(No Model.)

W. W. PURSEL.

LOCK.

No. 431,620. Patented July 8, 1890.

Fig. 1.

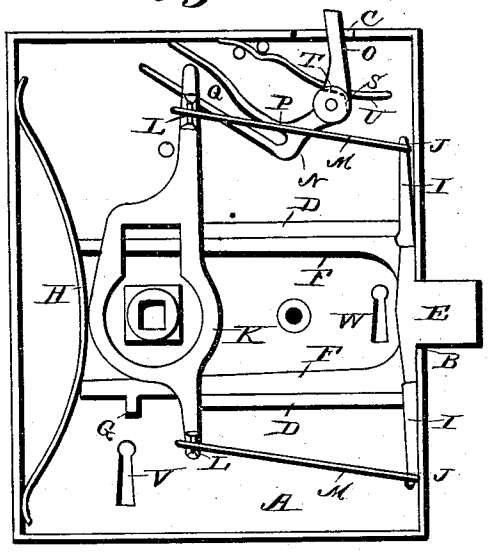


Fig. 2.

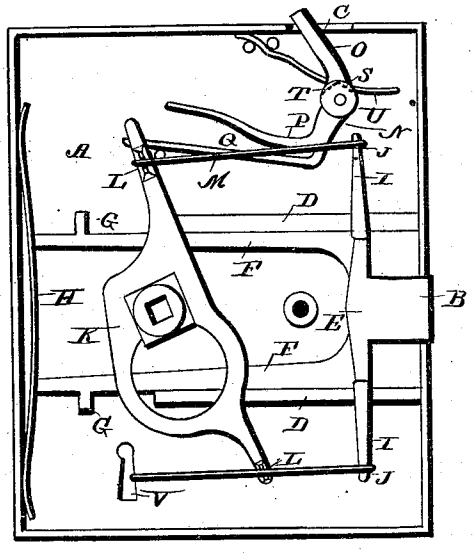


Fig. 3.

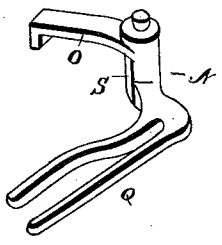


Fig. 5.

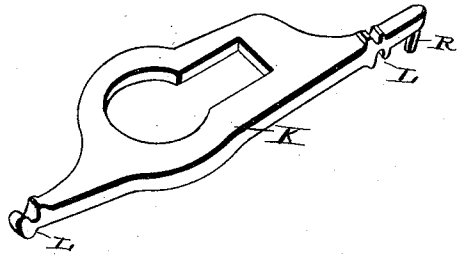
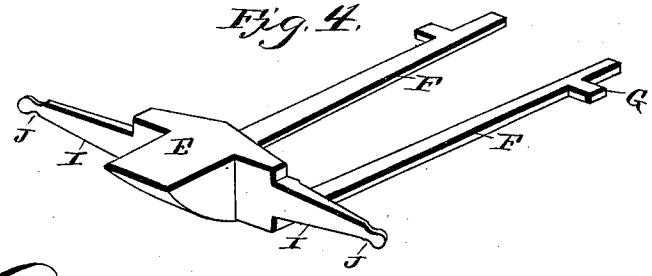


Fig. 4.



Witnesses

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LOCK.

SPECIFICATION forming part of Letters Patent No. 431,620, dated July 8, 1890.

Application filed June 28, 1889. Serial No. 315,870. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. PURSEL, a citizen of the United States, residing at Berwick, in the county of Columbia and State of Pennsylvania, have invented a new and useful Door-Lock, of which the following is a specification.

My invention relates to improvements in door-locks, and has special reference to improvements on the device for which Letters Patent No. 390,704 were granted to me October 9, 1888.

The invention consists in certain novel features, hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side view showing the bolt projected and locked. Fig. 2 is a similar view showing the bolt withdrawn. Fig. 3 is a detail perspective view of the dead-latch. Figs. 4 and 5 are detail perspective views of the bolt and the lever, respectively.

The casing A is of the usual construction, and is provided in one of its side edges with the opening B, through which the bolt E projects, and in its upper edge with the notch or slot C, through which the dead-latch projects. On its inner side the casing is provided with the ribs D, and the bolt is fitted between and guided by the said ribs. The bolt E is of substantially the same construction as that shown in my former patent, and is provided with the arms F, engaging the ribs D, and provided with the lugs G, which are adapted to be engaged by the key when it is desired to withdraw the bolt. The bolt is normally projected by means of a spring H, which is secured within the casing and bears against the ends of the arms F. The bolt is further provided near its outer end with the lateral arms I I, having notches J in their edges near their ends, as clearly shown.

The lever K is constructed in the manner shown in my former patent, with the exception that instead of the eyes shown in said patent I provide the ends of the lateral arms of the lever with the lugs L, and the said lever is connected with the lateral arms of the bolt by the links M, fitting between the lugs L and engaging the notches J. This connection is simpler than that shown in my former patent and is equally as efficient.

The dead-latch N is arranged in the upper front corner of the case, and is provided with an upper arm O, projecting through the slot C in the case, and a lower L-shaped arm P, the longer branch of which is provided with a slot Q, and engages a pin R at the end of the upper arm of the lever. The body of the dead-latch is provided with the flattened portions S T, which are engaged by a spring U, secured within the casing, so that the latch will be securely held in either of its positions. The upper arm O is dispensed with when the lock is to be a mortise-lock and the dead-latch is operated by a shaft as in my former patent.

The casing is provided with the usual key-hole V, so that the lock can be operated from the outside by a key, and is further provided near its front edge and at about its center with the key-hole W, through which the key may be inserted, so as to extend across the path of the bolt, and thereby form a dead-latch to prevent movement of the same.

From the foregoing description it is thought the operation and advantages of my improved lock will be readily understood. When it is desired to lock the door so as to prevent opening of the same from the outside, the dead-latch N is moved so as to raise the lever, and thereby bring the circular opening therein into engagement with the knob-shaft, as will be readily understood on reference to my aforesaid patent. When it is desired to allow the door to be opened, the dead-latch is moved in the contrary direction, thereby depressing the lever, so that upon rotating the knob-shaft the bolt will be withdrawn. If it is desired to prevent opening of the door from the outside by burglars or other mischievously-inclined persons, the key may be inserted through the key-hole W, so as to act as a dead-latch and prevent movement of the bolt. This arrangement will also prevent loss of the key, as the hole does not extend through the door, and the key consequently cannot be pushed out.

My present device is simpler than that shown in my former patent, and is stronger and less liable to get out of order. The lugs G on the arms of the bolt are engaged by the wing of the key when withdrawing the bolt, and the connection between the lever and the

bolt is such that the links are effectually held in position and can be easily removed in the event of breaking or being worn out. The construction of the dead-latch is such as to increase the strength of the same and render it more positive in its operation.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a lock having a sliding bolt provided with parallel horizontal arms and a lug on the side of said arms, the casing having a key-hole in both sides below the plane of the said lug, and a key-hole in one side between the planes of the parallel arms, as set forth.

2. In a lock, the combination, with the bolt having the lateral arms I, provided with oppositely-disposed notches J near their ends, and the lever K, having lateral arms provided with an oppositely-disposed pair of lugs L on each side near their ends, of the single-looped links M, each loosely engaging around the bodies of and in the notches in one bolt-arm and between the lugs on the corresponding lever-arm and adapted to project past said engaging points when the respective arms approach each other, substantially as described.

3. The combination of the knob-shaft, the lever mounted thereon and provided with a lateral pin at its upper end, and the dead-latch arranged above the plane of the knob-shaft and provided with a longitudinal slot engaging the lateral pin at the upper end of the lever, as set forth.

4. The combination of the casing, the lever therein provided with a pin R at its end, the dead-latch mounted in the casing and engaging said pin and having its body provided with flattened portions, and the spring secured in the casing and bearing on said flattened portions of the body of the dead-latch, as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM W. PURSEL.

Witnesses:
H. C. LAUBACH,
GEORGE A. BUCKINGHAM.