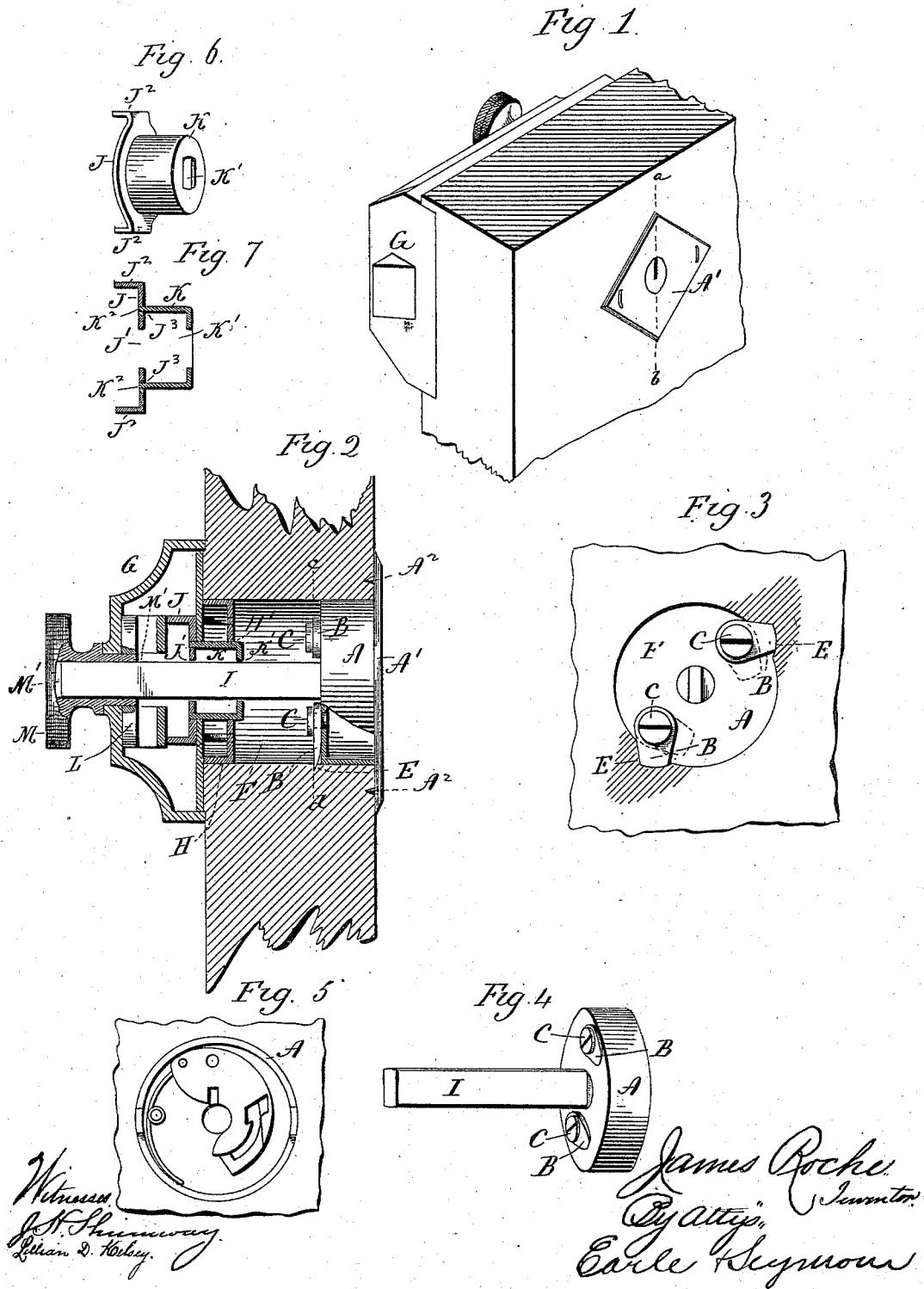


(No Model.)

J. ROCHE.
LOCK.

No. 470,412.

Patented Mar. 8, 1892.



UNITED STATES PATENT OFFICE.

JAMES ROCHE, OF TERRYVILLE, CONNECTICUT, ASSIGNOR OF ONE-HALF TO
H. B. PLUMB, OF SAME PLACE.

LOCK.

SPECIFICATION forming part of Letters Patent No. 470,412, dated March 8, 1892.

Application filed March 2, 1891. Serial No. 383,337. (No model.)

To all whom it may concern:

Be it known that I, JAMES ROCHE, of Terryville, in the county of Litchfield and State of Connecticut, have invented a new Improvement in Locks; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view showing the application of a lock mechanism and latch constructed in accordance with my invention to a section of wood-work; Fig. 2, an enlarged view thereof in vertical section on the line *a b* of Fig. 1; Fig. 3, a view, partly in section and partly in elevation, taken on the line *c d* of Fig. 2 and showing the fastening devices applied to the inner wall of the case of the lock mechanism; Fig. 4, a detached perspective view of the said case, together with the coupling-bar; Fig. 5, an interior view in front elevation of the lock mechanism. Fig. 6 is a detached perspective view of the hollow roll-back, and Fig. 7 is a sectional view thereof.

My invention relates to an improvement in that class of locks in which a latch is isolated from the lock mechanism proper and connected therewith by a coupling-bar, the object being to provide for the convenient right assemblance of the latch and lock mechanism and to improve the construction of the roll-back of the latch, whereby the necessity of cutting the bar to conform its length to the thickness of the door is avoided.

With these ends in view my invention consists in the combination, with a lock mechanism inclosed in a cylindrical case, of a latch provided with a centering-boss corresponding in diameter to the said case and a coupling-bar connecting the latch and lock mechanism, whereby the said latch and lock are readily placed in right assemblance in a chamber formed for them in the wood-work to which they are attached.

My invention further consists in certain details of construction and combination of parts, as will be hereinafter described, and pointed out in the claims.

The lock mechanism herein shown is of the swinging tumbler type, and is inclosed in a shallow cylindrical case A, provided upon its inner face with two cams B B, swiveled on short studs C C, having slotted heads passing through the inner wall of the case and located near the edges thereof. By turning the said studs the ends of the cams are projected beyond the edges of the case and forced into the wood-work in which they form incisions E, as shown by Fig. 2. The described turning of the cams is effected very readily before the latch G has been secured in place by means of a screw-driver applied to them from the inner end of the cylindrical chamber F, formed in the wood-work. The ends of the cams are beveled to quite a sharp edge and so readily enter the wood. Furthermore, by beveling the edges of the cams they operate to draw the case inwardly and so clamp the escutcheon A', attached to its outer end, firmly against the wood-work on which the escutcheon is prevented from displacement by retaining-points A² A², located upon its inner face and entering the wood. I am aware that fastening devices constructed substantially as above described are old. The said latch G is provided upon its inner face with a cylindrical hollow sheet-metal centering-boss H, having a central circular opening H' and exactly conforming in diameter to the diameter of the case A of the lock mechanism, so that the cylindrical chamber F being formed of the proper size the lock mechanism and latch are very readily assembled in the wood-work in the right positions for being coupled together by the coupling-bar I, which is connected with the lock mechanism in any suitable manner and entered into the hollow sheet-metal roll-back of the latch, the said roll-back being composed of a plate J, having a central perforation J' and fingers J² J² turned inwardly at a right angle to it, and of a shell K, having its closed outer end provided with an oblong opening K' conforming to the cross-section of the bar which it receives and at its open inner end with two ears K² K², which enter corresponding perforations J³ J³, formed in the plate J, before mentioned. The closed outer end of this hollow roll-back projects out of the

opening H' of the boss H for a short distance. By making the roll-back hollow and of sheet metal it is cheaply produced. The said roll-back is located in line with another roll-back
 5 L, consisting of a two-armed flat plate attached to the inner end of a solid cast-metal knob M, mounted in the case of the latch G and having a deep longitudinal bore M' entering it from its inner end and co-operating with the
 10 hollow roll-back before described in providing for the endwise adjustment of the coupling-bar and so avoiding fitting the same to the thickness of the door on which the latch and lock may be used. Otherwise than described
 15 the latch may be of any approved construction.

My improved centering-boss greatly facilitates the right assemblance of the lock mechanism and latch and in fact prevents them
 20 from being incorrectly assembled, while the hollow sheet-metal roll-back and hollow knob reduce the expense and bother of making and applying the latch.

I am aware that a knob consisting of a head
 25 and a tubular shaft pinned together is not new. That construction, however, is open to the objection that the pin interferes with the adjustment of the coupling-bar—a difficulty avoided by my improved construction, in
 30 which the whole length of the bore in the knob is available for the adjustment of the bar.

Having fully described my invention, what

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

1. The combination, with a lock mechanism 35 inclosed in a flanged cylindrical case, of an independent latch mechanism, a centering-boss permanently fixed to the inner face of the case of the said latch mechanism and corresponding in diameter to the diameter of the 40 said cylindrical case, and a coupling-bar connecting the lock and latch mechanisms, substantially as set forth, and whereby the said latch and lock mechanisms may be independently applied to the door with which they are 45 to be used, as the centering-boss secures their right assemblance in the bore formed for them in the door.

2. A hollow sheet-metal roll-back composed of a perforated plate provided with fingers 50 turned inward at a right angle to it and of a shell having its outer end closed and perforated in accordance with the cross-section of the coupling-bar and its inner end furnished with two ears which enter perforations in the 55 plate, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JAMES ROCHE.

Witnesses:

GEO. W. CROSSLEY,
 W. G. PLUMB.