A. LOCHHEAD.

DOOR SECURER.

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1,033,255.

Patented July 23, 1912.

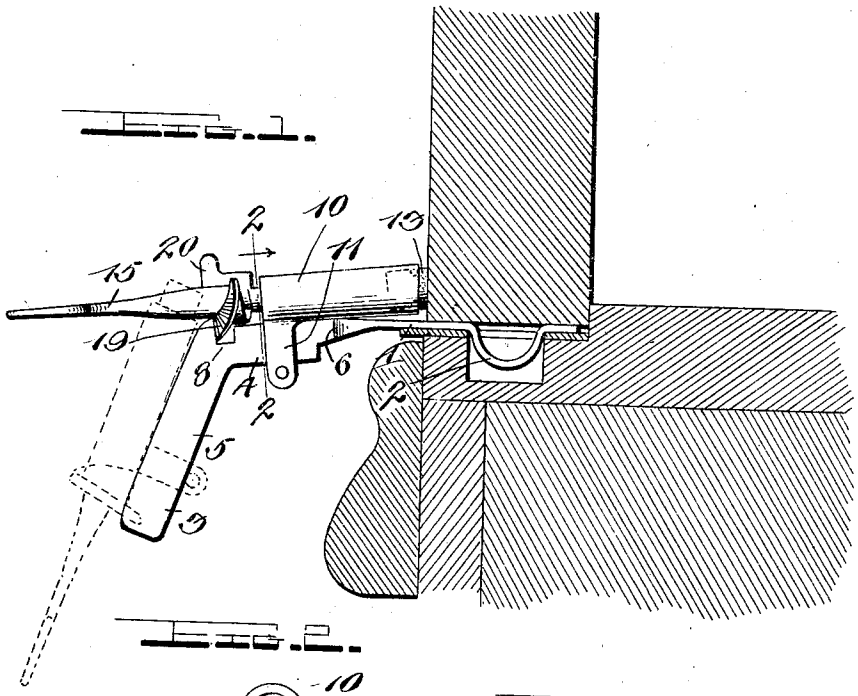

FIG. 1.

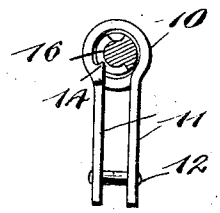

FIG. 2.

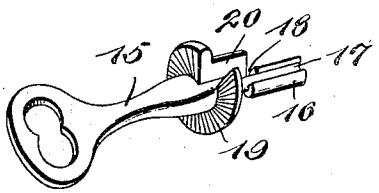

FIG. 3.

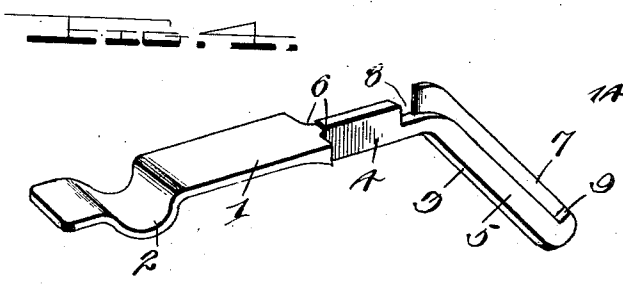

FIG. 4.

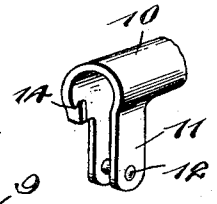

FIG. 5.

Witnesses

Chas. L. Griesbauer.

A. B. Norton.

Inventor

A. Lochhead,

By Watson E. Coleman

Attorney

UNITED STATES PATENT OFFICE.

ANDREW LOCHHEAD, OF SAN FRANCISCO, CALIFORNIA.

DOOR-SECURER.

1,033,255. Specification of Letters Patent. **Patented July 23, 1912.**

Application filed April 1, 1912. Serial No. 687,742.

To all whom it may concern:

Be it known that I, ANDREW LOCHHEAD, a subject of the King of England, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Door-Securers, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates generally to builders' hardware and more particularly to door securers, the invention having for its primary object a simple and efficient construction of device which may be conveniently applied to the latch keeper of a door and when in operative position hold the door securely closed and prevented from rattling.

The invention also has for its object a device of this character which will be secure and positive in its action to prevent the unauthorized opening of the door, and which may be easily carried about the person or in a hand bag, whereby a traveler for instance may always have at hand means for securely locking the door of his room in case the door itself is not provided with a bolt or other form of lock.

A still further object of the invention is a device of this character the parts of which may be easily manufactured and readily assembled and the invention also aims to generally improve this class of locks and to render them more useful and commercially desirable.

With these and other objects in view as will more fully appear as the description proceeds, the invention consists in certain constructions, arrangements and combinations of the parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention reference is to be had to the following description and accompanying drawings, in which:—

Figure 1 is a horizontal sectional view through a door casing and door, illustrating my improved lock in applied position; Fig. 2 is a transverse section on the line 2—2 of Fig. 1; Fig. 3 is a detail perspective view of the key of the device; Fig. 4 is a similar view of the supporting bar; and Fig. 5 is a fragmentary perspective view of the barrel of the device which is slidingly mov'd on the supporting bar.

Corresponding and like parts are referred to in the following description and designated in the accompanying drawing by like reference characters.

My improved door latch or lock includes a bar 1 which is formed near one end with a bend 2 which is designed to be inserted in the latch keeper of a door casing, as clearly illustrated in Fig. 1. The bar 1 is formed with a laterally reduced extension 3, one end of said extension designated 4, extending in line with the main portion of the bar, and the other portion of the extension designated 5, extending angularly, as shown. The bar 1 is formed with shoulders 6 where the extension 3 begins and the said extension is formed in one side of its angular portion with a longitudinally extending groove 7 which terminates at one end in a transverse recess 8 and at its other end in a shoulder 9, as clearly illustrated in Fig. 4.

10 designates the barrel of the locking device. This barrel is formed at one end with laterally spaced arms 11 which straddle the angular extension 3 of the bar 1, a pin or rivet 12 extending through the ends of the arms 11 so as to hold the barrel on the extension 3 for a longitudinal sliding movement thereon. The barrel 10 is provided at one end with a preferably rubber plug 13 which is designed to directly engage the outer face of the door as clearly illustrated in Fig. 1, whereby to prevent marring or otherwise injuring the finish of the door.

The rear or outer end of the barrel 10 is formed with an interior lug 14 designed to detachably retain a key 15 in proper relation to the barrel. For this purpose, the key 15 is formed at one end with a bit 16, said bit being formed with a longitudinal groove 17 terminating at its inner end in a spiral recess 18, bounded on one side by a spiral cam 19 which is intersected by a longitudinal slot 20. To enter the bit 16 into the end of the barrel 10, the barrel is first slipped over the angular extension 3 of the bar 1 and held at the point where the two angular portions of the extension meet, and the bit 16 is then slipped into the rear or outer end of the barrel, the groove 17 registering with the lug 14. When this inward movement causes the lug 14 to register with the slot or transverse spiral recess 18, the key is given a partial rotation in a clock-wise direction, which will cause the lug to ride in the spiral recess 18 and thereby detachably connect the key to the

barrel. By forming the key 15 with a longitudinal slot 20 intersecting the cam 19, the key and barrel may be easily slid along the extension 3 of the bar 1 to the inoperative position illustrated in dotted lines in Fig. 1, the entire removal or detachment of the key and valve being prevented by the cam abutting against the shoulder 9. In the operative position of the key and barrel, illustrated in full lines in Fig. 1, the cam 19 registers with the transverse recess 8.

From the foregoing description in connection with the accompanying drawing, the operation of my improved door locking device will be apparent. In the practical use of the device, the bend 2 of the bar 1 is inserted in the latch keeper of the door casing and the barrel and key are backed off to the position illustrated in dotted lines in Fig. 1. The door is then fully closed and the barrel and key slipped inwardly along the angular extension 3 of the bar 1 toward the door so that the buffer or plug 13 will engage with the outer face of the door, at which time the cam 19 will come into registry with the transverse recess 8, and the key is then given a partial rotation in a counter-clockwise direction which will cause the barrel to be forced forwardly against the door so as to compress the plug 13 and cause the door to be securely held in closed position. The convenience of the device is at once evident.

While the accompanying drawing illustrates what I believe to be the preferred embodiment of my invention, it is to be understood that the invention is not limited thereto but that various changes may be made in the construction, arrangement and proportion of the parts without departing from the scope of the invention as defined in the appended claims.

Having fully described my invention what I claim is:

1. A device of the character described, including a supporting bar, a barrel slidingly mounted on said bar, the bar being provided with a recess, and a key having a rotary connection with the barrel and formed with a cam adapted to engage the wall of the recess, for the purpose specified.

2. A device of the character described, including a supporting bar formed with an angular extension, and having a recess, a barrel mounted to move on the angular extension of the bar, and a key having a rotary connection with the barrel and formed with a spiral cam adapted to enter said recess for the purpose specified.

3. A device of the character described, including a supporting bar, a barrel mounted for a sliding movement on the bar, the bar being formed with an angular extension and a transverse recess and a groove communicating with said recess, and a key having a rotary connection with the barrel and formed with a spiral cam adapted to enter said recess and with a longitudinal slot intersecting the cam and designed for registry with said groove.

4. A device of the character described, including a supporting bar designed for engagement with the latch keeper of a door, said bar being formed with an angular extension and with a transverse recess and with a longitudinally extending groove communicating with said recess and terminating at one end in a shoulder, a barrel mounted for sliding movement on said extension, and a key having a rotary connection with said barrel and formed with a spiral cam adapted to register with said recess and with a longitudinal slot designed to register with said groove.

5. A device of the character described, including a supporting bar formed with an angularly disposed extension, a barrel mounted for movement on said extension, and a key having a rotary connection with the barrel and provided with a transverse cam adapted for engagement with said extension and with a longitudinal slot intersecting said cam.

6. A device of the character described, including a supporting bar formed with an angular extension, a barrel provided with spaced arms straddling said extension and slidingly mounted thereon, the barrel being provided at one end with an interior lug, and a key formed at one end with a bit having a longitudinal groove terminating at its inner end in a spiral recess adapted to receive said lug, the key being also formed at one side of said spiral recess with a spiral cam and with a longitudinal slot intersecting the cam, the extension of the bar being formed with a transverse recess designed to receive said cam.

7. A device of the character described, including a supporting bar, a barrel slidingly mounted on said bar, and a key having a rotary connection with the barrel and a cam connection with the bar.

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

ANDREW LOCHHEAD.

Witnesses:
W. E. JOHNSON,
W. J. GEORGE.