S. M. PYE.

Latch.

No. 6,184. Patented Mar. 13, 1849.

Fig. 1.

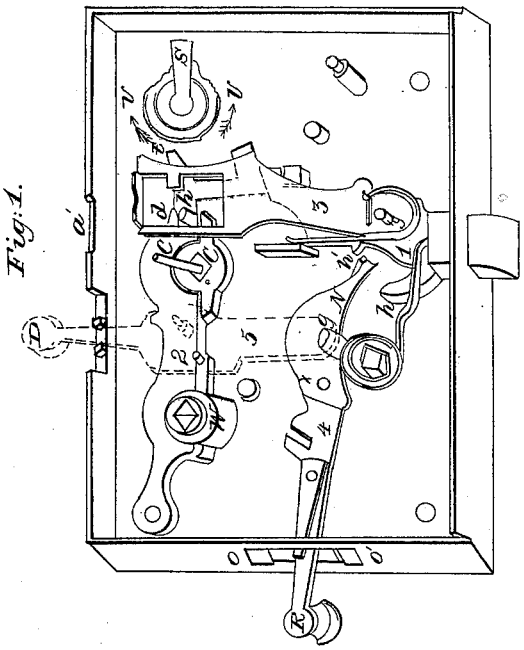


Fig. 3

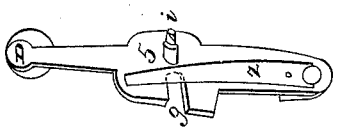
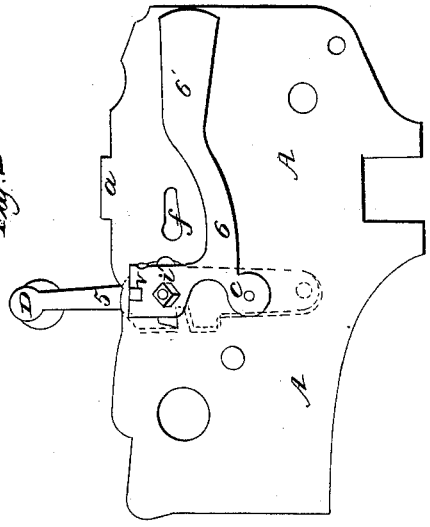


Fig. 2



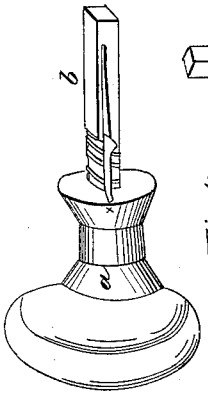
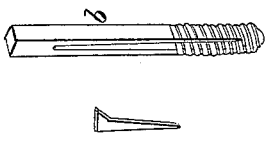


Fig. 4.



UNITED STATES PATENT OFFICE.

SYLVESTER M. PYE, OF AEQUACKANOCK, NEW JERSEY.

DOOR-LOCK.

Specification of Letters Patent No. 6,184, dated March 13, 1849.

To all whom it may concern:

Be it known that I, SYLVESTER M. PYE, of Aequackanock, in the county of Passaic and State of New Jersey, have invented a new and useful Improvement on the Door-Lock patented by me March 28, 1848; and I hereby declare the following to be a full and exact description of the same, reference being had to the annexed drawings, which make a part of this specification.

My improvement consists, 1st, in constructing the talons, (to be operated upon by the large key) so as to avoid the introduction of the elevating slide No. 4 of my previous lock. 2nd, in the introduction of what I call an extension lever which when in certain positions prevents any one on the outside from throwing the bolt or latch, for in these locks the bolt and latch are one. 3rd, in the introduction of a movable plate or arm which being brought over the keyhole on the face of the cap of the lock interposes an effectual barrier to the insertion of a key or picks from the outside of the door.

Figure 1, represents the interior of the lock, the description of which will be confined chiefly to the improvements now introduced. 1 is the bolt or latch. 2 is the lever by which the bolt is acted on by the outside and inside handles and night key. 3 is the tumbler or connecting lever which connects the bolt 1 with lever 2 and turns upon a center pin *y*. The tumbler 3 as shown in the position Fig. 1 connects the bolt 1 and lever 2 so that the bolt can be thrown in and out by the fallers *l'* and W. Thus suppose the tumbler 3 to be placed so as to prevent the fallers *l'* and W from acting upon lever 2, the latter consequently being away from the bolt or latch 1. The large key is applied to the hole S and turned in the direction of the arrow V which brings it in contact with the talon *t* and pushes the lever 2 within reach of the fallers *l'* and W as shown in Fig. 1. The tumbler 3 is, at the same time raised by the large key (by its movement toward V,) so as to bring the projection *d* behind the dog *h* of the lever 2. This term raised is used so as to correspond with the position of the lock when fixed to a door. See "upper rim" Fig. 1. When the bolt 1 and lever 2 are thus connected and held together by the tumbler 3 in the position shown in Fig. 1 the bolt can be withdrawn by the outside and inside handles and by the nightkey. In the daytime or when the use of an ordinary latch only is required none of the securities hereafter described need be used. Again, if it be required to prevent the fallers *l'* and W from operating upon the lever 2 and consequently upon the bolt 1, the large key must be turned in the direction of the arrow V' which will cause it to act upon the talon *t'* and thus raise the lever 2 out of the reach of the fallers *l'* and W. The lever 2 is held in that position by the dog *h* coming before the projection *d*, the latter being simultaneously raised by the key in its movement in the direction of the arrow V'. The lever 2 is thus effectually thrown out of the position to be acted upon by either of the fallers *l'* and W, and cannot return to it without the key is again turned in the direction of the arrow V. 4 is the extension lever turning on the center *x* and is so named from the part N extending beyond *x*. When this part is in the position represented, the bolt is free to move in and out. The other extremity passes through the slit *o*, *o'*, in which are three notches to receive that part of the arm passing through it. In the figure the middle notch is occupied and as has just been stated the bolt is free to be acted upon by the nightkey and handles. But if by the knob R the arm is moved into the notch next to O the point of N would be brought against the projecting piece *p* of the bolt 1, and consequently prevent its being withdrawn. When by the knob R the arm is brought into the notch O' the bolt if drawn back cannot be thrown out, because the point of N would abut against the projection *p'*.

Fig. 2, A, A, is the cap plate of the lock case which when in its place is fixed over Fig. 1, in the position in which it is represented, the projection *a* occupying the cavity *a'*. The angular plate or arm 6, 6' turns on the center C, so as to bring the arm 6' over the keyhole S, Fig. 1, in order to prevent the insertion of a key from the outside. As the thickness of the door on which one of these locks is fixed intervenes between a burglar and this plate, his only apparent means of access to the interior would be by drilling through it. Its action is controlled by the arm 5 and knob D in Figs. 1 and 2, and shown separately in Fig. 3. This arm is on the underside of the plate A, A, and is connected to 6, 6' by the pin *i* Fig. 3 and nut *i'*

Fig. 2. It turns on the pin *g* Fig. 1, where it is shown by dotted lines. When the arm 6′ covers the keyhole as in Fig. 2, the arm 5 where it passes through the side of the lock is in the central one of three notches as shown at Fig. 1. To uncover the keyhole the arm is passed into either of the adjoining notches; the small stud *v*, retaining it in any one of these positions. Its notched end is raised over the stud by a slight pressure on the knob D and drawn back by the action of the spring Z Fig. 3.

It will be seen from Fig. 3 that there is a recess Q on one side of the arm 5 and also a pin in the arm of the faller W, Fig. 1, through which the spindle of the door knob passes. Now, when the plate 6′ is brought over the keyhole as at Fig. 2, the pin of W is within the slit or recess Q shown in dotted lines Fig. 1, and thus while the keyhole is closed the action of the outside knob on the bolt is effectually stopped. *f*, Fig. 2 hole for the nightkey. The guide pin *l*, Fig. 1 of the nightkey is not immovable in the faller *l*′, but turns loose in a countersunk socket to prevent any action upon it being had recourse to for opening the lock. The arms 4 and 5 are kept in the notches by springs as shown on the drawings.

Fig. 4, is a view of a knob handle for a lock the knob being screwed on to the spindle so as to be applied to the various thicknesses of doors and secured by a wedge form key. *a*, is the handle having a female screw cut on its inside with two grooves at right angles to a notch *x* cut across the flat end of the shank of the handle. *b* is a spindle having a thread at one end cut on its periphery with an inclined slot cut on its side and through the thread of the screw. *c*, a key wedge shaped so as to fit into the notch of the spindle *b* and handle *a*. The spindle and wedge shaped key are shown separately at *b* and *c*.

What I claim as my invention and desire to secure by Letters Patent is—

1. The talons as constructed on the end of the lever 2 herein described, by means of which and the connecting tumbler 3 when acted upon by the key, the fallers are prevented from acting upon the bolt.

2. The interposition of a metallic plate over the key hole in the manner represented at Fig. 2, in combination with the lever 5, the spring Z upon it, and the notches in the rim of the lock.

3. The pin *l* of the night latch constructed so as to revolve in its socket, all as herein set forth.

S. M. PYE.

Witnesses:
CHS. LOWENSTROM,
EDWD. JONES.