F. N. HANDLER.

DOOR LATCH.

APPLICATION FILED MAR. 21, 1912.

1,054,290. Patented Feb. 25, 1913.

Fig. 1.

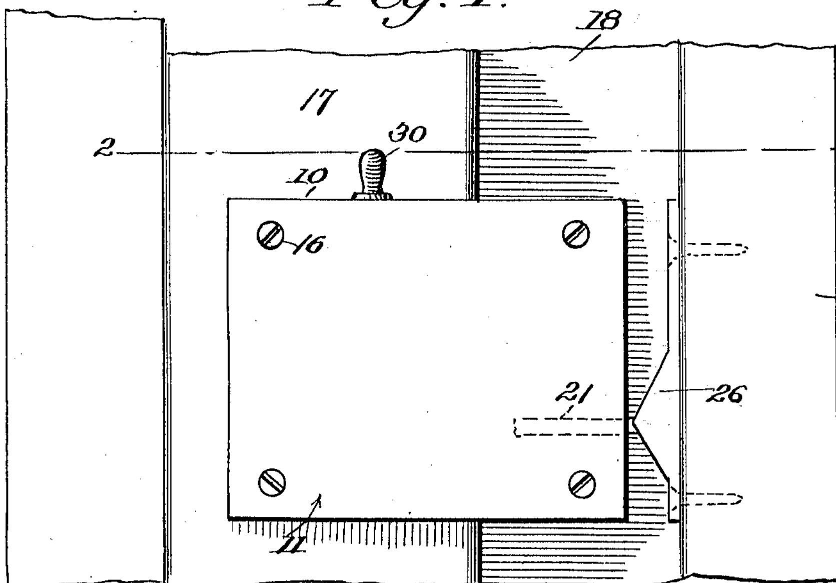


Fig. 2.

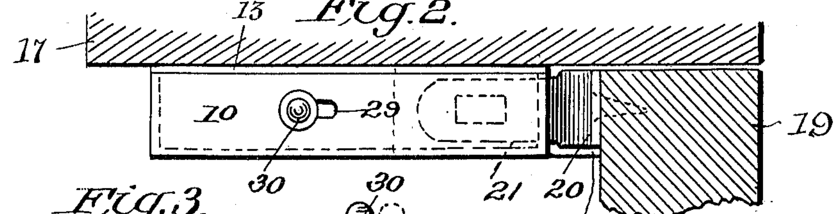


Fig. 3.

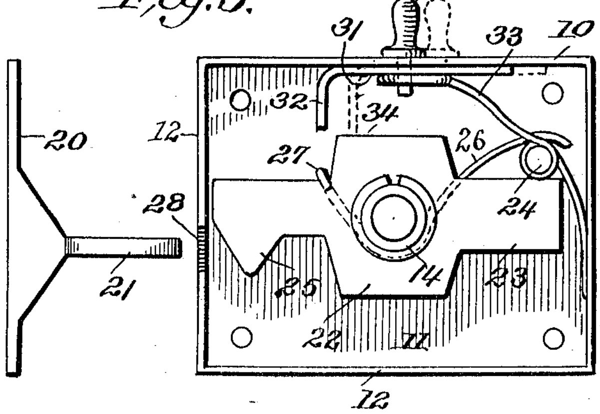
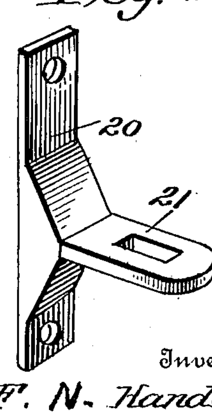


Fig. 4



Inventor

F. N. Handler

Witnesses

W. T. Woodson

By

Attorneys.

UNITED STATES PATENT OFFICE.

FRANK N. HANDLER, OF ST. JOSEPH, MISSOURI.

DOOR-LATCH.

1,054,290. Specification of Letters Patent. Patented Feb. 25, 1913.

Application filed March 21, 1912. Serial No. 685,283.

To all whom it may concern:

Be it known that I, FRANK N. HANDLER, citizen of the United States, residing at St. Joseph, in the county of Buchanan and State of Missouri, have invented certain new and useful Improvements in Door-Latches, of which the following is a specification.

This invention relates to improvements in door latches, more particularly to devices employed for securing screen and similar doors, and has for its object to provide a simply constructed device which holds the door yieldably against being accidentally opened, but which will yield when sufficient pressure is applied to the door, and which may be positively locked from release.

Another object of the invention is to provide a device of this character simple in construction, readily applied to doors of various sizes and to doors of different construction without structural change in the door or material structural change in the casing or jambs.

With these and other objects in view, the invention consists in certain novel features of construction as hereafter shown and described, and then specifically pointed out in the claims, and in the drawings illustrative of the preferred embodiment of the invention: Figure 1 is a front elevation of the improved latch applied to a door jamb and a portion of the door, the latter being in section; Fig. 2 is a plan view of the same with the door and door jamb in section on the line 2—2 of Fig. 1; Fig. 3 is a rear elevation of the improved latch with the rear cover plate detached; Fig. 4 is a perspective view of the catch member detached.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The improved device comprises a casing represented as a whole at 10, and preferably oblong in outline and constructed of a base plate 11 and sides 12, and with a detachable closure 13. Rising from the base 11 is a post 14 having a threaded aperture to receive a clamp screw whereby the closure 13 is secured to the casing. The casing 10 is provided with a plurality of apertures to receive the holding screws represented at 16, the latter extending through the casing and likewise through the closure. By this means the casing and its closure may be secured to the door jamb represented at 17. The casing is applied to the door jamb from the inside, and will generally be located in a cavity formed therefor through the stop member represented at 18. Attached to the door, a portion of which is represented conventionally at 19, is a catch device comprising a base plate 20 and a perforated catch plate 21, the latter designed to enter the casing 21 and engage the bolt therein. The plate 20 with its catch plate 21, is attached to the door in position to cause the member 21 to pass through an opening in the casing and engage the bolt therein when the door is closed as represented in Figs. 1 and 2.

Mounted to swing upon the post 14, and in the casing, is a bolt represented as a whole at 22, and extended at one end as shown at 23 to bear against a stop stud or post 24 and provided at the opposite end with a projection 25 having reversely inclined faces as shown in Fig. 3. A spring 26 surrounds the post 14 and is connected at one end at 27 to the bolt and bears at the other end against the stop post 24. By this means the spring exerts its force to maintain the bolt yieldably in position.

The flange 12 adjacent to the extension 25 is provided with an opening 28 through which the member 21 enters when the door is closed and engages against the outer face of the reversely inclined projection 25 and displaces the bolt 22 upwardly and passes beneath the projection so that the latter enters the aperture of the member 21, and thus automatically locks the door in closed position. By forming the projection 25 with the reversely inclined faces, the bolt will be displaced and permit the member 21 to enter the casing and be moved into engagement therewith through its slot, and the bolt displaced and the catch released when a sufficient pressure is applied. The spring 26 will be sufficiently strong to hold the bolt 10 against accidental displacement, but which will yield when a sufficient force is applied to the door.

Formed in the upper flange member of the casing is a longitudinal slot 29, and fitting through the slot is a pin 30, the pin being connected to a lock plate 31 bearing against the inner face of the slot flange and with a downwardly directed terminal 32. A spring 33 is coiled around the post 24 and bears at one end against the plate 31 and thus maintains the latter yieldably in position.

The bolt 22 is provided with a stop face 34 over which the depending portion 31 of the lock plate bears when the pin 30 is moved to one end of the slot 29 and thus prevents the elevation of the bolt 22, and when the pin 30 is moved to the opposite end of the slot 29 the downwardly directed terminal 32 is disconnected from the bolt as shown in Fig. 3. By this means a simply constructed locking device is produced whereby the bolt may be locked in position to prevent the displacement of the catch 21 when desired. Thus when the door is closed the catch will automatically engage the bolt and then by simply moving the pin 30 to one end of the slot 29, the bolt will be locked from displacement, as will be obvious. By this means a screen door may be readily locked in closed position when required.

The improved device is simple in construction, and can be inexpensively manufactured and applied.

The improved device may be manufactured right or left-handed as may be preferred, without structural change.

Having thus described the invention, what is claimed as new is:

1. In a latch lock, a casing, a bolt movably supported within said casing and including a downwardly directed projection having reversely inclined sides, a spring operating to yieldably maintain said bolt normally in downward position, a rigid catch adapted to enter said casing and engage said bolt projection, and locking means for engaging said bolt and holding the same from movement.

2. In a latch lock, a casing, a bolt movably supported within said casing and including a projection having reversely inclined sides, a catch adapted to enter said casing and engage said bolt projection, a spring operating to maintain said bolt yieldably in engagement with said catch and locking means including a plate slidably supported upon said casing and adapted to be moved into the path of said bolt and holding the same from movement.

3. In a latch lock, a casing having a slot, a bolt movably supported within said casing and including a projection having reversely inclined sides, a catch adapted to enter said casing and engage said bolt projection, a spring operating to maintain said bolt yieldably in engagement with said catch, a pin projecting through said slot, and a plate connected to said pin within the casing and having a depending terminal adapted to be moved into the path of said bolt and hold the same from movement.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK N. HANDLER. [L. S.]

Witnesses:
OTTO KADERLY,
THELLA V. HOGUE.