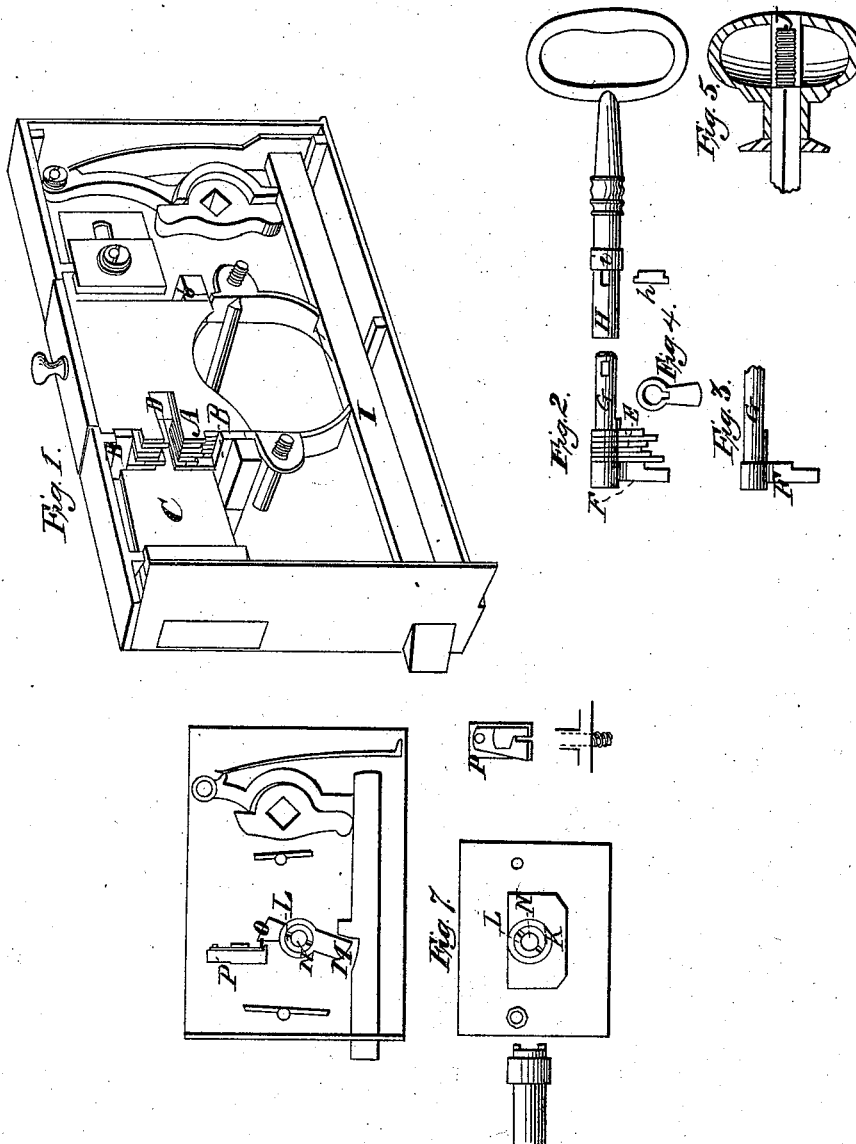


*J. McClory,
Door Lock.*

N^o 215.

Patented June 14, 1887.



UNITED STATES PATENT OFFICE.

JAMES McCLODY, OF NEW YORK, N. Y.

MODE OF CONSTRUCTING LOCKS FOR THE DOORS OF BUILDINGS, VAULTS, SAFES, &c.,
AND ALSO THE NIGHT-LATCHES OCCASIONALLY ATTACHED TO THE LOCKS OF
OUTER DOORS.

Specification of Letters Patent No. 215, dated June 14, 1837.

To all whom it may concern:

Be it known that I, JAMES McCLODY, of the city of New York, in the State of New York, have invented certain improvements 5
in the mode of constructing locks for the doors of buildings, vaults, safes, &c., and also in the night-latches occasionally attached to the locks of outer doors; and I do hereby declare that the following is a
10 full and exact description thereof.

The box, or case, of this lock may be made in the ordinary way, as shown in Figure 1 of the accompanying drawing, which shows its principal parts, the plate, or cap, which 15
covers the tumblers, &c., being removed for that purpose. The tumblers of this lock consist of flat plates of metal A, A, which lie, and slide freely upon each other; in the lock represented, there are six of these
20 plates, but the number may be varied to any extent desired. These plates are all contained in a separate box B, B, which may be readily removed from the main box, or case, of the lock, when it is desired to give a new
25 arrangement to the tumblers, it being held in its place by a screw button, or catch, on the opposite face of the lock. The four studs *b, b, b, b*, constituting a part of the box B, serve to hold the tumblers in their
30 places, and to guide them as they rise and fall. The main bolt of the lock, C, has on it a strong stump, D, solidly attached to it, and rising up through the openings made in the tumblers to receive it; these openings are
35 at different heights from the lower, or concave, edge of the tumblers, and require therefore, to be lifted by the key, to different heights to liberate the stump D. The tumblers are lettered or numbered, and may be
40 placed in any order that may be chosen.

The bit of the key, Fig. 2, has on it a number of shifting plates, or cams, E, corresponding with the number of tumblers which are to be raised by them, having on 45
them the same letters, or figures. The lower part of the key F, which shoots the bolt is in one piece with its barrel. This portion is shown separately, in Fig. 3, divested of the bits, or cams. The shank part G slips into
50 a socket on the upper part of the key H, in which it is confined in its place by means of a wedge, or pin, *h*. The ferrule, *i*, is intended to slip over a portion of the wedge, or pin, to prevent its accidental removal. The cams

are put on to the shank G, at its upper end, 55
and are kept from turning by a feather upon the shank, fitting into a notch in the cam, or in other obvious ways. One of the cams is shown in Fig. 4, with a notch to receive a feather on the shank. 60

I, Fig. 1, is a spring-bolt, with its appendages, which requires no description; but in knobbed locks, I have made an improvement in the manner of constructing and connecting the knob and spindle by 65
which the spring bolt is to be retracted. One of the knobs is, as usual, firmly attached to the spindle, my improvement consisting in a new mode of forming, and giving a bearing to, the nut by which the movable knob is attached to it. Fig. 5, shows 70
a section of the knob, with its nut, and spindle. J, is the nut, which is cylindrical for its whole length, fitting into, and passing freely through, the hole in the top of 75
the knob, and its lower end having a bearing within the knob, just where the square hole for the spindle terminates, as shown in the drawing. By this arrangement the upper end of the nut has no bearing upon 80
that part of the knob, as was the case in the old method of forming them, while the knob can be forced to such a distance upon the spindle as shall correspond precisely with the thickness of the door, and the nut, 85
in all situations, is kept flush with the top of the knob.

On those locks, or latches, where a night key is to be used instead of the spindle and knobs, I have made an improvement by 90
which great additional security is attained. For the purpose of clearness of description, I have represented the spring bolt as operated upon by a night-key and its appendages, as separate from the lock; and it may 95
be so made, if desired. The key of this bolt, or latch, Fig. 6, is made in the usual way; the cap, Fig. 7, which is removed to exhibit the parts which it covers, has a socket K, riveted on it, which receives the cylindrical tube L, of the bit M, by which the spring bolt is to be pushed back. The cylindrical tube, L, turns freely upon the pin, N, and the bit is borne up against the cap plate by a spiral spring which surrounds the 100
pin below it, keeping the upper end of L, flush with the socket K. The bit may, consequently, be forced down by the bearing of 105

the key on the top of L, until its shoulder, *k*, comes into contact with the end of the socket, into which its neck, *l*, enters. There is a thin plate of metal, O, attached to the bit
5 M, which, in order to the withdrawing of the spring bolt, must pass through a notch in the stump P, and in a movable racking, *p*, which is attached to it by a joint pin; and, if a key be used, the neck of which is not of
10 the proper length, this passing through cannot take place, as such key will not bring the two notches to coincide; when however, the proper key is again applied, it will return everything to its place. The upper
15 end of the movable racking, and its stump, are shown in Fig. 7, by which their mode of action will be seen.

Having thus fully described the construction of my improved lock, and the manner
20 in which the same operates, I do hereby declare that I do not intend to claim the combination of a series of tumblers capable of numerous permutations, and having a key adapted thereto, this being a well known de-
25 vice. But

What I do claim is—

1. The employment of a movable box to contain the tumblers, capable of being detached from the main box, and replaced, substantially in the manner described. 30

2. I also claim the manner of making the key in two parts, for the purpose of placing the more movable bits thereon from the upper end of the lower section, leaving that part of the bit which operates upon the bolt, 35 in a solid piece with the barrel of the key.

3. I likewise claim the manner of attaching the knob to the spindle, by a nut made, and operating, in the manner set forth.

4. And, lastly, I claim the particular arrangement of the bit, with its tube, and the movable racking, in the night latch; together with such variations of these respective improvements as I may deem proper, while I attain the same ends by means substantially the same. 45

JAMES McCLORY.

Witnesses:

M. C. FRENCH,
GEO. TAPPEN.