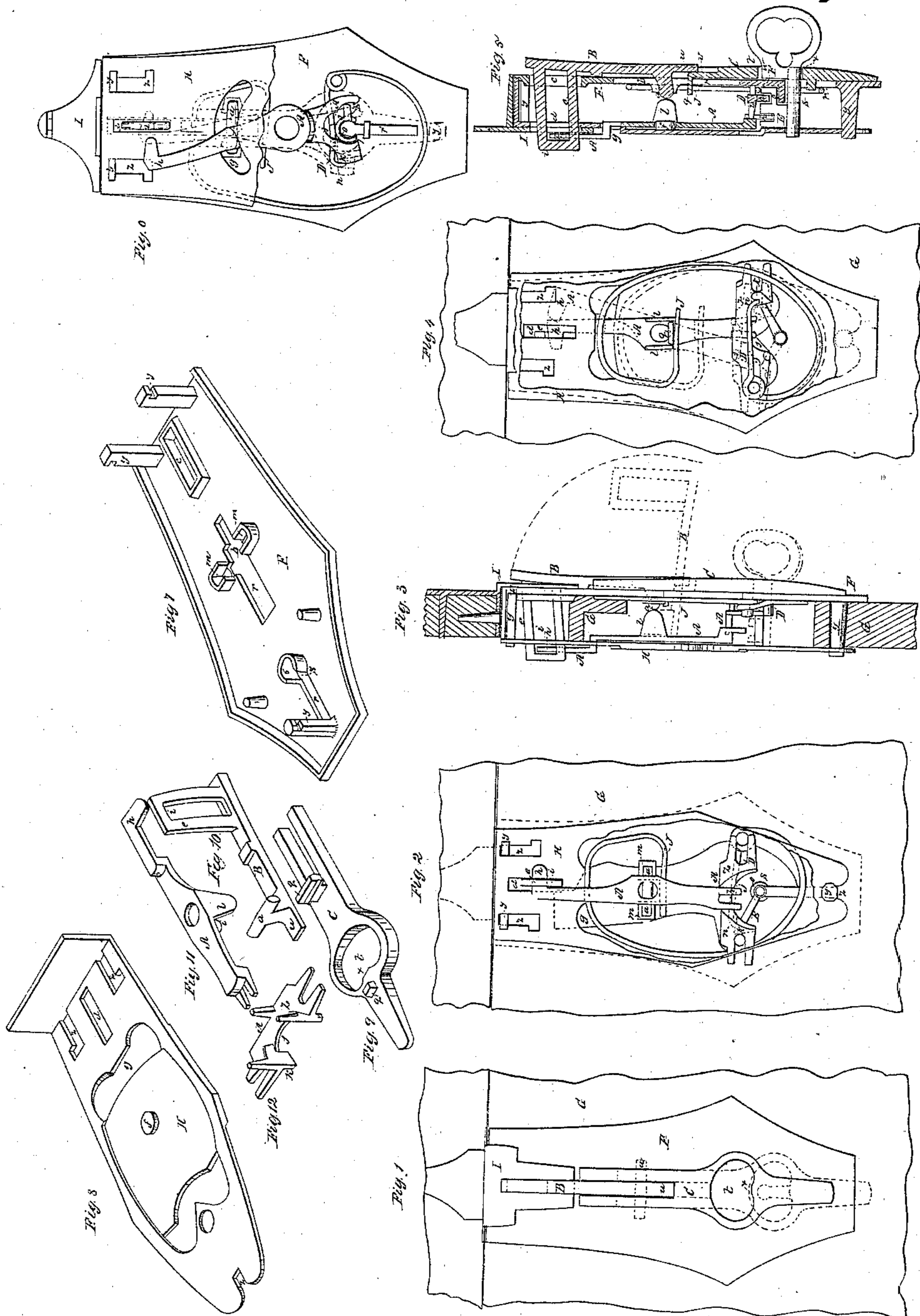


M. Ducharme,

Hasp Lock.

N^o 32,334.

Patented May 14, 1861.



Witnesses;
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MOSES DUCHARME, OF COHOES, NEW YORK, ASSIGNOR TO HIMSELF AND GEO. DUCHARME,
OF SAME PLACE.

LOCK.

Specification of Letters Patent No. 32,334, dated May 14, 1861.

To all whom it may concern:

Be it known that I, MOSES DUCHARME, of the village of Cohoes, in the county of Albany and State of New York, have invented a new and useful Improved Lock for Trunks, Chests, and other Depositories; and I do hereby declare that the following contains a full and exact description of the same, reference being had to the annexed drawings, which make a part of this specification, and in which—

Figure 1 is an outside view of one of my improved locks as it appears upon a trunk, a part of which latter is shown. Fig. 2 is an elevation of the back side of the same, a part of the back-plate of the lock being broken away to show the working parts within. Fig. 3 is an edge elevation of the same lock, the part of the trunk to which the lock is secured being shown in section. Fig. 4 is a front elevation of the same, with the clasp, escutcheon, and part of the outer plate removed. Fig. 5 is a longitudinal cross-section of the same lock. Fig. 6 is a back elevation of another form of my improved lock, a part of the back-plate being broken off. Fig. 7 is a perspective view of the front or outer plate, Fig. 8 of the back or inner plate, Fig. 9 of the escutcheon, Fig. 10 of the hasp or clasp, and Figs. 11 and 12 of the pivoted or swinging bolt-hook, of the lock shown by Figs. 1, 2, 3, 4 and 5,—the part which forms the “talon” and “racks” or “notches”, Fig. 12, being detached from the hook-bolt, Fig. 11. The same letters refer to like parts in all the figures; and the movements of the parts are indicated by dotted lines in Figs. 1, 3, 4 and 6.

My invention consists in the hereinafter described peculiar construction and arrangement of the working parts of the lock. Also in the particular construction hereinafter described whereby all the parts of the lock are at once secured together, and to the door, trunk, or chest to which the lock is applied.

In the annexed drawings the hook-bolt of the lock is distinguished by the letter A; the hasp, clasp, or shackle of the lock, by B; the key-hole escutcheon, by C; the spring-tumbler and escutcheon-spring, by D J; the key, by E; the front or outer plate of the lock, by F; the back or inner plate, by H; the part of the door, trunk or chest

to which the lock is secured, by G; and the hasp of the trunk or chest-lid, by I.

The shackle, B, of the lock, has, on the back side of the front plate F, an axis, *a*; upon which axis the shackle can be turned or rocked in a plane perpendicular, or nearly so, to the plane of the front plate of the lock. See Figs. 10, 5 and 3. The shackle B extends from its axis, *a*, forward through an aperture, *b*, in the front plate; and when the shackle is in the position to be locked, it reaches from the aperture *b*, along the front side of the front plate, to another aperture, *c*, in the front plate, through which latter aperture, and an opposite one, *d*, in the back-plate H, the shackle B then also extends inward and terminates back of the back plate. That part, *e*, of the shackle which is passed through the plates F and H is to secure the hasp, I, of the door or lid of the safe, chest or trunk. The bolt, A, is mounted on a stud or pivot, *f*, on the front side of the back-plate, so that the bolt can be turned in an arc the plane of which is perpendicular or nearly perpendicular to the plane of motion of the shackle B. One arm of the bolt A extends from its axis *f* to and through an opening, *g*, in the back-plate, and along the back side of the back plate to or past the aperture *d*. Those parts of the bolt A and shackle B which extend back of the back plate are so made, with a hook, *h*, and a loop, *i*, or equivalent devices, that the shooting of the bolt engages the bolt with the shackle and thus prevents the latter from being withdrawn from the hasp I. The other arm of the bolt A is acted upon by the key E and the spring-tumbler D, either directly, as shown by Fig. 6, or through the intervention of a sliding bolt, Z, having the “talon”, *j*, and tumbler stud, *k*, as shown by Figs. 2, 3, 4, 5, 11 and 12. A projection, *l*, formed on the lever-bolt A, bears against the axle, *a*, of the shackle B, and thereby not only tends to hold the lever A in place on its axis, but also keeps the axle of the shackle in its seats, *m*, *m*.

As the key, E, is turned in its place in the lock, the bit of the key then first lifts the end *n* of the spring-tumbler D above the stud *k*; and next presses against the bolt A so as to move and either engage the latter with, or disengage the bolt from the shackle B; and finally drops and leaves the end *n*

of the tumbler on the other side of the stud k from that from which the tumbler was last raised by the key. Wards, o , p , may be arranged to guard the tumbler and bolt.

5 The escutcheon, C, has lugs, q , q' , which extend backward through, and slide within slots, r , r' , in the front plate F, and thereby secure the escutcheon to that plate. The same part that forms the bolt-tumbler D, 10 constitutes the spring J which constantly presses against a lug q on the escutcheon C so as to cause the latter to cover or hide the key hole, s , in the front plate F, when the key is out of the lock. By bearing down on 15 the escutcheon C, the spring J may be overcome and the escutcheon moved so as to bring an opening, t , in the escutcheon opposite to the key-hole as shown by the dotted lines in Fig. 1, and allow the key to be passed 20 through the aperture in the escutcheon and inserted in the lock. See Fig. 5. The shackle B has a tail u ; and whenever the shackle is in the position to be locked, as shown in Fig. 5, and the key is at the same time 25 either out of the lock, or in it and in any of the positions shown by Figs. 2, 4, 5 and 6, the tail, u , of the shackle will then extend over or down in front of a part v of the escutcheon, as is clearly shown in Fig. 5, 30 so that the part e of the shackle may be prevented from being withdrawn from the hasp I by the escutcheon C on the front side of the lock as well as by the bolt A at the back. Consequently the mere disengagement of the 35 bolt A from the shackle B will not generally release the shackle B. The part v of the escutcheon must also be withdrawn from between the tail u of the shackle, and the front plate F. This latter may be effected 40 by turning the key E into a certain position, so that the part w of the key will bear directly against the part x of the escutcheon, or by pressing the escutcheon down a sufficient distance by hand.

45 I am well aware that locks have been heretofore variously constructed with sliding escutcheons, swinging shackles, pivoted catchbolts, and springing bolt-tumblers; but I do not know or believe that any lock was ever 50 known before the date of my invention, with

an escutcheon C, shackle B, and bolt A, all combined, constructed and arranged together and with a single spring D J, which at once forms the spring-tumbler of the bolt and the spring by which the escutcheon is made to 55 hide the key hole and lock the shackle, all in the particular manner hereinbefore described.

Instead of first fastening the front and back plates of the lock together by means 60 of screws, bolts or other separate contrivances, and afterward securing the united plates to the trunk or chest by means of screws, or parts separable from the plates; I both secure the front and back plates of 65 the lock together and to the properly perforated trunk or chest G, by means of notched lugs, y , y , y , formed in one piece of metal with, and arranged upon, the front plate F, in connection with corresponding slots, z , z , z , 70 made in the back plate H, the whole being formed and arranged substantially as is shown by the annexed drawings:—whereby the lock is at once both secured together and to the trunk or chest by means of the front 75 and back plates themselves alone; and in such a manner that while it is impossible to remove the lock from the trunk when it is locked, yet, when unlocked, the lock can then be taken off from the trunk and apart, 80 for repairs, and again put together and upon the chest or trunk, by the hands alone, without requiring the use of a screw driver or any other tool whatever.

Having thus described my improved lock, 85 what I claim thereof as new and desire to secure by Letters Patent is—

1. The combination of the latch-bolt A, shackle B, escutcheon C, and spring-tumbler and escutcheon-spring D J, all constructed and arranged substantially as here- 90 in shown and specified.

2. The construction of the front plate, F, with notched lugs, y , and the back plate, H, with corresponding slots, z , as and for the 95 purposes herein set forth.

MOSES DUCHARME.

Witnesses:

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