T. C. MOORE.

DOOR SECURER.

APPLICATION FILED APR. 1, 1919.

1,339,856

Patented May 11, 1920.

Fig. 1.

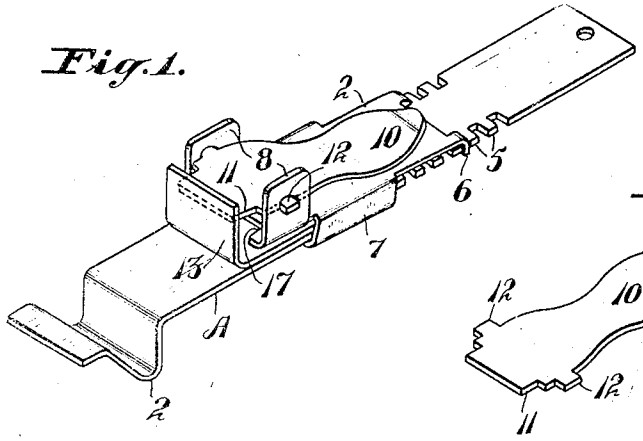
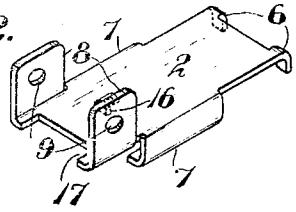


Fig. 3.

Fig. 2.



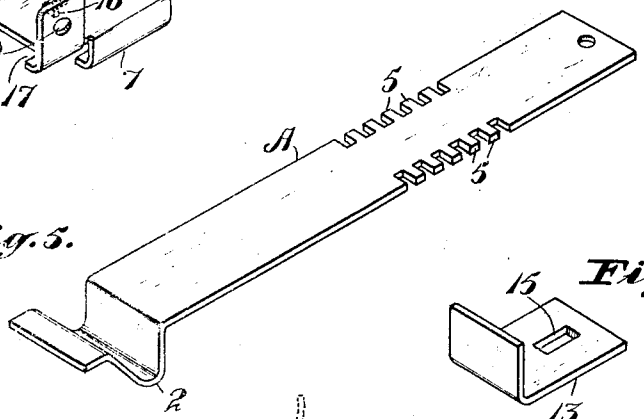


Fig. 5.

Fig. 4.

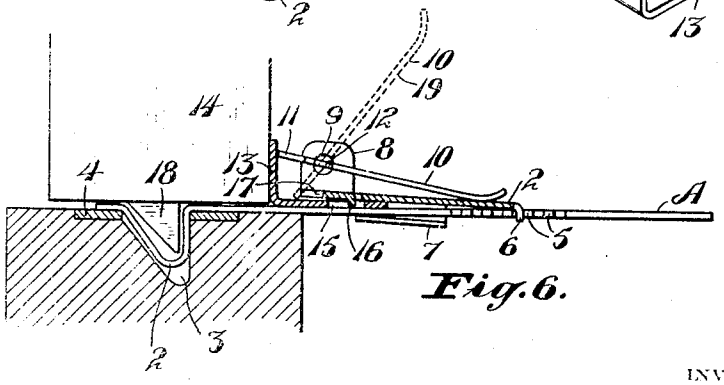


Fig. 6.

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UNITED STATES PATENT OFFICE.

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DOOR-SECURER.

1,339,856. Specification of Letters Patent. Patented May 11, 1920.

Application filed April 1, 1919. Serial No. 286,627.

To all whom it may concern:

Be it known that I, THOMAS C. MOORE, a citizen of the United States, residing at the city and county of San Francisco and State of California, have invented new and useful Improvements in Door-Securers, of which the following is a specification.

This invention relates to a door lock and particularly to an inside detachable form of lock which may be applied or removed whenever desired.

One of the objects of the present invention is to provide a simple, substantial, cheaply manufactured lock of the character described which may be adjusted to fit any standard door and which may be quickly applied or removed. Another object of the invention is to provide a locking lever by which the stop on the lock may be forced tightly up against the door, thereby eliminating any rattle or play of the door. Further objects will hereinafter appear.

The invention consists of the parts and the construction, combination and arrangement of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is a perspective view of the lock.

Fig. 2 is a perspective view of the sliding plate.

Fig. 3 is a perspective view of the locking lever.

Fig. 4 is a perspective view of the stop plate.

Fig. 5 is a perspective view of the main locking plate.

Fig. 6 is a sectional view of a door showing the application of the lock.

Referring to the drawings in detail, A indicates a main locking plate upon which is mounted a sliding plate 2. Formed on one end of the main locking plate is an offset projection, such as shown at 2, which is so shaped that it may be inserted in a recess 3 formed in the striking plate 4 with which practically all door locks are equipped. Formed on the opposite end of the main locking plate and on each side thereof is a plurality of alined teeth 5, and adapted to interlock with said teeth to secure the sliding plate against movement when the lock is in use, is a pair of downwardly extending lug-like projections 6. For the purpose of preventing separation of the sliding plate with relation to the main locking plate, except such as may be secured by endwise sliding movement, a pair of guide lugs 7 are provided. These lugs, together with the lugs 6, are formed integral with the sliding plate. The lugs 6 are positioned so that they may be entered between the teeth 5, while the lugs 7 are merely folded over the lower side of the main plate to prevent separation or removal of the sliding plate, except by endwise movement.

Formed on the forward end of the sliding plate is a pair of upwardly extending lugs 8 which are perforated, as at 9, for the reception of a locking lever, such as shown in Fig. 3. This lever consists of a handle section 10, a head member 11 and a pair of pintle members 12 which are formed integral with the head member. The pintles 12 formed on the lever are adapted to be supported by the perforated lugs formed on the sliding plate and it is therefore possible to impart a pivotal or swinging movement to the locking lever as will hereinafter be described.

Interposed between the sliding plate and the main locking plate is a stop plate 13. This plate is adapted to coöperate with the sliding plate to secure the door 14 against being opened when the lock is applied. The stop plate 13 is so mounted that a limited sliding movement may be imparted thereto, this being accomplished by forming a longitudinally disposed slot 15 in its rear end into which projects a pin 16 secured on the sliding plate. The movement of the stop plate with relation to the sliding plate is thus limited and separation of the two plates is also prevented. To permit a free swinging movement of the locking lever 10 between the perforated lugs 8 a recess has been formed between the lugs, as shown at 17. This recess is formed by cutting out the metal between the lugs and thereby forms a space in which the head member of the lever may freely swing when the lock is to be applied. This is accomplished in the following manner:

The sliding plate, the stop plate 13 and the locking lever carried by the sliding plate are first moved rearwardly on the main locking plate. This is then applied to the door in such a manner that the offset section 2 will enter the recess 3 formed on the striking plate of the door. The door proper is then closed and the latch 18 contained therein is permitted to snap into place on top of the offset portion, thus temporarily

securing it in place. The locking lever is now swung to the dotted line position shown at 19 (see Fig. 6) and the sliding plate, together with the stop plate, is moved in unison until the stop plate engages the inner surface of the door. The lugs 6 are next pressed downwardly into engagement with the teeth 5 and the lock is finally secured by depressing the lever 10. Depression of the lever causes the forward end of the head member 11 to engage the stop plate and force this tightly up against the door. Considerable pressure is exerted against the door in this manner and the lock is forced firmly into position, as the lever serves the function of a cam when depressed. The lever is furthermore locked in this position, as the pivotal mounting of the same is such that it assumes an inclined position beyond the center line drawn through the pivotal mounting, thus preventing the lever from becoming accidentally released if the door should be violently shaken or handled.

The lock thus applied cannot be removed except from the inside, as a jimmy or other tool forced between the door and the jamb would prove of no avail unless the door frame or jamb was entirely cut away. Practically any pressure exerted from the exterior side of the door should also be amply taken care of by the lock, as the sliding plate is securely held in position by the double row of teeth 5 and the lugs 6 engaging the same, and, as all parts of which the lock is constructed are formed of comparatively heavy metal, it can readily be seen that it will be almost impossible to force the door by external pressure.

A lock constructed as here shown should prove of great utility to every household, and should be particularly useful to traveling men and the like who are constantly occupying strange rooms in hotels, as the lock, as here shown, can be conveniently carried in the pocket or in a grip and may be quickly applied when retiring at night and just as easily removed when not required. It may be applied as a safety or additional lock to any door, as it does not interfere with the operation of any other lock that may be employed.

While a more or less specific structure is here shown, I wish it understood that the design and shape of the several parts employed may be varied and that the materials and finish of the several parts may be such as the experience and judgment of the manufacturer may dictate.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. A detachable door locking device including a main locking plate having an angular bend at one end adapted to engage the lock mortise between the door edge and the casing and having notches or serrations on opposite edges of the opposite end, a plate having downturned guiding clasps slidable on the locking plate, and with downturned lugs to engage the notches of the main plate, a plate between the two having a limited sliding movement, an upturned end adapted to abut against the door when closed upon the locking plate, and a lever fulcrumed between lugs on the main slidable plate, said lever being mounted to swing in a plane normal to the surface of a main slidable plate so that its outer end will abut against the upturned end of the intermediate plate to retain said plate in contact with the door.

2. A detachable door locking device including a main locking plate having an angular bend at one end, adapted to engage the lock mortise between the door edge and the casing and having notches or serrations on opposite edges at the opposite end, a main sliding plate having down-turned guiding clasps slidable on the locking plate and with down-turned lugs to engage the notches of the locking plate, an intermediate plate between the two and slidably mounted between the same, an up-turned end on said plate adapted to abut against the door when closed upon the locking plate, a lever fulcrumed between lugs formed on the main sliding plate, said lever being mounted to swing in a plane normal to the surface of the main sliding plate so that its outer end will abut against the up-turned end of the intermediate plate to retain said plate in contact with the door, a slot formed in said intermediate plate, and a lug on the main sliding plate entering the slot in the intermediate plate to limit the movement thereof.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

THOMAS C. MOORE.

Witnesses:
JOHN H. HERRING,
W. W. HEALEY.