March 29, 1927. 1,622,791

P. LANG

DOOR BOLT

Filed Sept. 24, 1925

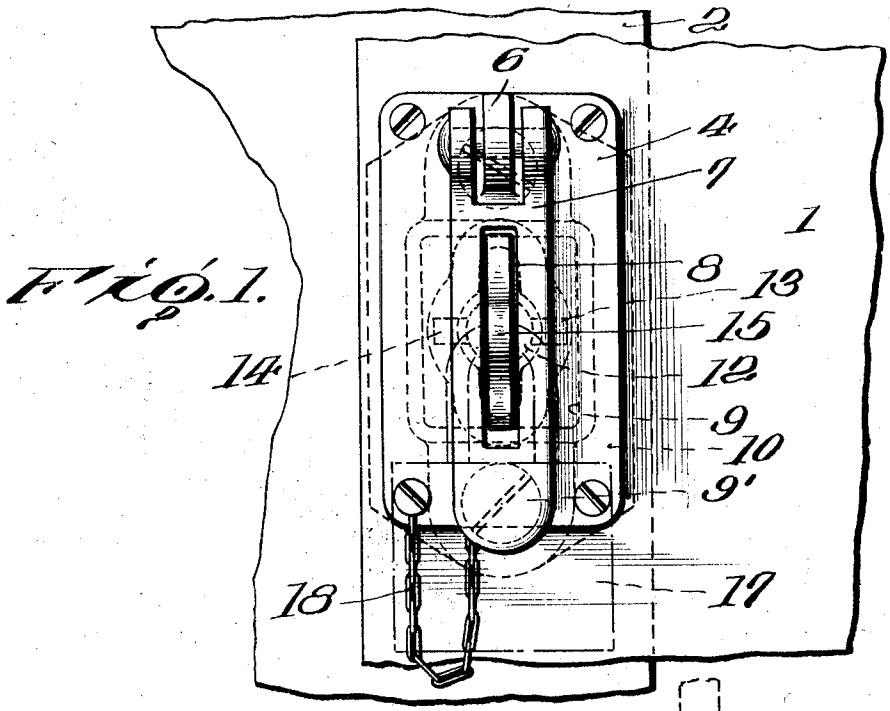


Fig. 1.

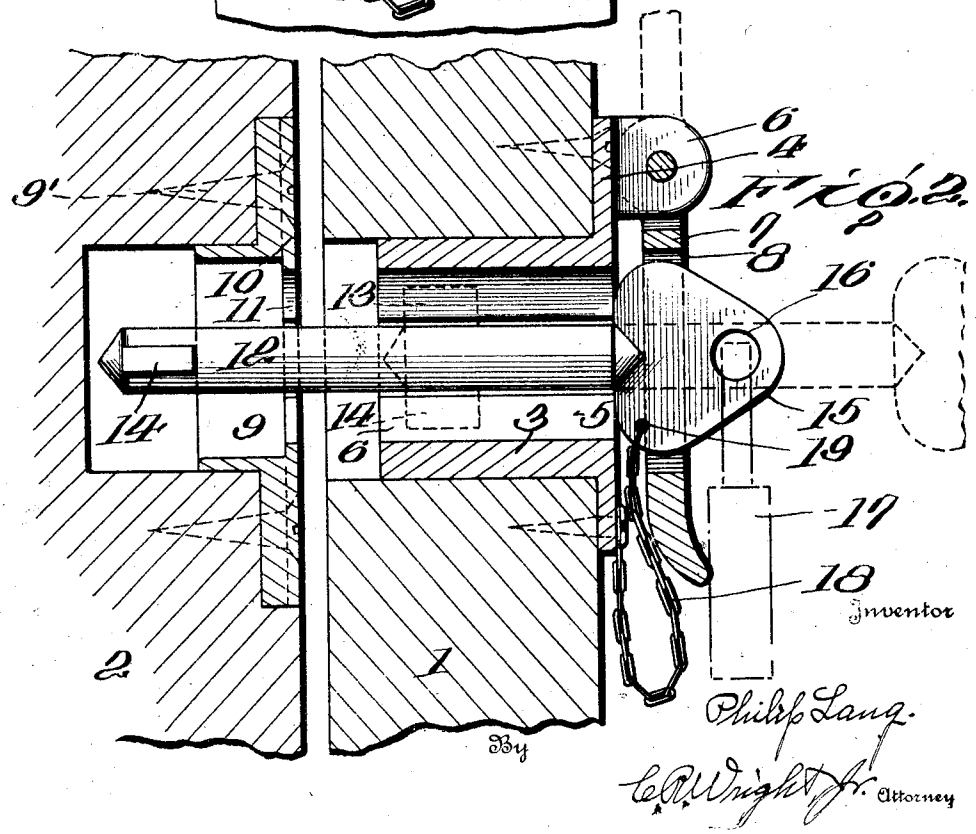


Fig. 2.

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DOOR BOLT.

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My invention relates to improvements in door bolts.

The object of my invention is to provide a door bolt especially designed to either bolt the door to the wall or to bolt two sliding doors together, traveling on parallel tracks and at the same time providing means whereby the doors are rigidly held against any movement, and at the same time providing means for the ready locking and unlocking of the bolt so that it can be removed, so that the doors can be opened.

Another object of my invention is to provide a simple, cheap and effective lock of this character having certain details of structure and combination of parts hereinafter more fully described.

In the accompanying drawings:—

Figure 1 is a side elevation of two sliding doors showing my improved bolt applied.

Figure 2 is a vertical transverse sectional view taken on the line 2—2 of Figure 1.

Referring now to the drawings, 1 represents one door and 2 the other door, which are adapted to be locked together by my improved bolt. The bolt consists of a tubular body portion 3 of a length equal to or approximately the same thickness as that of the door. This tubular member has cast integral therewith, at its outer end, the plate 4 which is of a rectangular form and provided with a key slot 5 which registers with a key slot 6 in the tubular member 3. The tubular member 3 is mortised into the door, and the plate 4 is secured to the outer face of the door by bolts, rivets or the like so that the plate can not be removed from the door. The upper end of the rectangular plate 4 is provided with an outwardly extending ear 6 on which is hinged the slotted lever 7, which is of a length to extend down to a point slightly below the lower end of the plate 4. The lever 7 is provided with a slot 8 which is opposite the key hole slot 5, in the plate 4, when the lever is swung downwardly, as clearly shown in the drawings.

The keeper is secured to the door 2, and comprises a tubular portion 9, carrying the rectangular plate 10, having means for attaching it to the door, such as screws 9′, when used on parallel sliding doors, or attaching it to the door frame when used on a single door. The plate 10 is provided with a key slot 11 corresponding in shape and size to the key slot 5 in the plate 4 and the slot 6 in the tubular member 3. The locking key comprises an elongated bolt 12 having at its inner end the two wings 13 and 14 on opposite sides, forming a key approximately the same shape as the key slots 5, 6 and 11. The outer end of the bolt portion 12 of the key is provided with an enlarged flat head 15, arranged at right angles to the wings 13 and 14, and which is of a thickness considerably less than that of the bolt portion 12, and of a thickness so that it will freely pass through a slot 8 in the hinged lever 7. The outer end of the enlarged head is provided with a transverse opening 16 through which the hasp of the pad lock 17 passes for preventing the lever from swinging upwardly and thus locking the key against rotation, in position as clearly shown in the drawings. The key has a chain 18 secured in an opening 19, and the opposite end of the chain is fastened to the plate 4 so that the key can not be lost, and which will at all times be ready for use.

From the foregoing description it will be seen that the door 1 is moved so that the key opening of the tubular member 3 is opposite the key slot 11 in the keeper plate 10. The key is then inserted and the two wings 13 and 14 pass through the slot until they have passed the plate 10 of the keeper. The key is then turned one fourth of a turn, bringing the two wings 13 and 14 in a horizontal position against the rear face of the plate 10 so that the key can not be withdrawn outwardly. The lever 7 is then swung downwardly and the headed portion 15 of the key passes through the slot 8 and assumes the position shown in the drawings. The hasp of the pad lock 17 is then passed through the opening 16 in the head and locked, and thus it will be seen that the lever can not be swung upwardly, and the head 15 being of a thickness considerably less than the bolt portion 12 of the key, the key can not be turned and the doors are locked together.

This invention is more particularly designed for heavy ware house doors, operating on parallel tracks for locking the two doors together, and also locked the doors to the wall, but the same can be readily used

on a single door in which event the keeper is inserted into the casing or wall of the building.

Having thus fully described my invention what I claim is:—

1. A door bolt comprising a tubular body portion having a key slot therethrough, a keeper having a key slot therein, a key having oppositely arranged wings at one end, adapted to pass through the key opening and to be turned so that the wings engage the rear face of the keeper, and a pivoted lever carried by the tubular body portion, and having a slot to allow the flattened head of the key to pass therethrough, and having an opening to receive the hasp of the pad lock, whereby the lever prevents the turning of the key.

2. A door bolt comprising a tubular body portion having a key slot therethrough, a keeper having a key slot therein, a key having oppositely arranged wings at one end and adapted to pass through the key opening and to be turned so that the wings engage the rear face of the keeper, and a pivoted lever carried by the tubular body portion and having an opening to cooperate with the key to prevent the turning of the key, and said key having an opening in its outer end to receive the hasp of a pad lock.

3. A door bolt comprising a tubular body portion having a key slot therethrough, a keeper having a key slot therein, a key having wings to cooperate with the key slots in the tubular body portion and keeper, said key having its outer end flattened, and a pivoted lever carried by the tubular body portion and having a slot to allow the flattened end of the key to pass therethrough, and said key having an opening in its outer end to receive the hasp of the pad lock, whereby the lever prevents the turning of the key.

4. A door bolt comprising a body portion having a key slot therethrough, a keeper having a corresponding slot therethrough, a key having wings corresponding to the slots, a flat head carried by the key at right angles to the wings, and a pivoted lever carried by the body portion, and having a slot through which the flat head of the key passes, and having an opening through which a pad lock passes, whereby the lever is locked against outward movement, and said lever holding the key against rotation.

5. A door bolt comprising a body portion having a key slot therethrough, a keeper having a corresponding slot therein, a key having wings adapted to pass through the slots, a flat head carried by the opposite end of the key at right angles to the wings, a movable member adapted to engage the flat head to prevent the turning of the key, and a lever having a slot cooperating with the flattened end of the key for locking the movable member whereby the key can not be turned.

6. A door bolt comprising a tubular body portion having a flat attaching plate at its outer end, and having a key slot therethrough, a keeper having a corresponding slot therethrough, a key having at one end wings adapted to pass through the slots, and the opposite end having an enlarged head at right angles to the wings, a pivoted lever carried by the plate and having a slot through which the flat head of the key passes and having a transverse opening to receive the pad lock, whereby the lever locks the key against rotation and the pad locks the lever against outward movement.

7. A door bolt comprising a tubular body portion having a key opening therein, a keeper having a key opening therethrough, a key passing through the opening in the tubular body portion and the keeper and adapted to engage the rear face of the keeper and adapted to be moved from the tubular body portion and the keeper, and a pivoted lever cooperating with the key to prevent the turning of the key, and means passing through the key for preventing the outward movement of the pivoted lever.

8. A door bolt comprising a tubular body portion having a key opening therein, a keeper having a key opening therethrough, a key passing through the opening in the tubular body portion, and the keeper, and adapted to engage the rear face of the keeper and adapted to be removed from the tubular body portion and the keeper, said key having a flattened outer end provided with an opening, and a pivoted lever having a slot through which the flattened head of the key passes, and whereby a pad lock can be passed through the opening in the key to prevent the outward movement of the lever and the turning of the key.

In testimony whereof, I have signed this specification.

PHILIP LANG.