E. M. HOAGLAND.

SAFETY BOLT FOR DOORS.

APPLICATION FILED MAR. 22, 1915.

1,154,862. Patented Sept. 28, 1915.

Fig. 1.

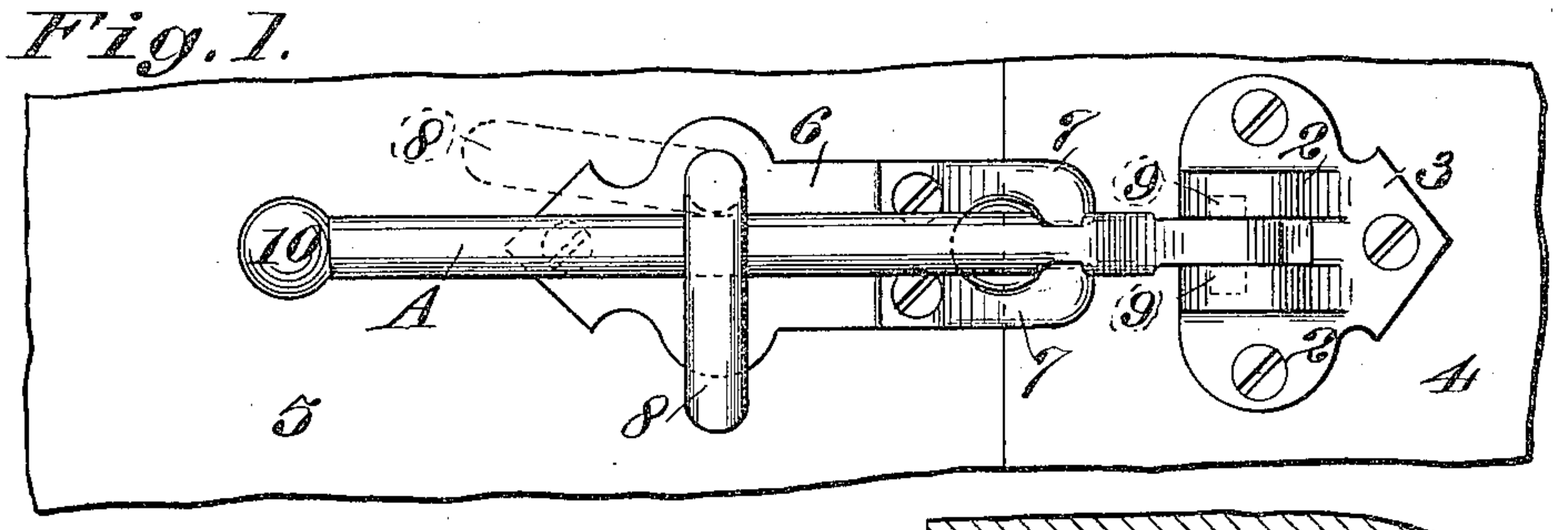


Fig. 2.

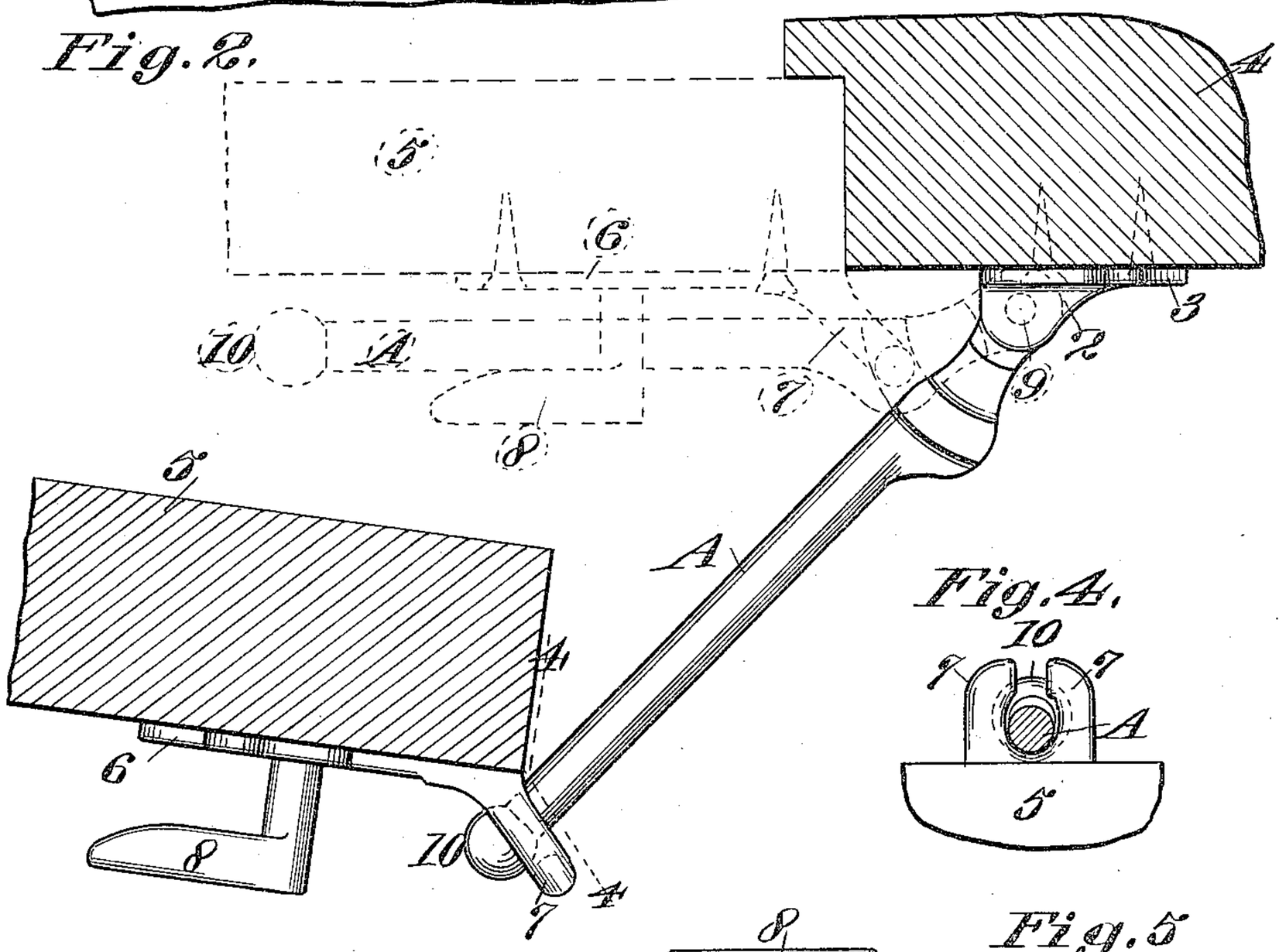


Fig. 4.

Fig. 3.

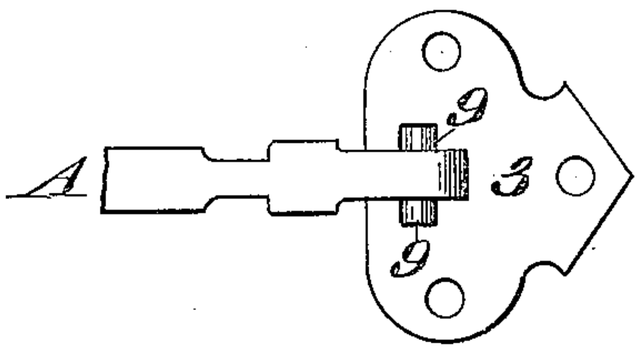


Fig. 5

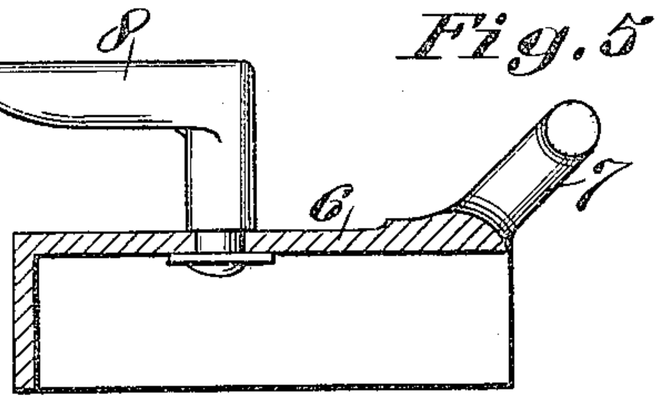


Fig. 6.

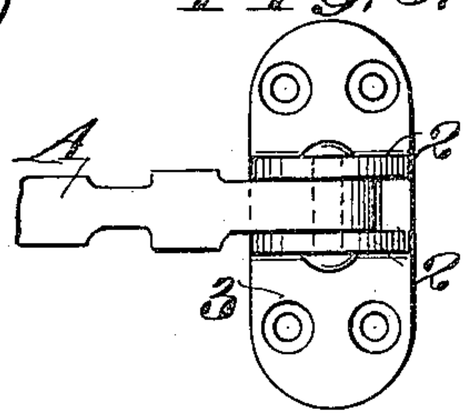
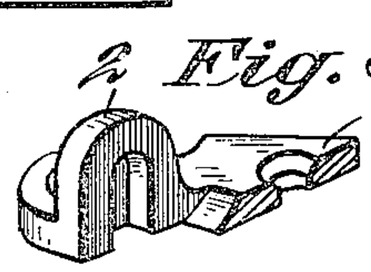


Fig. 3a



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ELLERY M. HOAGLAND, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR OF ONE-FOURTH TO I. J. KOHLER, OF SEATTLE, WASHINGTON, AND ONE-FOURTH TO A. C. HICKS, OF SAN FRANCISCO, CALIFORNIA.

SAFETY-BOLT FOR DOORS.

1,154,862. Specification of Letters Patent. Patented Sept. 28, 1915.

Application filed March 22, 1915. Serial No. 16,078.

To all whom it may concern:

Be it known that I, ELLERY M. HOAGLAND, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented new and useful Improvements in Safety-Bolts for Doors, of which the following is a specification.

My invention relates to a means for securely locking closed doors and insuring their safety against being opened from the outside.

It consists of a bar, hinged at one end to the casing and swinging transversely across the door, adapted to engage with an interlocking slotted socket piece or catch secured to the door, and means for locking the same in its closed position.

It also comprises details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a front view with the door closed and the parts in locked position. Fig. 2 is a horizontal section showing the parts disengaged and the door partly open. Fig. 3 is an inverted view of plate 3. Fig. 3^a is a perspective view partially broken away to show the slots in the lugs of plate 3. Fig. 4 is a cross section on line 4—4, Fig. 2. Figs. 5 and 6 are modifications.

As shown in the drawings, A is a bar, one end of which is pivoted and turnable in lugs 2 formed upon a base plate 3, which plate is designed to be attached to the casing 4 or to the door 5, said door being hinged to swing at the opposite edge from this fastening member.

6 is a plate which is fixed to the door or the member opposite to the hinge or pivot point of the bar. This plate has the edge contiguous to the joint between the door and casing upturned and channeled, as shown at 7, and the bar has a portion flattened to enter the channel in the holding plate. The channel is narrowed at the outer end so that there may be some friction in forcing the bar to enter the channel, and when it has so entered the channel it will lie comparatively flat across the door and casing. When thus secured, that portion of the bar which crosses the joint between the door and the casing is practically protected and covered from any attempt to tamper with it, by the overhanging edge of the slotted member into which it lies.

8 is a turnable stop or catch which has its stem pivoted to the rear end of the locking plate, and the projecting arm may be turned to lie across the bar and thus hold it firmly in place. There is a certain amount of spring allowed by the hinging of the door which is taken advantage of when the latch is turned to cross the bar and the bar is forced inwardly a little so that there is a frictional pressure which serves to hold all the parts firmly in place.

In order to fit this device to doors and casings having different moldings, I have shown the bar as being bent out of line so that the pivoted end may be raised or lowered with reference to the main portion of the bar, and when the pivot plate is fixed in place the bar may either arch upwardly to accommodate projecting moldings, or, if the plate is fastened to some higher portion or molding, the bar may be reversed and arch inwardly so that it will engage the latching member.

I prefer to fit the pivot end of the bar with pins, as at 9, and the pivot plate has corresponding sockets made in it into which the pins may drop with the bar reversible so as to make its curvature inward or outward as described. Thus the bar can be fitted to doors having moldings or projections of any description and the pivot plate 3 may be afterward attached in place. In the same manner the latching plate may be made thicker or thinner and the upturned ends in which the latching groove or channel is made may be elevated so that the bar can connect without regard to the finish of the door at the point where it is attached.

A device of this character has considerable advantage over a chain adapted to hold doors and prevent their being fully opened. The outer swinging end of the bar is provided with a knob or enlargement, as at 10, which will engage the channel in the latch portion when the door is swung open and will prevent its being opened beyond a point where the knob engages the channel. The bar is of such size and thickness that there is no danger of its being cut by nippers operated from the outside when the door is being opened the short distance allowed by the bar. When closed, it en-

gages the latch channel with a spring pressure that prevents it being forced back from the outside.

By increasing or diminishing the amount of offset in the bar or varying the height of the slotted member with which the bar engages, or by reversing the bar in its pivoted support, moldings or finish of different heights or shapes may be compensated for. It will also be evident that by a proper formation of the pivot plate, it may be secured to the door casing so that the bar can be turned in either direction, when in locked position, the offset angle of the bar lying either toward or away from the door and more or less close to the surface. The device is equally applicable to folding doors. The bar is slidable through the enlarged portion of the channel to allow the door to be opened a short distance, and an enlarged knob 10 on the outer end of the bar forms a stop against the channeled latch plate to limit this opening.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. A safety lock for doors comprising a plate fixed to the door and having an outwardly turned, channeled end, an offset bar, a plate fixed to the door casing in line with the first named plate and having sockets, pivot pins in the end of the bar turnable and reversible in said sockets to change the parallelism of the bar with relation to the door, said bar being flattened to enter the slot in the channeled plate and slidable in the enlarged interior portion of the channel to allow the door to be partially opened, a stop at the end of the bar engageable with the channeled slot to limit the door opening, and a post turnable in the first named plate having a transverse extension at its upper end adapted to extend above and lock the bar.

2. A safety lock of the character described, including a cylindrical bar flattened and having transverse grooves near its inner end, said portion being curved out of line of the bar, a channeled casing plate with lugs having slots extending upwardly from the bottom, pivot pins fixed in the bar and adapted to enter and turn in the slots, a companion plate fixed to the door near its edge having an angular extension outwardly with a hole through which the bar is slidable and an open slot through which the grooves of the bar may pass to engage or disengage the bar, and a locking device consisting of a post turnable in the door plate and having an arm adapted to extend across the bar when the door is closed.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ELLERY M. HOAGLAND.

Witnesses:
G. H. STRONG,
JOHN H. HERRING.