

J. G. SPATHELF  
DOOR LOCK.

No. 80,369.

Patented July 28, 1868.

Fig. 1

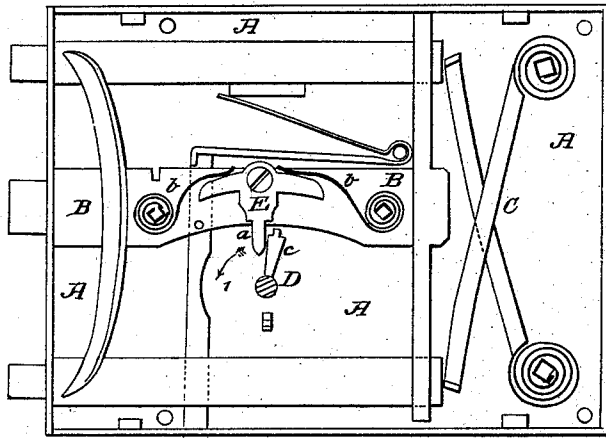


Fig. 2

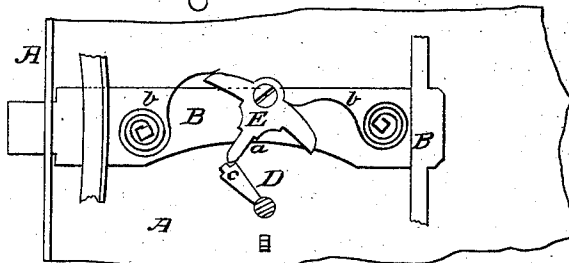


Fig. 3 x

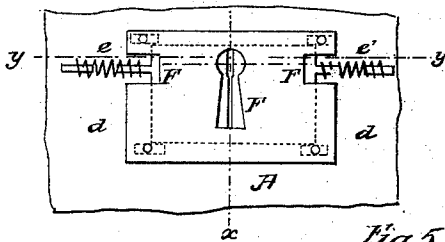


Fig. 5

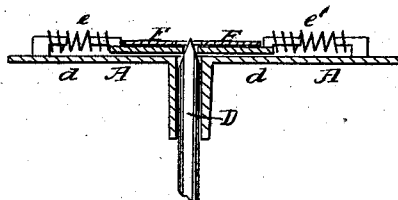
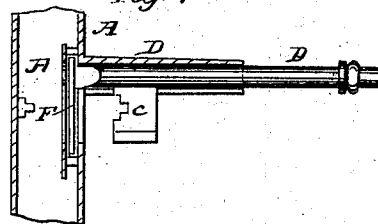


Fig. 4



Witnesses  
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JOHN G. SPATHELF, OF SANDUSKY, OHIO.

Letters Patent No. 80,369, dated July 28, 1868.

## IMPROVEMENT IN DOOR-LOCKS.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN G. SPATHELF, of Sandusky, in the county of Erie, and State of Ohio, have invented a new and useful Improvement in Locks; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a side view of my improved lock, one of the side plates being removed.

Figure 2 is a detail side view of the same, showing the parts in a different position.

Figure 3 is a detail view of the inner face of the covering-plate.

Figure 4 is a detail vertical section of the same, taken on the plane of the line *x x*, fig. 3.

Figure 5 is a detail horizontal section of the same, taken on the plane of the line *y y*, fig. 3.

Similar letters of reference indicate corresponding parts.

This invention relates to certain improvements which are applicable to door-locks, safe-locks, trunk-locks, spring-locks, padlocks, and all other kinds of locks.

The invention consists, first, in pivoting to the face of the bolt a plate, which projects from the bolt towards the key, and which is held in a certain position by means of springs.

The bolt cannot be reached by the key, at least not for unlocking, and the aforesaid pivoted plate will yield to the key, and will allow the same to be turned loose in the locks.

The ward of the key is provided with a notch or recess, into which the end of the pivoted plate fits, and if it is allowed to remain in, thereby not turning the key any further in the direction in which it was turned to engage the plate, the latter will, when the motion of the key is reversed, act as a lever, to allow the bolt to be drawn into the lock.

The bolt can, therefore, only be unlocked by turning the key towards the outer edge of the case, as if to lock, and by then, when the plate pivoted to the bolt has sprung into the key, reversing the motion of the key.

The invention consists, second, in arranging on the inner side of the covering-plate of the lock two sliding plates, which are, by means of springs, forced towards each other, so as to close the key-hole.

The end of the key-spindle is wedge-shaped, so that it will force the two plates apart, and allow the key to be inserted in the lock.

By no ordinary key, which has a rounded or flat-spindle end, can the interior of a lock, that is provided with the aforesaid sliding plates, be reached.

A, in the drawing, represents the case of a door-lock.

B is the bolt.

C, the spring, which tends to force the bolt out.

D is the key.

To the face of the bolt B is pivoted a T-shaped or other plate, E, which has one arm, *a*, projecting towards the key, so that the latter cannot be turned in the lock without coming in contact with the plate E.

By means of a spring or springs, *b*, the plate E is held in the desired position, unless it is moved by the key.

The ward *c* of the key does not reach the bolt, at least not when the same is locked, as in fig. 1.

For unlocking, the key must be turned in the direction of the arrow 1, fig. 1, until the end of the plate *a* falls into a notch or recess provided in the key, as in fig. 2.

The motion of the key is then reversed, when the plate E will act as a lever, to have the bolt moved back.

To the inner side of the face-plate *d* of the lock-case are secured two sliding plates, F F, which are, by means of springs, *e e*, forced together, so that their edges come in contact with each other below the key-hole in the plate *d*, as is clearly shown in figs. 3 and 4.

The key-hole is thus effectually closed, and no key having a round or flat-spindle end can be pushed into the lock.

The end of the spindle of the key, by means of which a lock, having the plates F F, can be operated, must be wedge-shaped, as shown in fig. 5, when it will easily force the plates F F apart, as indicated.

It is evident that the plate E can be arranged on any bolt, whatever be the construction of the lock. In the same manner can the plates F F be arranged on any suitable lock, of whatever description.

I do, therefore, not confine myself in the application of either of my improvements to any particular construction of locks.

I claim as new, and desire to secure by Letters Patent—

The sliding plates F F, when arranged on the inner side of the covering-plate of a lock-case, and when forced together by means of springs e e, substantially as described, so as to close the key-hole, as set forth.

JOHN G. SPATHELF.

Witnesses:

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