

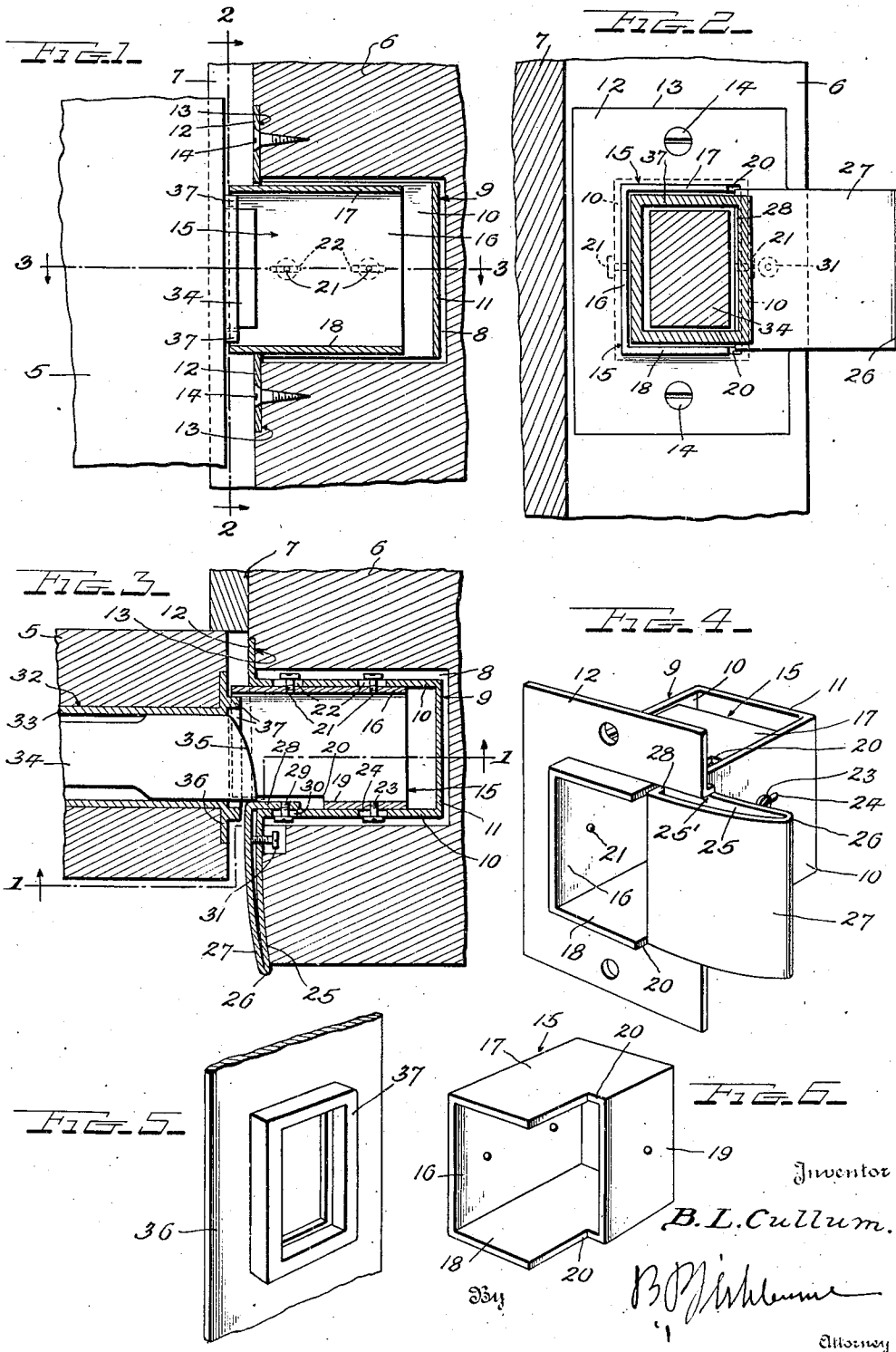
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LOCK OR LATCH

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LOCK OR LATCH

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My invention relates to locks or latches and has particular reference to guard means for the bolt, and a striker plate for coaction with the bolt and guard means.

An important object of the invention is to provide a guard which is adjustable to cover the projected end of the bolt, whereby the bolt cannot be tampered with, to retract or cut the same.

A further object of the invention is to provide an adjustable striker plate, so that the bolt will securely lock with the striker plate, when the door is closed.

A further object of the invention is to provide a unit including the bolt guard and striker plate, both of which are adjustable without interfering with each other.

A further object of the invention is to provide a bolt guard which is adjustable in a straight line.

A further object of the invention is to provide a device of the above mentioned character, which is simple in construction and reliable in operation.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawing forming a part of this application and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a vertical section through a device embodying my invention, taken on line 1—1 of Figure 3,

Figure 2 is a transverse section taken on line 3—3 of Figure 1,

Figure 3 is a horizontal section taken on line 3—3 of Figure 1,

Figure 4 is a perspective view of the keeper unit including the adjustable bolt guard and striker plate,

Figure 5 is a perspective view of the door plate and the fixed bolt guard, and

Figure 6 is a perspective view of the adjustable tubular bolt guard.

In the drawing, wherein for the purpose of illustration is shown a preferred embodiment of the invention, the numeral 5 designates a horizontally swinging door and the numeral 6 designates the jamb of the door casing, which jamb is arranged next to the free vertical edge of the door. Disposed outwardly of the door 5 and attached to the jamb 6 is a stop strip 7.

The jamb 6 has an opening 8 formed in its vertical face next to the free edge of the door for receiving a keeper-housing 9, embodying vertical sides 10 connected by an inner end 11.

These sides and end are preferably formed integral and the sides 10 are preferably formed integral with a keeper-plate 12, arranged within a recess 13, and held in place by screws 14. The top and bottom of the keeper-housing 9 are open and its inner end is open, such opening passing through the keeper-plate 12, as shown.

Mounted within the keeper-housing 9 is a rectilinear reciprocatory tubular bolt guard 15, which is preferably square in cross section, and includes an outer side 16, a top 17, a bottom 18, and an inner side 19. The opposite ends of this guard 15 are open, and the parts of the same are preferably integral. The outer side 16 is arranged next to the outer side of the door and stop strip 7. The inner side 19 is provided at its inner end with a cutaway portion or opening 20, which also extends through the edges of the top 17 and bottom 18, as shown. The side 16 carries adjustable clamping screws 21, operating within elongated slots 22. The side 19 carries an adjustable clamping screw 23 operating within an elongated slot 24. It is thus seen that the tubular guard 15 may be longitudinally adjusted in a straight line, and clamped to the keeper-housing 9 in a selected adjusted position, so that the outer end projects beyond the keeper-plate 12. The cutaway portion or opening 20 at the inner side 19 of the adjustable bolt guard provides a passage for the bolt, when the door is opened or closed.

The material of the keeper-plate 12, at its inner vertical edge, is offset inwardly as shown at 25, and extended to provide an adjustable striker plate, including an inner stationary plate 25, which is bent upon itself at 26, providing an outer plate 27. This outer plate extends outwardly and overlaps the inner plate and is arranged generally parallel therewith and is provided at its free end with an extension 28, at a right angle thereto, and preferably bent from the same, and this extension enters the opening or cutaway portion 20. The extension 28 is provided with an adjustable clamping screw 29, operating in a longitudinal slot 30. Upon manipulation of the screw 29, the extension 28 may be clamped to the adjacent side 10. The outer plate 27 is laterally shiftable with relation to the inner plate 25, the same swinging about the bent portion 26, and the extension 28 serves as a stop for the bolt. The inner plate 25 is provided with an adjustable set screw 31, engaging the inner face of the plate 27, and also serving to hold or support the plate 27 in the outer adjusted position.

The door 5 is provided with an opening 32, extending through its free edge and this opening

receives a housing 33 for a reciprocatory bolt 34, having an inclined or beveled face 35. The bolt 34 may be an outwardly spring pressed bolt of a latch, or the bolt of a lock, which bolt is projected by a key, or it may be a manually operated sliding bolt. The housing 33 has a door-plate 36 rigidly secured thereto and this door-plate is mounted upon the free edge of the door 5, as shown. A tubular fixed bolt guard or flange 37 is rigidly attached to the door-plate 36 and surrounds the outer end of the bolt 34. The guard 37 is smaller than the adjustable guard 15 and is adapted to be moved into the outer projected end of the guard 15, so that these two guards assume a telescoping relation, when the door is closed.

The operation of the device is as follows:

As is well known, a door frequently shrinks, thereby providing a crack or space between the free vertical edge of the door and the jamb. By removing the outer stop strip 7, the lock may be tampered with, and the bolt either retracted or cut so that the door can be improperly opened. To prevent this, my rectilinear reciprocatory tubular bolt guard 15 is shifted outwardly with respect to the keeper-housing 9, so that it will project beyond the keeper-plate 12 and have its free end arranged in close relation to the door 5, and overlap the outer end of the bolt 34, Figure 3. The outer side 16 is arranged next to the outer side of the door. The fixed bolt guard 37, when the door 5 is closed, also surrounds the free end of the bolt 34 and is arranged within the guard 15, and these two parts telescope. As shown in Figure 3, it would be impossible for an implement, upon the outer side of the door 5, to be passed inwardly beyond the telescoping guards 15 and 37, to retract the bolt 34, or cut the same. When the adjustable guard 15 is shifted to the selected position, it is clamped in this position by the clamping screws 21 and 23. Due to the shrinking of the door and wearing away of the beveled or inclined end of the bolt 34, this bolt may not have a secure locking engagement with the keeper-housing. By adjusting the screws 29 and 31, the outer plate 27 of the striker plate may be shifted outwardly toward the door, and locked in the selected position. This will bring the extension 28 in the path of travel of the outer end of the bolt 34, thus assuring that the bolt will have proper locking engagement with the extension 28 of the keeper-housing. The cutaway portion or opening 20 receives the extension 28 and permits of the adjustment of the outer plate 27 and also the adjustment of the guard 15.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same, and that various changes in the shape, size, and arrangement of parts, may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention, what I claim is:

1. In a lock or latch, a keeper-plate to be secured to a door jamb and having a bolt receiving opening, a striker plate carried by the keeper-plate and including overlapping inner and outer

plates, the outer plate having a lateral extension at its free end which enters the opening of the keeper-plate, adjustable means to clamp the extension in the selected adjusted position, and adjustable means engaging the outer plate to hold it in the selected adjusted position.

2. In a lock or latch, a keeper-plate having a bolt receiving opening, an extension carried by the keeper-plate and bent upon itself between its ends to provide inner and outer plates, the outer plate being laterally shiftable with relation to the inner plate, and adjustable means to hold the outer plate spaced from the inner plate.

3. In a lock or latch, a keeper-housing secured in a recess formed in the edge of a door jamb, a reciprocatory tubular bolt guard within the keeper-housing and having outer and inner sides, the inner side having an opening near its inner end, adjustable means to hold the tubular guard in a selected adjusted position, a striker plate secured to the keeper-housing and including overlapping inner and outer plates, the outer plate having an extension adjacent to its free end, said extension entering the opening of the inner side of the tubular guard, and adjustable means to hold the extension in a selected adjusted position.

4. In a lock or latch, a keeper-housing secured in a recess formed in the edge of a door jamb, a reciprocatory tubular bolt guard within the keeper-housing and having outer and inner sides, the inner side having an opening near its inner end, adjustable means to hold the tubular guard in a selected adjusted position, a striker plate secured to the keeper-housing and including an extension-element which is bent upon itself to provide overlapping inner and outer plates, the outer plate being provided at its free end with an extension disposed at substantially a right angle thereto and arranged in the opening of the inner side of the tubular guard and having its face substantially flush with the face of such inner side, and means for clamping the extension to the adjacent side of the keeper-housing in a selected adjusted position.

5. In a lock or latch, a keeper-housing secured in a recess formed in the edge of a door jamb, the keeper-housing having a longitudinal slot, a reciprocatory tubular bolt guard mounted within the keeper-housing, and having inner and outer sides, the inner side having an opening near its inner end, a clamping screw mounted within the longitudinal slot of the keeper-housing and engaging the tubular bolt guard to clamp the same to the keeper-housing in a selected adjusted position, a striker plate secured to the keeper-housing and including an extension-element which is bent upon itself to provide overlapping inner and outer plates, the outer plate being provided at its free end with an extension disposed at substantially a right angle thereto and arranged in the opening of the inner side of the tubular bolt guard, the keeper-housing having a longitudinal slot near the extension, and a clamping screw extending through the last named slot and engaging the extension to clamp the extension to the adjacent side of the keeper-housing in a selected adjusted position.

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