

W. B. Dodds,

Safe Bolt,

No 57,040,

Patented Aug. 7, 1866.

Fig: 1.

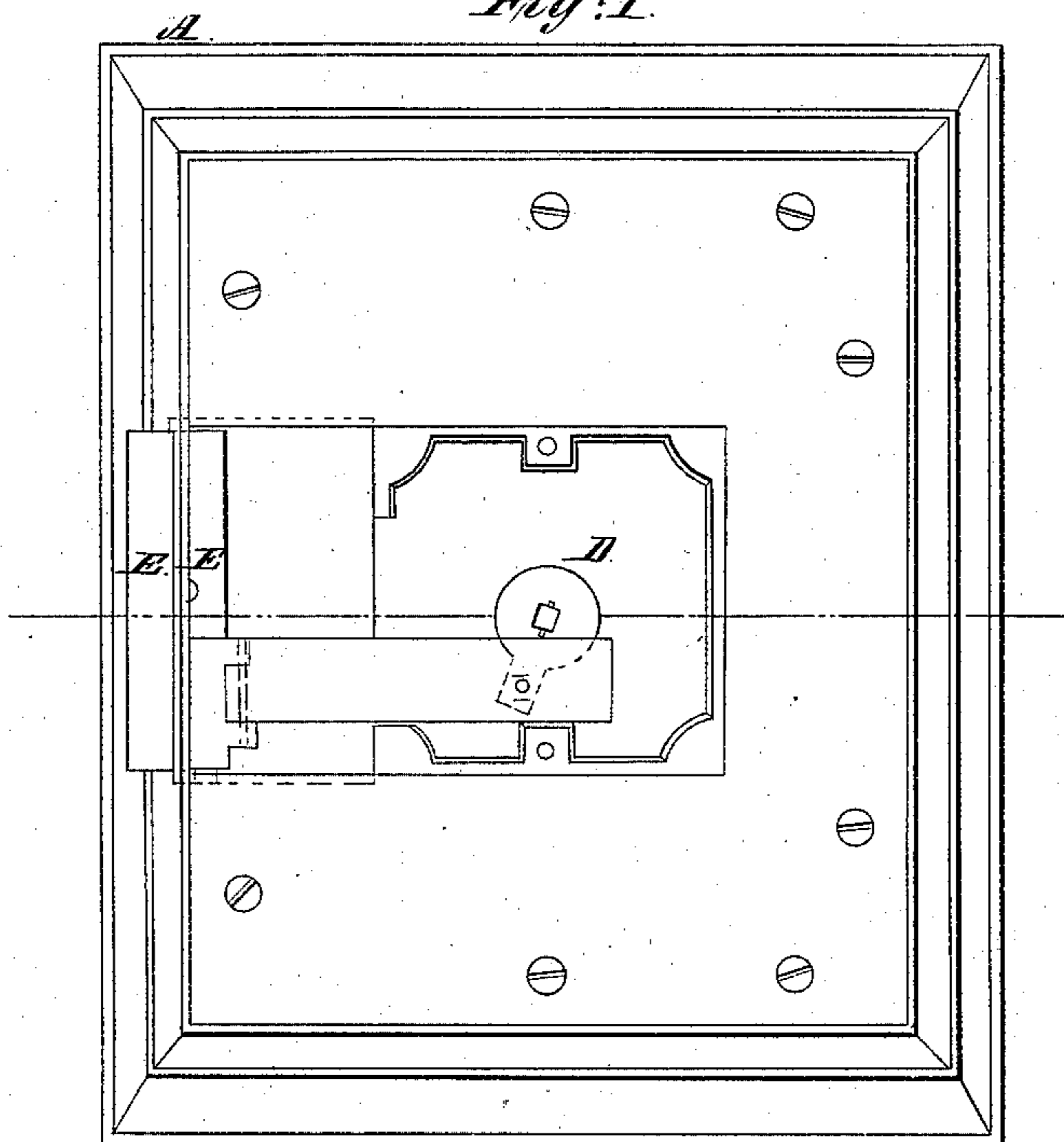


Fig: 2.

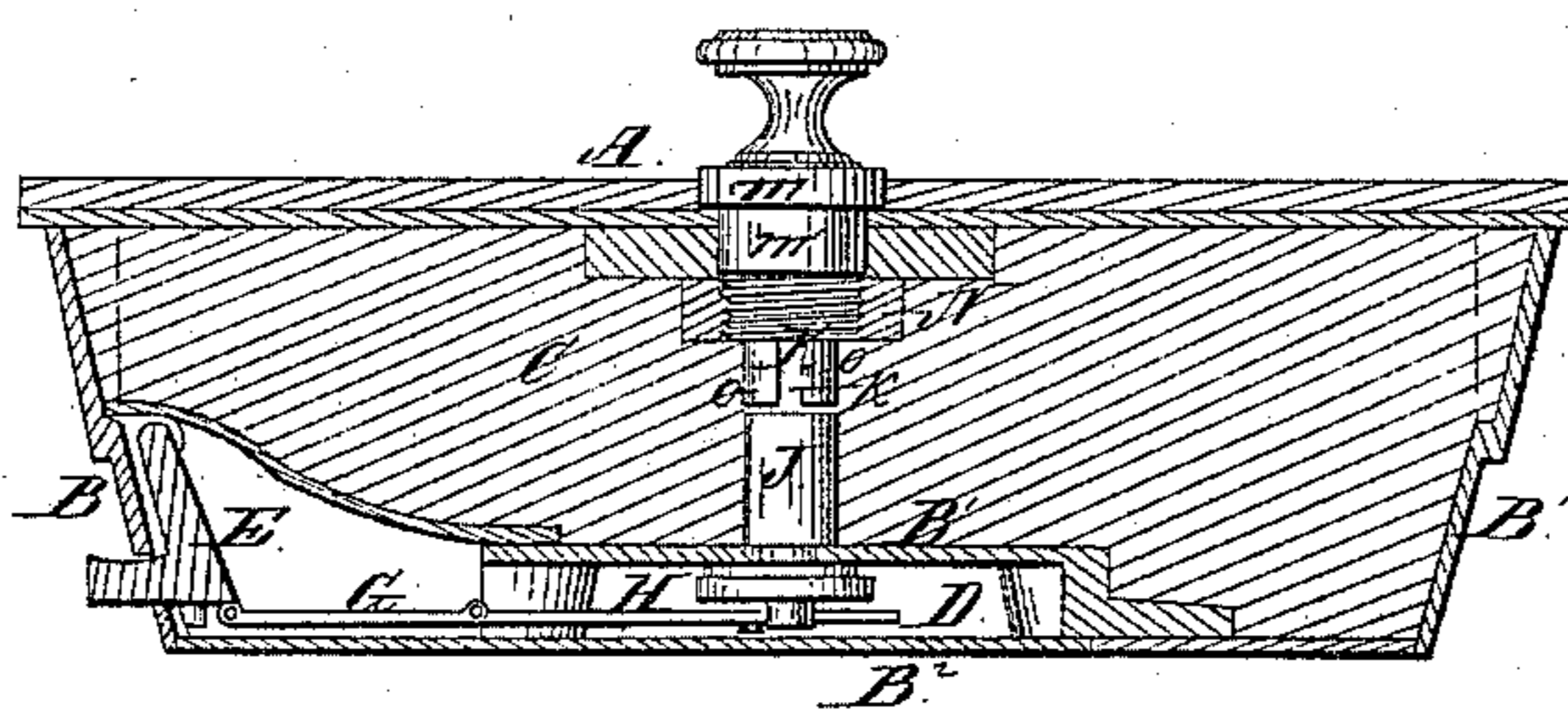


Fig: 3.

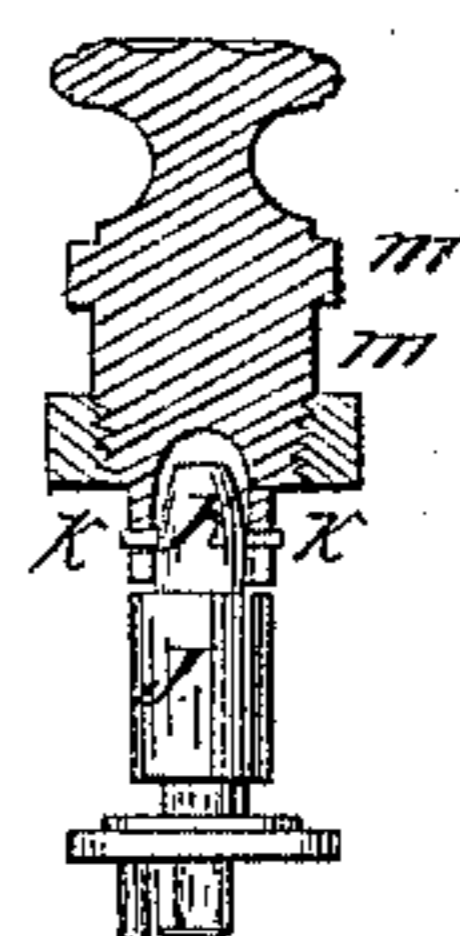


Fig: 4.

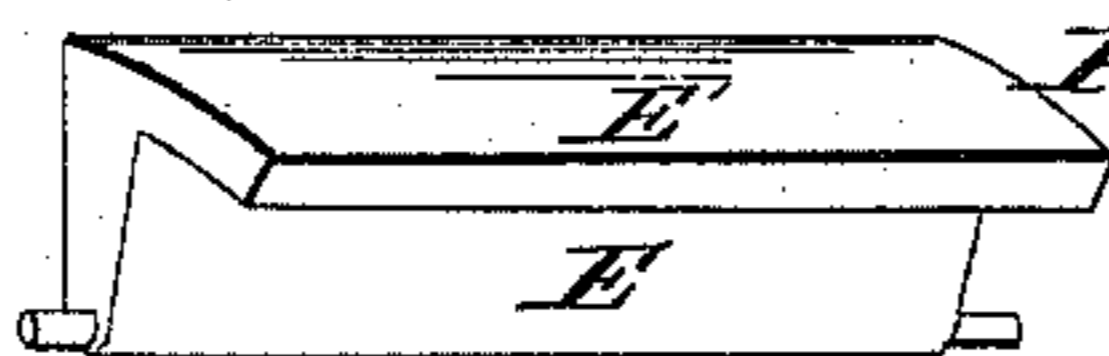


Fig: 5.

Witnesses:
C. J. Smith
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Inventor:
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UNITED STATES PATENT OFFICE.

WILLIAM B. DODDS, OF CINCINNATI, OHIO, ASSIGNOR TO HIMSELF AND
NEIL MACNEALE, OF SAME PLACE.

IMPROVEMENT IN SAFE-LOCKS.

Specification forming part of Letters Patent No. 57,040, dated August 7, 1866; antedated
February 7, 1866.

To all whom it may concern:

Be it known that I, WILLIAM B. DODDS, of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Fire-Proof Safes and Bolts therefor; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 may represent a rear elevation of a safe-door illustrating my invention; Fig. 2, a horizontal section of the same at *xx*; Fig. 3, an axial section of the knob or handle and the shaft which connects it with the lock; Figs. 4 and 5, detached perspective views of the pivoted bolt and one of the brackets in which its ends are secured.

Similar letters of reference indicate corresponding parts in the several figures.

The nature of my said invention consists in the employment of a bolt which may be pivoted in a strong part of the door-frame and project from the door near its inner face, as hereinafter explained.

The following description will enable any one skilled in the art to which my invention appertains to fully understand and use the same.

A represents the external burglar-proof casing of the door. B B' B² are its inner walls, forming a suitable chamber for the reception of the fire-proof material C.

The principal operating parts of the lock are located in a chamber, D, upon the inner side of the door, so that the fire-proof material may effectually protect the lock and bolts from danger of injury by fire.

I employ, by preference, a door-bolt, E, of L form, as clearly represented in Figs. 2 and 5, which bolt is pivoted at *e* to brackets F, which, for this purpose, are firmly bolted, screwed, or otherwise secured to the door-frame at a point sufficiently remote from its inner face to afford ample strength. By this means as great security is afforded as with a sliding bolt heretofore used, while the projecting flange or bit E' is brought to the in-

ner face of the door in line with the lock, by which it is operated.

In the present illustration the projection and retraction of the door-bolt E are effected by a bar, G, connecting with the lock-bolt H, which is operated by any suitable connection with the shaft J. In practice this will, of course, be changed in accordance with any form of lock which may be desired. This shaft is journaled at *j* in an aperture in the plate B³, which constitutes the back of the lock-case, so as to permit free rotation of the shaft.

Upon the outer end of the shaft J is formed an elliptical head, K, Fig. 3, with lateral projections or pins *k k*.

The external handle M is formed with a shoulder, *m*, and journal *m'*, fitted in the plate A and secured therein by a nut, N, on the inside. Upon the inner end of the shank or shaft of the handle M are formed a socket, O, fitting loosely over the head K of the shaft J, and slots to receive the pins *k k*. By this arrangement rotation is communicated from the handle M to the shaft J, and they work equally well, although they may not be precisely in line. This mode of constructing the handle separately from the rotating shaft and forming a loose connection between them is valuable also for preventing the transmission of heat or the effect of hammering or other violence upon the exterior of the door. It also admits of the parts adapting themselves to varying thickness in the doors by the motion of the pins *k k* lengthwise in the slot.

The tumblers, permutation-wheels, or other devices to secure the bolt in its advanced position may be in any of the known forms, and as the mechanism which I design to employ for this purpose will be made the subject of a separate application it requires no description here.

It is manifest that, without departing from the principle of my invention, the lock and door-bolts may be applied upon the inner face of the door instead of in a chamber within the same. The entire thickness of the door

will thus be made available for containing non-conducting fire-proof material.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

The L-shaped bolt, pivoted in brackets secured to the frame of the door and moving

on a vertical axis under the impulse of the lock and connecting-bar, substantially as described.

W. B. DODDS.

Witnesses:

EDWARD H. KNIGHT,
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