To all whom it may concern:

Be it known that I, John B. Foley, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Door Bolts and Locks, of which the following is a specification.

This invention relates to fasteners for closures, such as doors and windows, and the primary object of the invention is to provide an improved bolt and lock which can be used for either sliding or pivoted closures.

Another object of the invention is to provide an improved fastener for closures, which can be used as an ordinary door bolt, or as a lock, in which instance the bolt is held in operative position against movement from either the inside or outside of the closure.

A further object of the invention is the provision of an improved door bolt, having means detachably associated therewith for preventing operation of the bolt, when desired, said bolt being capable of being effectively used on sliding doors with said means.

A still further object of the invention is the provision of an improved door lock in which the bolt housing, keeper and bolt are made from single pieces of sheet metal suitably bent and shaped to form a rigid and strong construction.

A still further object of the invention is the provision of an improved fastener for closures in which the bolts, the keeper and the base plate or bolt housing are so constructed that when the bolt is in operative position the fastening elements for holding the keeper and bolt casing in position on the door and door frame are completely covered and hidden, thereby preventing the removal of the fastening elements and the opening of the closure.

A still further object of the invention is to provide an improved bolt and lock for closures, which will be durable and efficient in use, one which will be simple and easy to manufacture, and one which can be placed upon the market at a reasonable cost.

Other objects of the invention will appear in the following detailed description taken in connection with the drawings, in which drawings:

Figure 1 is a perspective view of the bolt and lock showing the same as used in connection with a hinged door.

Fig. 2 is an elevation of the same showing the bolt removed.

Fig. 3 is a transverse section through the base plate or bolt housing.

Fig. 4 is a perspective view of the improved bolt or lock showing the same used in connection with a sliding closure, and

Fig. 5 is a perspective view of the improved bolt and lock showing a socket for the bolt formed directly in the door frame, thus admitting the bolt keeper.

Referring to the drawings, in detail, wherein similar reference characters designate corresponding parts throughout the several views, the letter A indicates a door, and B a door frame, and C the improved fastener having the padlock D associated therewith.

The improved fastener C includes the base plate or bolt housing E, the keeper F, and the bolt G.

The base plate or bolt housing E is formed of a single piece of sheet metal and includes the substantially rectangular flat plate 10 having substantially V-shaped guides 12 stamped therefrom at equidistantly spaced points forming a guide way of predetermined length. As shown in the drawings, the guides 12 are three in number, but it is to be understood that any number of guides can be struck out of the plates 10, provided the same are all in direct alignment with each other. The keeper F is constructed similar to the bolt housing 10 and is likewise formed of a single blank of material, and includes the substantially flat wear plate 13 having the V-shaped guide 14 struck outwardly from the central portion thereof. The guide 14 is substantially V-shaped and is adapted to be arranged in direct alignment with the guides 12. The keeper and base plate or bolt housing are adapted to be held in operative position by a suitable fastening element, such as screws 15 and 16, and these screws are arranged within the plane of the guides 12 and 14 and are adapted to be completely covered and engaged by the bolt G when the same is in an operative position.

The bolt G includes a substantially rectangular elongated body 17 formed from a single blank of material, bent on a central longitudinal line defining angular related flanges 18, which forms a bolt substantially V-shaped in cross section. The bolt is of sufficient size, so as to slide freely in the
guides 12 and 14, but to prevent any lateral movement therein. One terminal of the bolt is provided with integral right angularly extending tongues 19 which form finger pieces or head whereby the bolt may be readily operated by the user and for forming means for limiting the inward movement of the bolt in the bolt housing E and keeper F. The bolt is provided adjacent to the end thereof opposite to the finger pieces 19 with openings or ways 20 which extend through the flanges 18 and form means for receiving the shackle 21 of the padlock D, which is adapted to be detachably associated with the bolt. The distance between the head of the bolt and the ways 20 is substantially the length of the guide way formed by guides 12.

As clearly shown in Fig. 1 of the drawings, when the device is used in connection with a pivoted door closure, the bolt is inserted in the bolt casing through the outer end thereof and into the keeper F, and when it is desired to hold the bolt in its operative position against movement, the shackle 21 of the padlock is placed in the openings 20 which are positioned in this instance adjacent to the inner guide 12 of the bolt casing E. This prevents movement of the bolt in either direction and firmly holds the door in a closed position against movement.

As shown in Fig. 4 of the drawings, the improved bolt and lock is associated, with the sliding sections H and I of a sliding closure, and in this instance the bolt is reversed and inserted in the keeper F and then into the bolt housing E. This positions the openings 20 adjacent to the intermediate guide 12 of the bolt casing, and when the padlock is placed in position thereon, opening movement of the door sections H and I is prevented as the bolt housing and keeper are prevented from movement in relation to each other.

In Fig. 5 is illustrated the means of using the improved bolt and lock in connection with pivoted closures in which the door frame extends beyond the outer face of the door, in which instance a socket 22 having a guard base plate 23 is formed in the door frame and is adapted to receive the inner free end of the bolt C. The openings 20 formed in the bolt C in this instance are positioned adjacent to the inner guide 12 of the base plate E and when the padlock D is positioned in the opening, movement of the bolt is prevented, thus holding the door in the closed position. If so desired the keeper F may be dispensed with on pivoted closures which only open in one direction and when the closure opens outwardly the bolt casing E is carried by the door and the bolt is merely adapted to engage the outer face of the door frame, which will prevent swinging movement of the door in an outward direction. When the door swings in an inward direction, the bolt housing is held by the door frame, and the inner end of the bolt is adapted to engage the door which prevents inward opening movement thereof.

From the foregoing description it can be seen that an improved bolt and lock is provided, which is of exceptionally durable and efficient construction, and which will effectively hold various types of closures in their closed positions against opening movement.

Changes in details may be made without departing from the spirit or scope of my invention; but,

I claim:

1. A locking device for closures comprising in combination, a casing, a keeper, aligned guides formed on the casing and keeper, a reversible bolt adapted for insertion into the casing and keeper from either end thereof, and a lock for maintaining said bolt in fixed relation to said casing.

2. A lock comprising in combination, a housing and a keeper having uniformly spaced apart guides, a bolt embraced by said guides of said housing and keeper, and provided with a head at one end portion to engage one of said guides at one face thereof, and a transverse way positioned relative to said head to be disposed adjacent another of said guides at a face opposite to the face of engagement of said head, and a lock engaging in said way of said bolt to prevent retraction thereof.

3. A fastener for closures comprising a casing, a keeper, aligned guides formed on the casing and keeper, a reversible bolt adapted for insertion into the guides of the casing and keeper, from either end thereof, a head formed on one end of the bolt and arranged to engage one of the guides, and a lock detachably associated with the bolt and arranged to engage another of the guides depending upon the position of the bolt in the casing and keeper for preventing operation of the bolt.

4. A fastener for closures including a bolt housing having guides formed thereon, fastening means extending through the bolt housing and lying within the planes of the guides and a bolt slidably mounted in the guides and arranged to overlie and cover the fastening elements.

5. A fastener for closures including a bolt housing having a base plate and spaced outstruck guides, fastening means extending through the base plate disposed between the guides, and a bolt slidably mounted in said guides and arranged to cover said fastening means.

6. A fastener for closures including a bolt housing and keeper each including a base plate having outstruck guides, fastening means extending through the base plate disposed between the guides, and a bolt slidably mounted in said guides and arranged to cover said fastening means.
members extending through the base plates and lying within the planes of the guides, and a bolt arranged to extend through the guides of the bolt housing and keeper and engage and overlie the fastening elements extending through the base plate.

7. A fastener for closures including a bolt housing and keeper each including a base plate having outstruck V-shaped guides, fastening elements extending through the base plates and lying within the planes of the guides, a bolt substantially V-shaped in cross section arranged to slidably fit in said guides and arranged to cover the said fastening elements, the inner surfaces of the bolt being adapted to engage the outer terminals of the fastening elements.

8. A bolt formed of a single blank of sheet metal including a pair of angular related flanges and right angularly extending wings 20 formed on one end of the flanges.

9. A bolt housing formed of a single blank of metal, including a flat substantially rectangular base plate, and spaced upstanding guides struck out and extending from one side only of the base plate.

10. A lock comprising in combination, a housing having an elongated base plate and means providing a guide way of predetermined length, a bolt slidable in said guide way, having a head at one end portion and a transverse way inwardly of but adjacent the other end portion, the distance between said head and way of said bolt being substantially the length of said guide way, and a lock for engagement in said way of said bolt to prevent retraction thereof.

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