

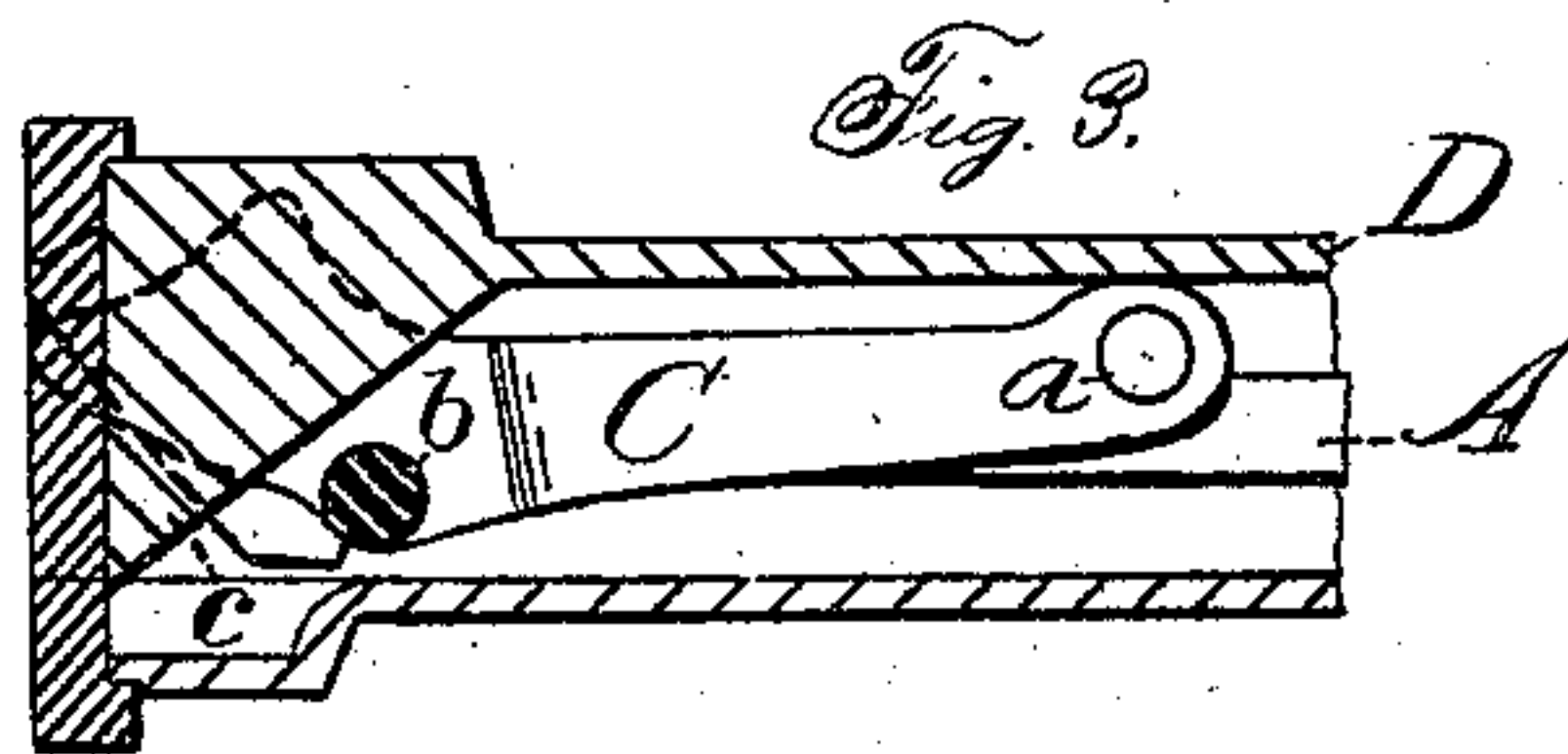
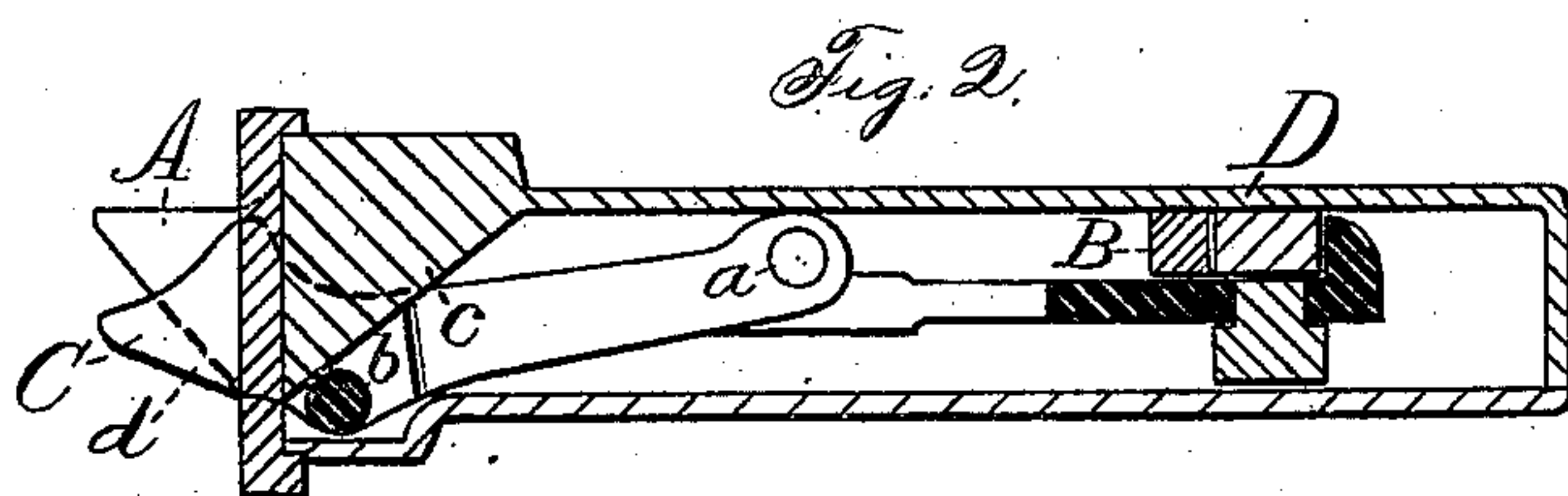
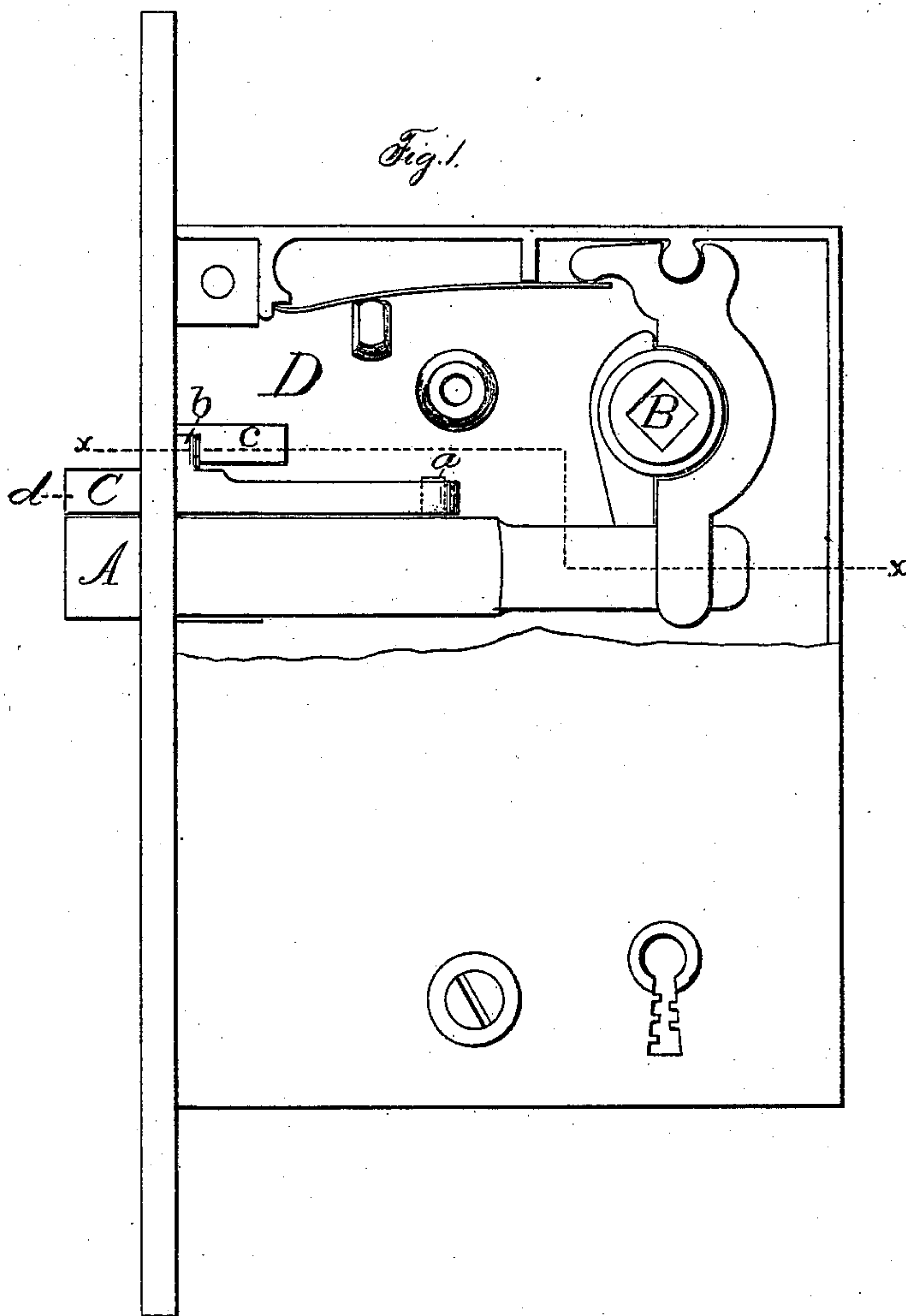
(No Model.)

W. E. SPARKS.

DOOR LATCH.

No. 273,403.

Patented Mar. 6, 1883.



Witnesses.
John Edwards Jr.
Chas. B. Oldershaw

Inventor.
William E. Sparks.
By James Shepard.
att.

UNITED STATES PATENT OFFICE.

WILLIAM E. SPARKS, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO THE
RUSSELL & ERWIN MANUFACTURING COMPANY, OF SAME PLACE.

DOOR-LATCH.

SPECIFICATION forming part of Letters Patent No. 273,403, dated March 6, 1883.

Application filed August 21, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. SPARKS, of New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Latches, of which the following is a specification.

My invention relates to improvements in latches. In my improved latch there is a lever pivoted to the side of the latch-bolt, near the middle of its length, and having a projecting pin which bears upon an incline attached to and inside of the latch-case; and the objects of my improvements are to cause the latch-bolt to work smoothly and easily, and to so construct the parts that they may be made at a very small cost. I attain these objects by the simple construction illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of my latch, with the cap-plate broken away. Fig. 2 is a sectional view of said latch on line *x x* of Fig. 1; and Fig. 3 is a like view of a part thereof, represented with the latch pushed into the case.

The latch-bolt *A* may be connected to the spindle-hub *B* in any ordinary manner. Upon one side of the latch-bolt *A*—the upper side, as shown in the drawings—there is a pin or projection, *a*, near the middle of the length of said bolt, upon which pin I hang the swinging lever *C*. The contour of this lever and its position relatively to the latch-bolt are clearly shown in Figs. 2 and 3, those parts of the lever which are behind other parts being indicated by broken lines. A projection or pin, *b*, is formed on or secured to the lever *C*, and extends into working position over the face of the stationary incline *c*, formed on or secured to one of the side walls of the case *D*, and with-

in the case. The case is chambered sufficiently to allow free play to the lever *C*. When the latch-bolt is forced inward by the keeper the latter first engages the face *d* of the lever, and thereby forces the projection *b* against the face of the incline *c*. This causes the projection to ride down the incline, in doing which the lever must move endwise into the case; and as the lever is pivoted or hung to the latch-bolt, the inward movement of the lever necessitates a like movement of the latch-bolt.

Figs. 1 and 2 represent the lever and latch-bolt in their normal position, and Fig. 3 represents the same as forced inward under the influence of the keeper.

I am aware that Patent No. 26,296, November 29, 1859, shows a latch with a lever pivoted to the side of the latch-bolt, with the back edge of the lever at the outer end bearing upon the side wall of a hole formed in one of the side plates of the latch-case, and the same is hereby disclaimed. My improvement thereon avoids slotting or perforating the side of the case and brings the incline and working-side projection of the lever wholly within the case.

I claim as my invention—

The combination of the case having the stationary incline on one of its side walls, and within the case, the latch-bolt and the lever hung thereon, having the working projection which extends from one side of said lever into working position over the face of the incline, substantially as described, and for the purpose specified.

WILLIAM E. SPARKS.

Witnesses:

T. S. BISHOP,
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