(No Model.)

J. SIMMONS.

LATCH.

No. 469,068. Patented Feb. 16, 1892.

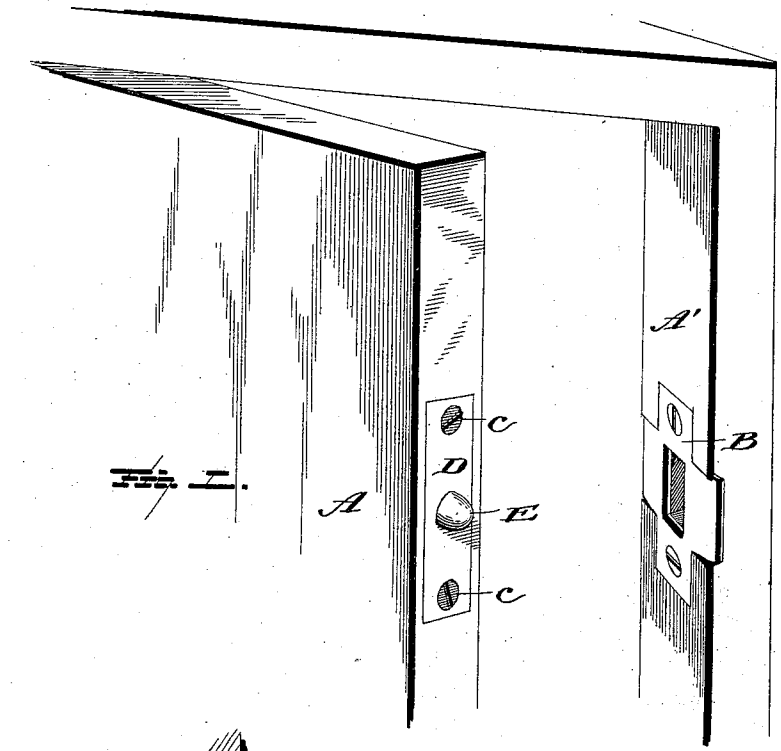

Fig. 1.

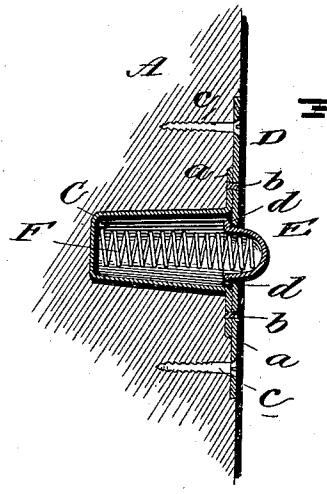

Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

JAMES SIMMONS, OF LONG BRANCH, NEW JERSEY.

LATCH.

SPECIFICATION forming part of Letters Patent No. 469,068, dated February 16, 1892.

Application filed June 4, 1891. Serial No. 395,106. (No model.)

To all whom it may concern:

Be it known that I, JAMES SIMMONS, a citizen of the United States, residing at Long Branch, in the county of Monmouth, State of New Jersey, have invented certain new and useful Improvements in Snap-Latches, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in snap-latches for doors, blinds, and other analogous uses, and while in the present instance it is shown as applied to a door I wish it understood that I do not intend to restrict myself to such use.

The invention has for its objects, among others, to provide a simple, cheap, and durable latch easily applied to the door or other device and which will yield readily to allow the door to open in either direction and yet catch and hold the door closed. I provide a spring-held bolt with a rounded head and so hold it in its shell or case that it has a sort of ball-and-socket or swivel movement.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view illustrating my latch applied to a door. Fig. 2 is a vertical section through a portion of the door with the latch in position, showing the construction of the latter.

Like letters of reference indicate like parts in all of the views in which they occur.

Referring now to the details of the drawings by letter, A designates a portion of a door, and A′ the frame thereof. The door shown is designed to swing in either direction, and upon the frame I secure a latch-plate B, which is seated in a depression therein in the usual manner.

My improved latch, as shown in Figs. 1 and 2, consists of a shell or case C, preferably tapering in form and designed to be seated in a chamber formed in the door, as shown in Fig. 2, and this shell or case is provided with flanges or an annular flange *a*, through which pass the rivets or other securing means *b*, which hold the shell to the face-plate D, which is designed to be secured to the edge of the door, being seated in a depression therein so as to be flush therewith, as shown in Figs. 1 and 2, any suitable means, as the screws *c*, being employed to secure the said plate in position.

E is the latch-head. It is formed in the shape of a substantially semi-sphere, the rounded end being designed to work through a hole in the plate D, as seen in Fig. 2, and at its inner end formed with flanges or an annular flange *d*, as shown in Fig. 2, which extend outward in such a manner as to prevent the head from being pulled out and yet sufficiently smaller than the diameter of the outer end of the shell so that the head can play loosely and accommodate itself to the varying positions it is called upon to assume, forming a sort of ball-and-socket or swivel connection, the head being normally forced outward by a spring F, which is seated at one end in the hollow of the head and at the other end having a bearing against the inner end of the shell or case, as shown in Fig. 2. In operation the loose connection of the head, together with the loose connection of the spring, allows the head to play in all directions, and it readily yields as the door is pushed in either direction, and yet the normal tendency of the head is to stand outward in a direct line, so that when the head comes coincident with the opening in the latch-plate it is forced thereinto and holds the door closed.

What I claim as new is—

The combination, with the plate D, having opening, of the shell having flange at its outer end and secured to the inner face of the plate, with the opening therein of greater diameter than that of the plate, whereby a flange is formed by said plate at the outer end of the shell, the rounded hollow latch-head of much less diameter than the shell and having at its inner end a flange engaging the flange of the plate around the opening therein, and the spring within the shell, with one end arranged in the hollow head, substantially as shown and described.

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

JAMES SIMMONS.

Witnesses:
FRED. M. GIFFORD,
CHAS. ROSENCRANS.