(No Model.)

W. G. CLINE.

DOOR LATCH.

No. 332,995. Patented Dec. 22, 1885.

Fig. 1.

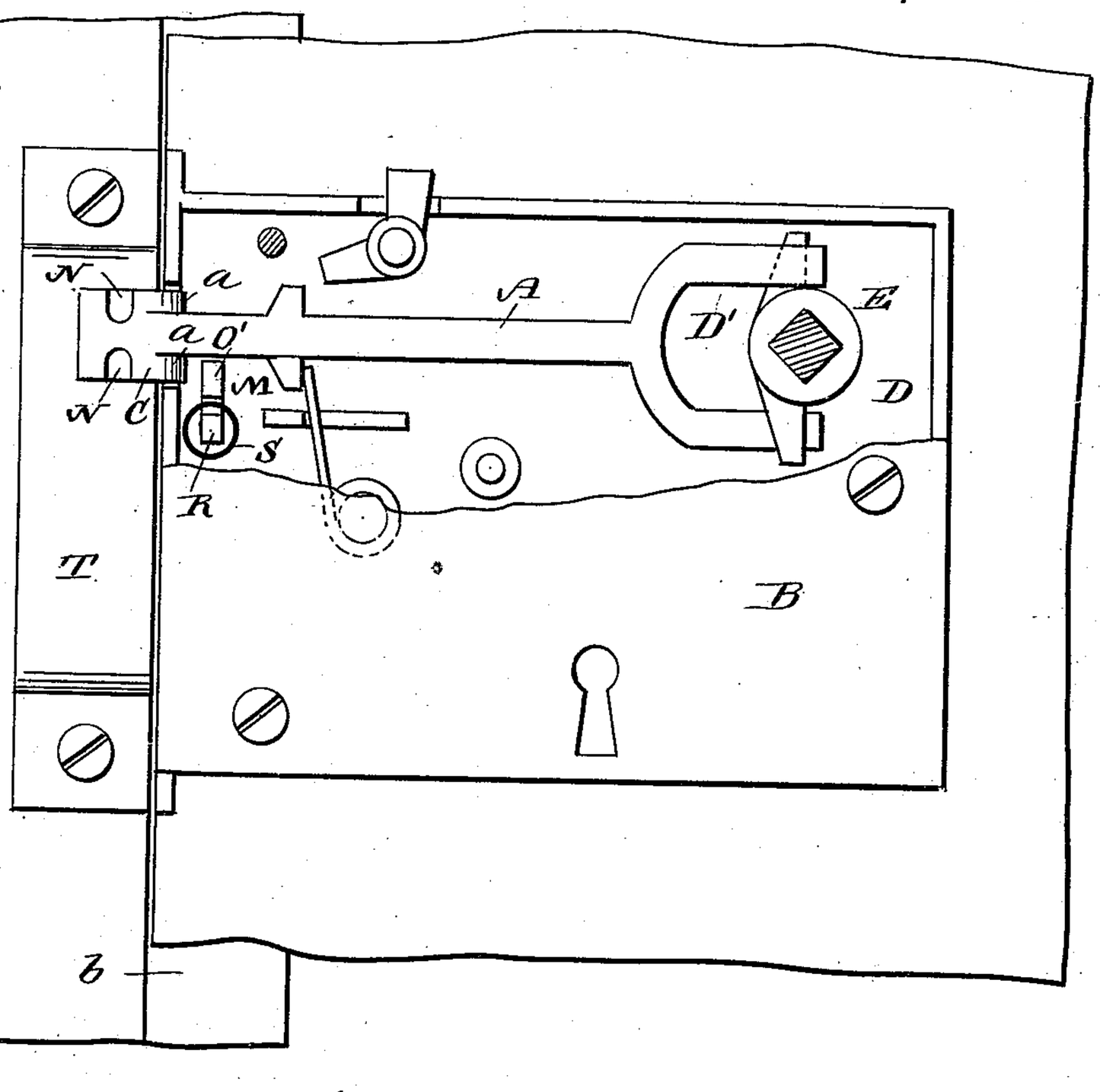


Fig. 2.

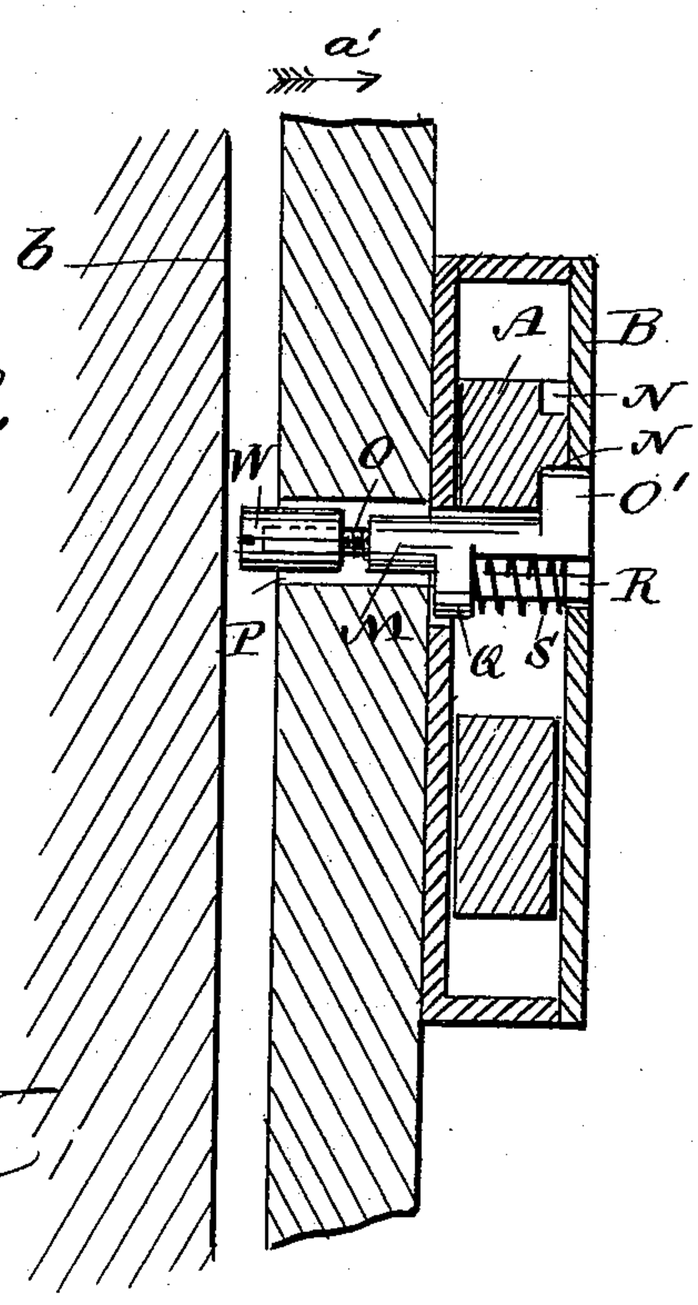
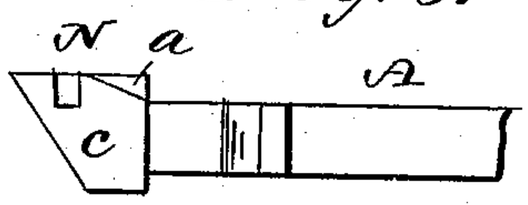


Fig. 3.



WITNESSES:

Thos. G. Hoster.

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UNITED STATES PATENT OFFICE.

WILLIAM G. CLINE, OF GALLATIN, MISSOURI.

DOOR-LATCH.

SPECIFICATION forming part of Letters Patent No. 332,995, dated December 22, 1885.

Application filed September 30, 1885. Serial No. 178,636. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM G. CLINE, of Gallatin, in the county of Daviess and State of Missouri, have invented a new and Improved Door-Latch, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved door-latch, which is simple in construction, strong and durable, and operates very easily and rapidly when the door is swung into its frame, without requiring any slamming of the door or extra pressure on the same.

The invention consists in the construction and combination of parts and details, as will be fully described and set forth hereinafter, and then pointed out particularly in the claims.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a face view of my improved latch, parts being broken out and others being in section. Fig. 2 is a cross-sectional view of the latch. Fig. 3 is a top edge view of the bolt at one end of the same.

The sliding knob-bolt A in the casing B is provided with the usual beveled head, C, at the outer end, and with the fork D′, of the usual construction, at the other end, and on the shoulders on the ends of the prongs of said fork the arms of the nut D act, which nut is mounted on the knob-spindle E, all in the usual and well-known manner. A spring is provided for throwing said bolt, and a key-bolt and the necessary attachments are provided in the usual manner. The head C of the bolt A is provided in its straight side with the notches N in the top and bottom edges. A latch, M, is mounted to slide transversely in the lock-casing, and has a screw, O, screwed into its outer end, said screw passing through an aperture, P, in the door to which the lock is secured, and being provided with a slitted head, W, on its outer end. The said head can thus, by turning it in one direction or the other, be so adjusted as to project a certain distance from the face of a door of any thickness. On its inner end said latch is provided with an upwardly-projecting lug, O′, which can be passed into one of the notches N in the head C. A lug, Q, projects downward from the latch M, and from said lug a pin, R, projects parallel with the latch, and is surrounded by a spiral spring, S, between the lug Q and the side of the casing.

The operation is as follows: When the door is opened, the head C of the sliding bolt is withdrawn from the keeper T, and the bevels *a* on the head C, acting on the lug O′ of the latch M, press it outward, and said lug O′ slides on the head C until it snaps into one of the notches N in the head C, thereby locking the head within the lock-casing. When the door is closed, it strikes the rabbet *b* in the door-frame in the usual manner, and as the screw-head strikes the said rabbet it is pressed in the direction of the arrow *a′*, and thereby the lug O′ is removed from the notch in the head C, and the spring provided for the purpose can throw the bolt-head outward and into engagement with the keeper.

A special feature of my improved lock is that the bevel of the head C does not strike the edge of the keeper, and that the bolt is withdrawn as long as the door is open.

The door can be closed without noise or jar, and is held firmly after being closed.

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

1. The combination, with a latch-casing, of a knob-bolt having notches in its head, a sliding latch having a lug on the inner end and having the front end projecting from the face of the door, which latch has its projecting end made adjustable in length, substantially as herein shown and described.

2. The combination, with a latch-casing, of a knob-bolt, a latch for locking the same in its retracted position, and a screw projecting from said latch through an opening in the door and from the face of said door, substantially as herein shown and described.

3. The combination, with a latch-casing, of the knob-bolt A, having the notches N in its head, the sliding latch M, having the lugs O′ and Q, the pin R, the spring S, surrounding the pin R, the screw O, screwed in the latch, and of the head W on the screws, substantially as herein shown and described.

4. The combination, with a latch-casing, of the knob-bolt A, having the notches N and bevels *a*, and of the latch M, having a lug, substantially as herein shown and described.

WILLIAM G. CLINE.

Witnesses:
MILT EWING,
C. F. OWENS.