

(No Model.)

H. H. FREEMAN.
LATCH.

No. 587,572.

Patented Aug. 3, 1897.

FIG. 1.

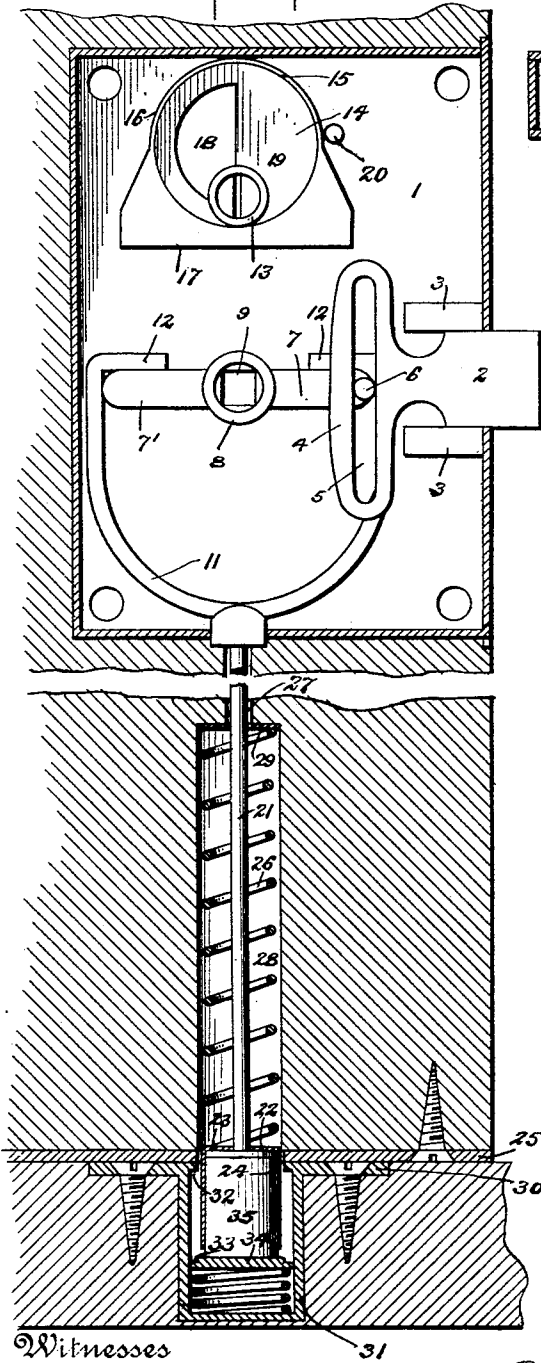


FIG. 2.

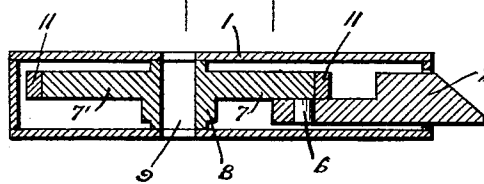


FIG. 3.

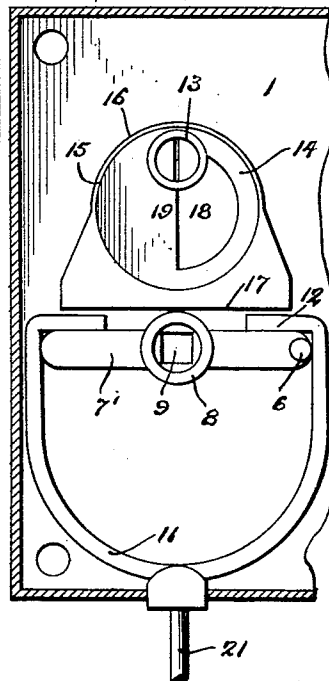


FIG. 4.

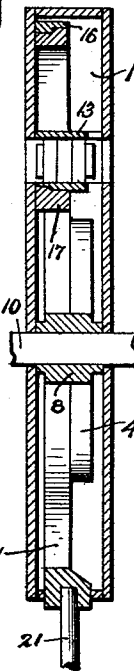
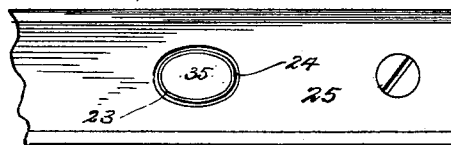


FIG. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

HERBERT H. FREEMAN, OF PIERRE, SOUTH DAKOTA.

LATCH.

SPECIFICATION forming part of Letters Patent No. 587,572, dated August 3, 1897.

Application filed May 6, 1897. Serial No. 635,335. (No model.)

To all whom it may concern:

Be it known that I, HERBERT H. FREEMAN, a citizen of the United States, residing at Pierre, in the county of Hughes and State of South Dakota, have invented certain new and useful Improvements in a Combined Door Latch or Lock and Stop; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a combined door latch and stop; and the object is to provide a simple, convenient, and effective device for this purpose.

To this end the novelty consists in the construction, combination, and arrangement of the same, as will be hereinafter more fully described, and particularly pointed out in the claim.

In the accompanying drawings the same reference-characters indicate the same parts of the invention.

Figure 1 is a sectional elevation of my improved door latch and stop. Fig. 2 is a transverse section on the line 2 2 of Fig. 1. Fig. 3 is a detail view of the mechanism for locking the latch. Fig. 4 is a vertical transverse section. Fig. 5 is a bottom plan view of the front edge of the door.

1 represents the mortise latch or lock case, and 2 the latch sliding in the case between the parallel guides 3 3. The inner end of the latch terminates in an integral cross-head 4, provided with a vertical slot 5, which receives a lateral pin 6 on the arm 7 of the horizontal lever 8, the hub of which is formed with a square orifice 9 to receive the knob-spindle 10.

11 represents a U-shaped yoke having its upper ends terminating in inwardly-projecting horizontal lugs 12 12, which extend over the ends of the arms 7 7' of the horizontal lever 8, and from this construction it will readily be seen that if the knob-spindle be turned in either direction the pin 6 will retract the latch and at the same time the yoke will be raised vertically.

13 represents a sleeve journaled in the case, and 14 represents a disk eccentrically fixed on said sleeve, and 15 represents a rabbeted recess extending entirely around the periph-

ery of said disk which receives the strap 16, terminating in the horizontal follower 17.

One side of the disk 14 is cut away at 18, so that the solid portion 19 will overbalance the disk, with a tendency to hold it in contact with the fixed stud 20 and thereby limit the movement of the disk in that direction; but if a suitable key be inserted in the sleeve 13 and turned to the left the disk will be rotated with the sleeve and the follower 17 carried down so that its lower horizontal edge rests upon the upper faces of the lugs 12 12, thereby locking the lever 8 and at the same time preventing the knob-spindle from operating the latch.

21 represents a vertical rod connected at its upper end to the yoke 11 and extending downward through a vertical orifice 27 in the door and through an enlarged recess 28 in the lower end of the door, where it terminates in an oval washer 22.

23 represents an oval-shaped socket encompassing the washer and loosely mounted on the rod and adapted to slide freely in an oval-shaped orifice 24 in the metal guard-plate 25, secured to the bottom edge of the door.

26 represents a spiral spring located in the recess 28 and encompassing the rod 21, with its upper end abutting against the shoulder 29 and its lower end resting on top of the socket 23.

30 represents a plate let in the door-sill and it is provided with a sleeve 31, which contains a spiral spring of less tension than the spring 26. The upper end of the sleeve is formed with an annular shoulder 32, which engages a corresponding reversed shoulder 33 on the disk 34, which is normally pressed upwardly in the sleeve, so that its face will lie in the same plane as the face of the plate 30, and when the door is closed the socket 23 is forced downwardly into the sleeve 31, carrying the disk 34 and locking the lower end of the door as rigidly as the latch locks the upper portion.

When the knob-spindle is turned to withdraw the latch from its keeper, the rod 21 is raised, withdrawing the socket 23 from the sleeve 31, thus allowing the door to swing freely on its hinges, and when it is desired to hold the door ajar the door is opened to the proper point and the knob released, when the

spring 26 will force the socket downward, causing the rubber plunger 35 to impinge on the floor or carpet and hold the door in that position to which it may be adjusted.

5 Although I have specifically described the construction and relative arrangement of the several elements of my invention, I do not desire to be confined to the same, as such changes or modifications may be made as
10 clearly fall within the scope of my invention without departing from the spirit thereof.

Having thus fully described my invention, what I claim as new and useful, and desire to secure by Letters Patent of the United States,
15 is—

A combined door latch or lock and stop comprising a suitable case, provided with the parallel guides 3 3 and fixed stud 20, the latch-bolt 2 having a horizontal movement in said
20 guides, and provided with the cross-head 4 having the vertical slot, the knob-spindle 10, the horizontal lever 8 mounted on said spindle and having its arms 7 7', the former be-

ing provided with the lateral pin 6 engaging said slot 5, in the cross-head, in combination 25 with the yoke 11 formed with the horizontal lugs 12 in operative engagement with the lever 8, the rod 21 connected at its upper end to said yoke and extending through the recess 28 in the door, the washer 22 fixed to the 30 lower end of said rod, the spring 26 and the socket 23 encompassing the lower end of said rod, the rubber plunger fixed in said socket, and the sleeve 13 journaled in said case and provided with the eccentrically-mounted disk 35 14 and the strap 16, and follower 17 encompassing said disk and adapted to be projected into the path of the yoke to lock the same in position, substantially as shown and described. 40

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

HERBERT H. FREEMAN.

Witnesses:

D. H. FREEMAN, -

R. E. HAYS.