

No. 688,491.

Patented Dec. 10, 1901.

C. C. SIGLER.
BOLT FOR LOCKING WINDOWS.

(Application filed Feb. 28, 1901.)

(No Model.)

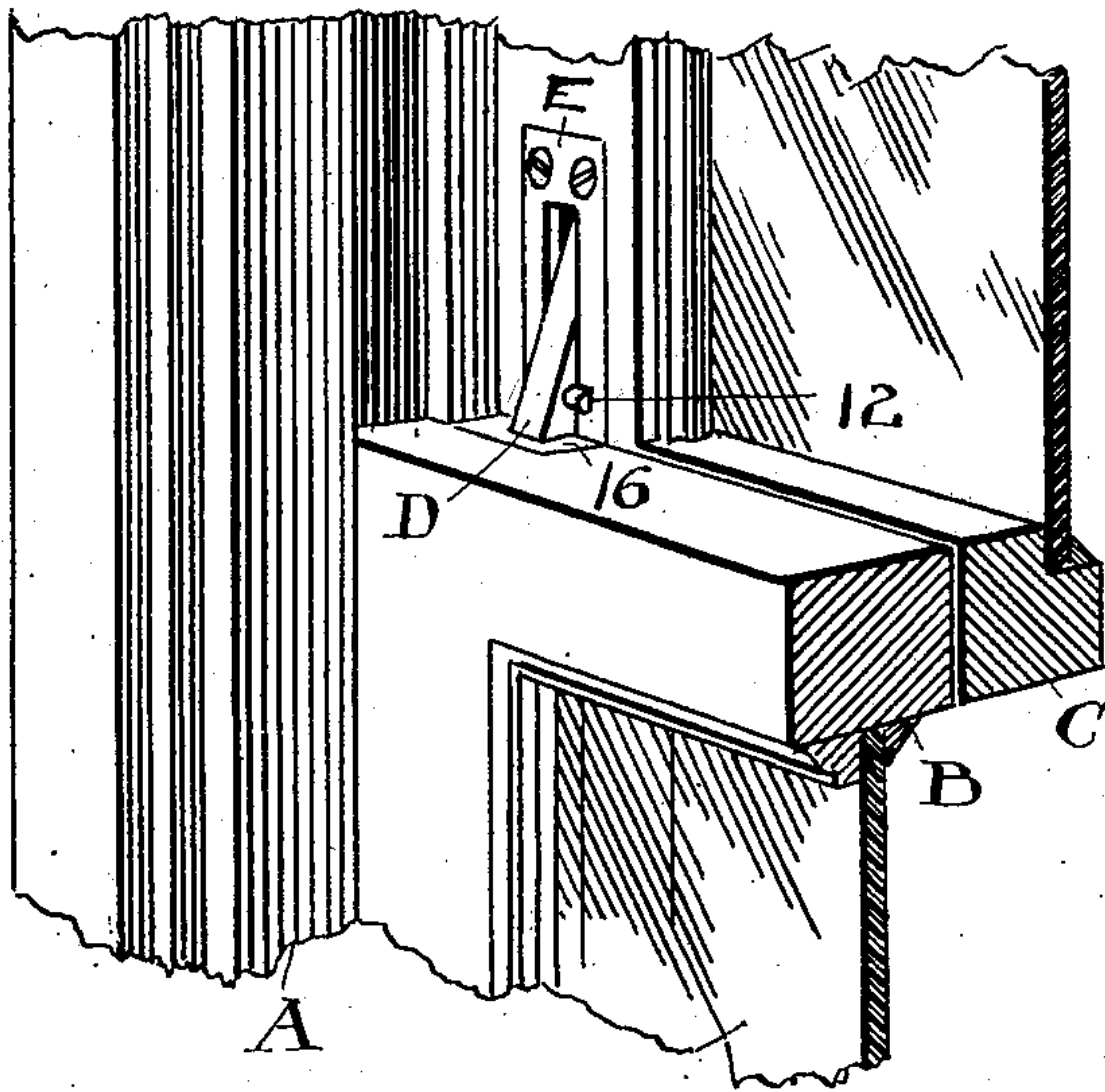


FIG. 1.

FIG. 5

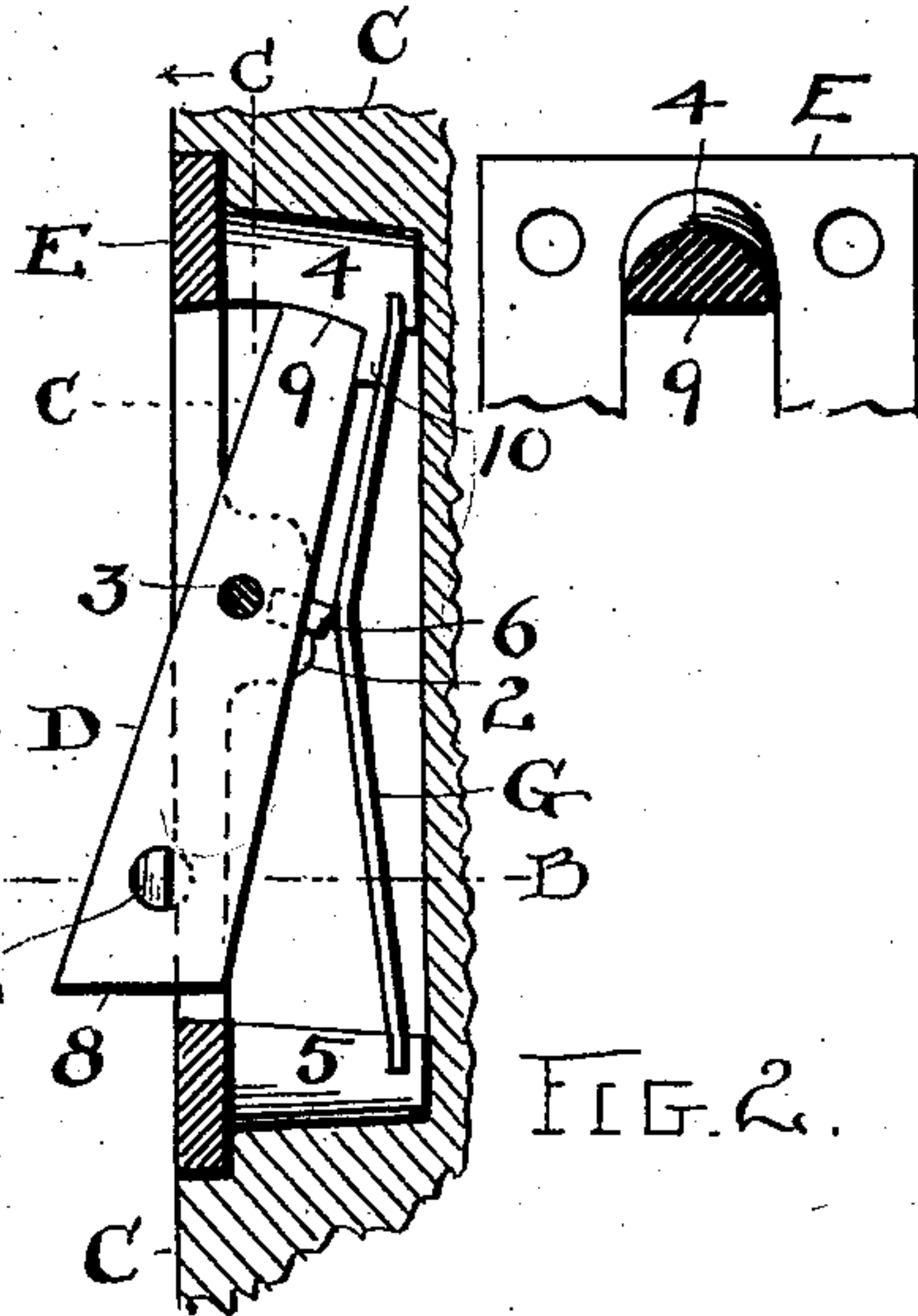


FIG. 2.

FIG. 3.

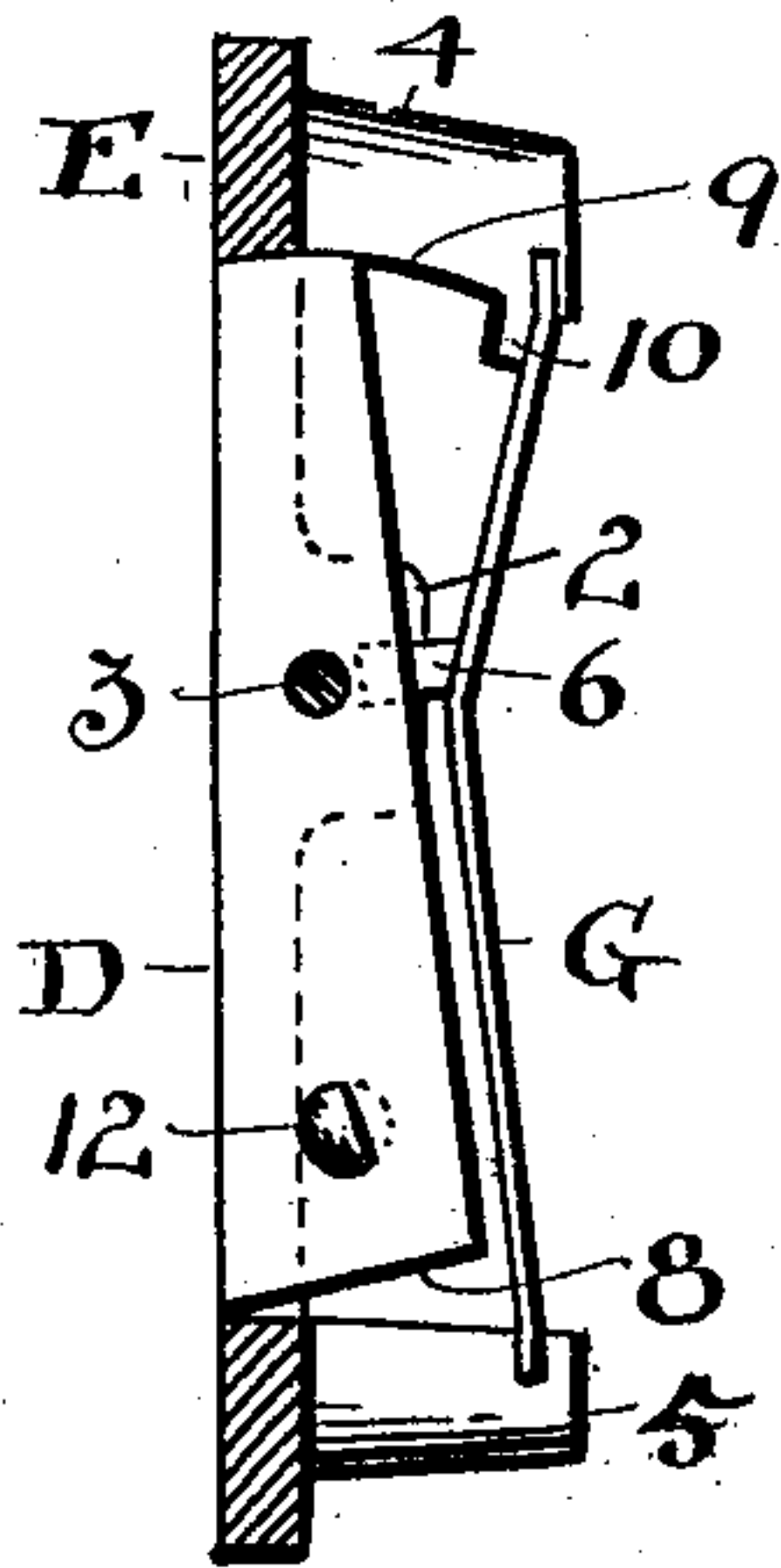
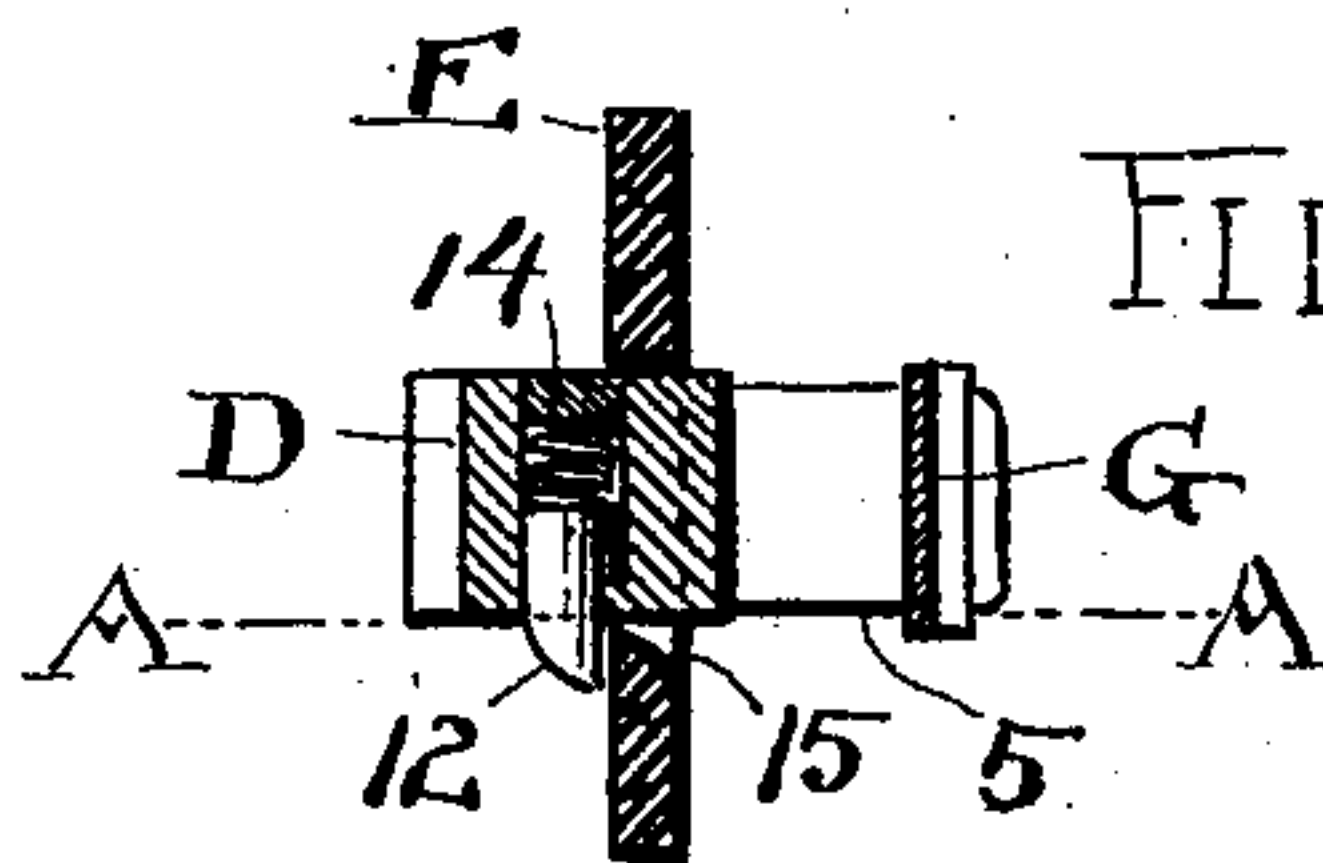


FIG. 4



ATTEST

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BOLT FOR LOCKING WINDOWS.

SPECIFICATION forming part of Letters Patent No. 638,491, dated December 10, 1901.

Application filed February 28, 1901. Serial No. 49,253. (No model.)

To all whom it may concern:

Be it known that I, CARLTON C. SIGLER, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Bolts for Locking Windows; and I do 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.

My invention relates to bolts for locking windows; and the invention consists in the construction, combination, and arrangement of parts, substantially as shown and described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a portion of a window-casing and of two sashes at the middle of the window where they meet and overlap and showing my improved bolt in engaging or locking position, being secured in the upper sash in this instance and engaging the lower one. Fig. 2 is a vertical sectional elevation of the invention, showing the bolt in working position, as in Fig. 1, and Fig. 3 is a like sectional elevation to Fig. 2, showing the bolt retired and for the time out of use. Fig. 4 is a cross-section on line B B, Fig. 2. Fig. 5 is a detail view of the plate on line C C, Fig. 2.

In the construction thus shown, A represents the window-casing, say, of any ordinary kind, and B and C are the window-sashes.

D is the pivoted locking-bolt, and E the plate frame or shell in which it is supported. The said part E in the simple form here shown and preferred is practically little more than a plate having an opening centrally lengthwise of a size adapted to receive bolt D, and with the face of which the face of the bolt is flush when the bolt is retired. Usually also the face of the plate is set in or back far enough in the sash or casing to be flush with the face thereof, and the bolt may be placed on the upper sash, as here shown, or in the runway of the window-casing for the edge of the lower sash. In its present arrangement it locks both sashes equally. The said part E has four projections on its back, two of which are ears 2, in or between which bolt D is pivoted on pin 3, and the other two projections 4 and 5 at its ends constructed to support flat spring G, which is engaged with

said projections by slots therein, as here shown, or by any other suitable way. The said spring is also shown as sprung inward at its middle portion toward bolt E and as bearing in its depression against a slight projection or lug 6 in or upon said bolt substantially opposite its pivot-point. The effect of this is to hold the bolt under a measure of spring-pressure whichever position it is turned into, as represented by Figs. 2 and 3. In this case projection 6 has a tooth shape with something of a bevel edge, and spring G is formed with a rather decided bend at its middle, as shown, to get the best effect in conjunction with lug or tooth 6. It follows that bolt D will hold either open or closed position by reason of said spring and without other means for holding it, and it will not tilt therefrom nor be displaced by rattling of the window.

Bolt D itself has certain peculiar features and is shown as widest at its base, where edge 8 is shown as horizontal or on a plane with the top of lower sash B when it is not in use, so as to bear thereon evenly across its entire end, while when in retreat said end is shown as inclined to the face of the bolt, Fig. 3. At its opposite or upper end bolt D is fashioned to abut squarely against the under surface of projection 4, which said surface is inclined to a horizontal plane and lowest at its outside, the inclination thereof corresponding exactly to the inclination of the bolt when open, as in Fig. 2. This affords a broad base to take any upward thrust of the bolt, and the said inclined surface 9 corresponds exactly to the radius of the end of the bolt as it swings on its pivot and is engaged closely by said end, thus taking at once all the endwise thrust and relieving pivot-pin 3. Said pin, therefore, is merely a pivot part and may be a piece of relatively small wire or any other thing or construction which will hold the bolt in working position. If desired, the bolt might be made comparatively loose on its pivot, so as to absolutely relieve the pivot, even under unusual strain, and projection 4 rests up against the wood above, as seen in Fig. 2, so that the thrust will be firmly resisted and insure the perfect safety of the lock whatever means be brought to bear to open the window.

A lip 10 limits the rearward rotation of bolt

D, as here shown, but spring G would serve for such limit, especially if set in a little.

A further feature of bolt D is its own automatically-locking bolt 12, called a "latch" here for purposes of distinction and pressed outward by spring 14. The object of this latch is to prevent possible closing of bolt D by inserting an instrument between the sashes or otherwise from the outside, and said latch locks itself in position, as seen in Fig. 4, when the bolt is out. It is, however, easily pressed back by a finger when the bolt is closed and is beveled to engage beveled notch 15 when the bolt is again opened, so that in opening the said catch comes along automatically.

A small plate 16 is set into sash B, where bolt D engages to take the wear and afford a broad bearing-surface.

Projection, lug, or tooth 6 may be integral with bolt D or a separate part set therein.

What I claim is—

1. A window-sash having a recess formed in its face, in combination with a bolt-supporting frame set into said recess and having

projection 4 at its top and rear resting against the top of said recess and having its inner surface lowest at its outer end, in combination with a bolt pivoted near its middle in the said casing and having its upper end constructed to swing back into contact with the under surface of said projection 4, whereby upward thrust on the bolt is firmly abutted, and a lock in the lower end of the bolt adapted to engage the face of said casing and hold the bolt open, substantially as described.

2. In window-locks, a bolt-frame having an opening lengthwise in its front, a bolt occupying said opening and adapted to swing outward at its lower end past the face of said frame, and a spring-pressed lock for the bolt in the side thereof at its lower end, substantially as described.

Witness my hand to the foregoing specification this 19th day of February, 1901.

CARLTON C. SIGLER.

Witnesses:

R. B. MOSER,
H. E. MUDRA.