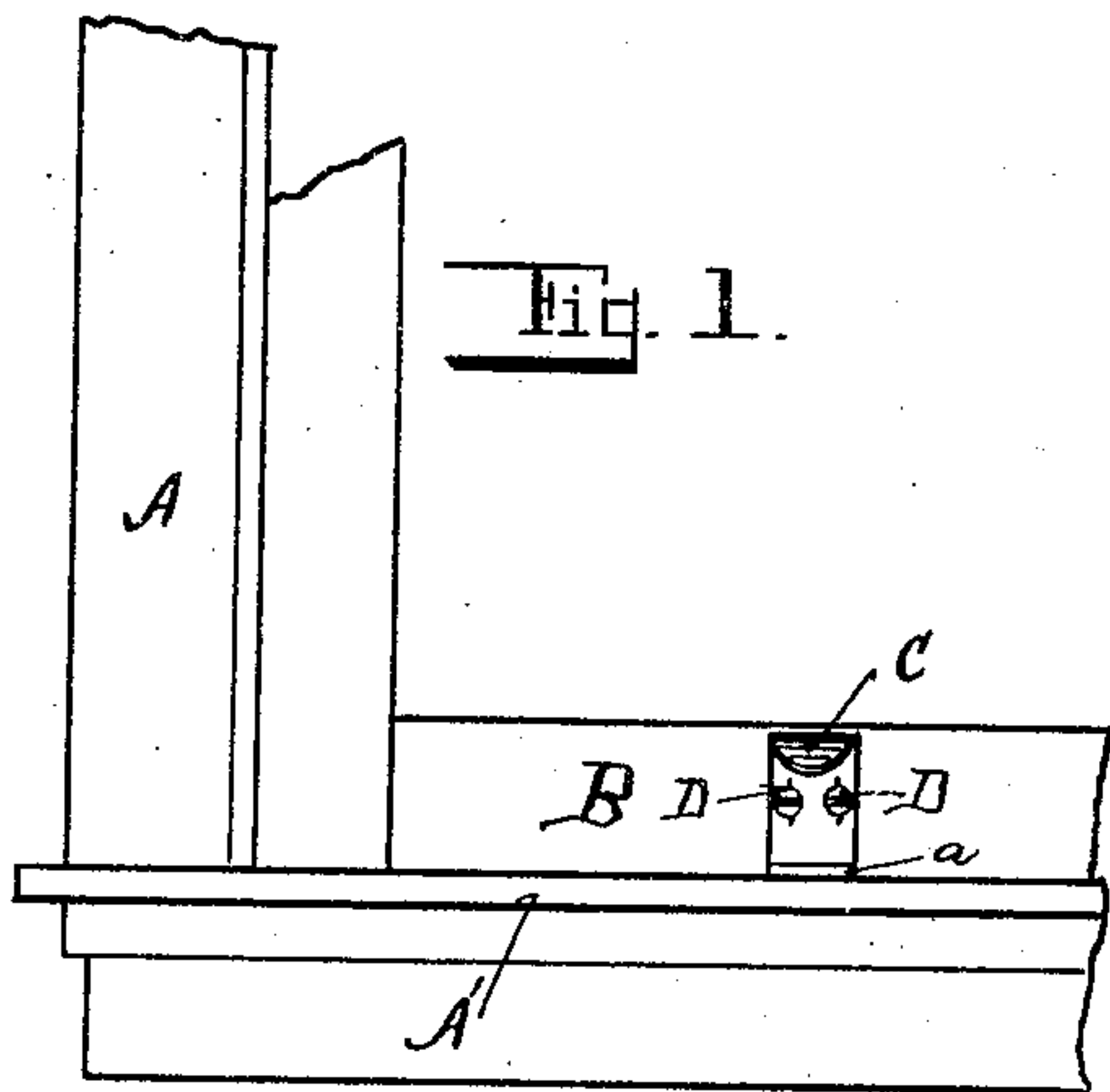


W. J. HILLS.
COMBINED WINDOW SASH LIFT AND LOCK.
APPLICATION FILED FEB. 15, 1908.

917,430.

Patented Apr. 6, 1909.



Witnesses.

G. J. Mead
Florence Stockert.

Inventor.

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By J. B. Huntington
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UNITED STATES PATENT OFFICE.

WILLIAM J. HILLS, OF WATERFORD, PENNSYLVANIA, ASSIGNOR TO LEON W. HILLS, OF
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COMBINED WINDOW-SASH LIFT AND LOCK.

No. 917,430.

Specification of Letters Patent.

Patented April 6, 1909.

Application filed February 15, 1908. Serial No. 416,074.

To all whom it may concern:

Be it known that I, WILLIAM J. HILLS, a citizen of the United States, residing at Waterford, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in a Combined Window-Sash Lift and Lock; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming part of this specification.

My invention relates to window-sash locks, and has for its object the construction of a combined window-sash lift and lock, which is unlocked by the operation of lifting the sash thereby.

The features of my invention are hereinafter set forth and explained, and are illustrated in the accompanying drawings in which:

Figure 1 is a view in elevation of a portion of a window-frame and sash, showing my combined sash-lift and lock thereon. Fig. 2 is an enlarged view in elevation thereof. Fig. 3 is a transverse section of the lower rail of a window sash and a window-sill showing a side view in elevation of the combined window-lift and lock shown in Figs. 1 and 2. Fig. 4 is a like view of the same showing a modified construction of my improved lock. Fig. 5 is a side view in elevation of the window lift portion of my invention.

In these drawings A indicates a window frame, and B the lower rail of a window-sash.

Upon the inside of the lower rail B I loosely secure one or more sash-lifts C the upper end thereof being curved as shown in the drawings to form suitable finger holds whereby to raise the sash B. The lower end *c* of the lift C extends downward nearly to the window-sill A' where it terminates in a beveled face *c'* and a hooked shoulder *c²* on the side of the lift next to the window sash B. The lift C is secured to the sash in such a manner that the lower end *c* thereof can be swung to and from the sash-rail, and the curved upper end thereof tends to hold it normally bearing toward the rail B. This is accomplished by making the openings for the screws D a trifle larger than the screws, and by not turning the screws up tightly,

thereby leaving some space for play between the screw head and the sash-lift and rail. To insure this freedom of action on the part of the sash-lift C, I make the lift C with a curve *c³* at each edge at a point adjacent to the openings for the screws D in order to reduce the required play between the screw head D and the sash-lift C to a minimum.

To complete the locking mechanism I secure to the sill A' of the window frame, a catch *a*, preferably as shown in Fig. 3, but it may be secured on the top of the frame sill as shown in Fig. 4. The hooked upper end of this catch *a* is also provided with a beveled face *a'* in order to shunt the lower end of the lift C backward so that its hook *c²* will catch under the hooked upper end of the catch *a*.

In operation when a window provided with my combined sash lift and lock is closed down the hook *c²* on the lower end of the sash-lift engages the hook on the upper end of the catch *a* secured to the window-sill A' and securely resists all efforts to raise the sash otherwise than by lifting on the sash-lift C. When it is desired to raise the window-sash, the lift C is grasped by the fingers and the strain exerted thereon to lift the sash will cause the lower end *c* thereof to swing outward from the sash rail B thereby drawing the hook *c²* thereon out of engagement with the catch *a* and allowing the window sash to be lifted.

Having thus described my invention so as to enable others to construct and use the same, what I claim as new and desire to secure by Letters-Patent is:

1. In a combined window-sash lift and lock, a sash-lift having openings there-through, a downwardly projecting arm on said lift adapted to swing away from the window-sash when upward pressure is exerted on said lift, screws passing through the openings in said lift and into the window-sash so as to permit the lift and depending arm thereon to swing on said screws, and means secured to the window-frame adapted to project upwardly between said depending arm and the window-sash and engage said arm when the window-sash is closed down so as to prevent the same from being raised without being first swung away from the window-sash, substantially as set forth.

2. In a combined window-sash-lift and lock, a sash-lift having a curved upper end

adapted to be grasped by the fingers of the operator, curved portions c^3 , screws passing through said lifts adjacent to said curved portions c^3 and into a window-sash, a hooked
5 shoulder on the lower end of said lift, having a beveled face thereon, a catch secured to the window sill having a hooked shoulder at its upper end and a beveled upper face thereon, adapted to be engaged by the hook on the
10 sash lift when the window-sash is closed, and

be disengaged therefrom when upward pressure is exerted on said lift, substantially as and for the purpose set forth.

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

WILLIAM J. HILLS.

Witnesses:

H. M. STURGEON,
W. F. STUART.