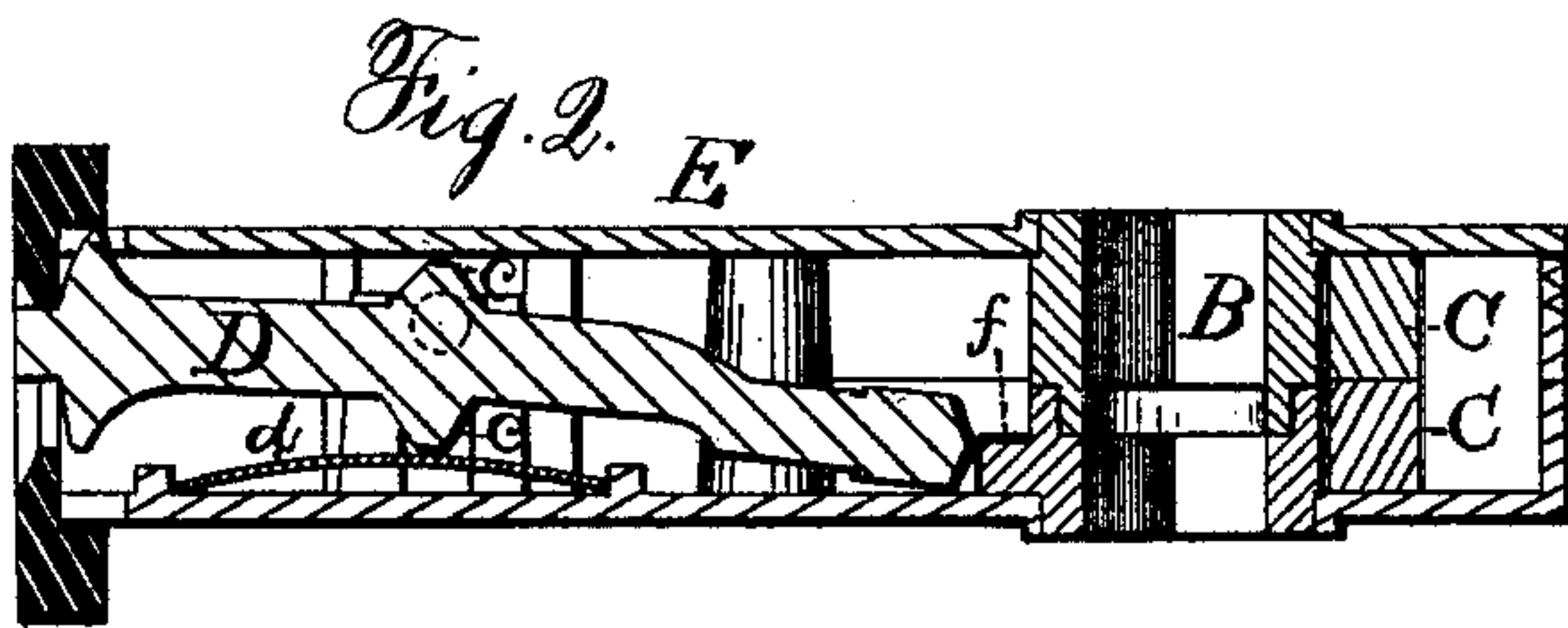
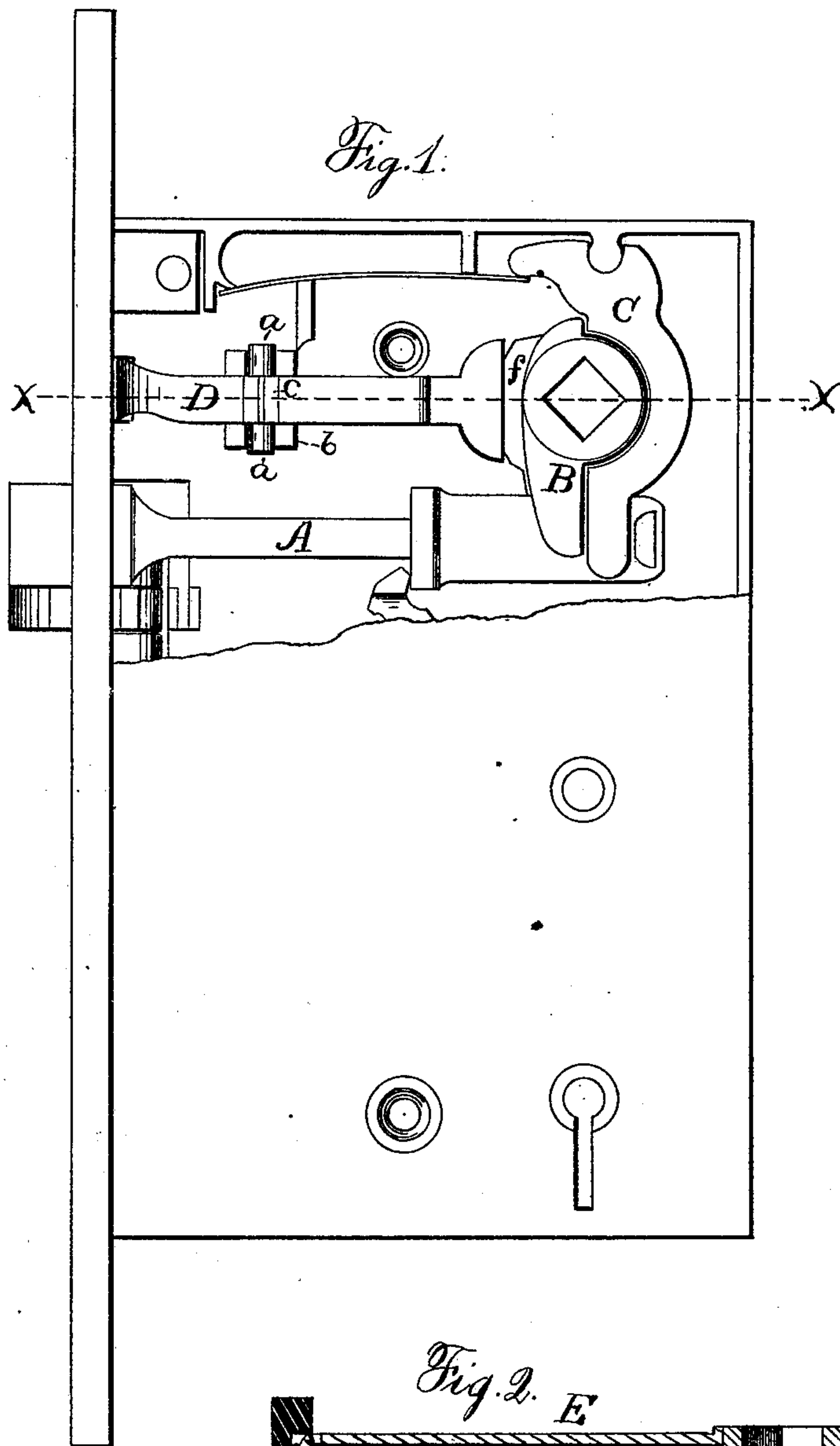


(No Model.)

W. E. SPARKS.
Latch.

No. 231,504.

Patented Aug. 24, 1880.



Witnesses.
John Edwards Jr.
P. J. Markley

Inventor.
William E. Sparks
By James Shepard Atty.

UNITED STATES PATENT OFFICE.

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

LATCH.

SPECIFICATION forming part of Letters Patent No. 231,504, dated August 24, 1880.

Application filed May 28, 1880. (No model.)

To all whom it may concern:

Be it known that I, WM. E. SPARKS, of New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Night-Latches, (Case K,) of which the following is a specification.

My invention relates to improvements in night-latches in which a stop vibrates upon a vertical axis and operates in connection with a squared seat upon the front of the hub specially designed to engage the inner end thereof.

The objects of my improvements are to provide a simple and cheaply-made device which shall firmly hold the hub in position, and which is so located with reference to the lock as not to be liable to move on its axis by the jarring action of the door. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation, with a portion of the front plate removed in order to show the parts, and Fig. 2 is a horizontal section on line *x x* of Fig. 1.

The latch proper consists of the latch-bolt A, two-part hub B, and oscillating lever C, which parts are substantially the same as those in common use, with the exception of a portion of the hub hereinafter described.

The stop consists of an oscillating lever, D, having trunnions *a a*, which take their bearing in a fixed stud, *b*, upon the latch-case. Upon the sides of this lever D, opposite the trunnions *a a*, there are projections *c c*, one of which bears against a cap-plate, E, of the latch-case, and the other of which bears against the spring *d*, (see Fig. 2,) the action of which spring on the projections is to hold the swinging lever in either of its extreme positions. The outer end of this lever projects through a hole in the face-plate of the latch-case, whereby it may be pushed from side to side to bring its opposite end in front of the hub B, so as to engage the same, or to the other side of the case, so as to be out of the way of said hub.

The front side of the outer half of the hub B has a projecting arm, *f*, formed thereon, the edge of which arm is squared, as shown in Fig. 1, to correspond with the broad and

squared end of the lever D. When this lever D is thrown into the position represented in the drawings its inner end is pressed firmly against the squared seat on the arm *f* of the hub B and prevents that part of the hub from being rotated, thereby cutting off all communication between the knob-spindle and the latch-bolt A from outside and fastening the hub in a firm and efficient manner. By throwing the outer end of the lever in such a direction as to carry it to the side of the hole in the face-plate which is opposite that occupied by said lever in Fig. 2, its inner end will be carried away from in front of the hub, which will then be disengaged and free to be operated by the knob-spindle from the outside or from either side of the door.

By hanging the stop-lever upon a vertical instead of a horizontal axis it is found in practice to be less liable to be accidentally displaced under the repeated jarring action of the door, because one end of the stop-lever may be much heavier than the other, and such want of balance will not have the least tendency to turn the lever on its axis. Also, the stop-lever can be set with its body extending longitudinally in a line which points directly to the axis of the hub, and thereby the lever may very firmly engage said hub, and also the inner end of the lever moves on a line substantially parallel with the axis of the hub, whereby the hub is locked from moving in either direction by the employment of only two simple straight engaging faces located respectively upon the end of the stop-lever and side of the hub.

I am aware that stops have heretofore been employed in night-latches which consist of a swinging lever hung upon a horizontal axis and engaging one of the radial arms of the hub upon the upper or lower side thereof, and I hereby disclaim such a construction.

I claim as my invention—

1. The stop-lever D, hung upon a vertical axis within the latch-case, and operating in connection with the hub and suitable mechanism for retaining it in proper position, substantially as described, and for the purpose specified.

2. The combination of the stop-lever D,

provided with trunnions *a a* and side projections, *c c*, the cap-plate E, which engages one of said projections, the spring *d*, resting upon the opposite plate and engaging the opposite
5 projection *c*, the hub B, provided with the squared seat on the arm *f*, for engagement with the squared end of the lever D, sub-

stantially as described, and for the purpose specified.

WILLIAM E. SPARKS.

Witnesses:

CHARLES PECK,
E. L. PRIOR.