

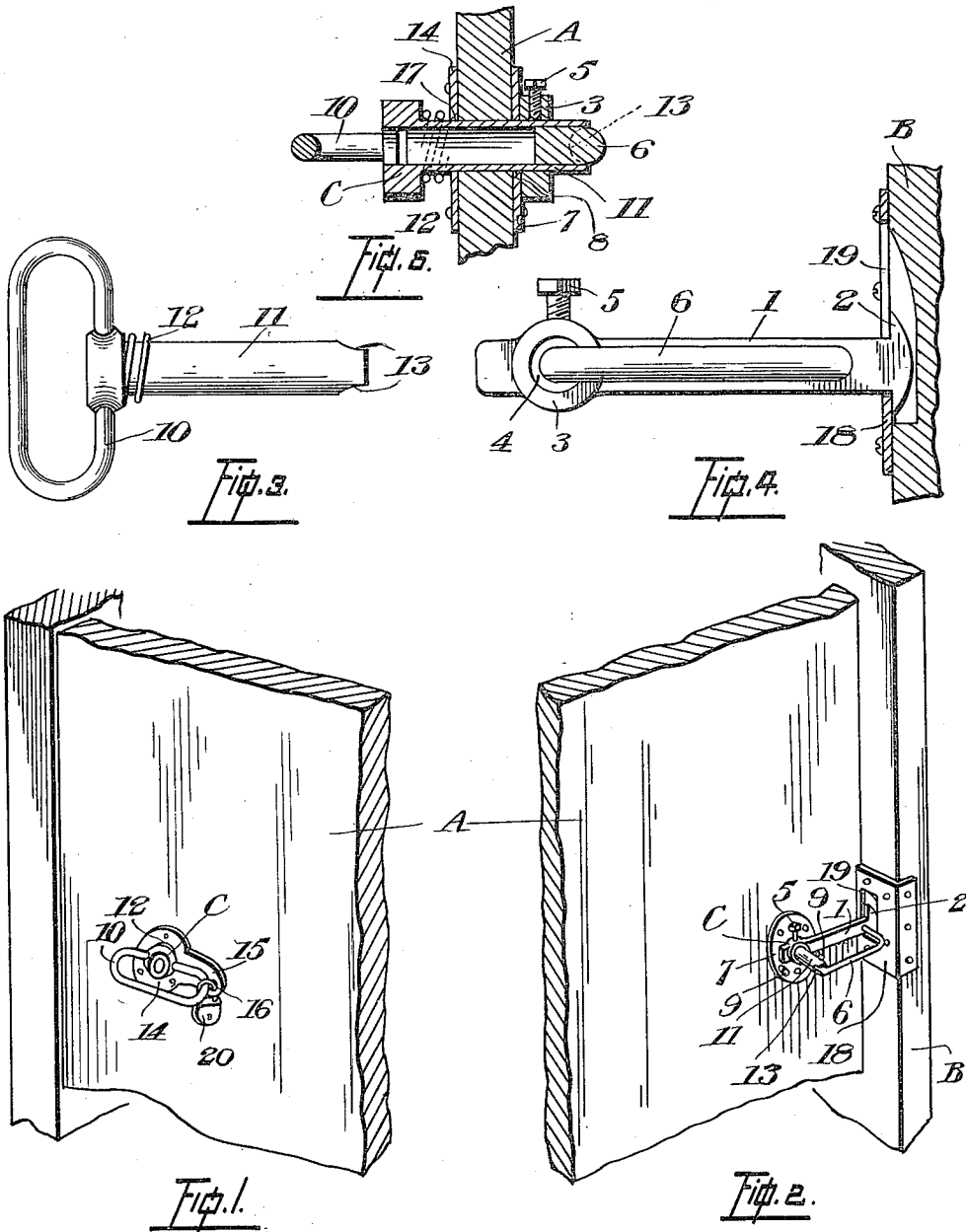
P. CASEY.

LATCH.

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1,144,587.

Patented June 29, 1915.



WITNESSES

Wm. H. May
Russell Smart

INVENTOR
P. CASEY.

BY *Hubert H. H. H.* ATTYS.

UNITED STATES PATENT OFFICE.

PATRICK CASEY, OF RICHMOND, ONTARIO, CANADA.

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1,144,587.

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To all whom it may concern:

Be it known that I, PATRICK CASEY, a subject of the King of Great Britain, and resident of Richmond, Province of Ontario, Dominion of Canada, have invented certain new and useful Improvements in Latches, of which the following is the specification.

This invention relates to latches designed to be utilized on doors and the like, and the objects of the invention are to render the latch adjustable and adapted to fit any thickness of door within working limits, to permit of the latch being used with hinged, sliding and generally with any type of door, to enable the latch being held in an open position so that closing of the same can only be effected by an operator, to simplify and reduce the number of working parts, to cheapen the cost of production and generally to adapt the several parts to better perform the functions required of them, and it consists essentially of the improved construction particularly described and set forth in the following specification and accompanying drawings forming part of the same.

In the drawings; Figure 1 is a perspective view of the front of a door and the jamb post, broken away, having the improved latch attached thereto. Fig. 2 is a perspective view of the back of a door and jamb post, broken away, having the improved latch fixed thereon. Fig. 3 is a perspective view of the latch handle and stem showing the spiral spring mounted thereon. Fig. 4 is an elevation of the back of the latch. Fig. 5 is a sectional elevation of the door broken away, and the improved latch mounted thereon.

Like characters of reference refer to like parts in the several drawings.

Referring to the drawings, A represents a door, B the jamb post and C the improved latch mounted on the said door, such door and jamb post being of any usual and convenient construction and not forming part of the present invention, except in so far that the improved latch is mounted thereon, it is deemed unnecessary to further enlarge on the same.

The latch C comprises the locking bolt 1 which is provided at one end with a transversely extending projection 2 formed integral therewith and near the opposite end with an outwardly extending boss having

a concentric orifice 4 extending there-through, such boss being provided on its upper side with a threaded orifice extending therethrough with which the set screw 5 is designed to make threaded engagement. This locking bolt is also provided with a U-shaped member 6 extending outwardly from the outer face thereof, the end of one of the parallel arms of such U-shaped member being formed integral with the latch bolt, the end of the other parallel arm being concentrically located in the orifice 4 of the boss 3, such U-shaped member being designed to lie in a horizontal plane at substantially right angles to the outer face of the said locking bolt.

7 represents a washer or plate which is adapted to be secured to the inner face of the door A by means of wood screws or the like, such washer being provided with a concentrically located orifice 8 extending therethrough and being provided on its outer face with a pair of pins or stops 9 extending outwardly therefrom and at substantially right angles thereto, the object of which will be made clear hereafter.

The handle 10 is provided with a hollow stem 11, extending therefrom and formed integral therewith on which the spiral spring 12 is mounted, the end of the said stem remote from the handle being provided with curved recesses 13, one of which is adapted to engage the bottom arm of the U-shaped member 6 thereby facilitating in transmitting rotary motion to the locking bolt.

In the embodiment illustrated a washer 14 is provided which is adapted to be mounted on the outer face of the door A and to be secured thereto by means of wood screws or the like, such washer having a concentrically located orifice 17 extending therethrough and being further provided with a radially extending and outwardly curved arm 15 formed integral therewith, the outer end of such arm having an orifice 16 therethrough.

The lock plate 18 is substantially angle shaped in cross section and is adapted to be secured to the jamb post B by means of wood screws or the like, such lock plate being provided with an orifice 19 extending therethrough and with which the transverse member 2 of the bolt 1 is designed to engage as will be explained hereafter.

The device is assembled in the following

manner: An orifice is drilled through the door located at the place where it is desired to attach the latch, the washers 14 and 7 being secured to the front and back faces of the door respectively by means of wood screws or the like and in such a manner that the orifice 17 and the orifice 8 register with the orifice in the said door. The stem 11 is now inserted into the orifice 17, the orifice in the said door and the orifice 8 with which it is designed to rotatably engage, the spring 12 being located between the inner face of the handle 10 and the outer face of the washer 14. The bolt member is now attached to the stem 11 in the following manner: The parallel arm of the U-shaped member 6, the end of which is concentrically located in the orifice 4, engages with the outer end of the hollow stem 11, the curved recesses 13 being designed to engage with the transverse or connecting arm of the said U-shaped member 6, in which position it will be quite clear that the stem 11 passes through the orifice 4 in which it is frictionally retained by means of tightening the set screw 5 in the boss 3.

In the operation of the device it will be seen that the spring 12 exerts a force on the inner face of the handle 10 which is adapted to hold the locking bolt 1 in an open position without the liability of the said bolt falling under the action of gravity into a horizontal position.

When the locking bolt is in engagement with the orifice 19 of the locking plate 18, it should be noticed that the handle 10 takes up a substantially horizontal position in which it is adapted to be secured by means of a padlock 20 which is designed to engage with the orifice 16 and with the said handle, thereby securely locking the handle in a fixed position and preventing the locking bolt 1 from being operated.

It will be quite clear that by the use of a transverse extending projection 2 fixed to the outer end of the locking bolt 1 that such a locking bolt may be applied with equally good results to a sliding door as to a hinged door.

The function of the projecting pins 9 is to prevent the locking bolt 1 from being rotated too far when disengaging the latch from the lock plate 19, the said locking bolt

1 being designed to take up a substantially horizontal position.

As many changes could be made in the above construction and many apparently widely different embodiments of my invention, within the scope of the claims, constructed without departing from the spirit or scope thereof, it is intended that all matter contained in the accompanying specification and drawings be interpreted as illustrative and not in a limiting sense.

What I claim as my invention is:

1. A latch of the class described comprising a locking bolt, a transversely extending projection formed integral with one end of the locking bolt, a boss located near the opposite end of the locking bolt having a concentric orifice therethrough and being provided with a threaded orifice extending through the outer periphery thereof, a set screw designed to engage with the said threaded orifice, a U-shaped member having the end of one of its parallel arms formed integral with the locking bolt, the end of the other parallel arm being concentrically located in the orifice of the said boss, a handle, a hollow stem formed integral with the handle, designed to engage on its outer periphery with the orifice in the said boss and on its inner periphery with the end of the concentrically located parallel arm of the said U-member, as and for the purpose specified.

2. A latch of the class described comprising a locking bolt, a boss located near one end thereof having an orifice therethrough, a U-shaped member having the end of one of its parallel arms integral with the locking bolt, the end of the other parallel arm being concentrically located in the orifice of the said boss, a handle, a hollow stem integral therewith adapted to engage the U-shaped member and boss, such stem having curved recesses in the free end thereof, one of which is adapted to engage and interlock with the concentric arm of the U-shaped member, substantially as described.

In witness whereof, I have hereunto set my hand in the presence of two witnesses.

PATRICK CASEY.

Witnesses:

JAMES MITCHELL,
WM. A. WYMAN.