

A. M. HOOD.
 EMERGENCY EXIT ATTACHMENT FOR KNOB LATCHES.
 APPLICATION FILED OCT. 15, 1908.

927,654.

Patented July 13, 1909.

Fig. 1.

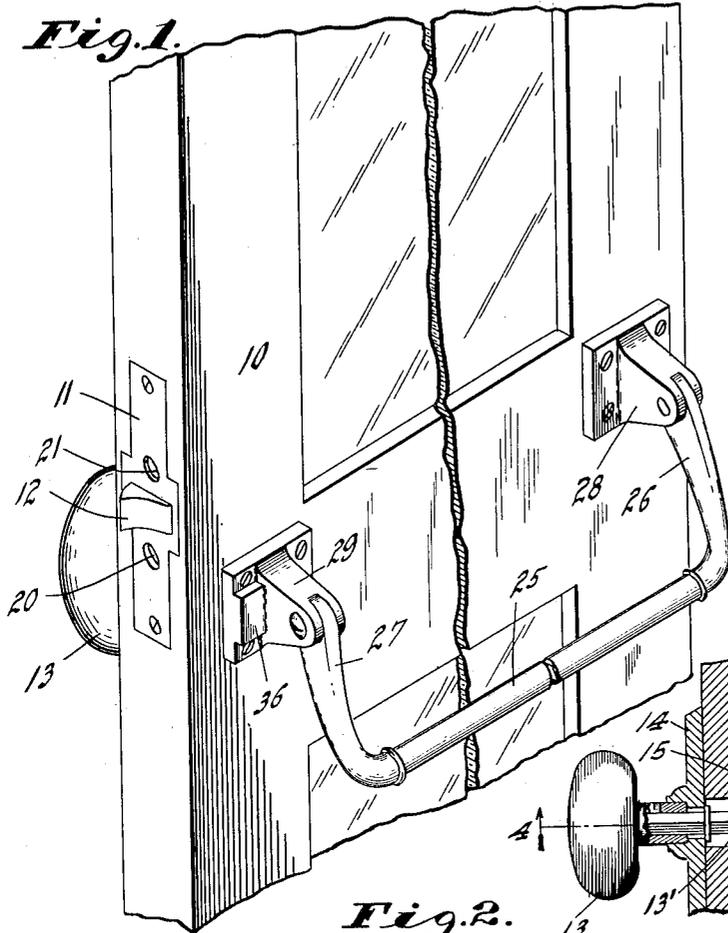


Fig. 5.

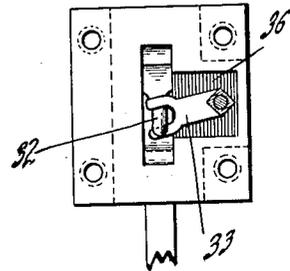


Fig. 3.

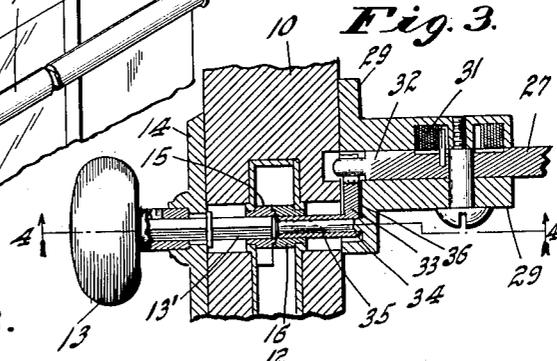


Fig. 2.

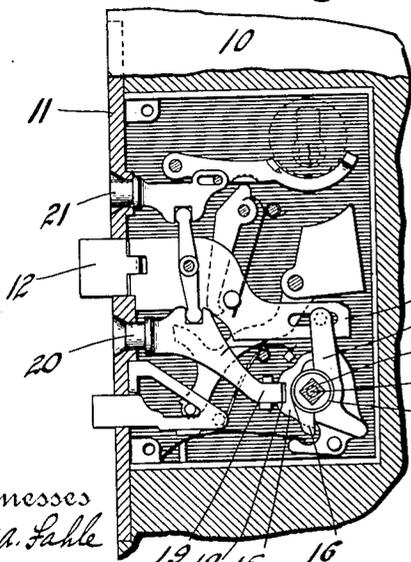
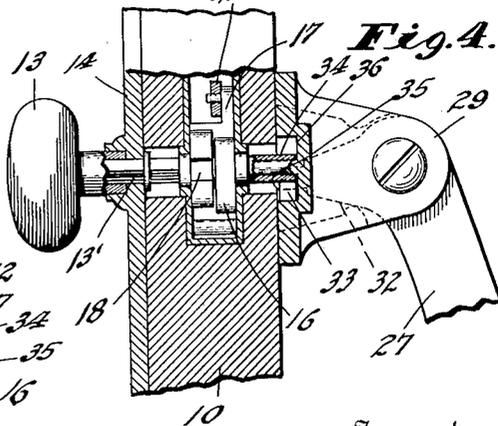


Fig. 4.



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UNITED STATES PATENT OFFICE.

ARTHUR M. HOOD, OF INDIANAPOLIS, INDIANA, ASSIGNOR TO VON DUPRIN FIRE EXIT LATCH CO., OF INDIANAPOLIS, INDIANA, A COPARTNERSHIP.

EMERGENCY-EXIT ATTACHMENT FOR KNOB-LATCHES.

No. 927,654.

Specification of Letters Patent.

Patented July 13, 1909.

Application filed October 15, 1908. Serial No. 457,788.

To all whom it may concern:

Be it known that I, ARTHUR M. HOOD, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Emergency-Exit Attachments for Knob-Latches, of which the following is a specification.

The object of my invention is to produce a device which can be readily attached to the inner face of an outwardly swinging exit door in substitution for the ordinary and usual knob by means of which the bolt of a standard and ordinary mortise knob-latch may be withdrawn by a pressure applied to the device in a direction having a component in the direction of opening of the door.

The accompanying drawings illustrate an embodiment of my invention.

Figure 1 is a perspective of a portion of a door equipped with an ordinary mortise, vestibule, dead locking knob-latch and also equipped with my improved attachment; Fig. 2 is a side elevation in partial vertical section through the bolt-casing; Fig. 3 a horizontal section through the knob axis; Fig. 4 a section at right angles to Fig. 3 on line 4—4 of Fig. 3; Fig. 5 an elevation of the inner face of one of the brackets.

In the drawings, 10 indicates an ordinary swinging door and 11 an ordinary mortise vestibule dead locking knob latch provided with a movable bolt or latch-tongue 12 which is operable, through any suitable intermediate mechanism, by the usual knob 13 carried by the finish-plate 14 adapted to be secured to the face of the door. In such a latch there is usually provided a pair of coaxial sleeves 15 and 16 each provided with a squared hole adapted to receive the squared inner end 13' of the stem of the knob 13. The two sleeves 15 and 16 are independently rotatable and each adapted, by rocking in either direction, to engage a lever 17 connected by any suitable connection with the bolt 12 so as to withdraw the same. The sleeve 15 (which is engaged by the stem of the knob on the outer face of the door), is provided with a notch 18 into which may be projected a finger 19, the position of which may be controlled by the usual push buttons 20 and 21, said finger 19, when projected into the notch 18, serving to prevent any possible manipulation of the bolt by means of the outer knob, but not interfering in any manner with manipulation of the bolt

through the medium of the sleeve 16. The latch, which I have described is an ordinary standard mortise latch, and my present invention has nothing whatever to do with the specific details of construction of such a latch, such details varying to a very considerable extent with the different manufacturers, but all such latches possess the two sleeves 15 or 16, or their mechanical equivalents.

My attachment comprises a bar 25 which is adapted to lie substantially parallel with the inner face of the door and extends transversely across the same practically its entire width. Carried by the opposite ends of bar 25 are transversely extending arms 26 and 27. Pivoted to the arm 26 is a bracket 28 adapted to be secured to the inner face of the door 10, and pivoted to arm 27 is a bracket 29 also adapted to be secured to the inner face of the door 10 and, in general, of the same shape as bracket 28. The arms 27 are normally urged outwardly, so as to hold bar 25 away from the face of the door, by a suitable spring 31 nested in each of the brackets 28 and 29 and engaging the adjacent arm 26 or 27. Arm 27, at its inner end, is provided with a finger 32 which extends through the bracket 29 and is formed at its inner end so as to lie between the tines of a forked arm 33 carried by a sleeve 34 journaled upon a pin 35—secured to or formed integrally with bracket 29 in the bottom of a pocket 36 preferably formed in the door-face of the bracket 29, so that the arm 33 will be nested within the door-face of the bracket and avoid the necessity of cutting away any portion of the face of the door after removal of the ordinary knob plate. Sleeve 34 projects from the door-face of the bracket 29 a sufficient distance to permit it to enter the squared hole of sleeve 16, the inner end of the sleeve 34 being squared to fit the hole in sleeve 16.

The operation is as follows:—Bar 25 is held normally at its most distant position from the inner face of the door and any pressure exerted upon this bar tending to move it toward the door, will cause arms 26 and 27 to rock in their brackets thus causing finger 32 to swing the arm 33 and rock sleeve 34 an amount sufficient to rock sleeve 16 and thus withdraw the bolt whereupon the door will immediately be opened by continued pressure on bar 25.

It will be noticed that my device may be very readily attached to an existing door of

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the character mentioned, it being merely necessary to remove the ordinary knob plate from the inner face of the door and substitute my device.

5 I claim as my invention:

1. As an article of manufacture, a bar adapted to extend transversely across the face of a door, an arm secured to each end of said bar, a bracket pivotally attached to each arm and adapted to be secured to the face of the door, a spindle journaled on one of said brackets and provided with an end projecting from the door-face of said bracket and adapted to enter an operating member of a knob-latch, and intermediate connections between said spindle and the adjacent arm whereby a transverse movement of the arm will cause a rocking movement of the spindle.

20 2. As an article of manufacture, a bar adapted to extend transversely across the face of a door, an arm secured to each end of said bar, a bracket pivotally attached to each arm and adapted to be secured to the face of the door, a spindle journaled on one of said brackets and provided with an end projecting from the door-face of said bracket and adapted to enter an operating member of a knob-latch, a lever carried by said spindle, and a finger carried by the adjacent arm and adapted to engage said lever to rock the same by a rocking movement of the arm.

3. The combination, with a door, and a mortise knob-latch mounted therein and comprising a rotary operating member capable of operation by the usual knob spindle, of a pair of brackets mounted on the inner face of the door, an arm pivoted on each bracket, a bar connecting the outer ends of said arms and lying substantially parallel with the door and transversely thereof, and intermediate connections between one of said arms and the rotary operating member of the latch.

4. The combination, with a door, and a mortise knob-latch mounted therein, of a pair of brackets mounted in the inner face of the door, an arm pivoted in each bracket, a bar connecting the outer ends of said arms and lying substantially parallel with the door and transversely thereof, a pin projecting inwardly from the door-face of one of said brackets, a sleeve journaled on said pin and adapted to engage a rocking bolt-operating member of the latch, an arm carried by said sleeve, and a finger carried by one of said arms and engaging said sleeve-arm.

In witness whereof, I have hereunto set my hand and seal at Indianapolis, Indiana, this 10th day of October, A. D. one thousand nine hundred and eight.

ARTHUR M. HOOD. [L. s.]

Witnesses:

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THOMAS W. McMEANS.