

2 Sheets—Sheet 1.

No. 504,262.

Patented Aug. 29, 1893.

Fig. 1.

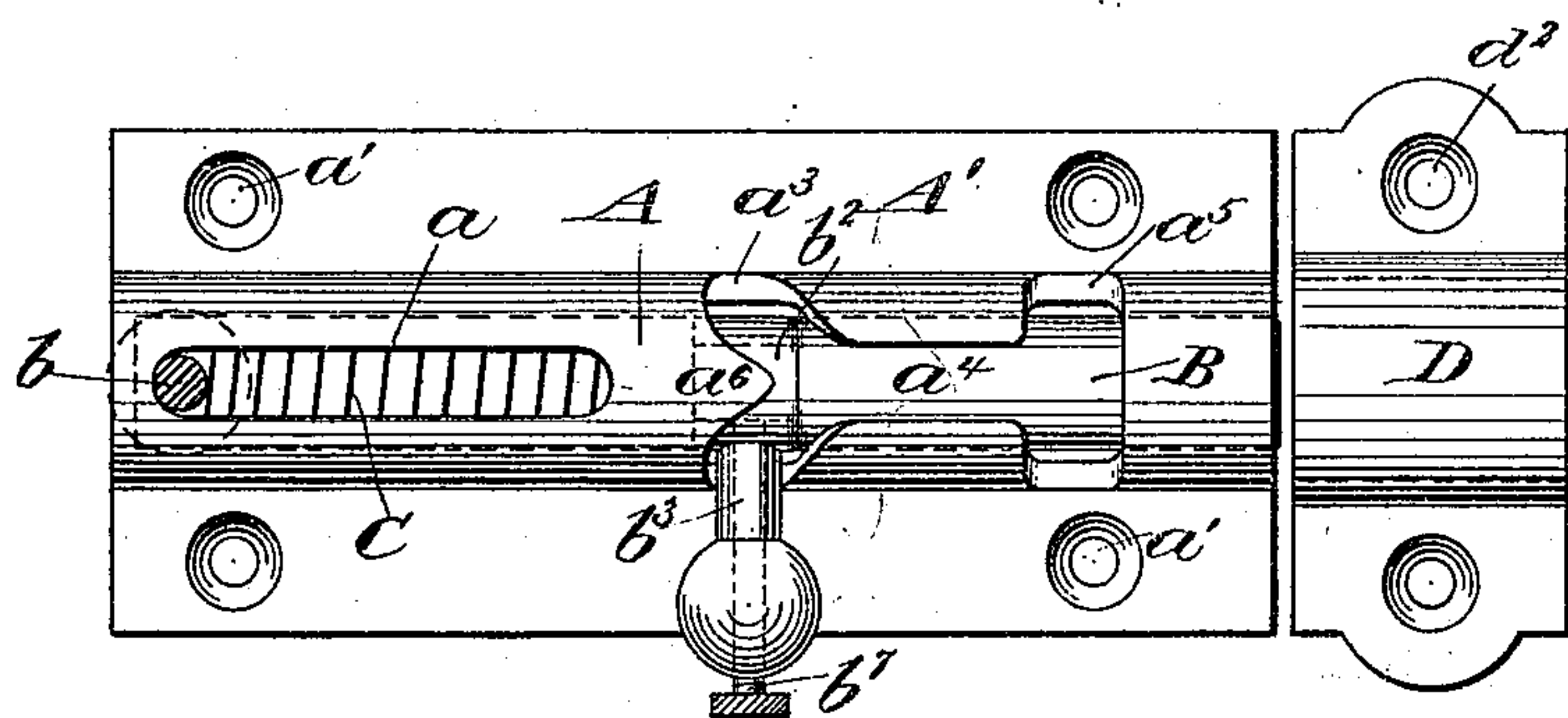


Fig. 2.

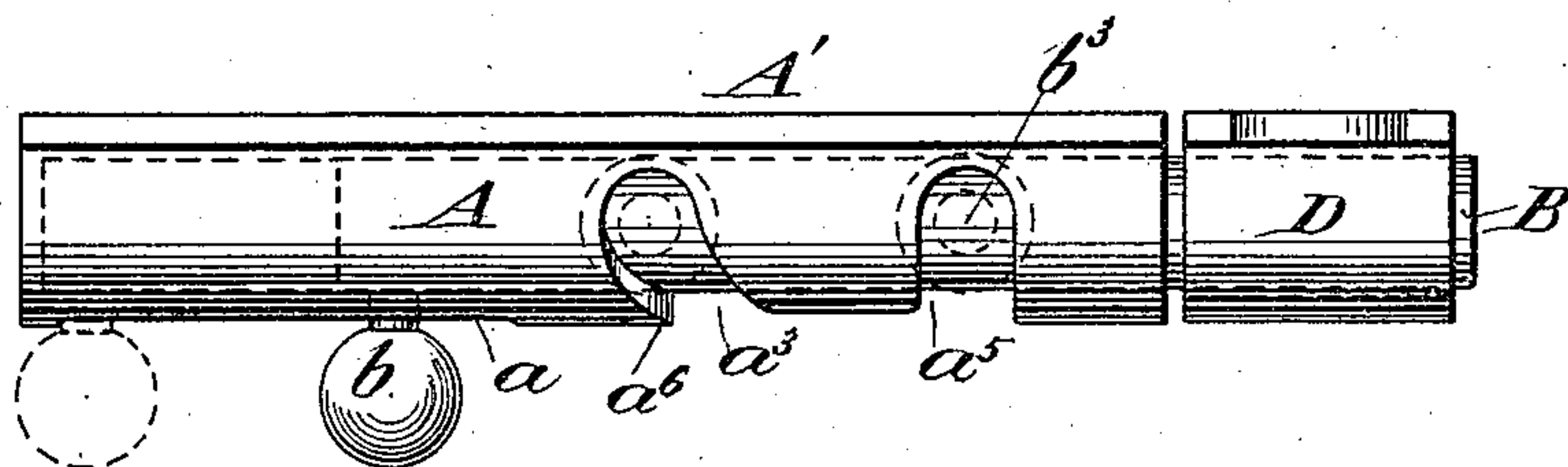


Fig. 3.

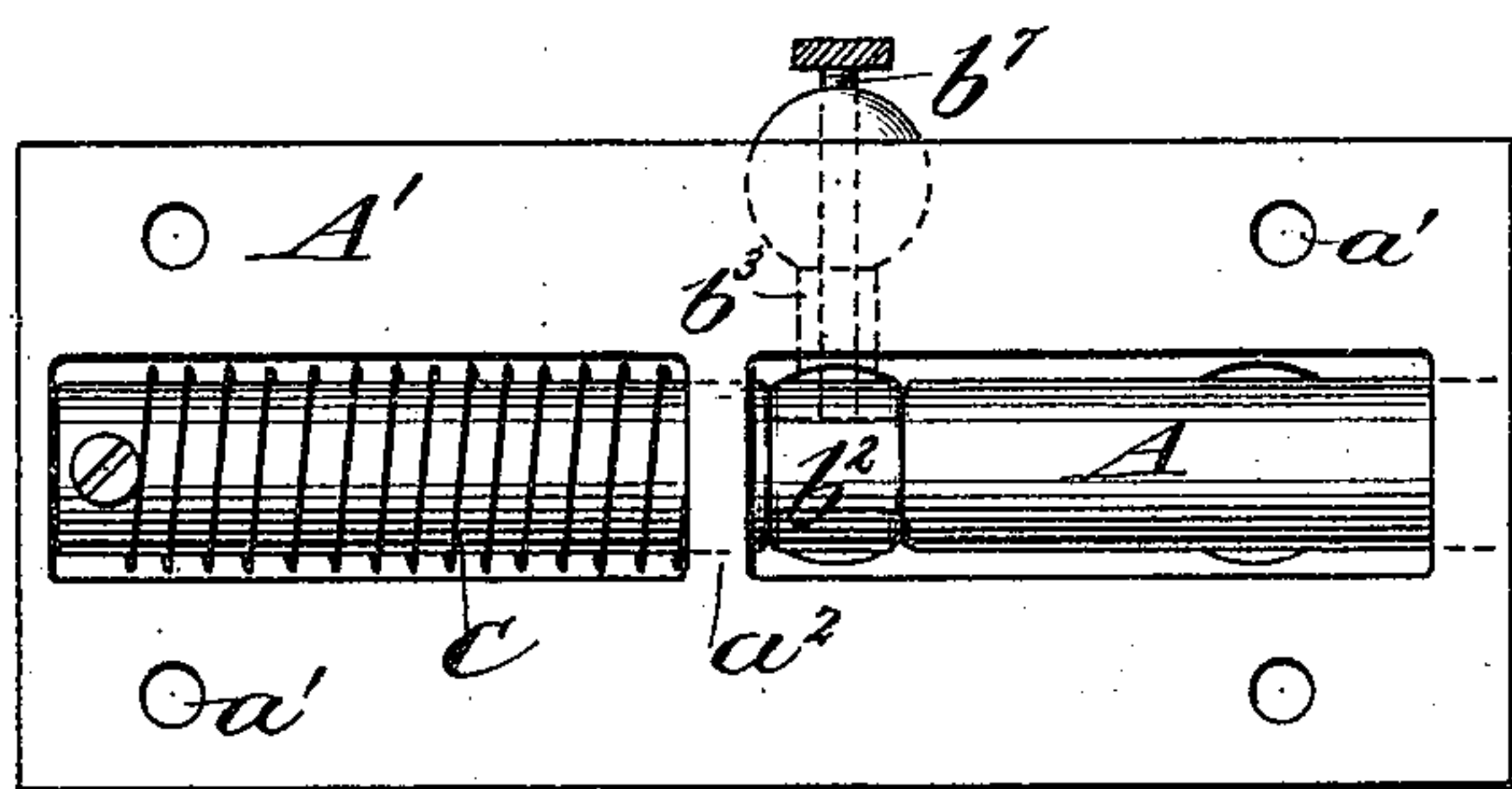


Fig. 4.

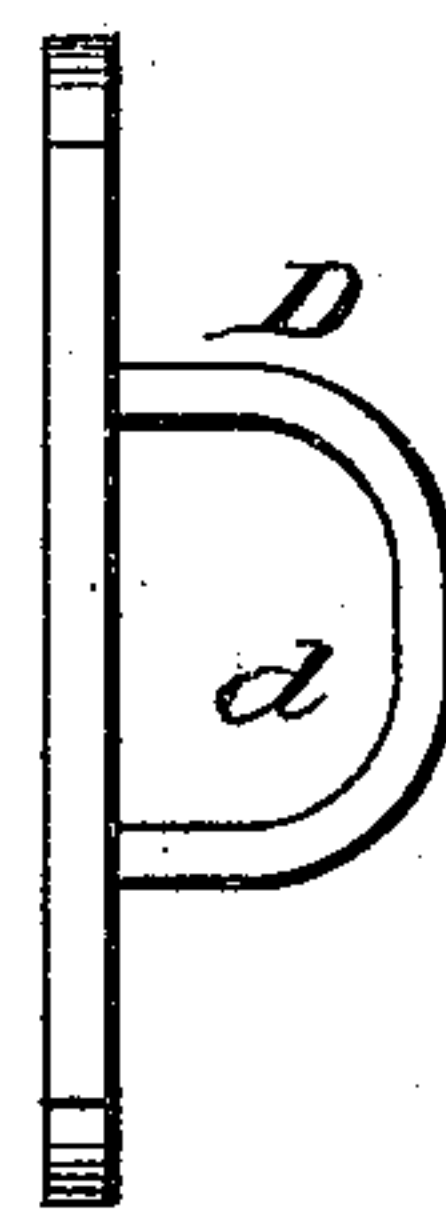
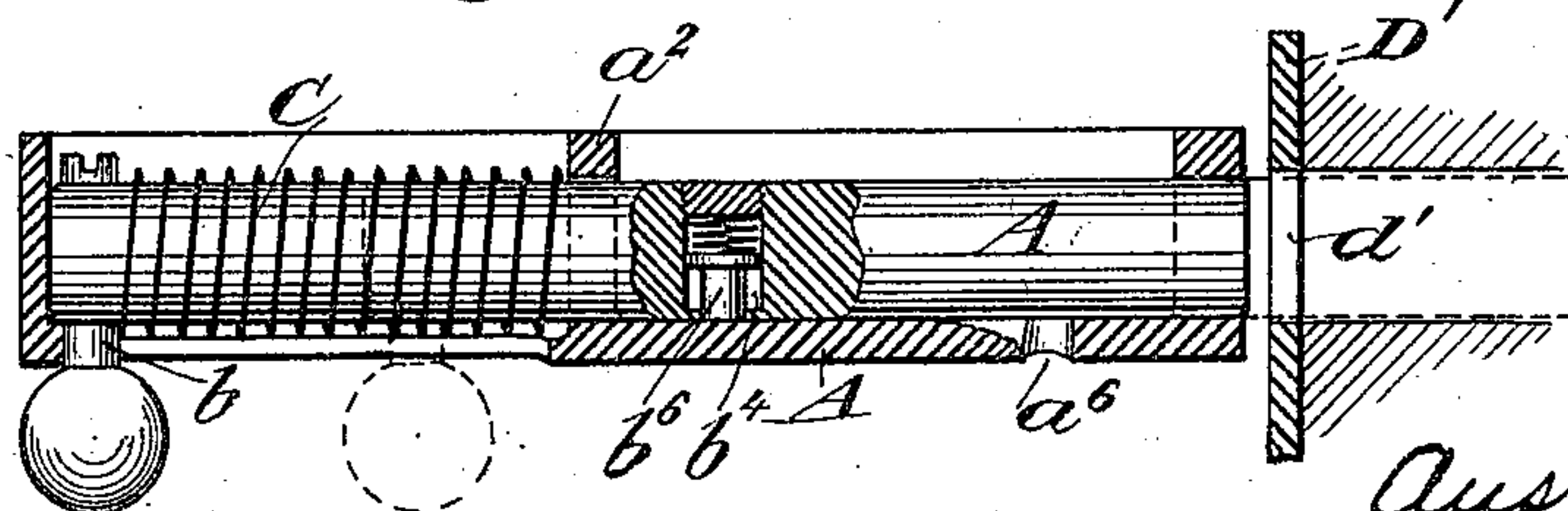


Fig. 5.



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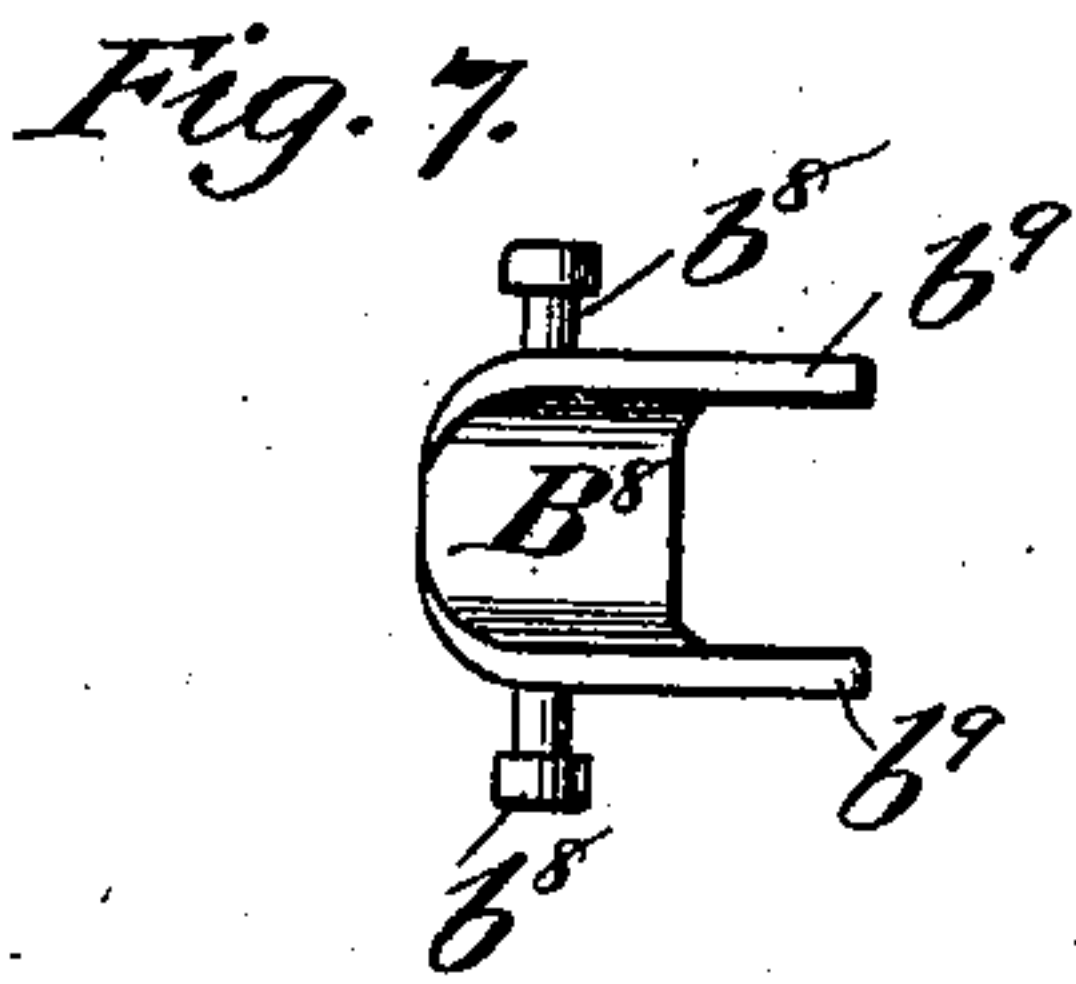
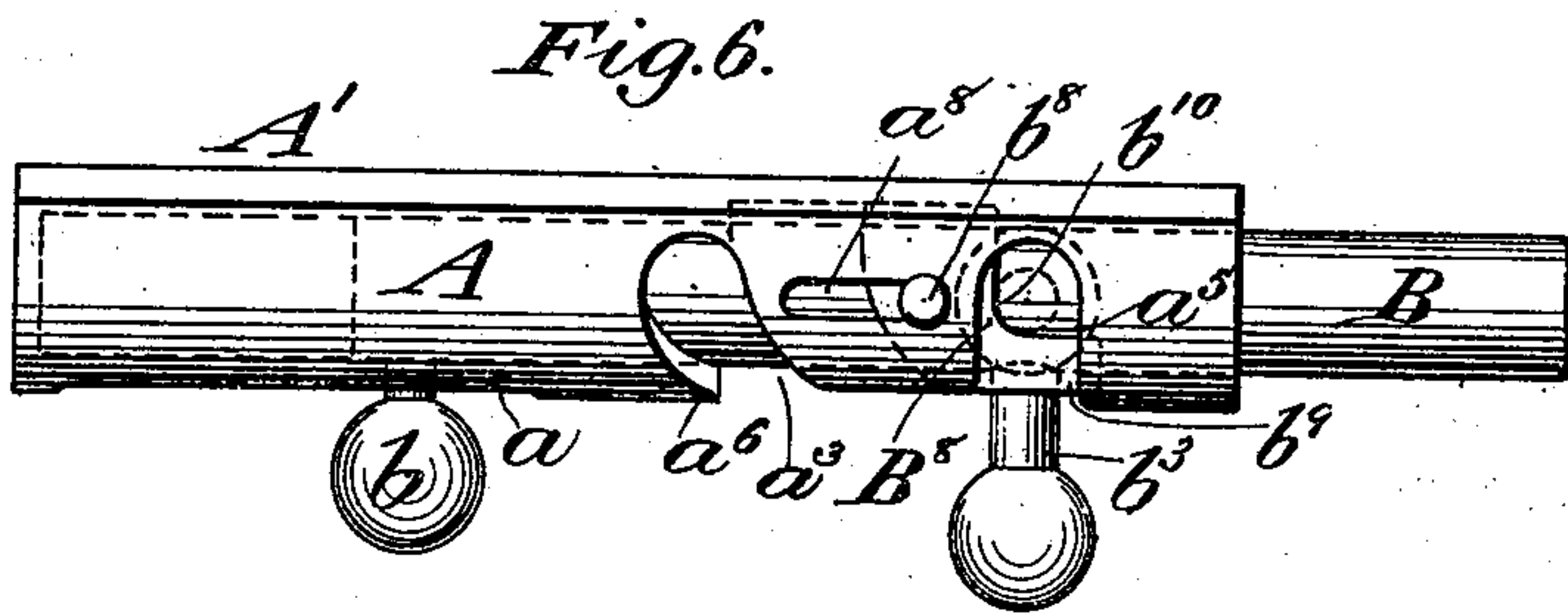
(No Model.)

2 Sheets—Sheet 2.

A. ADAMS.
BOLT.

No. 504,262.

Patented Aug. 29, 1893.



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UNITED STATES PATENT OFFICE.

AUSTIN ADAMS, OF NEW YORK, N. Y.

BOLT.

SPECIFICATION forming part of Letters Patent No. 504,262, dated August 29, 1893.

Application filed February 2, 1893. Serial No. 460,700. (No model.)

To all whom it may concern:

Be it known that I, AUSTIN ADAMS, a citizen of the United States, and a resident of New York, county of New York, and State of New York, have invented a certain new and useful Self-Locking Fastening Device, of which the following is a specification.

My invention relates to self-locking appliances and in particular to a fastening device primarily adapted for doors, swinging windows or like articles, and it has for its object the provision of an appliance simple and inexpensive in construction, readily applied and operated and efficient in practical use.

To attain the desired end my invention consists in the construction and arrangement of parts first described and then pointed out in the claims.

In the drawings, which form a part of this specification Figure 1 represents a front elevation of my fastener partly in section. Fig. 2 is a top view of the same. Fig. 3 is a rear view of my bolt. Fig. 4 represents a side elevation of my strap, which engages the bolt bar. Fig. 5 is a plan view partly in section of another fastener constructed according to my invention. Fig. 6 is a detail of another style of my holding device—and Fig. 7 is a detail of the curved plate.

Like letters of reference indicate like parts in all the views.

While as before stated, my invention is applicable to a great variety of articles, I will first consider it as applied to socket bolts for doors, &c.

Referring again to the drawings A represents a barrel ordinarily equipped with lateral flanges or base wings A' pierced or formed with openings a', for screws or like securing devices, whereby the barrel A may be secured to its seat upon any article that may be required to be fastened thereby. Within the barrel A slides the reciprocating bolt bar B, which is provided with a suitable manual operating device as the stud b, ordinarily terminating in a knob, which stud b, works in a longitudinal slot a, formed in the barrel A. I also prefer to use with my bolt bar B, a retractile device as the spiral spring C located on said bolt bar and lying between the stud b and the partition a², of the barrel A, the resilience of the said spring C serving to nor-

mally hold the bolt bar A in an open or unlocked relation. I ordinarily use in connection with the bolt bar B a staple or strap as D, located adjacent to the barrel A, and provided with screws holes d²; Figs. 1, 2 and 4, or a striker as D' Fig. 5, constructed and arranged to engage the outer end of the bolt bar B upon the same being closed or locked, the opening d in the said strap D being elongated, and the striker D', being provided with an oblong or rectangular slot d', in order that any sagging of the door, &c., may not prevent the end of the bolt from entering the said strap or like engaging device. I also provide self-locking means whereby the longitudinally moving bolt bar B may be automatically retained in its closed or shot relation, until manually readjusted. My style of self-locking device is shown in Figs. 1 and 2 where the barrel A is provided with a longitudinal slot a⁴, terminating at one end in the transverse slot a⁵, the other extremity of the same being bifurcated, each branch a³ extending out at an angle from the slot a⁴, this construction forming a projection located in the path of the reciprocating arm b³. The bolt bar B is provided with a sleeve b² having a weighted depending arm b³, the said sleeve being constructed and arranged to turn freely on the bolt bar B. The weighted arm b³ normally lies in the slot a³, of the barrel A the said slot being recessed in order that the bolt bar B' may be retracted so as to allow the face of the bolt bar B to lie flush with the edge of the said barrel A when the said bolt is in its open or unlocked position, and also that the V shaped projection a⁶ of the barrel A thereby formed may limit the upward movement of the weighted arm b³ and retard the rotation of the collars b² thus preventing any rattling of the same when the door, &c., is moved. In order to close the bolt the knob of the stud b, is pushed forward thus compressing the spring C the weighted arm b³ riding upon the projection in the side of the barrel formed by the edge of the slot a³, and when the said arm having passed through the slot a⁴, enters the transverse slots a⁵ it passes by the said projection and falls and thus locks the bolt bar B in a shot or closed relation, the outer end of the same having meanwhile become engaged with the strap D or like retaining device. To unlock the parts

again the weighted arm is turned upward until it enters the slot a^4 , whereupon the tension of the spring C will draw the bolt bar B backward until the parts resume their normal un-
5 locked or open position.

Another self-locking appliance applicable to my fastener is shown in Fig. 5, where the bolt bar B is provided with a transverse orifice b^4 , in which is located the spring pin b^6 ,
10 which rests against and is normally confined within the interior of the barrel A. Upon the said bolt B being closed, however, by pushing the knob of the stud b forward as before explained, the spring pin b^6 , will enter
15 the slot a^6 , of the barrel A thus interlocking the bolt bar B in its shot or closed relation. To unlock the parts the spring pin b^6 is pressed inward, whereupon the bolt bar B will be retracted as and in the manner herein-
20 before set forth.

It sometimes becomes desirable to rigidly and permanently hold the bolt bar B in either a closed or open relation. For example, should it be desired to keep a pantry door
25 provided with this bolt, locked so that children cannot open the same, I secure the weighted arm rigidly to the bolt by simply tightening the set screw b^7 passing through the weighted arm b^3 , thus making the same
30 fast with the bolt bar B itself after the said bolt bar has been automatically locked in its closed relation. Again should one want to prevent children from locking themselves in a room, I push the bolt bar B forward until
35 the weighted arm is in the slot a^4 , whereupon by tightening the set screw b^7 the weighted arm will be fastened to the bolt bar, and it will then be found impossible for the said bolt bar B to assume a closed or shot rela-
40 tion, inasmuch as the tension of the spring C will retract the bolt bar B, the self-locking means having thus been rendered inoperative until such time as the set screw shall be again released.

Another style of holding device is shown in Fig. 6 where the bolt barrel A is provided with a lateral longitudinal slot a^8 (preferably located upon both sides of the same) in which slot or slots works a stud or studs b^8 , the said
50 stud or studs projecting laterally from a curved plate B^8 lying within the barrel A and partially encircling the bolt bar B, the said curved plate B^8 being provided with a recessed portion b^{10} whereby two forwardly projecting arms b^9
55 are formed. The arms b^9 are so constructed with relation to the weighted arm b^3 , that if the curved plate B^8 is pushed forward by the stud b^8 , when the bolt bar B, is in an open position the said arms b^9 will pass in front

of the slot a^5 , thereby preventing the weight- 60 ed arm b^3 from falling into the slot a^5 upon the bolt bar B being pushed forward. If on the other hand the bolt bar B is shot or placed in a closed relation and the curved plate B^8 then pushed forward, the arms b^9 will over- 65 ride and lock the weighted arm b^3 lying in the slot a^5 .

It is obvious that any one skilled in the art to which my invention relates may apply my fastener to a great number of movable 70 articles, other than doors or box lids that require to be secured in a closed relation.

As it is evident that many slight changes in the construction and relative arrangement of parts might be resorted to without depart- 75 ing from the spirit and scope of my invention, I would have it understood that I do not restrict myself to the particular construction and arrangements shown and described, but that I reserve the right to make such 80 changes, and that

What I claim as new, and desire to secure by Letters Patent, is—

1. In a fastening device, the combination, with a bolt barrel provided with a projection 85 in the side of said bolt chamber, of a spring reacted bolt bar provided with an operating knob or handle and also provided with a collar carrying a weight constructed and arranged to engage said projection and become 90 retained thereby upon the said bolt bar being shot or pushed forward.

2. In a fastening device, the combination, with a bolt barrel provided with a projection in the side of said bolt chamber, of a spring 95 reacted bolt bar provided with an operating knob or handle, and also provided with a collar carrying a weight constructed and arranged to engage said projection and become retained thereby upon the said bolt bar being 100 shot or pushed forward, and of means to lock the collar to the bolt bar, whereby, upon manipulation, when said bolt bar is shot, it may be either retracted again by the spring without becoming retained by said projection, or 105 may be retained and locked in its forward relation, the said bolt bar being prevented from being turned by reason of the operating knob secured to the same.

In testimony of the foregoing specification 110 I do hereby sign the same, in the city of New York, county and State of New York, this 26th day of January, A. D. 1893.

AUSTIN ADAMS.

Witnesses:

J. ODELL FOWLER, Jr.,
WM. M. V. FOWLER.