S. M. Pye,

Latch.

No. 5,492. Patented Mar. 28, 1848.

Fig. 2.

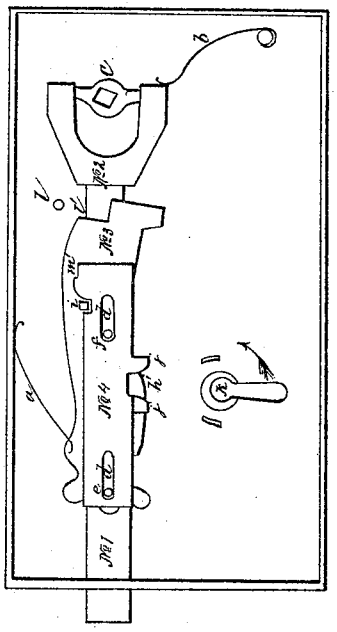
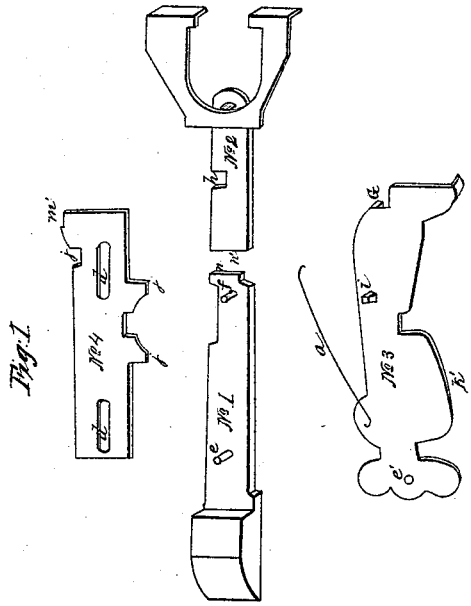


Fig. 1.



UNITED STATES PATENT OFFICE.

SYLVESTER M. PYE, OF ACQUACKANOCK, NEW JERSEY.

FASTENING FOR DOORS.

Specification of Letters Patent No. 5,492, dated March 28, 1848.

To all whom it may concern:

Be it known that I, SYLVESTER M. PYE, of Acquackanock, in the county of Passaic and State of New Jersey, have invented a new and useful Improvement in Door-Locks; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this my specification, in which—

Figure 1, represents a view of the various sections of my lock, and Fig. 2 of the lock entire and in working order as will more fully and at large appear.

The numbers and letters upon the sectional drawing correspond with those on the entire drawing; similar parts being represented by similar letters and numbers.

No. 1, is the latch or slide, made at its extreme end like the latch or slide of an ordinary door lock, but shorter at its interior end, and having no permanent connection with the door knob.

No. 2, is the detached slide, of size corresponding to No. 1, and attached to the door knob by claws, as seen in Fig. 2, or by any known method of communicating the motion of the door knob to the slide latch.

No. 3 is the coupling or attaching lever and is made of thin metal or other material.

No. 4 is the elevating slide, and is also composed of thin sheet metal or other material.

In combining these various separate parts into a door lock, a cast-iron lock-case is provided, or one of any other material and known form now in use, having a knob and lever as seen at *c* Fig. 2, and a key-hole and key of any form as seen at *k* Fig. 2, and an opening in its end for the passage of the slide latch No. 1. A spring of any known construction is also attached to the case as seen at *b* Fig. 2, and a fixed stub or wire of short length as seen at *l* Fig. 2. Also proper permanent stubs or elevations on the inner face of the lock-case to keep in place the working parts thereof. Nos. 1 and 2 are first placed into this lock-case, having their interior ends meeting each other, as seen in Fig. 1, at *n*, *n'*, and the extreme or latch end of No. 1, projecting through the opening in the lock case made for that purpose; and the remaining end of No. 2, attaching itself to the knob-lever or other moving apparatus, and held there by the spring *b* as seen in Fig. 2. No. 3 is then placed upon Nos. 1 and 2, having the pin *e* passing through the hole *e'* in its one end and the spring *a* resting against the upper side of the lock case or other fixed object; and the small dog *g* projecting inwardly and toward the inner face of the lock-case, and fitting into the notch *h* in No. 2; thus tying or binding together Nos. 1, and 2 by the pin *e* and the notch and dog *h* and *g*. No. 4 is then placed over and upon the other parts, having the pins *e* and *f* passing through the oblong slits *d*, *d* and having the dog *i* fitting into the notch *j*. A proper covering is then placed over the whole and the lock is ready for use; the manner of which is as follows: The key is introduced at *k* and being turned in the direction indicated by the arrow Fig. 2, comes into contact with the coupling lever No. 3 at *k'* and between the jaws of the elevating slide No. 4, *j j*. The coupling lever is thus raised up; and having a vibratory motion about the pin *e* of No. 1, the dog *g* is lifted out of the notch *h* thus detaching the slide latch No. 1 from the knob-slide No. 2. By the same motion of the key the elevator slide is pushed forward in the direction of the motion of the key until the shoulder *m'* is brought under the dog *i* which thus prevents the coupling lever from again descending as it otherwise would do by the force of the spring *a* and attaching the two parts of the slide latch Nos. 1 and 2. The shoulder *l'* No. 3 is, by the same operation of the key brought up against the fixed stub *l* so that the slide latch No. 1, cannot be drawn back into the lock case without breaking some part of the lock, by the application of external force. In this situation the lever No. 3 is elevated until the shoulder *l'* bears against the pin *l;* the slide No. 4 is so far forward toward the latch end of the bolt that the pins *e* and *f* are at the back ends of the slits *d d* and the dog *i* rests upon the notch or shoulder *m'*. The lock is then fast and the key may be withdrawn.

The process of unfastening is the converse of the process of locking already described. By turning the key back again the various parts of the lock are restored to that position represented in Fig. 2, the dog *i* is in the notch *j* and the dog *g* in the notch *h* thus coupling together the two detached ends of the slide into one united whole.

By turning with the knob the lever *c* motion is communicated to the latch No. 1 and the door may open.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is:—

The improvement of detaching the slide-latch of the common door lock from the handle or knob and securing it so that the door cannot be opened without a key or the application of force; and the particular construction and combination of the slide-latch No. 1, the detached slide No. 2, the coupling lever No. 3, and the elevating slide No. 4, with the common lock case, as more minutely herein described to accomplish that object. I disclaim the knob, knob-lever, slide-latch, key, spring for pressing out the slide latch, and the lock case or shell.

S. M. PYE.

Witnesses:
SIMEON PYE,
EDW. N. DICKERSON.