

(Model.)

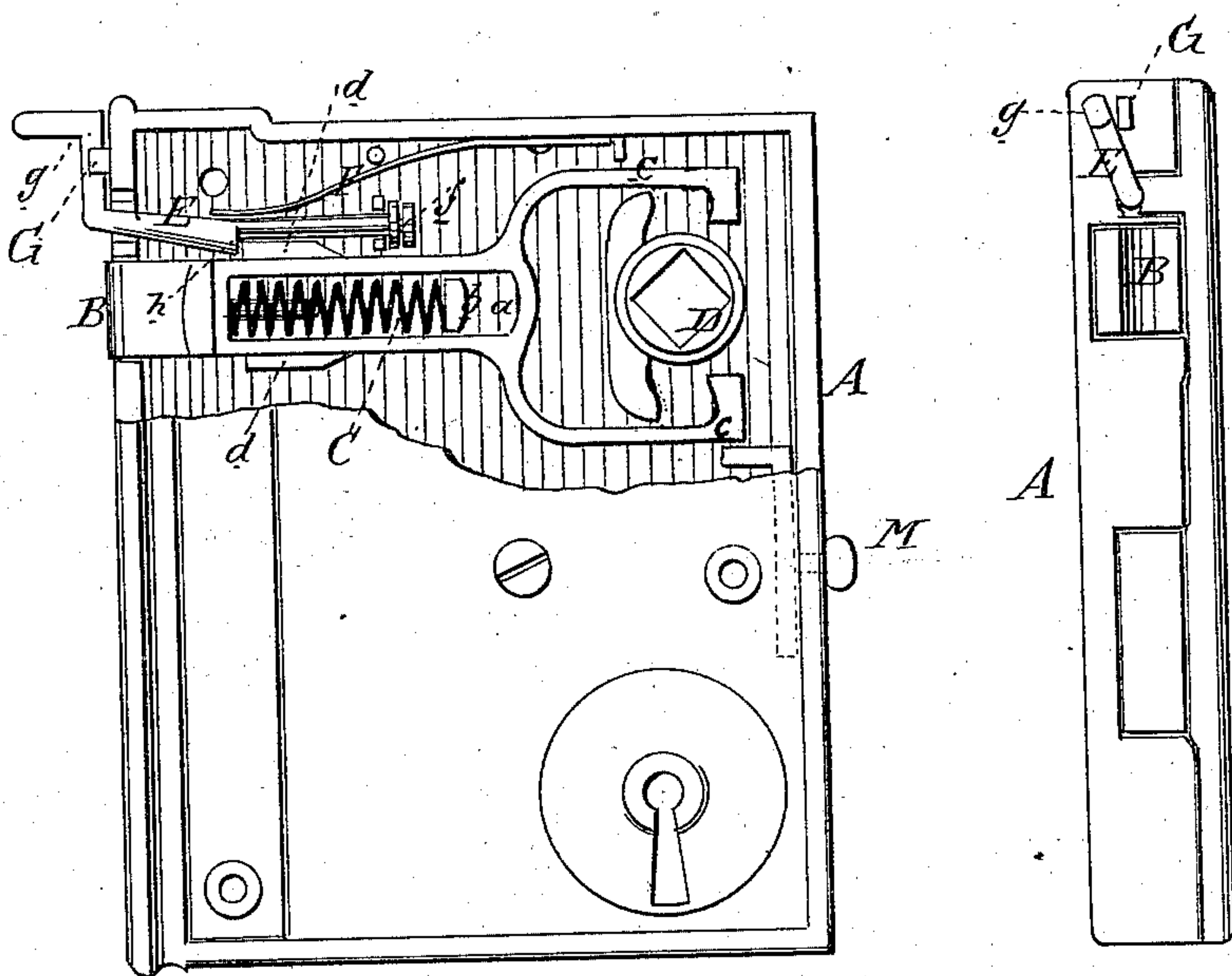
L. WALLACE.  
Latch.

No. 231,872.

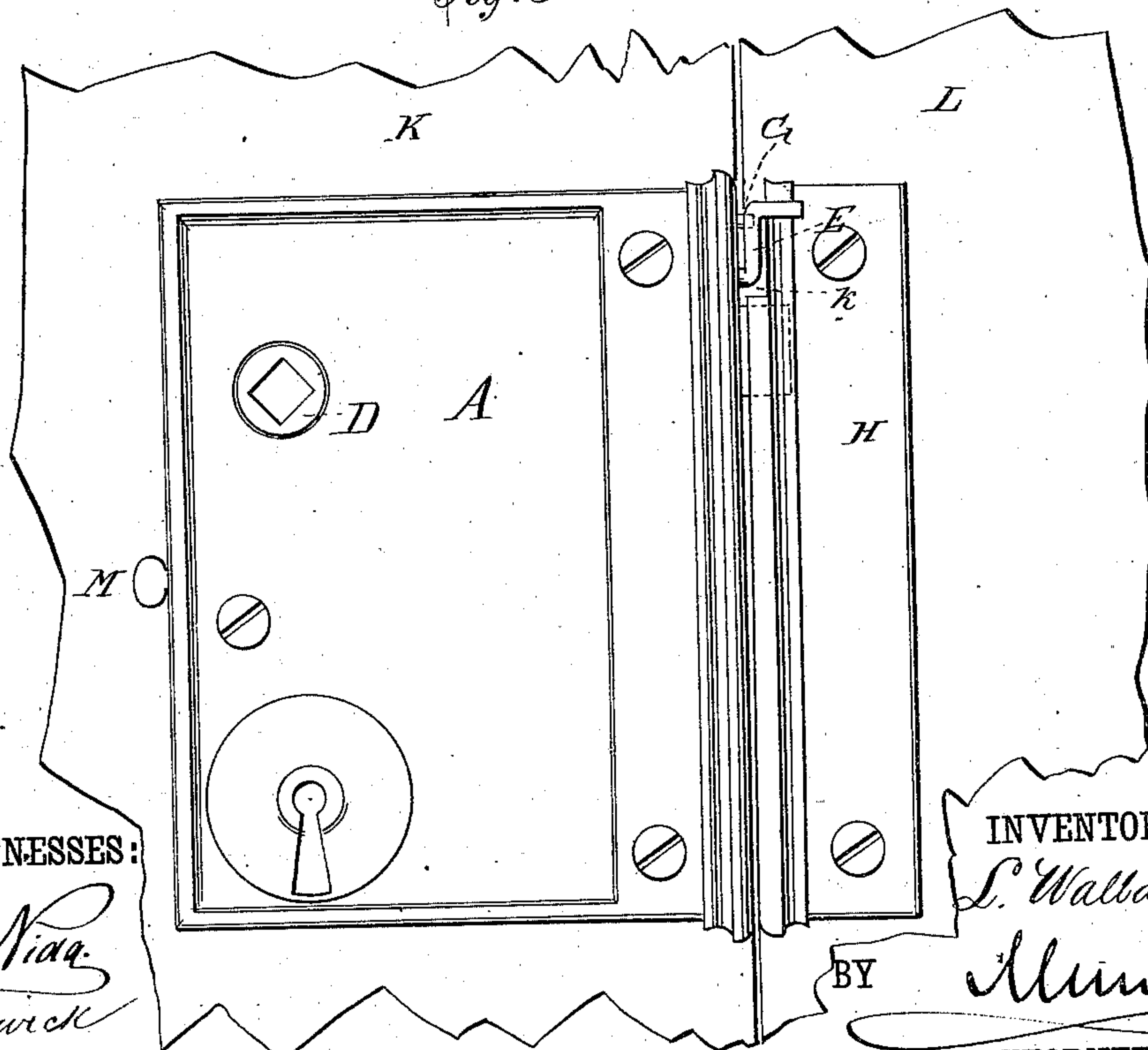
Patented Aug. 31, 1880.

*Fig: 1.*

*Fig: 2.*



*Fig: 3.*



WITNESSES:

*Chas. N. A. A.*  
*C. Sedgwick*

INVENTOR:

*L. Wallace*

BY

*Alvin C.*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

LORENZO WALLACE, OF LEAVENWORTH, KANSAS.

## LATCH.

SPECIFICATION forming part of Letters Patent No. 231,872, dated August 31, 1880.

Application filed June 8, 1880. (Model.)

*To all whom it may concern:*

Be it known that I, LORENZO WALLACE, of Leavenworth, in the county of Leavenworth and State of Kansas, have invented a new and Improved Door-Latch, of which the following is a specification.

The invention consists in an improvement upon that class of mortise or box door-latches in which the door is securely latched whenever it is closed without the turning of knob or handle, as hereinafter described.

Figure 1 represents a front elevation of a lock with the improved latch attached, a part of the front plate of the lock being broken away the better to exhibit the improved device. Fig. 2 is an elevation of the front edge of the lock or latch. Fig. 3 is an elevation showing the lock with the improved latch attachment and catch in position on a door-frame.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents the case containing the lock and the latch. The lock part, being of any desired construction, is not shown in detail in the drawings. B represents the bolt of the latch, provided with a longitudinal slot, *a*, in which is fixed a spiral spring, C, and when said bolt B is set in place within the case A the rear end of the spring bears against a stud, *b*, that projects upward from the back of the case through the slot *a*. The rear end of the bolt B is fashioned into two prongs, *c c*, that extend rearwardly and engage with the ears of the latch-tumbler D.

On the upper and lower sides of the bolt B are the lugs or stops *d d*, that serve to limit the outward throw of the said bolt, the upper one of these lugs *d* serving also, by engagement with the trigger E, to hold the bolt B retracted. Said trigger E is a rod or bar having its inner end journaled in suitable bearings *f* within the case A, so that it can turn, the free end of the said rod being projected through an opening in the front edge of the case A, above the bolt B, and fashioned in the form of a crank, *g*, as shown, while on the said trigger E, within the case A, an eccentric shoulder, *h*, is formed. Said trigger E is held in position with the shoulder *h* turned down

against the forward end of the upper stop *d* of the bolt B by means of a spring, F, whose free end bears against said trigger E, while the other end of said spring F is fastened against the top of the case A.

G is a stop projecting from the front edge of the case A, to prevent the trigger E from turning too far around when the bolt B is retracted.

H is the catch of the lock or latch, having a recess or opening formed in its edge, as shown at *k*, to permit the free passage of a portion of the projecting part of the trigger E when the door is being closed. K represents the door, and L the door-frame.

The parts of the latch being in the position shown in Figs. 1 and 2, when the door is closed the projecting end *g* of the trigger E will strike against the catch H, and the trigger E be thereby turned down so that its projecting end shall be nearly at right angles with the position shown in the drawings, and so that the shoulder *h* of the said trigger E shall be released or disengaged from the upper stop *d* of the bolt B, and the said bolt B is then instantly thrown forward by the action of its spring C. On retracting the bolt B in order to open the door the spring F causes the trigger E to turn upward again, so that its shoulder *h* shall re-engage with the upper stop *d* of the said bolt B and hold the said bolt retracted.

The bolt B may be locked or fastened forward in the catch H by means of the spring-actuated sliding stop M, that is fixed within the rear edge of the case A. This device may be attached to a lock-case, as shown in the drawings, and be made part thereof, or may be in a separate case by itself.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. As an improved article of manufacture, a door-latch constructed substantially as herein shown and described, consisting of the spring-actuated bolt B, provided with stops *d d*, and spring-actuated trigger E, provided with shoulder *h* and projecting crank end *g*, as set forth.

2. In combination with a door-latch, the



spring-actuated trigger E, provided with shoulder *h* and projecting crank end *g*, substantially as herein shown, and for the purpose described.

- 5 3. In a door-latch, the combination, with the spring-actuated trigger E, for releasing the latch, of the stop G, substantially as herein shown and described.

4. In a door-latch, the combination, with the

spring-actuated trigger E, for releasing the 10 latch, of the stop G and catch H, provided with recess *k*, substantially as herein shown and described.

LORENZO WALLACE.

Witnesses:

JOHN A. HALDERMAN,  
LEWIS GIBSON.