No. 623,877. Patented Apr. 25, 1899.

A. BRENEMAN.

SHUTTER BOWER AND BOLT.

(Application filed Oct. 18, 1898.)

(No Model.)

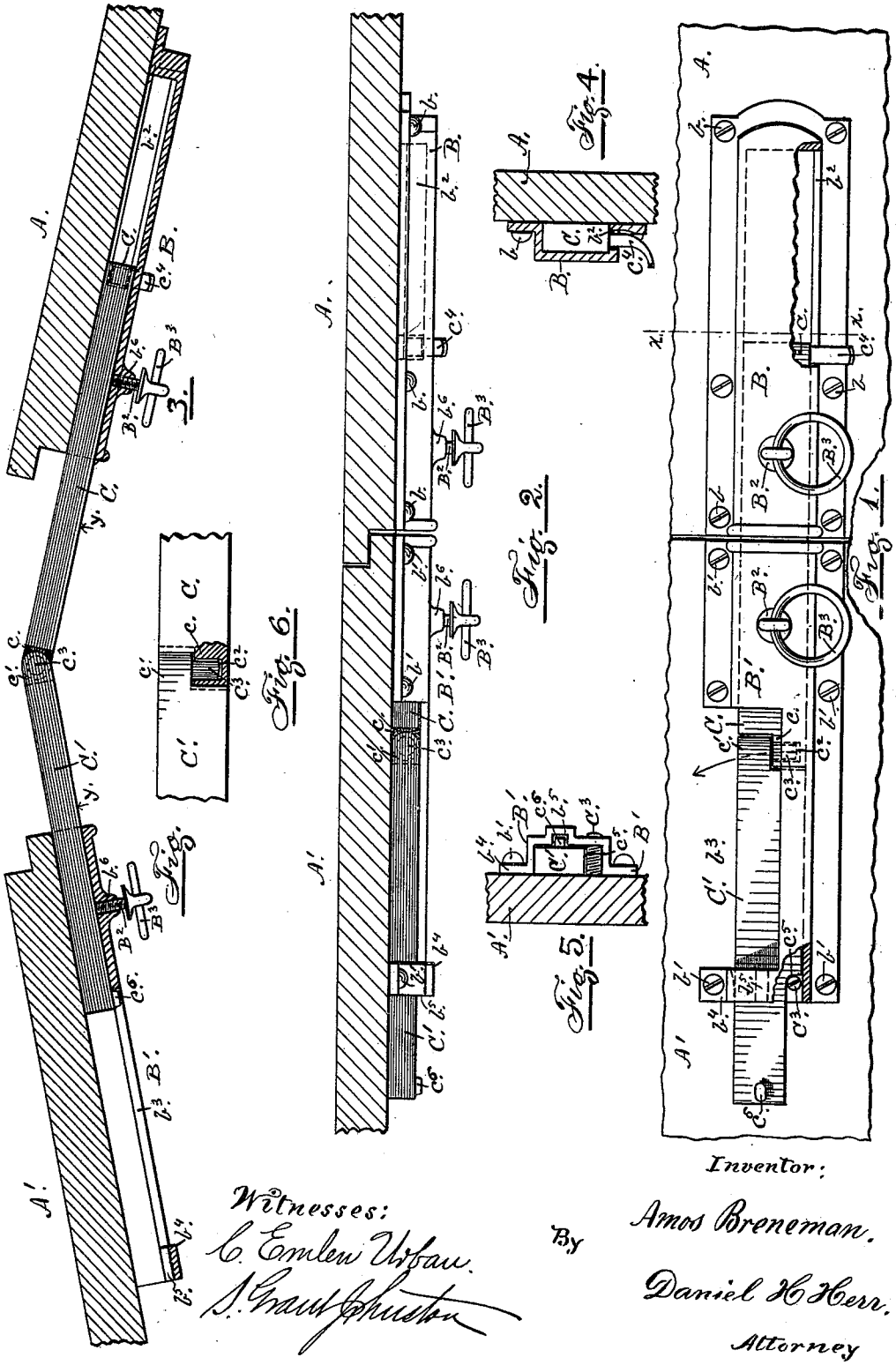


Fig. 3.

Fig. 6.

Fig. 2.

Fig. 4.

Fig. 5.

Fig. 1.

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SHUTTER BOWER AND BOLT.

SPECIFICATION forming part of Letters Patent No. 623,877, dated April 25, 1899.

Application filed October 18, 1898. Serial No. 693,858. (No model.)

To all whom it may concern:

Be it known that I, AMOS BRENEMAN, a citizen of the United States, residing at East Petersburg, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Bowing and Locking Bolts for Shutters, Blinds, and the Like; 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.

This invention relates to improvements in a safety bowing and locking bolt of that class in which the sliding bar or shaft is made in two sections having their adjacent ends adapted to be pivotally hooked together, whereby shutters, blinds, and the like may be placed in bowed or closed positions and securely locked and readily separated when it is desired to open said shutters, blinds, &c., to their full extent.

The object of the invention is to provide a bolt whereby such shutters, blinds, and the like may be securely locked in bowed as well as in closed positions.

The elements of the invention will severally and at large appear in the following description, and they will be distinctly pointed out in the claim.

The purposes of the invention are attained by the means and devices illustrated in the accompanying drawings, with similar reference characters to designate like parts throughout the several views, in which—

Figure 1 is a front elevation of a bolt embodying the elements of the invention as it appears on closed shutters and in locked position, but with portions of the casing removed. Fig. 2 is a top view of Fig. 1. Fig. 3 is a top view of the bolt as it appears when holding the shutters in bowed and locked position, the shutters and bolt-casing appearing in central longitudinal section. Fig. 4 is a sectional elevation, taken on the line $x\ x$ in Fig. 1, showing the bolt as it appears when viewed from the right. Fig. 5 is an elevation of the left-hand end of Fig. 1; and Fig. 6 is an elevation viewed from below of the portions of the bolt-sections included between the points $y\ y$ in Fig. 3, a portion about the coupling-pin appearing in section.

In the drawings, A A′ designate portions of well-known window-shutters, being closed in Figs. 1 and 2 and partially open or bowed in Fig. 3. To the inner faces of these shutters are secured, respectively, by screws $b\ b'$ the right and left hand members B B′ of the bolt-casing, the member B being provided through its bottom with an oblong slot b^2, extending from its right ends forwardly to a prescribed point beyond the center thereof, and the member B′ in the left-hand portion thereof with a top and side opening b^3 cut away to a prescribed point below the horizontal center line of said side, leaving at the left-hand end a narrow strap b^4, having in its vertical portion an outwardly-disposed groove b^5. In their intact portions at prescribed points from the adjacent ends of the members their outer faces are provided with projections or bosses b^6, through which are tapped screws B^2, having through their outer ends or heads rings B^3. Within these members of the casing, movable back and forth therein, are housed, respectively, the right and left hand sections C C′ of the bolt, having at their adjacent ends oppositely-disposed but overlapping lips $c\ c'$, the former below and the latter above, the under one having a socket c^2 in its top and the upper one a pin c^3, projecting from its bottom to engage in said socket. The section C is provided at its right-hand end with a downwardly-projecting finger or grip c^4, extending through the slot b^2, before mentioned, to move said section back and forth in its member. The section C′ has its under edge cut away from the left hand to a prescribed point forward, forming a shoulder c^5 to abut against a screw C^3, passed through the casing, as shown, and the outer face at the left-hand end of this section is provided with a lug or projection c^6, which, passing through the groove b^5, before mentioned, contacts with the rearward edge of the intact portion of its casing member, as shown.

Now the several parts hereinbefore described occupying the respective positions indicated in the drawings, the following observations will be noted: First, that the bolt-sections C C′, moving back and forth in the casing, have practically no up or down or lateral motion; second, that the pin c^3, engaging in the socket c^2, pivotally couples the

sections together; third, that the finger c^4, passing through the slot b^2, serves to longitudinally move the sections in the casing; fourth, that the shoulder c^5, abutting against the screw C^3, stops the rearward progress of the sections, constituting the pivot in their coupling and uncoupling; fifth, that the projection c^6, contacting with the rearward edge of the casing, stops the forward progress of the sections, confining the section C′ to its member of the casing; sixth, that the strap b^4, engaging the top edge of the rearward portion of the section C′, serves to keep said portion downwardly at the pivot-point, allowing the forward end to rise (indicated by an arrow) in coupling or uncoupling and holding the section in place; seventh, that this coupling or uncoupling can only be effected when the shutters are completely closed; eighth, that the coupled sections moving longitudinally in their casing members the shutters may be bowed to the desired extent; ninth, that the screws B^2, engaging on the bolt-sections, serve to securely lock them in position; tenth, that the rings B^3 through the outer ends or heads of said screws serve to rotate them, holding or releasing the bolt-sections, and said rings also serve to draw the shutters inwardly, closing them.

It will here be noted that Patent No. 581,871, dated May 4, 1897, was issued to Howard C. Sharp and William Congezer for a combined shutter fastener and bower, in which a bolt-section, provided with a slot engaging on a fixed pin, is provided with a hook on its forward end to engage in an eye at the forward end of another bolt-section moving in a keeper provided with a slot and having at its rearward end an outwardly-projecting pin engaging in said slot, both pins being provided with thumb-nuts to hold said sections in fixed positions. The coupling of the bolt-sections is therefore not claimed, broadly, in this invention; but

What is considered new, and desired to be secured by Letters Patent, is—

A safety bowing and locking bolt comprising: casing members adapted to be secured to the inner faces of shutter-wings adjacent to their approaching edges, one of said members having an oblong slot through its bottom in the outer end portion thereof, and the other having a top and partial side cut out in its outer end portion with a bolt-embracing strip at the extremity thereof, said strip having a transverse groove in its inner face and a stop-screw through its lower end; bolt-sections engaging in said casing members, said bolt-sections having overlapping lips at their adjacent ends, the under lip having a socket in its upper face and the upper lip a pin projecting from its under face to engage in said socket, with a downwardly-projecting finger at the outer end of the bolt-section having the socketed lip to engage through the slot of its casing member, and an undercut at the outer end of the bolt-section having the lip with the socket-engaging pin, said undercut forming a shoulder to engage against said stop-screw, and a projection on the outer face of said outer end to engage against the rearward edge of its casing member in the forward portion thereof, and the bolt-sections, movable back and forth in said casing members, and when moved from the bowed position to the closed position, having their pivotal connection lying in the cut-out of the casing member B′ whereby said sections may be connected or disconnected; lock-screws through the bodies of the casing members in the adjacent portions thereof to engage against the bolt-sections; and rings secured through the heads of said lock-screws; all substantially as described and for the purpose hereinbefore set forth.

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

AMOS BRENEMAN.

Witnesses:
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