

Jan. 2, 1923.

G. E. HITCHCOCK.  
SPRING LATCH.  
FILED MAR. 26, 1920.

1,441,151.

2 SHEETS—SHEET 1.

FIG. 1.

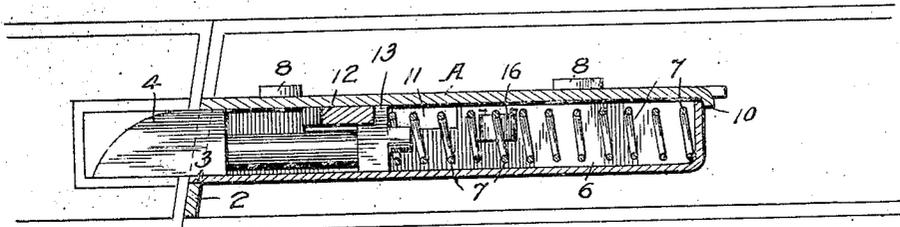


FIG. 3.

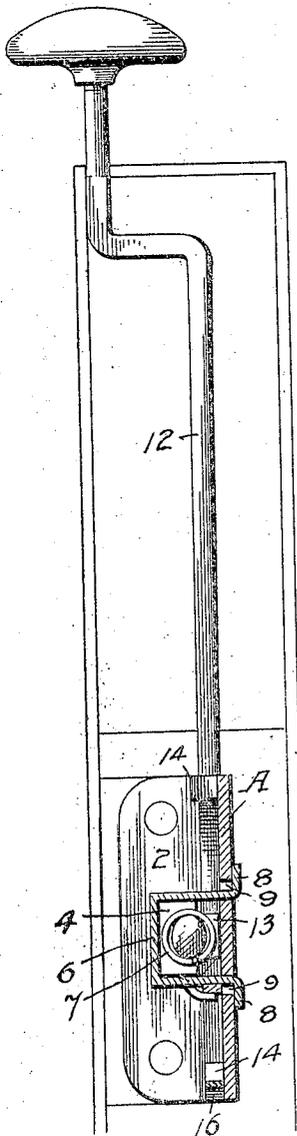


FIG. 5.

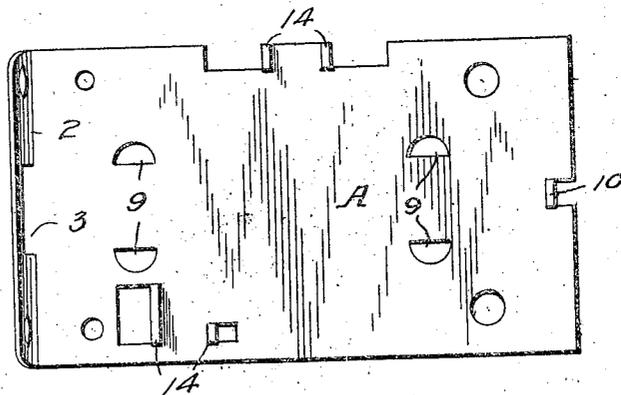
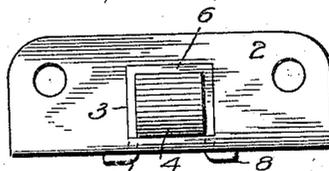


FIG. 7.



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# UNITED STATES PATENT OFFICE.

GEORGE E. HITCHCOCK, OF FLINT, MICHIGAN, ASSIGNOR OF ONE-HALF TO MYER BROWN, OF FLINT, MICHIGAN.

## SPRING LATCH.

Application filed March 26, 1920. Serial No. 369,122.

*To all whom it may concern:*

Be it known that I, GEORGE E. HITCHCOCK, a citizen of the United States, residing at Flint, in the county of Genesee and State of Michigan, have invented certain new and useful Improvements in Spring Latches, of which the following is a specification.

My invention relates to an improvement in spring-latches, and more particularly of the type adapted for auto and screen doors, the present invention being an improvement on the one disclosed in Letters Patent No. 1,265,915, granted to me May 14, 1918, and the object of the present invention is to provide a greatly simplified and much cheaper device than heretofore, which will require a less number of parts and less stock, and will have nothing about it to get out of order, while at the same time it will be effectual in the performance of its functions.

The present invention can be used either as a pull or a push by simply changing or turning over the actuating rod.

In the accompanying drawings:

- Fig. 1 is a longitudinal horizontal section;
- Fig. 2 is a side elevation;
- Fig. 3 is a transverse section;
- Fig. 4 is a view of the latch guard.
- Figs. 5 and 6 are details.
- Fig. 7 is an end view.

The numeral A represents the base-plate of the latch, and 2 is the end flange which has a centrally located hole 3, through which the latch 4 operates, and in which the outer end of the latch guard 6 is fitted. The latch guard 6 is in the form of an elongated sleeve, rectangular in cross-section, and it forms a housing for the latch 4 and the latch-actuating spring 7, which latter is confined between the inner end of the guard 6 and the inner end of the latch 4. The latch guard is open on the side next to the base plate, and its edges are provided with tongues 8 which extend through the holes 9 in the base plate as a convenient means for securing the latch-guard in position on the base-plate. A lug 10 struck up at one end of the base plate forms a stop against the inner end of the latch-guard and absolutely precludes movement in that direction.

The sides of the latch-guard are provided with slots 11, and an actuating rod 12 extends through these slots and in front of a shoulder 13 on the inner side of the latch

4. The actuating rod is arranged to slide between guides 14, and at a point between these guides the actuating rod is bent diagonally at an angle of about 45° forming a cam 15, which passes in front of the shoulder 13 on the latch, so that when it is desired to withdraw or release the latch it is simply necessary to move the actuating rod endwise, the effect of which is to force the cam 15 against the shoulder 13, thereby forcing the latch in. The spring 7 not only actuates the latch 4 and causes it to resume its normal position, but it also has the effect of returning the actuating-rod to its normal position. To otherwise facilitate this action, an additional spring 16 is placed where it bears endwise on the actuating rod.

While in the construction shown, the actuating rod is a push rod, this might be transformed into a pull by turning over the lever and a very slight corresponding change in the parts.

While the guides 14 may be variously constructed, they are conveniently cut out of, and struck from, the base-plate as illustrated.

From the foregoing it will be seen that the parts are simple and few and not likely to get out of order. They are easily removable and are effectual in the performance of the function of the latch.

I claim:

1. A spring-latch including a base plate having guides at or near opposite edges thereof, out of alignment with each other, a spring-actuated latch, and an actuating rod bent laterally edgewise at one end to form a cam with the portions adjacent the cam straight, and in parallel planes, and movably held between the guides, the cam portion of the bar between the guides having sliding connection with the latch, whereby to move the latter in one direction as the actuating rod is slid endwise.

2. A spring-latch including a base plate having guides at or near opposite edges thereof, out of alignment with each other, a spring-actuated latch, and an actuating rod bent laterally edgewise at one end to form a cam with the portions adjacent the cam straight, and in parallel planes, and movably held between the guides, the cam portion of the bar between the guides having sliding connection with the latch, where-

by to move the latter in one direction as the actuating rod is slid endwise, and a spring which exerts pressure endwise in one direction upon the bar.

- 5 3. A door-latch including a slotted metal base-plate having a flanged end with a slot therein, a sheet-metal latch-guard, one end of which is inserted in the slot in the flange, and having tongues which enter the slots in  
10 the base-plate and are bent aside to hold it

in position, a spring-actuated latch slidably in said guard, an actuating rod slidably connected with both base-plate and latch, guides struck upwardly from the base-plate on opposite sides of the actuating-rod between  
15 which the rod slides, and a spring for pressing the actuating rod in one direction.

In testimony whereof I affix my signature.

GEORGE E. HITCHCOCK.