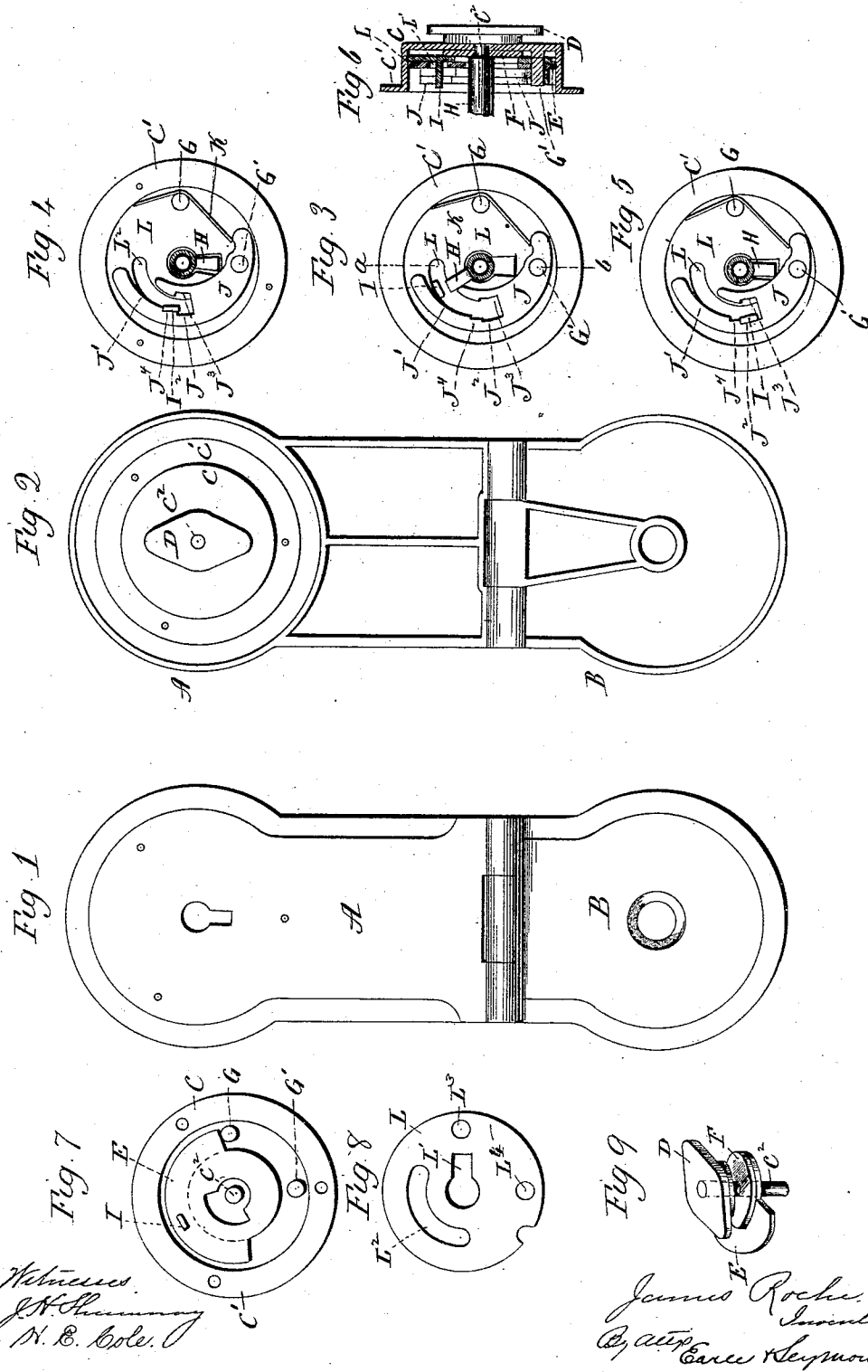


(No Model.)

J. ROCHE.
TRUNK LOCK.

No. 487,449.

Patented Dec. 6, 1892.



UNITED STATES PATENT OFFICE.

JAMES ROCHE, OF TERRYVILLE, CONNECTICUT, ASSIGNOR TO THE EAGLE LOCK COMPANY, OF SAME PLACE.

TRUNK-LOCK.

SPECIFICATION forming part of Letters Patent No. 487,449, dated December 6, 1892.

Application filed August 22, 1892. Serial No. 443,686. (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 Trunk-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, which
10 said drawings constitute part of this specification, and represent, in—

Figure 1, a view in front elevation of a trunk-lock containing my invention. Fig. 2 is a reverse or inside view thereof; Fig. 3, a
15 detached inside view of the locking mechanism, which is shown as unlocked, with the key in position to begin to throw the button into its locked adjustment. Fig. 4 is a similar view showing the parts in the positions due to them when the intermediate or safety locking
20 of the button has been effected; Fig. 5, a similar view showing the parts in their final locked positions; Fig. 6, a sectional view of the locking mechanism on the line *a b* of Fig. 3; Fig. 7, a view of the locking mechanism, with the tumblers, the ward-plate, and the spring removed; Fig. 8, a detached view of the ward-plate; Fig. 9, a detached perspective
25 view of the stump-carrier and the locking-button which is connected with it.

My invention relates to an improvement in trunk-locks, the object being to produce a simple and effective lock designed to prevent the locking-button from being jarred or otherwise sent back to its unlocked position as
35 the result of removing the key without fully effecting the movement of the locking tumbler or tumblers into their locked positions.

With these ends in view my invention consists in a lock having one or more of its tumblers constructed with an intermediate locking-notch arranged to receive the stump connected with the locking-button before the tumblers are fully moved into their locked
40 positions.

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

50 The hasp A and the plate or boss B, to

which the same is hinged, are of ordinary construction.

The locking mechanism, which contains my present invention, is inclosed within a shallow cylindrical case C, having a perforated
55 annular flange C', by means of which it is secured to a circular depression formed to receive it in the inner face of the outer end of the hasp. This locking mechanism comprises a locking-button D, corresponding to the bolt
60 of an ordinary lock and diamond-shaped in its general outline. This button co-operates with a plate having an opening corresponding to it in shape and too well known to require illustration or description. The said
65 button is located on the outer face of the said case and connected by means of a stud C², passing centrally through the same, with a rotatable stump-carrier located within the bottom of the case and composed, as herein
70 shown, of a plate E and a washer F. If preferred, however, the said stump-carrier may be made in one piece. The said plate F has, as it may be said, a circular central portion and a segmental flange, the outer edge of the
75 latter conforming to the inner circle of the case and its ends forming stops which engage to limit the movement of the carrier in either direction, with studs G and G'
80 mounted in the case. The washer F is located beneath the plate E and holds the same off the bottom of the case. The said carrier is furnished with a central segmental opening to receive the key H and formed, as herein
85 shown, by perforating the plate E. The stud C², before mentioned, rises centrally in this opening and forms the key-stand of the mechanism. The said stump-carrier is provided with a stump I, which co-operates with the segmental locking-tumblers J J, which
90 are hung upon the stud G', before mentioned, and actuated by means of a spring K, held in place by means of the stud G, also referred to before.

As herein shown, I have provided the lock
95 with only two tumblers, but more may be used, if desired. The inner tumbler rests upon a circular ward-plate L, supported upon the stump-carrier and constructed with a key-opening L', with a segmental slot L² to receive
100

and clear the stump I, and with perforations L³ and L⁴ to receive the studs G and G'.

The construction thus far described, except in the sense of combination, forms no part of my present invention, which relates particularly to the construction of the tumblers J J. These are provided at their outer ends with segmental longitudinal crossings J', in which the stump I moves back and forth as the stump-carrier is rotated by means of the key. The inner end of each of these crossings has an outwardly - offsetting locking - notch J², which receives the stump when the tumblers are in their locked positions. Each crossing is also constructed at its inner end with an inwardly - projecting safety - notch J³, which guards the mechanism against being picked. So far, also, the construction described presents nothing new to this invention, which specifically consists in providing one or more or all of the tumblers with an intermediate or safety notch J⁴, offsetting outwardly from their crossings at a point between the outer ends of the same and their locking - notches. As shown herein, the intermediate or safety notch described is located directly adjacent to the locking - notch, as shown clearly by Fig. 3 of the drawings. It will be seen that under this construction the stump will enter the said intermediate notch or notches before it enters the locking - notches of the tumblers, and it is apparent that having once entered such a safety - notch no jarring or other disturbance of the locking mechanism can effect its dislodgment therefrom, so as to permit the button to return to its unlocked position. The locking mechanism is therefore virtually locked before the tumblers have been fully moved into their locked positions; or, in other words, before the stump enters their locking - notches. If therefore the key is removed

from the lock before the tumblers have been fully thrown into their locked positions the lock is guarded against unlocking, for the intermediate or safety notches are arranged so that they will be brought into play before the key can be removed from the lock. 45

I would have it understood that I do not limit myself to the exact construction and arrangements of parts herein shown and described, but hold myself at liberty to make such changes as fall within the spirit and scope of my invention. 50

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is— 55

1. In a trunk-lock, the combination, with a stump and its carrier, of one or more locking-tumblers, one or more of which is provided with an intermediate or safety notch, substantially as described, to receive the stump before the tumblers have been fully moved into their locked positions. 60

2. In a trunk-lock, the combination, with the case thereof, of a rotatable stump-carrier located in the bottom of the said case and furnished with a stump, a locking-button located without the said case but connected with the stump-carrier, a ward-plate placed on the said carrier, and one or more pivotal locking-tumblers, one or more of which has an intermediate locking - notch to receive the same before the tumblers are fully moved into their locked positions, substantially as described. 70

In testimony whereof I have signed this specification in the presence of two subscribing witnesses. 75

JAMES ROCHE.

Witnesses:

R. J. PLUMB,
GEO. W. CROSLY.