J. C. WATSON.

COMBINATION LATCH LOCK AND BOLT.

APPLICATION FILED NOV. 29, 1918.

1,326,554. Patented Dec. 30, 1919.

Fig. 1.

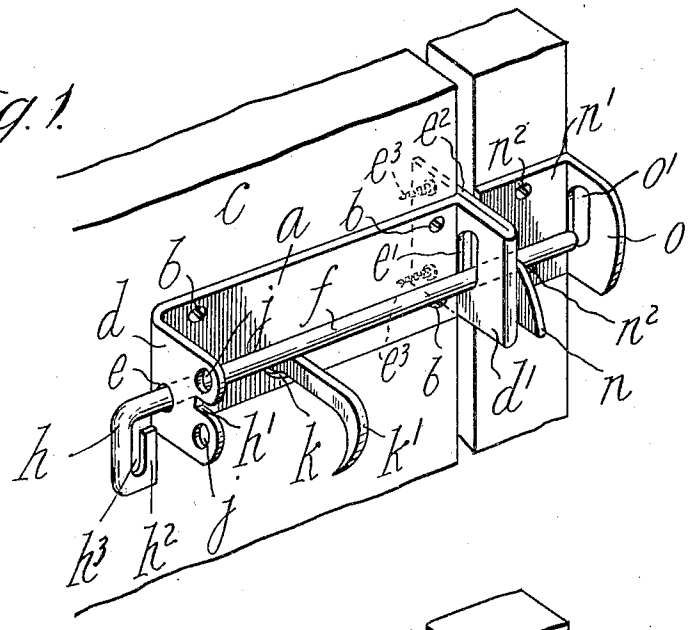


Fig. 2.

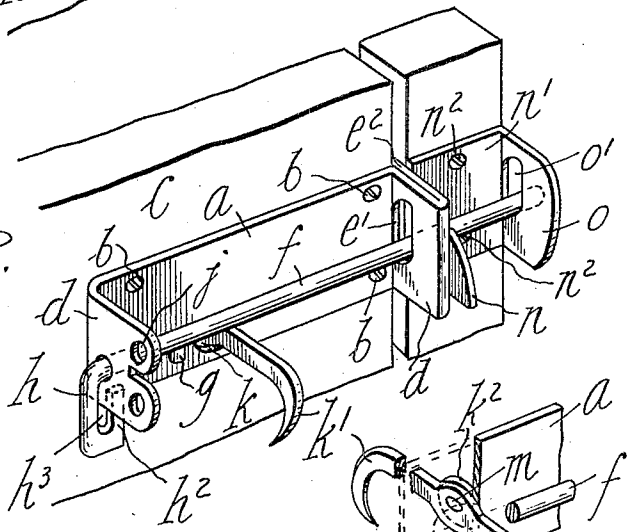


Fig. 3

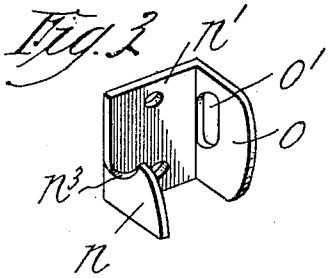
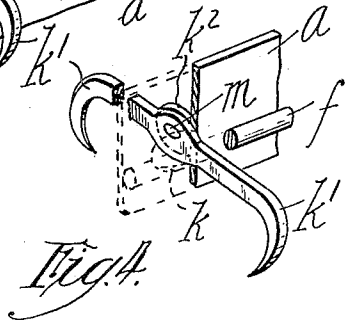


Fig. 4.



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COMBINATION LATCH-LOCK AND BOLT.

1,326,554. Specification of Letters Patent. Patented Dec. 30, 1919.

Application filed November 29, 1918. Serial No. 264,570.

To all whom it may concern:

Be it known that I, JOHN CAIL WATSON, a subject of the King of Great Britain, residing at No. 26 Alexander Parade, Clifton Hill, Victoria, Australia, have invented certain new and useful Improvements in Combination Latch-Locks and Bolts, of which the following is a specification.

This invention has been devised to provide improvements in the design and working of latch locks by embodying with such a contrivance, a slide bolt, the latter being freely usable in an unlocked condition, but lockable at any time by a slight movement of the hand.

In order that my invention may be the more easily understood, reference will be made to the accompanying sheet of drawings, in which—

Figure 1 is a view of the combination latch lock and bolt affixed in position on a gate, the bolt being free to be raised by the latch arm.

Fig. 2 is a similar view of Fig. 1 with the exception that the bolt hereinafter described is in a locked position, so preventing the gate being opened.

Figs. 3 and 4 illustrate details hereinafter to be referred to.

In a combination lock such as I have above referred to, I employ a broad longitudinal plate *a*, which, for the sake of illustration, but not in any way to limit the size I may use, is about 6″ in length by about 2″ in depth and composed of metal plate of about 3/16″ in thickness. The ends of such plate are returned at a right angle to the front or bolt side of such plate, the latter having countersunk perforations at each corner, through which screws *b* may pass to hold the plate to the woodwork *c* of the gate or door.

In the returned ends, respectively *d*, *d′*, are perforations *e*, *e′*, the former being curved, and the latter being elongated or oval. The end *d′* is preferably bent parallel, the bent end e^2 being secured by screws e^3 to the end face of the gate or door, the perforations respectively being sized to permit the operation therein of a bolt *f*. The latter is formed of a longitudinal round bar of preferably about a ½″ in diameter and provided in its length, within the returned plate, with riveted stud *g*, (see Fig. 2) to form a stopper piece, against the bolt being drawn out through the perforation *e′*. The end *h* of the bolt *f* is U-shaped, the portion h^2 being flat acting as a limitation stopper against the end *d* so regulating the forward movement and latching position of the bolt *f*. The width of the flat portion h^2 and space h^3 equals the length of the forward or rearward movement of the bolt *f* when engaging or disengaging the slot *o′* for locking or unlocking purposes.

In the returned plate *d* a control gap *h′* is cut out, so that the upwardly returned half of the bolt end may slide therein over the lower portion of the slotted end supporting plate, shown by dotted lines in Fig. 2, thus forming a lock against movement of the bolt *f* either backward or forward.

In the slotted end plate *d* the upper portions or bifurcations afforded by the slot are provided with perforations *j* so that a padlock (not shown) may be locked through either of such members to prevent the bolt *f* from being withdrawn when it is desired that the gate or door shall be locked against ingress.

An opening *k* is cut through the back plate of a sufficient width to permit a curved latch arm *k′* to pass in order that its downwardly curved end may operate underneath, and lift the bolt *f* to cause the latter to rock upwardly or downwardly as the exterior end of the latch is operated by the finger and thumb of the person desiring to enter the gate or door.

A hinged plate k^2 (see Fig. 4) is made in pressing out the slot, by so shearing the plate that the pressed out portion points outwardly for a sufficient distance to enable a pin *m* to pass through same and the latch arm *k′* to form a pivot on which the latch arm *k′* may rock. It will thus be seen that on moving the latch arm *k′* downward from the outside of the gate, the bolt *f* will lift to an inclined angle from the horizontal, the elongated or oval slot *e′* permitting such bolt end to lift so as to clear itself from its hasp. This latter is composed of a bent metal plate *n′*, the front portion being about two inches in depth by about one inch and a half in width, and having both ends returned to the front for an extra inch.

The hasp *n* is integral with the keeper plate *n′* secured to the right hand gate post by screws n^2. The hasp *n* has a slot n^3 to conveniently receive the bolt, and the right end of the plate is bent outwardly and is provided with an elongated or oval shaped

perforation o' in the vertigal position to permit the passing through of, and the upward rocking of the bolt f therein.

In practice when the appliance is being used as a latch the portion h at the end of the bolt f is outside or to the left of the bent portion d of the back plate a, (see Fig. 1), the bolt lying in the hasp n. When the finger operates the latch arm k' and pushes the door inwardly, the bolt f rises from its latch and slides down to the curved front of the hasp n. When the gate or door is slammed for closing, the bolt f rises over the curved front of the hasp and falls into the slot n^3 and is supported in that position.

When it is desired to lock the bolt f against intrusion, the returned end h of the bolt is lifted up to the horizontal and is pushed along so that the returned end hooks over the bifurcated plate d. The other end of the bolt f is thus sent into the elongated perforation o' in the bent plate o, the end h is then allowed to fall to a vertical position as shown in Fig. 2, the padlock may then be secured through the lower perforation of the perforations j in the returned end of the plate d.

The whole of the parts hereinbefore mentioned are preferably prepared from wrought metal steel, cast malleable or the like material.

I claim:

1. A combination latch-lock and bolt, including a pair of plates provided with bent ends having slots therein, a bolt movable through said slots and having a U-shaped end providing a flat portion and leaving a space, the flat portion acting as a limitation stopper to the bolt for latching purposes and acting in conjunction with the space for controlling the forward and rearward movement of the bolt to engage and disengage the slot in the outermost end piece of one of the plates.

2. A combination latch-lock and bolt, including supporting and keeper plates provided with bent ends having slots therein, one of the bent ends of the supporting plate being also provided with a horizontally disposed gap, a bolt slidable in the bent ends of the plates and designed with a flat portion at one end for passing through the gap.

3. A combination latch-lock and bolt, comprising a supporting plate provided with bent ends, one of the bent ends having an opening and a gap therein and also provided above and below the gap with padlock receiving perforations, the other bent end having a slot therein, a bolt slidable through the bent ends of the supporting plate, a keeper plate designed so that the bolt may be latched or locked therein, a rocking latch arm on the supporting plate for operating the bolt when the bolt is in a latched position, a U-shaped portion at one end of the bolt having a flattened terminal for passing through the gap in the bent end to facilitate the arrangement of the U-shaped portion in straddled relation with the said bent end and to hold the bolt in a locked position in the keeper.

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

JOHN CAIL WATSON.

Witnesses:

AUGUSTINE THOMAS MADDEN,

FLORENCE SINCLAIR.