

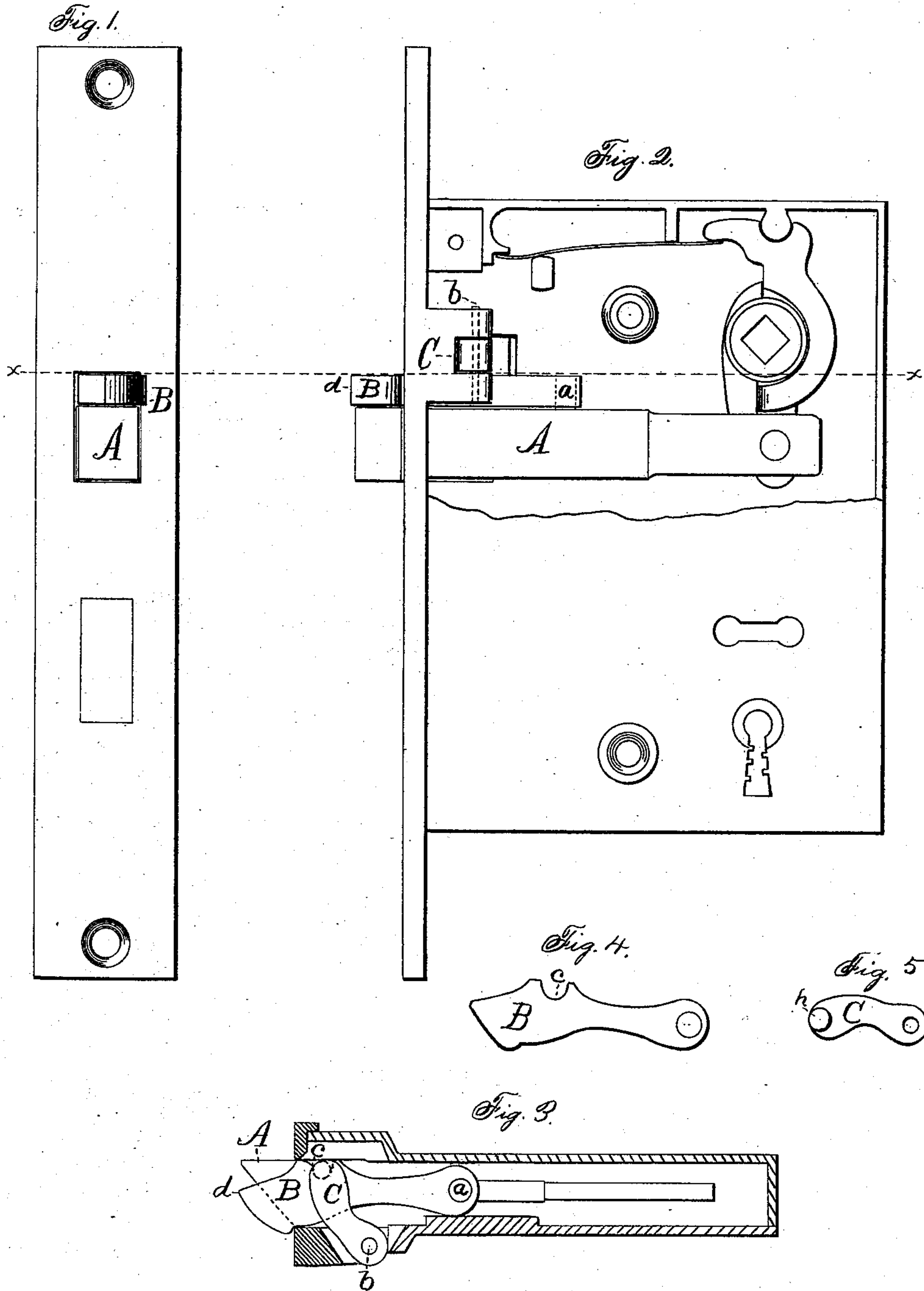
(Model.)

W. E. SPARKS.

DOOR LATCH.

No. 275,533.

Patented Apr. 10, 1883.



Witnesses.  
John Edwards Jr.  
W. H. Whiting.

Inventor.  
William E. Sparks.  
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Atty

# UNITED STATES PATENT OFFICE.

WILLIAM E. SPARKS, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO  
P. & F. CORBIN, OF SAME PLACE.

## DOOR-LATCH.

SPECIFICATION forming part of Letters Patent No. 275,533, dated April 10, 1883.

Application filed May 31, 1882. (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  
5 new and useful Improvements in Latches, of which the following is a specification.

My invention relates to improvements in latches. In my improved latch a peculiar-shaped lever is pivoted to the latch-bolt upon  
10 one side thereof, and is connected with the latch-case by means of a link; and the object of my improvements is to provide means for forcing the latch-bolt into the case under influence of the striker much more smoothly than  
15 the means heretofore employed for so doing. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of my latch;  
20 Fig. 2, a side elevation of the same with part of the cap-plate removed. Fig. 3 is a horizontal section of the case on line *xx* of Figs. 1 and 2, and a plan view of the latch-bolt and the parts connected with its outer end; and Figs.  
25 4 and 5 are detached views of the lever and link, respectively.

A designates the latch-bolt; B, the lever pivoted to said bolt at *a*, so as to move longitudinally therewith, and C the link, one end of  
30 which is pivoted at *b* to the latch-case, and the other is connected by a pin-and-slot connection to the lever B. So far as the operation is concerned, this end of the link C might be pivoted or pinned to the lever B; but for convenience  
35 of manufacture, and to make the parts in the most compact form, I make a shallow notch or recess, *c*, in the edge of the lever B, and secure a pin, *h*, which rests in said recess, to the end of the link C, as shown in Fig. 5 and indicated  
40 by broken circle in Fig. 3. The other parts of the latch may be of any ordinary construction. The end of the lever, which will come in contact with the striker as the door is closed, pro-

jects beyond the beveled face of the end of the latch-bolt, and is rounded off as shown in Fig. 45  
3. The opposite edge face of this lever B, from the point *d* inward toward the case, is so formed as to escape the face-plate of the case as the lever swings backward and inward. When the striker engages the lever B it has  
50 a tendency to move backward, and thereby pull upon the link C. The link-pivot *b*, by which the link is secured to the case, is inside of the pin *h*, so that the link will allow the outer end of the lever B to swing backward; 55  
but in so doing this swinging movement of the link carries the lever B and latch-bolt A into the case.

It is believed that the foregoing parts are so combined and arranged as to produce what is 60  
commonly called an "anti-friction attachment for latches," that will work perfectly smooth and easy without any tendency to catch and bind at any point.

I am aware of the latch shown and described 65  
in the patent to C H. Smith, No. 194,789, September 4, 1877, and I hereby disclaim the same.

I claim as my invention—

That improvement in latches which consists of the lever B, pivoted to the latch-bolt by the 70  
axis *a*, which moves longitudinally with said bolt, and having on its projecting end a hollow face and a rounded face, with the rounded one of said faces upon that side of the point *d* which faces the keeper for acting thereon, and the 75  
link C, pivoted at one end to the lever B and at the opposite end to the case at a point which, when the latch-bolt is projected, is inside of its connection with the lever, substantially as described, and for the purpose speci- 80  
fied.

WILLIAM E. SPARKS.

Witnesses:

CHARLES PECK,  
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