

(No Model.)

F. SPENGLER.

LATCH BOLT.

No. 390,409.

Patented Oct. 2, 1888.

Fig: 1.

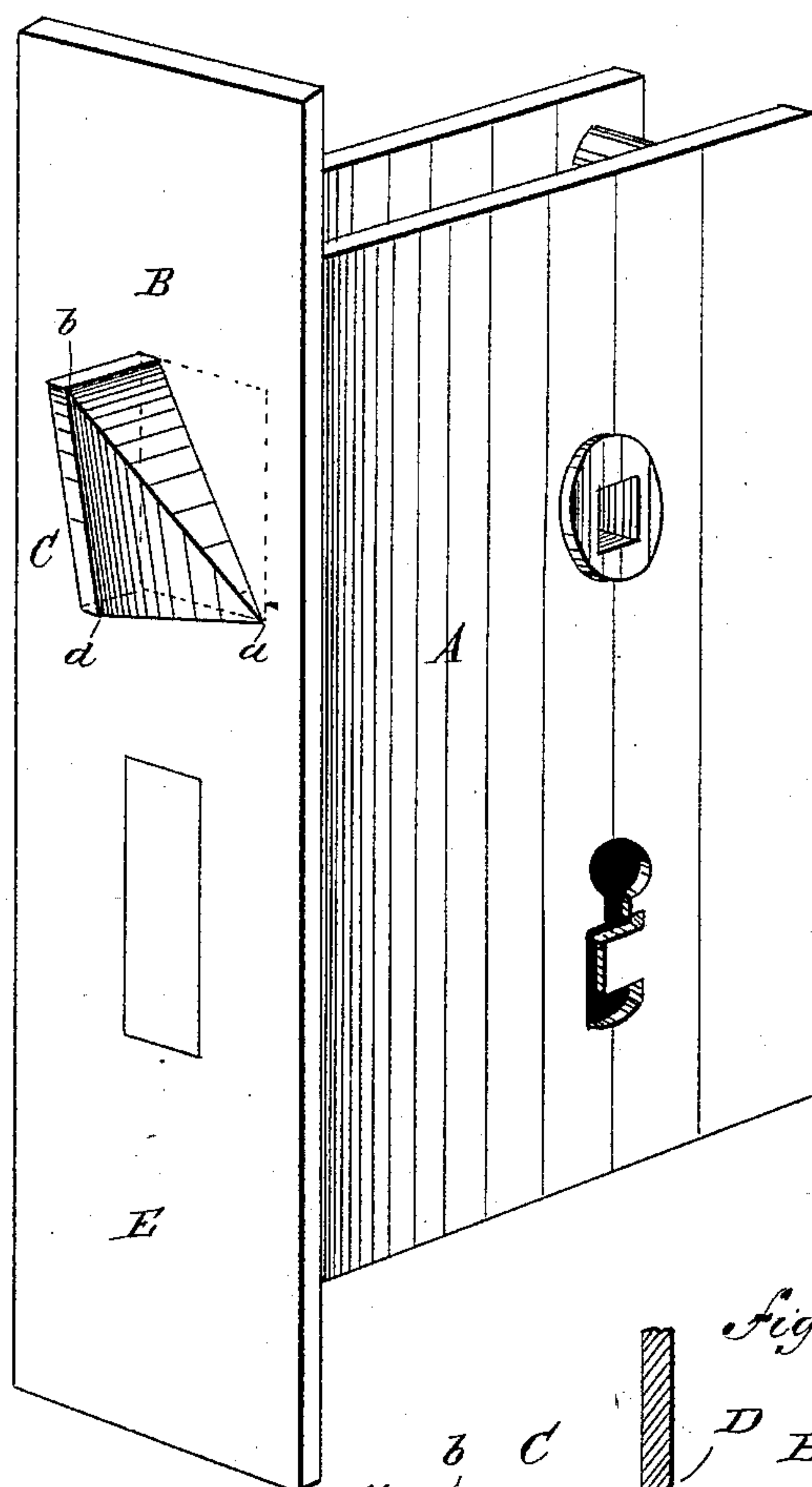


Fig: 2.

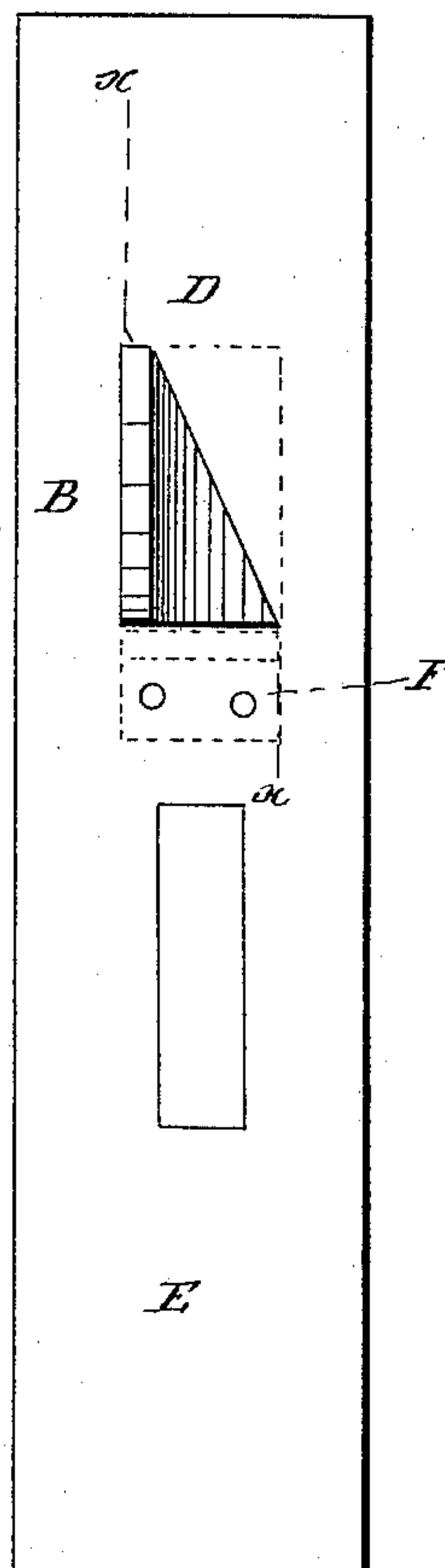


Fig: 3.

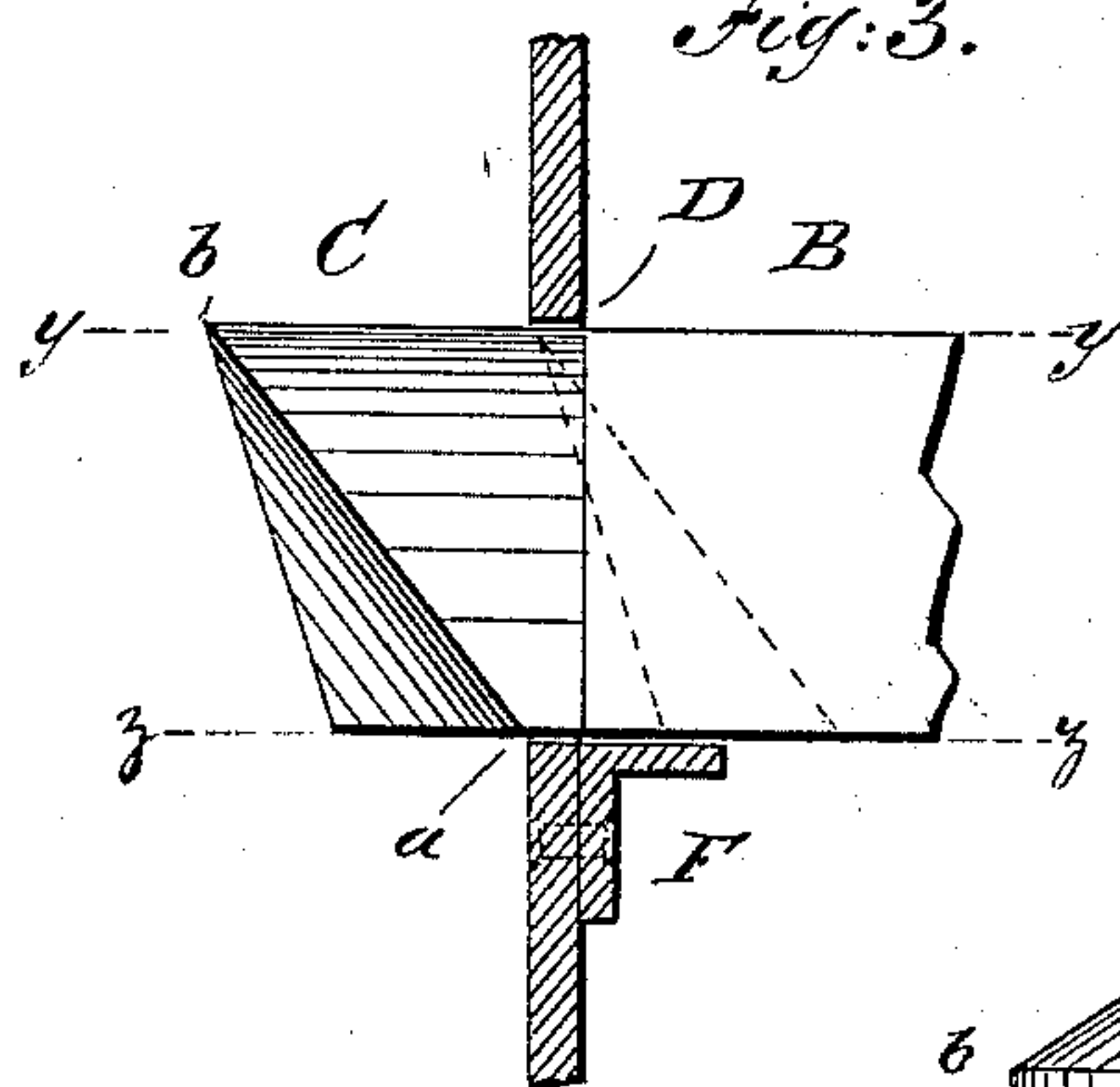
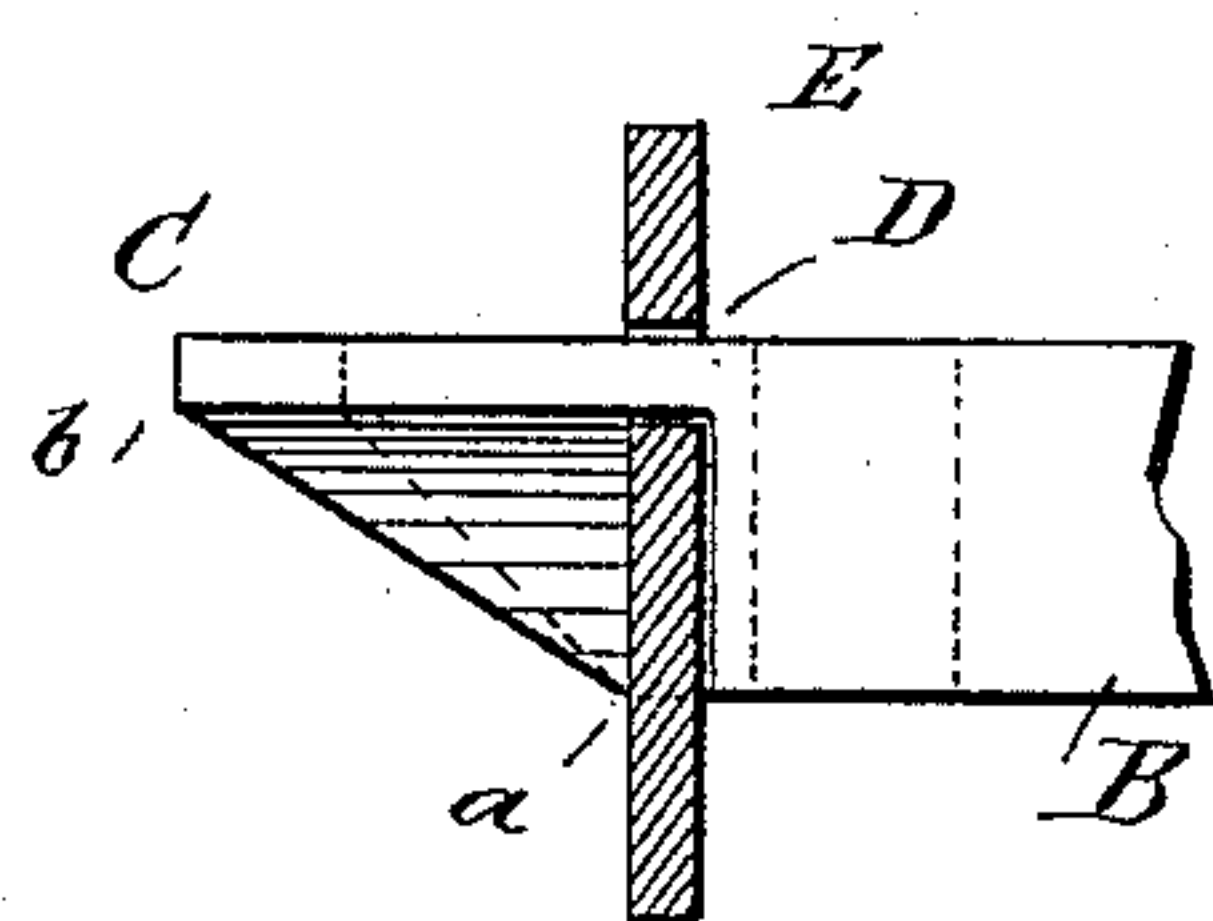


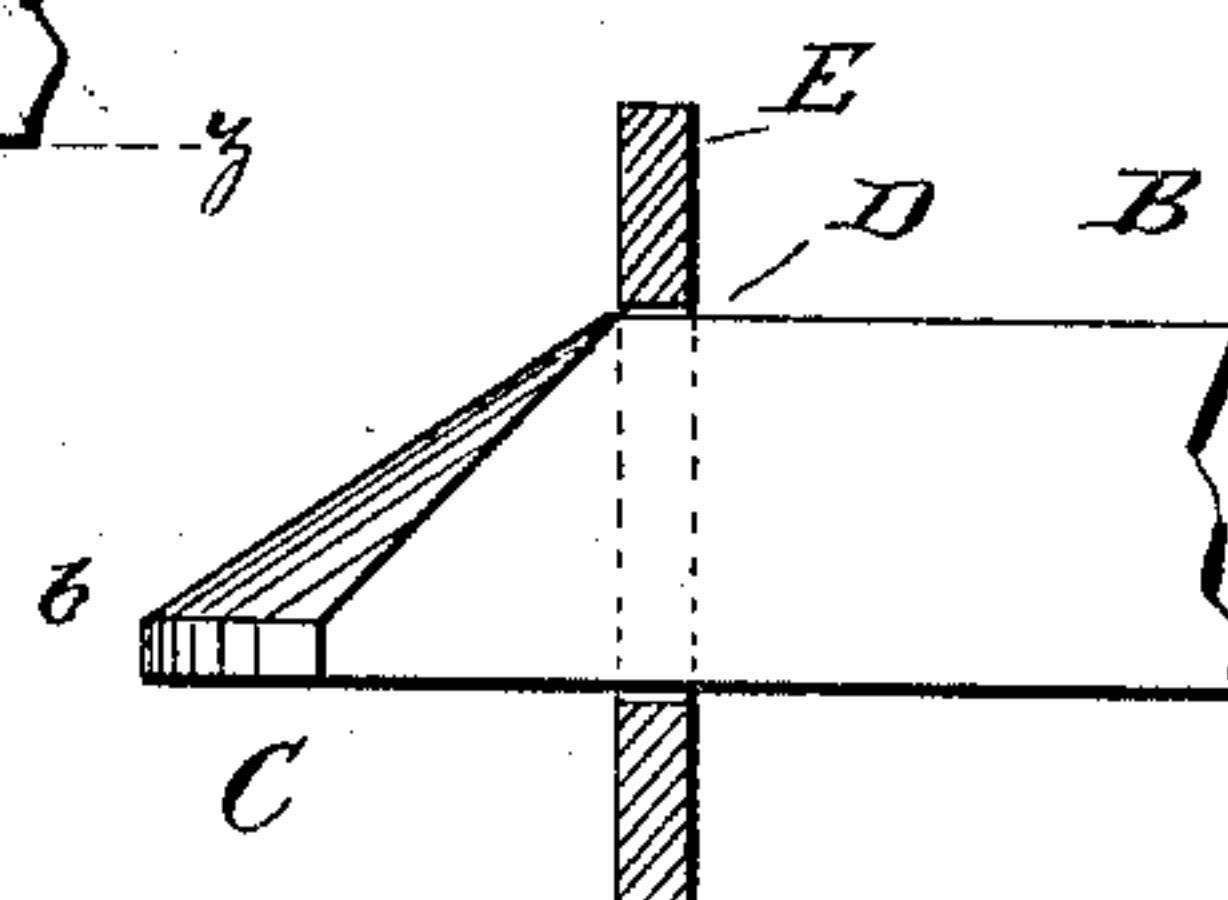
Fig: 4.



WITNESSES:

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Fig: 5.



INVENTOR:

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UNITED STATES PATENT OFFICE.

FRANZ SPENGLER, OF BERLIN, GERMANY.

LATCH-BOLT.

SPECIFICATION forming part of Letters Patent No. 390,409, dated October 2, 1888.

Application filed December 19, 1887. Serial No. 258,278. (No model.)

To all whom it may concern:

Be it known that I, FRANZ SPENGLER, a subject of the King of Prussia, residing at Berlin, in the Kingdom of Prussia, German Empire, have invented new and useful Improvements in Latch-Bolts, of which the following is a specification.

The invention relates to latch-bolts, the object of the invention being to provide a new and improved latch-bolt, in which the friction between the head of the bolt and the keeper on the door-casing is reduced to a minimum.

The invention consists in the peculiar construction of the bolt, as hereinafter described, and pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the improvement. Fig. 2 is a front end elevation of the same. Fig. 3 is a sectional side elevation of part of the improvement on the line xx of Fig. 2. Fig. 4 is a plan view of the same on the line yy of Fig. 3, and Fig. 5 is an inverted plan view of the same on the line zz of Fig. 3.

The latch-bolts as heretofore constructed were formed at their projecting front ends or heads in the shape of a wedge, the entire inclined side of which came in contact with the keeper when closing the door, so that considerable friction was produced. With the improvement presently to be described this friction is reduced to a minimum, as the contact of the head of the bolt takes place only along a line instead of the entire inclined side when closing the door.

The latch-casing A is provided with the locking-bolt B, against which presses a spring, (not shown,) so that the front end or head, C, of the bolt is held in an outermost position—

that is, it projects through the aperture D, formed in the front plate, E, of the casing A.

The head C of the bolt B, instead of being of the usual wedge shape, is of an inclined pyramidal shape, as shown in the drawings, the base of the pyramid being the rear end of the head C, as is plainly shown in Fig. 1. The front edge, bd , of the base of the pyramid is slightly inclined inward, and the point a of the pyramid is flush with the front plate, E, when the bolt B is in its outermost position, as shown in Fig. 1.

Now it will be seen that when the door is closed the contact of the head C of the bolt B with the keeper will only take place along the line of the edge ab of the pyramid, thereby reducing the friction to a minimum.

In order to support the bolt B when sliding inward on closing the door, I provide the front plate, E, at its inside with an angle-iron, F, on which rests the bottom of the head C of the bolt when the latter is moved into its extreme innermost position, as shown in dotted lines in Fig. 3.

The peculiar shape of the head C of the bolt B may be given to all kinds of bolts, whether straight or curved.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

A latch-bolt of wedge-like form and having its end beveled from edge to edge and from side to side, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANZ SPENGLER.

Witnesses:

GUSTAV HÜLSMANN,
B. ROl.