

W. N. MORSE AND W. F. WILLIAMS.
 AUXILIARY LATCH.
 APPLICATION FILED MAR. 29, 1921.

1,436,892.

Patented Nov. 28, 1922.

Fig. 1

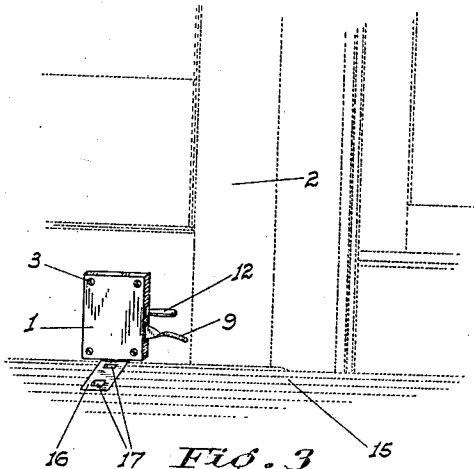


Fig. 2

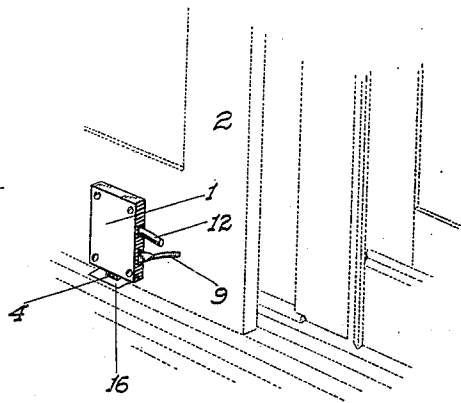


Fig. 3

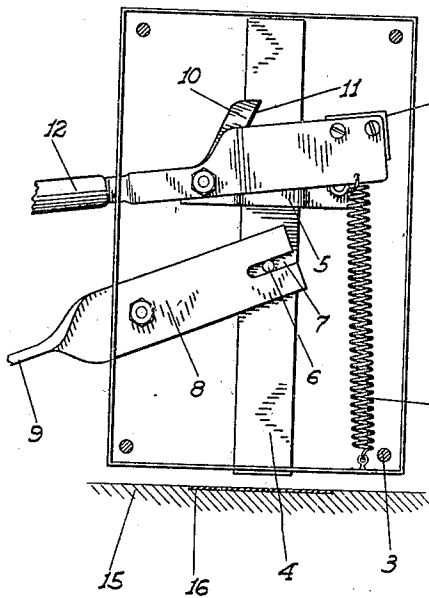
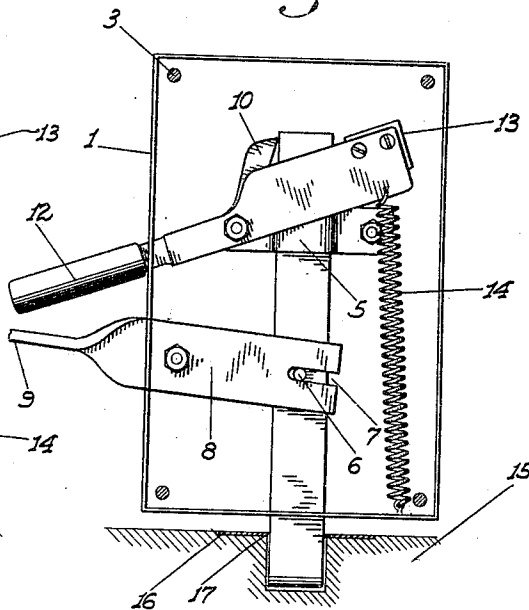


Fig. 4



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AUXILIARY LATCH.

Application filed March 29, 1921. Serial No. 456,529.

To all whom it may concern:

Be it known that we, WALTER N. MORSE, residing at San Francisco, in the county of San Francisco, State of California, and
5 WALTER F. WILLIAMS, residing at Oakland, in the county of Alameda, State of California, both citizens of the United States, have invented certain new and useful Improvements in Auxiliary Latches; and we do
10 declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this application.

15 This invention relates to improvements in latches, and particularly to a type adapted for use on ordinary house doors and arranged to operate either when the door is entirely closed or when it is partially opened, and to be used independently of the lock ordinarily provided.

20 The principal object of our invention is to provide a lock for this purpose which may be operated by the foot of a person within the house, either to throw it into actuating position or to hold it against locking movement.

25 With a door having our improved latch installed thereon however, the person opening the door may instantly set the latch in its working position, so that when the door is opened part way, the latch will engage a slot in the floor and the door cannot then be forced further open without the use of excessive force and noise, which a criminal is
30 of course anxious to avoid. The house holder can thus see and converse with the party outside, but the latter cannot enter the house unless his identity is satisfactorily established. In this case the latch bar can
35 easily be removed from its slot by a movement of the foot of the person inside the house.

40 It is also desirable at times to leave the door partly open, for purposes of ventilation as in hot weather, and this can now be done with the assurance that no undesirable person can gain admission even though no one is in the room.

45 A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purposes which it is designed.

50 These objects we accomplish by means of such structure and relative arrangement of

parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views.

Fig. 1 is a front view of our latch, as attached to the interior surface of a door, the latter being closed and the latch being in disengaged position.

Fig. 2 is a similar view, showing the door partially opened and the latch engaged.

Fig. 3 is an enlarged detached rear view of the lock box showing the latch held in disengaged position.

Fig. 4 is a similar view showing the latch engaged with its floor-slot.

Referring now more particularly to the characters of reference on the drawings, the numeral 1 denotes a casing or box of suitable dimensions, adapted to be attached to the interior of a door 2, a certain distance from its free edge, and adjacent the floor, by means of screws 3 or otherwise.

Vertically positioned in the box and projecting through the bottom thereof is a locking bar 4, preferably of substantial proportions, and quite heavy, so that it will readily drop by gravity. This bar passes freely through a guide strap 5 in the box, which, with the bottom slot in the box, insure the vertical alinement of said bar.

A pin 6 projects from the bar 4 and rides in a slot 7 on the inner end of an arm 8 which projects through one side or edge of the casing to form a pedal 9, being pivoted in the casing intermediate its ends.

Positioned in substantially vertical alinement with the arm 8 and pivoted in the casing thereabove is a pawl member 10 adapted to engage a notch 11 cut in one face of the bar 4, the pawl and notch being so positioned as to co-operate to hold the bar against downward movement. Attached to the pawl and projecting through the side of the casing above the arm 8 is a trip 12, of lesser area and length than the pedal 9, so that the latter can be manipulated without interference with the trip. Beyond the pawl and connected therewith is a counterbalancing weight 13, so as to normally hold the pawl in engagement with the notch.

To insure however against the pawl jumping out of the notch and releasing the bar 4 at undesired times, as when the householder goes out and slams the door behind

him, making it impossible for him to re-
enter through the door, a spring 14 is at-
tached to the weight 13 and to the casing
and acts in conjunction with the weight to
5 hold the pawl engaged.

Set in the floor 15 of the building is a
plate 16, preferably provided with a pair of
slots 17 to receive the bar 4, one of said slots
being positioned to receive the bar 4 when
10 the door is closed, and the other to receive
said bar when the door is partially opened,
as shown on Fig. 2, the extent to which the
door may be opened depending on the dis-
tance the box 1 and plate are placed from
15 the hinged edge of the door.

This latch is also adapted for use with
sliding doors, in which case the plate 16
would extend parallel to the door, the loca-
tion of the plate being the only difference
20 necessary.

In operation, suppose the bar 4 to be held
from action, and it is desired to cause the
same to engage with the innermost floor-slot,
or when the door is partly opened. As soon
25 as the door is opened so that the bar 4 is
out of line of the first floor-slot, the trip 12
is depressed by the foot, when the bar will
drop, by reason of its weight, to rest on the
floor or plate 16, the amount of movement
30 thus allowed the bar being sufficient to throw
the notch therein out of alinement of the
pawl. Then when the door is opened still
further, the bar will enter the inner slot
when it arrives in alinement therewith, at
35 the same time raising the pedal 9. To dis-
engage the bar from the slot, the pedal 9 is
depressed to its full extent of possible move-
ment, which will again aline the notch in
the bar with the pawl, and the latter will
40 then automatically seat therein.

If desired, the plate-slot positioned to re-
ceive the bar when the door is closed may be
omitted.

From the foregoing description it will be

readily seen that we have produced such a 45
device as substantially fulfills the objects of
the invention as set forth herein.

While this specification sets forth in de-
tail the present and preferred construction 50
of the device, still in practice such deviations
from such detail may be resorted to as do
not form a departure from the spirit of the
invention, as defined by the appended claims.

Having thus described our invention, what
we claim as new and useful and desire to se- 55
cure by Letters Patent is:

1. A latch structure comprising a casing
adapted to be attached to a door, a vertical
weighted bar slidably mounted in the casing
and adapted to project into a floor slot there- 60
below, a spring-pulled lever pivoted in the
casing adjacent the bar and projecting from
one edge of the casing to form a pedal, a
pawl fixed on the lever adjacent its piv-
otal connection and adapted to engage a 65
notch in the bar when the latter is raised,
and another pedal member pivoted in the
casing under the lever and in substantially
the same vertical plane as the lever, said
last named pedal member being flexibly con- 70
nected to the bar, and projecting beyond
the first named pedal member outside the
casing.

2. A latch structure comprising in combi-
nation with a casing adapted to be attached 75
to a door, a vertical weighted bar slidably
mounted in the casing, and adapted to pro-
ject therebelow, and manually operable
means for normally holding the bar up-
wardly while permitting it to drop by 80
gravity when said means is actuated; a slot-
ted floor plate, the slots in said plate being
positioned in the path of movement of the
bar when the door is moved.

In testimony whereof we affix our signa- 85
tures.

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