E. BRADSHAW.

DOOR BOLT.

APPLICATION FILED JAN. 3, 1918. RENEWED SEPT. 19, 1919.

1,324,381. Patented Dec. 9, 1919.

Fig. 1.

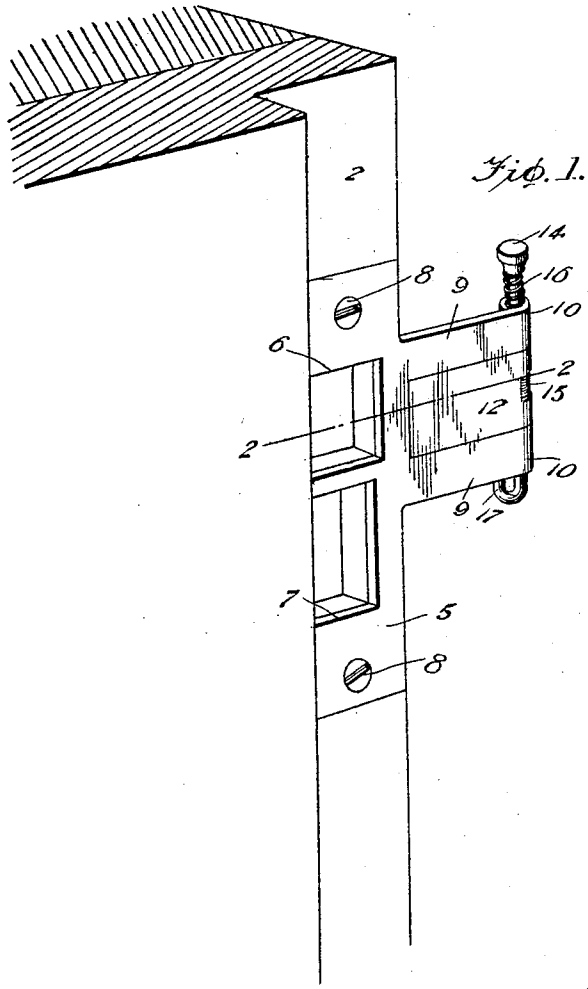


Fig. 2.

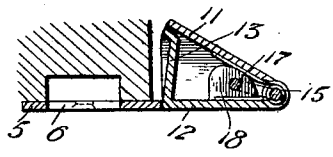


Fig. 3.

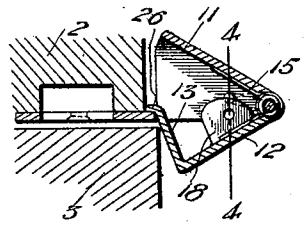


Fig. 4.

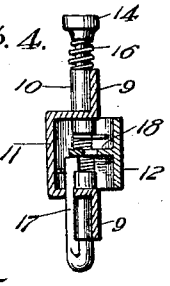
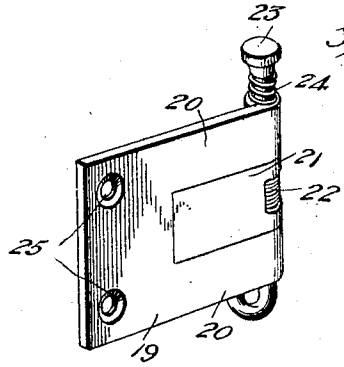


Fig. 5.



WITNESSES

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DOOR-BOLT.

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Application filed January 3, 1918, Serial No. 210,128. Renewed September 19, 1919. Serial No. 325,036.

To all whom it may concern:

Be it known that I, EDWIN BRADSHAW, a citizen of the United States, and a resident of San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Door-Bolts, of which the following is a specification.

My invention is an improvement in door bolts, and has for its object to provide a device of the character specified for positively locking the door from the inside, in such manner that it cannot be opened from the outside by boring or cutting the door, which is normally spring-held in operative position and which may be locked in inoperative position.

In the drawings:

Figure 1 is a perspective view of a portion of a door casement, showing the bolt in place;

Fig. 2 is a section on the line 2—2 of Fig. 1, with the parts in one position;

Fig. 3 is a similar view with the parts in another position;

Fig. 4 is a section on the line 4—4 of Fig. 3;

Fig. 5 is a perspective view of another embodiment of the invention.

The embodiment of the invention shown in Figs. 1 to 4 is shown in connection with a door casing 1, the said casing having the usual groove or rabbet 2 for receiving the edge of the door 3. The latch plate 5 of the door, which is provided with the usual openings 6 and 7 for the latch and lock bolts, respectively, is secured within a mortise in the groove by the usual screws 8, and this plate has a pair of spaced extensions 9 in the plane of the plate and extending outwardly beyond the casement as shown, each extension having a bearing 10 at its free end.

Between the extensions is a housing 11, the said housing being behind the space between the extensions and being supported by the extensions. The bolt proper is, when in operative position, housed in this housing, and the said bolt consists of a plate 12 having an angular portion 13 at one end, the plate being pivoted at the opposite end to a pintle pin 14, which is passed through the bearings 10 of the extensions and through a bearing on the plate 12.

The angular portion 13 of the plate is at substantially a right angle to the plate, and when the plate is in the housing its outer face is flush with the outer faces of the extensions 9. A spring 15 normally presses the plate 12 outward into the position of Fig. 3, the said spring encircling the pintle and bearing at one end against the housing and at the other against the plate. The pintle is normally pressed upwardly by a coil spring 16 which is arranged between the pintle and the uppermost bearing 10, and the pintle may be pressed downwardly by compressing the spring. The pintle has a portion or extension 17 at its lower end lying parallel with the body of the pintle and in spaced relation, and this portion 17 is slidable in an opening in the lower side of the housing 11.

The plate 12 has an inwardly extending lug 18 which has an opening for receiving the extension 17 to hold the bolt 12—13 in the housing, and when the plate is pushed inwardly into the position of Figs. 1 and 2 the extension 17 of the pintle will engage within the opening of the lug 18 and will hold the plate in such position. When the pintle is pressed downwardly, the lug 18 is released, and the spring 15 will force the pintle upwardly and will cause the extension 17 to engage the opening of the lug 18.

In Fig. 5 the device is shown separate from the plate 5. In this construction a plate 19 is provided, having the extensions 20 corresponding to the extensions 9 of Fig. 1. The locking plate 21, which corresponds in all respects to that 12—13 of Fig. 1, is normally pressed outwardly by the spring 24, and the operation is precisely the same as in the construction of Fig. 1, the only difference between the two embodiments being that that shown in Fig. 5 is independent of the latch plate. This plate 19 has openings 25 for receiving screws or the like to connect it to the door casement. The construction shown in Fig. 5 may be attached to any door and in any position.

In operation, in either construction, the parts may occupy the position shown in Fig. 2 or that shown in Fig. 3. In Fig. 3 the closing of the door will press the plate 12 inward into the housing and after the door is shut the plate may be released by pressing down the pintle pin. Immediately when the plate is released it swings out into the position of Fig. 3, being limited in this swinging movement by a lug 26 on the end of the portion 13. When out in the position of Fig. 3 it provides a positive lock for pre-

venting the opening of the door until the bolt 12 is released by pushing the same into the housing. Access is not permitted to the bolt by any key-hole or other opening, and it must be operated from the inside.

It will be noticed that the improved bolt may be used with sashes and transoms as well as with doors.

I claim:

1. A device of the character specified, comprising a plate having means for connecting the same to a door casement at the free edge of the door, said plate having upper and lower bearing extensions extending beyond the plane of the door when closed, a locking bolt between the extensions, said locking bolt having a bearing registering with the bearings of the extension, a pintle pin passing through the registering bearings and movable vertically with respect thereto, a spring normally pressing the pintle pin upward, said pintle pin having at its lower end a lateral offset portion extending alongside the body of the pin in parallel spaced relation, the locking bolt having an inwardly extending lug provided with an opening for receiving the extension of the pin to lock the bolt in inoperative position, and a spring normally pressing the locking bolt into the path of movement of the door opening.

2. A device of the character specified, comprising a plate having means for connecting the same to a door casing and having its outer end notched and provided with a housing on one face, a bolt, a pintle pin hinging the bolt to the plate and movable longitudinally in the plate and bolt, a spring normally pressing the bolt out of the housing, and means in connection with the pintle pin and the bolt for locking the same within the housing.

3. A device of the character specified, comprising a housing having means for connecting the same to a door casing, a bolt in the housing, a pintle pin connecting the bolt to the housing and movable longitudinally, a spring normally pressing the bolt out of the housing, and means in connection with the pintle pin and the bolt and controlled by the longitudinal movement of the pin for locking the bolt in the housing.

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Witnesses:
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