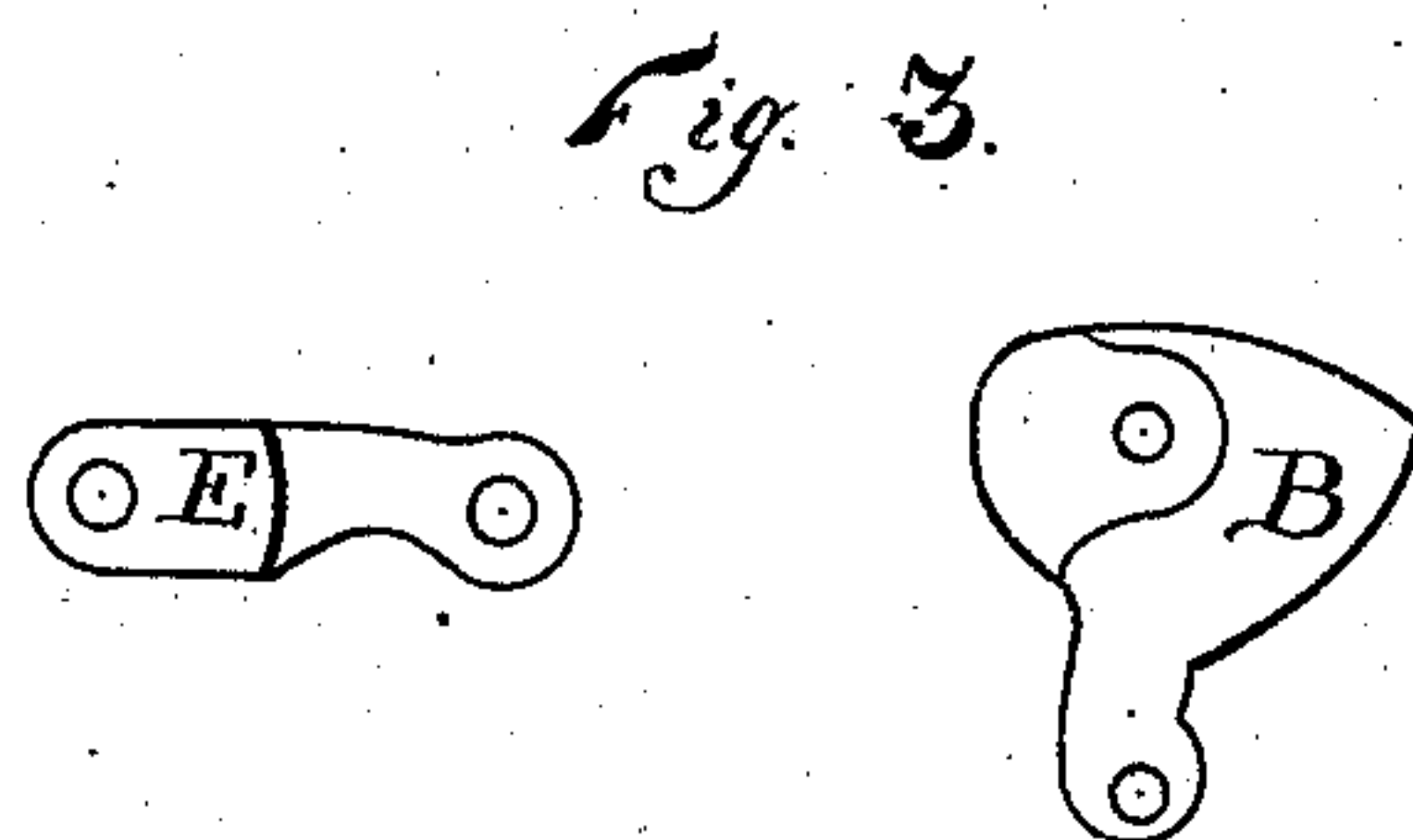
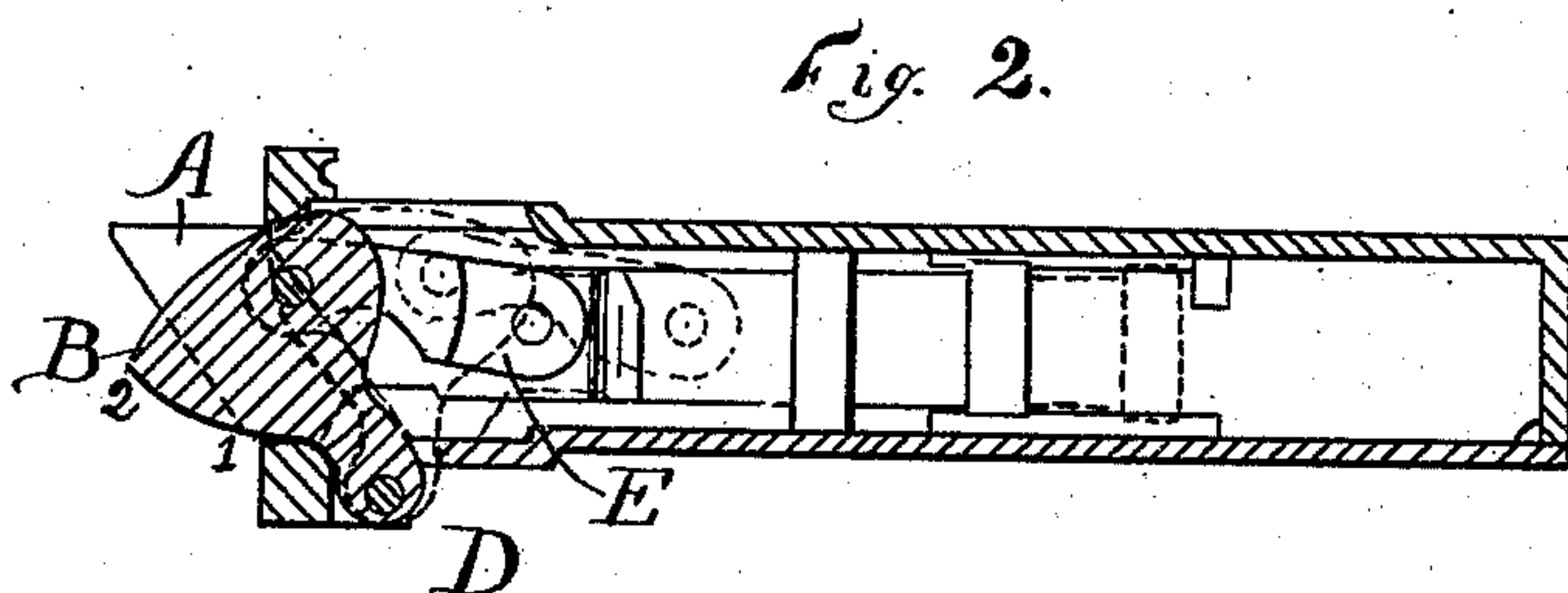
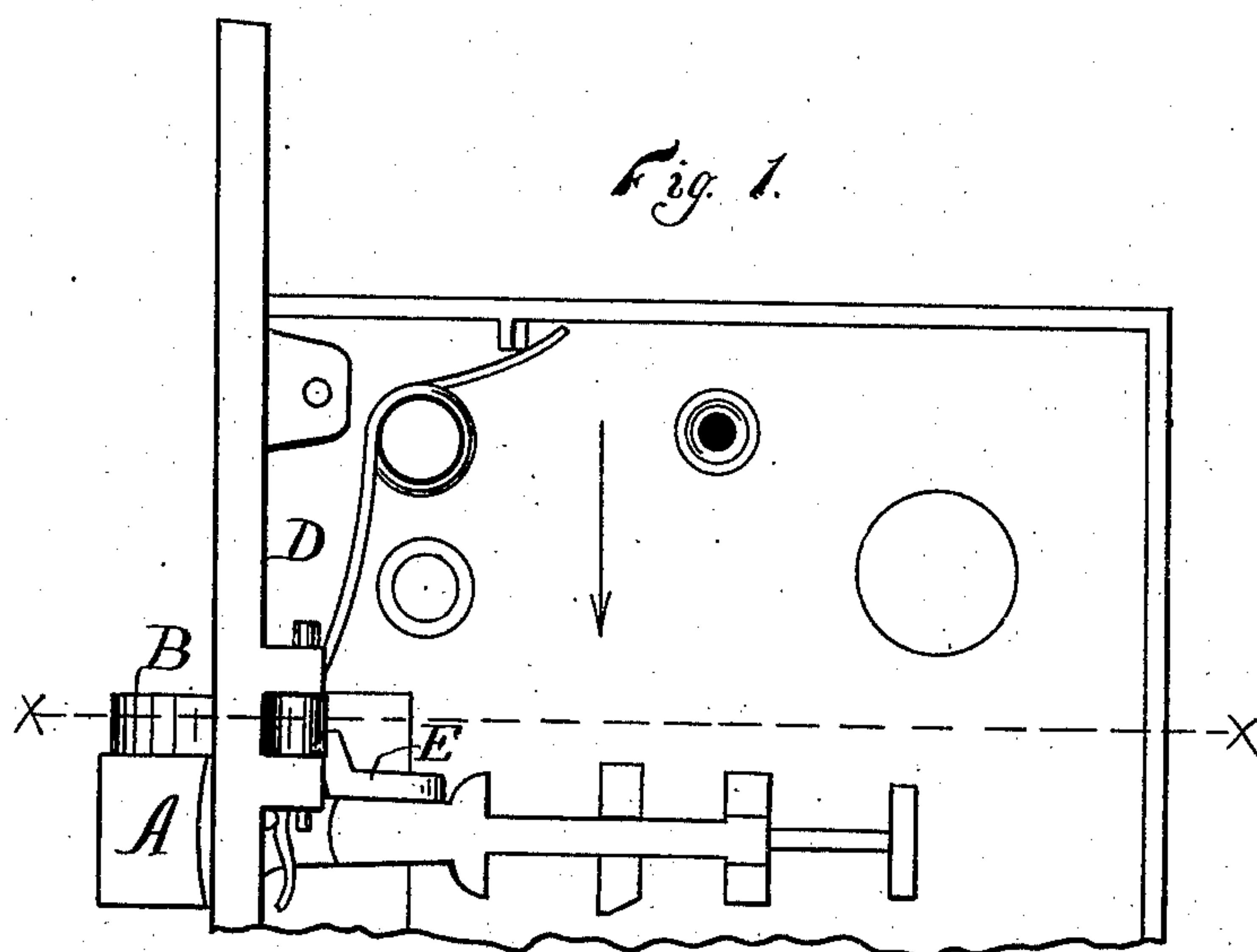


C. H. SMITH.  
LATCHES FOR DOORS, &c.

No. 194,789.

Patented Sept. 4, 1877.



Witnesses:  
H. N. Gale.  
J. L. Hungerford

Inventor:  
Charles H. Smith  
By James Shepard Atty.

# UNITED STATES PATENT OFFICE.

CHARLES H. SMITH, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO P. & F. CORBIN, OF SAME PLACE.

## IMPROVEMENT IN LATCHES FOR DOORS, &c.

Specification forming part of Letters Patent No. 194,789, dated September 4, 1877; application filed July 27, 1877.

*To all whom it may concern:*

Be it known that I, CHARLES H. SMITH, of New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Latches for Doors, &c., of which the following is a specification:

My invention consists in the combination of a latch-bolt and cam-lever (which engages with the striker) with a link which forms the jointed connection between said cam-lever and latch-bolt, as hereinafter described.

In the accompanying drawing, Figure 1 is a side elevation of a latch which embodies my invention, the same being represented with the front plate removed. Fig. 2 is a horizontal section of the same on line *xx* of Fig. 1; and Fig. 3 shows detached views of parts of the same.

A designates an ordinary latch-bolt, which may be drawn inward by means of any ordinary mechanism, the same forming no part of my invention, so that it is deemed unnecessary to show said mechanism in the drawing. The latch-bolt is also forced outward by a spring in the ordinary manner.

My invention relates to the mechanism for forcing the latch-bolt inward by engagement with the striker.

B designates an oscillating cam-lever, hung to the case D at one side of the latch-bolt by means of a pin, so as to swing freely thereon.

The case may be of any form adapted to the particular mechanism which it is designed to incase.

The outer edge of said cam-lever B projects slightly forward of the beveled end of the

latch-bolt, so as to engage with the ordinary striker in a well-known manner. The oscillating cam-lever is connected to the latch-bolt by means of a link, E, hung by a jointed connection at each end, the outer end being connected to the cam-lever B, and the inner end to the latch-bolt A, as shown in Fig. 2. A detached view of said cam-lever and link is shown in Fig. 3.

The operation is as follows, viz: When the door is swung to, and the edge of the cam-lever engages the striker, first, by contact at or about the point 1, Fig. 2, then the cam-lever swings inward on its pin, the point of engagement gradually changing along the edge of the cam-lever from the point 1 to the point 2, when the said lever is depressed substantially within the case, the inward movement being taken up by the link, and through it imparted to the latch-bolt to force it into the case, as indicated by broken lines in Fig. 2, the joints at each end of the link preventing the swinging movement of the cam-lever from having a tendency to throw the latch-bolt out of line and enabling the cam to force the bolt inward with but little friction, and with a free and easy movement.

I claim as my invention—

The combination of a latch-bolt and cam-lever, of the class described, with a link which forms the jointed connection between said lever and bolt, substantially as described, and for the purpose specified.

CHARLES H. SMITH.

Witnesses:

CHARLES PECK,  
E. L. PRIOR.