

B. VAN DYKE.
Improvement in Door-Locks.
No. 130,609. Patented Aug. 20, 1872.

Fig. 1.

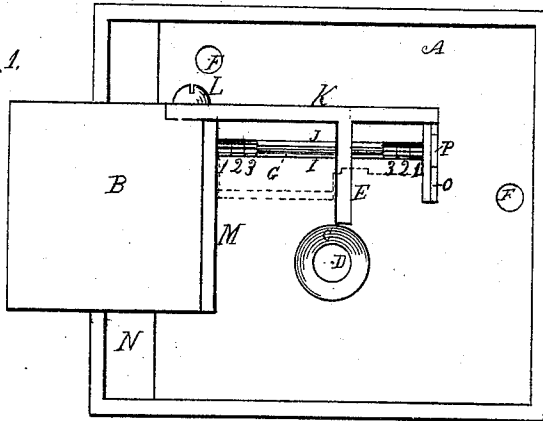


Fig. 3.

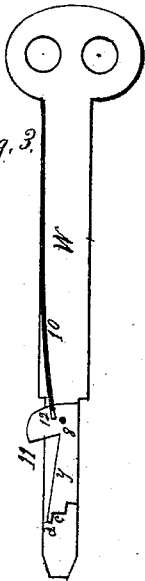


Fig. 2.

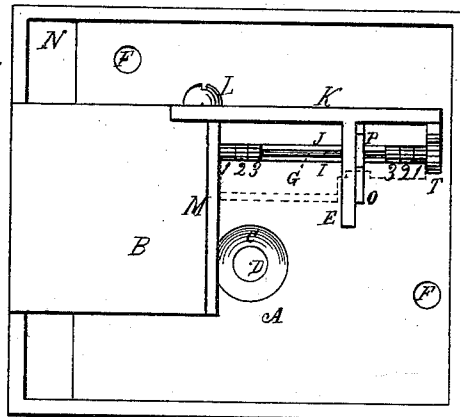


Fig. 4.

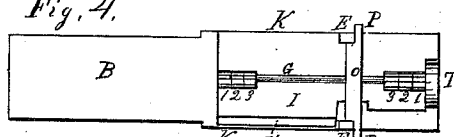


Fig. 6.

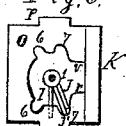


Fig. 5.

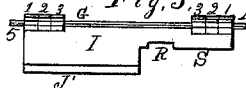
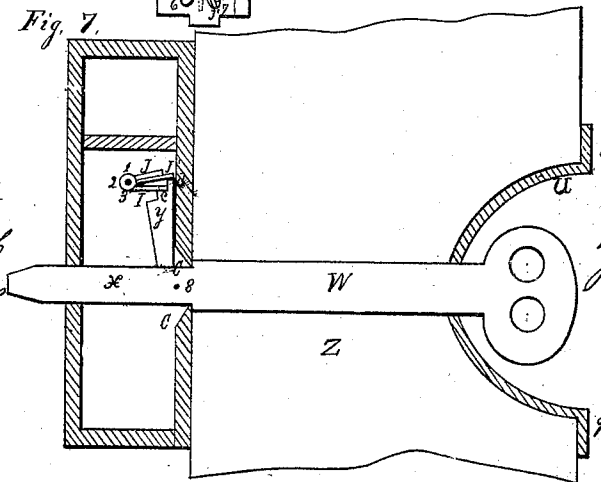


Fig. 7.



Witnesses

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UNITED STATES PATENT OFFICE.

BENTON VAN DYKE, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN DOOR-LOCKS.

Specification forming part of Letters Patent No. 130,609, dated August 20, 1872.

SPECIFICATION.

I, BENTON VAN DYKE, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Locks, of which the following is a specification:

This invention relates to an improved lock, which is to be used only on vertical doors; and its nature consists in employing hinged plates or guards to prevent the bolt from being opened, and operating them by a suitable key, as hereinafter described and shown.

In the drawing, Figure 1 is an elevation of the lock with the inner face-plate removed and the bolt thrown out as when locked, and the guards raised up in horizontal position; Fig. 2, a similar view with the bolt thrown in as when unlocked; Fig. 3, a longitudinal section of the key. Fig. 4 is an edge view of the bolt and its attachments, removed from the lock-case, looking toward the guard-plates from below; Fig. 5, the guard-plates, removed from the bolt; Fig. 6, an elevation of the inner end of the bolt, showing the plate which prevents the guard-plates from moving back longitudinally, unless properly adjusted. Fig. 7 is a section of the lock and the door, to which it is attached, showing the position of the key when the guards are in position, to allow the bolt to be drawn into the lock-case.

A represents an ordinary lock-case, of suitable size and form, to receive the mechanism, hereinafter described. B represents the bolt, which is elongated by means of a strip of metal, K, fastened to it by means of a screw, L, or other suitable fastening. On the inner end of the part K is formed a bearing, T, which supports the end 4 of a rod, G, the end 5 of the rod having in the bolt B a bearing, so that the rod will receive a suitable support. I J J' represent three guard-plates, which are of metal, and are so hung to the rod G by means of eyes 1 2 3 in their ends that any one may swing independently of the others. Those parts of the guards shown at R are so cut away as readily to swing in an opening through a stop-plate, O, more clearly shown at Fig. 6,

but the wider parts cannot pass through unless adjusted by a suitable key. 6 7 represent enlargements of the main opening in the stop-plate O, which are of suitable size to allow any two of the guard-plates to pass through longitudinally, but they are not large enough to let the three pass through, so they must be separated, as shown at Fig. 7, before the bolt B can be thrown back. In order that the guard-plates may be thus separated a key of peculiar construction is employed. W represents the stem of the key, and Y represents the bit, which turns and separates the guards. The bit is pivoted to the stem at 8, and it is provided with a shoulder, 11, which, when it comes in contact with the plate of the lock, as shown in Fig. 7, throws the bit up in a vertical position, so as to separate and adjust the guard-plates, as shown in last-named figure, that they may pass through their respective enlarged openings 6 7 in the plate O. If the key now be turned the bolt B will be thrown in or out. A spring, 10, is secured to the stem W of the key, and its end projects into a notch, 12, in the shoulder 11, so that when the key is withdrawn (as it readily can be from any position in the lock) the bit Y will be shut back into its case. U represents a recessed escutcheon, which is made of metal, and is fastened to the door by means of flange 9 and screws, the recess allowing a shorter key to be used. After the bolt has been locked and the key withdrawn the guard-plates adjust themselves to a vertical position by their own gravity.

I claim and desire to secure by Letters Patent—

1. The combination of the guards I J J', rod G, and bolt B, as and for the purpose set forth.

2. The combination of the guards I J J', rod G, bolt B, and stop O, substantially as described.

BENTON VAN DYKE.

Witnesses:

GEO. L. CHAPIN,
AMOS SECOY.