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G. R. ADAMS

2,264,962

JAMB BOLT

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Fig. 1.

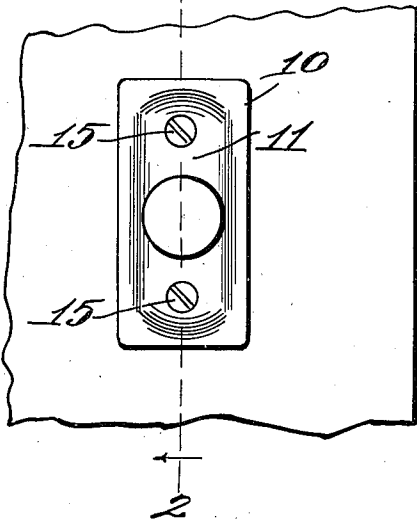


Fig. 2.

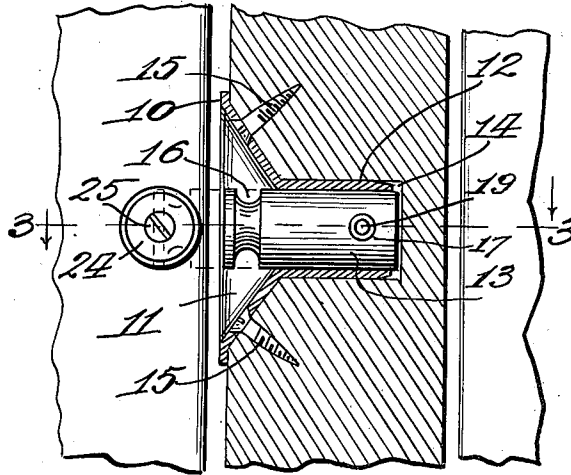


Fig. 4.

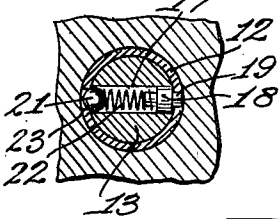


Fig. 5.

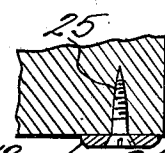
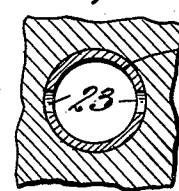


Fig. 3.

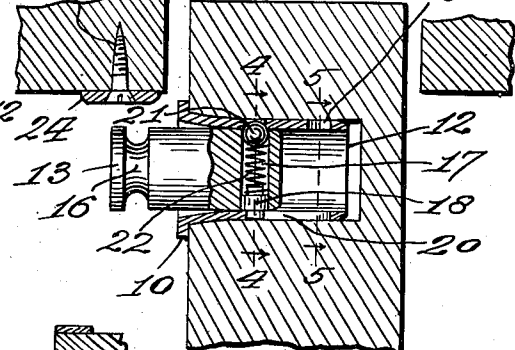


Fig. 6.

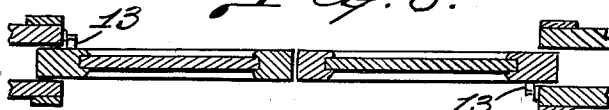


Fig. 7.

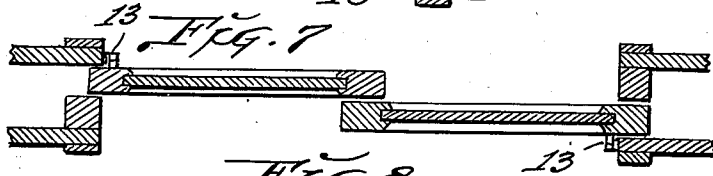


Fig. 8.

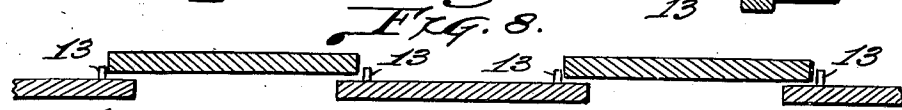
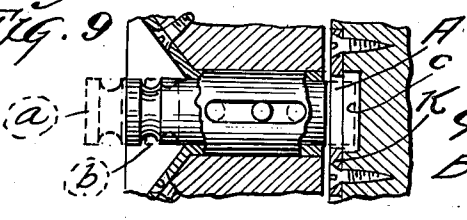


Fig. 9.



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UNITED STATES PATENT OFFICE

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JAMB BOLT

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3 Claims. (Cl. 292-147)

My invention relates to a jamb bolt and has for its principal object to provide a relatively simple, practical and inexpensive bolt that is carried by a sliding member such as a door, window, panel, screen, or the like, and which bolt when in its projected position engages a strike mounted on the jamb of a door or window so as to effectively retain the member in which the bolt is seated against sliding movement.

A further object of my invention is, to provide a jamb bolt that includes a housing in which a bolt is mounted for sliding movement and said bolt and housing being provided with cooperating means for yieldingly maintaining the bolt in both projected and retracted positions.

Jamb bolts constructed in accordance with my invention are particularly applicable for use on doors, windows, panels, and the like, that slide toward and away from each other in the same vertical plane and also for doors, windows, panels, screens, or the like, that are offset so as to slide past one another.

With the foregoing and other objects in view, my invention consists in certain novel features of construction and arrangement of parts that will be hereinafter more fully described and claimed and illustrated in the accompanying drawing in which:

Fig. 1 is an elevational view of a jamb bolt constructed in accordance with my invention and showing the same applied to a sliding door.

Fig. 2 is a vertical section taken on the line 2-2 of Fig. 1.

Fig. 3 is a horizontal section taken on the line 3-3 of Fig. 2.

Fig. 4 is a cross section taken on the line 4-4 of Fig. 3.

Fig. 5 is a cross section taken on the line 5-5 of Fig. 3.

Fig. 6 is a horizontal section of a pair of doors arranged for sliding movement in the same vertical plane and said doors being equipped with my improved jamb bolts.

Fig. 7 is a horizontal section of a pair of sliding doors that are offset so as to slide past each other and said doors being equipped with jamb bolts.

Fig. 8 is a plan view of a plurality of panels or screens arranged for sliding movement past one another and with my improved jamb bolts applied thereto.

Fig. 9 is a sectional view similar to Fig. 3 and showing a modified form of the bolt.

Referring by numerals to the accompanying drawing which illustrates a preferred embodiment

of my invention, 10 designates a face plate, preferably formed of thin metal, and the central portion of said plate is pressed outwardly from the plane occupied by plate 10 to provide a recess 11 that gradually increases in depth toward its center.

Formed integral with and projecting outwardly from the center of the depressed portion of plate 10 and disposed at right angles thereto is a tubular member 12 that provides a combined housing and bearing for a sliding bolt 13. The length of plate 10 is substantially greater than the width thereof and thus the depression 11 following the shape of the plate has portions above and below the tubular housing 12 so as to enable the thumb and finger to readily engage and grasp the sliding bolt when the same is to be withdrawn for engagement with the jamb of the door with which the bolt is associated.

Tubular member 12 and the recessed portion of plate 10 are positioned in a recess 14 that is formed in the sliding door, window or screen, with the flat edge of the plate lying on the face of the sliding member in which the device is seated and the housing and plate are anchored in said recess by means of screws 15 that pass through the ends of the recessed portion of the plate and into the door or window.

The length of bolt 13 is such that when it is at its inner limit of movement in the tubular member 12, the face on the outer end of said bolt lies flush with or slightly below the outer face of the flat marginal portion of plate 10 as illustrated by solid lines in Fig. 2.

Formed in bolt 13 near its outer end is a circumferential groove 16 which enables the projecting end of the bolt to be more conveniently grasped between the thumb and fingers when the bolt is withdrawn from the tubular housing 12.

Formed through bolt 13 near its inner end is a diametrically disposed aperture 17 and arranged to slide freely in one end of this aperture is a short pin 18 having an outer end portion 19 of reduced diameter and which end portion is arranged for sliding movement in a longitudinally disposed slot 20 that is formed in the tubular housing 12. Loosely arranged in the opposite end of aperture 17 is a small spherical member 21 and interposed between said member and the sliding pin 18 is a small expansive coil spring 22 which normally exerts outward pressure on the pin and spherical member.

Formed through the wall of the tubular housing 12 adjacent its ends and on the opposite

side from slot 20 are apertures 23 that are adapted to receive the spherical member 21 when the bolt is at the ends of its travel, thus yieldingly retaining the bolt in both retracted and projected positions.

The strike that is adapted to be engaged by the end of the bolt when the latter is at its outer limit of movement comprises a disc-like plate 24 of metal that is secured by means of a screw 25 or like fastening device to the door jamb.

The jamb bolts are arranged in sliding doors, windows, or panels, so that when the latter are closed and the bolts are withdrawn to their limit of movement, said bolts project short distances from the faces of the doors or windows so that if an attempt is made to open the doors by sliding the same into their pockets, the projecting ends of the bolts will engage the strikes 24 which effectively prevents further movement of the doors into their pockets.

The sliding bolt 13 is constructed and mounted so that it may be readily moved lengthwise within its housing and the spring pressed spherical member 21 provides simple means for yieldingly retaining the bolt at both ends of its travel.

In Fig. 9 I have illustrated a form of bolt that is adapted to be withdrawn to engage a strike on the door jamb and to also be moved longitudinally through the door so that the projecting end of the bolt enters an aperture A formed in a keeper K that is seated in the door jamb, thus holding the door in which the bolt is mounted against sliding movement in both directions. In this figure, dotted lines *a* show the bolt withdrawn to engage a strike on the door jamb, dotted lines *b* indicate the normal position of the bolt, and dotted lines *c* indicate the position when the bolt is moved through the door to enter the aperture in a keeper.

Where this construction is employed, there will be three apertures such as 23 formed in the bolt housing for receiving the spring pressed ball 21, thus yieldingly maintaining the bolt in its normal position and at the ends of its travel through the housing and door.

Thus it will be seen that I have provided a jamb bolt that is relatively simple in construction, inexpensive of manufacture and very effective in performing the functions for which it is intended.

It will be understood that minor changes in the size, form and construction of the various parts of my improved jamb bolt, may be made and substituted for those herein shown and described, without departing from the spirit of my invention, the scope of which is set forth in the appended claims.

I claim as my invention:

1. A jamb bolt comprising a housing adapted to be seated in a sliding door, window, or the like, a bolt arranged for sliding movement in said housing, means for limiting the sliding movement of the bolt in said housing, means for yieldingly holding the bolt at both ends of its sliding movement, and a face plate on one end of said housing, which face plate is recessed in order to give access to the outer end of said bolt when the same is at its inner limit of movement.

2. In a jamb bolt, a housing having a recessed face plate and a tubular member projecting from the recessed portion of said face plate, a bolt arranged for sliding movement in the tubular portion of said housing, means for limiting the sliding movement of said bolt in said housing and means for yieldingly retaining said bolt at both ends of its travel.

3. A jamb bolt comprising a face plate having a recessed portion, a tubular member extending from the recessed portion of the face plate, a bolt arranged for sliding movement in said tubular member, there being a circumferential groove formed in the outer portion of said bolt, a pin and slot connection between said bolt and said tubular member for limiting the sliding movement of said bolt, there being spaced apertures formed in said tubular member and spring pressed means carried by the bolt and adapted to engage in the apertures in said tubular member at the ends of the travel of said bolt.