F. H. YOUNG.

LOCKS FOR DRAWERS, &c.

No. 183,035. Patented Oct. 10, 1876.

Fig. 1.

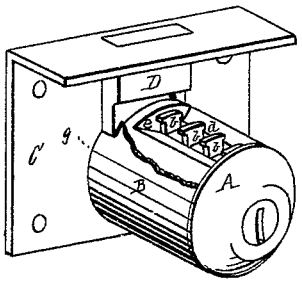


Fig. 2.

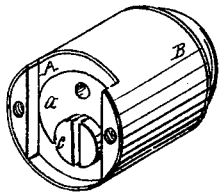


Fig. 3.

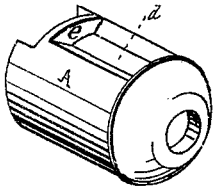


Fig. 4.

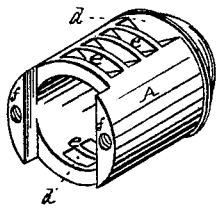


Fig. 5.

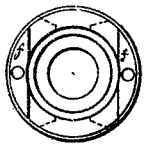


Fig. 6.

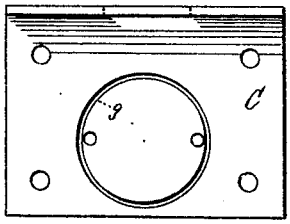
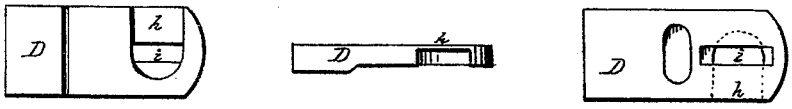


Fig. 7.



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UNITED STATES PATENT OFFICE.

FREDERICK H. YOUNG, OF KINGSTON, MASSACHUSETTS.

IMPROVEMENT IN LOCKS FOR DRAWERS, &c.

Specification forming part of Letters Patent No. **183,035**, dated October 10, 1876; application filed August 19, 1875.

To all whom it may concern:

Be it known that I, FREDERICK H. YOUNG, of Kingston, in the county of Plymouth and State of Massachusetts, have invented a certain new and useful Improvement in Locks; and I do hereby declare that the following specification, taken in connection with the drawings furnished and forming a part of the same, is a clear, true, and complete description thereof.

My said improvement relates to what are known as "escutcheon-locks."

My invention consists in the combination, with a rotative tumbler-case, having an eccentric for actuating the bolt, and an escutcheon having a lateral recess at one end for receiving the bolt, of a bolt provided with a longitudinal key-slot for receiving the tip of the key, and a talon recessed from one side of the bolt, and also from one of its edges.

As heretofore made, the bolts employed in this class of locks have had either a talon, in the form of a complete oval aperture, or the end of the bolt has had the form of a hook.

In my novel bolt the talon consists of a recess, open at the edge of the bolt and closed at the bottom, so that, when right-side up, the bolt presents the talon to view; but when bottom up, it appears to be a straight bolt with no talon. The complete oval aperture is objectionable to that extent that it is seldom used in a general way in this class of locks. The open or hook talon is open to the objection that, in milling it out, the rear end of the bolt is liable to be sprung by reason of its catching or binding on the tool. In order to prevent the corners of the common hook-talon bolt from engaging with the adjacent edges of the escutcheon at the end of its bolt-slot, the bolt-slot in the escutcheon has been centrally located—that is to say, that side of the escutcheon which is adjacent to the talon is wider than the opposite side, and this necessitates special manipulation of the escutcheon in putting the lock together, as the escutcheon can only be placed in a certain precise position, or "right side up."

In my improved bolt the talon being simply a recess, it does not break the edge line of the bolt it being true and continuous from end to end on both of its edges. For this reason the bolt has no corners which are liable to engage with the corners of the bolt-slot in the escutcheon, and, therefore, said bolt-slot may be centrally located with no excess of escutcheon on either side, and it naturally follows that in "assembling," the escutcheon may be put either side up, and yet occupy a proper working position with relation to the bolt.

My improved bolt having a talon which is a recess instead of an aperture wholly through the bolt, it has greater strength, and in milling out the recessed talon, the rear end of the bolt cannot possibly be sprung, as is liable with the hook-shaped bolt.

To more particularly describe my invention I will refer to the drawings, in which I show my improvement embodied in the well-known "Sheppardson lock."

Figure 1 represents one of the improved locks in perspective, with a portion of the escutcheon-cylinder broken away. Fig. 2 represents, in perspective, the escutcheon and its cylinder, detached from the plate. Figs. 3 and 4 represent escutcheons detached from their cylinders. Fig. 5 represents the rear end of the escutcheon. Fig. 6 represents the rear side of a lock-case, with bolt and escutcheon removed. Fig. 7 represents, in top, side, and bottom view, one of my improved bolts.

The escutcheon A contains the tumbler-case *a*, with its tumblers *b*, and is provided with the bolt-actuating eccentric *c*, in the usual manner. Like other escutcheons, this is provided with two tumbler-slots, as at *d*, oppositely located, and respectively arranged to alternately receive the ends of the tumblers, according to the position of the bolt. The tumbler-slots are provided with transverse bars, as at *e*, which cross the slots, and are located within the periphery of the escutcheon. Any desired number of these bars may be employed, as, for instance, one may be located at every space between the tumblers, as shown in Fig. 4, or a single one may be employed and located at the inner end of the escutcheon, as shown in Fig. 3, or at any other desired point sufficiently near the end to firmly bind the two sides of the escutcheon together, and so prevent them from being sprung under any circumstances, and also prevent the tumbler-case from being detached, except by

special manipulation. The bolt-slot is centrally located in the rear end of the escutcheon, and the sides of the escutcheon on both sides of said slot are similar and equal, as seen at *f*, whereby the escutcheon may be placed either side up, and yet be in proper position with relation to the bolt.

B denotes the escutcheon-cylinder, which is a little longer than the escutcheon, and is fitted at its inner end to the annular recess at *g*, cut in the rear side of the lock-plate. Annular recesses have been heretofore employed in locks of a similar character. This annular recess is located by gage with reference to the line traveled by the bolt D, and has a depth and width sufficient to enable it to snugly receive the projecting end of the cylinder, and permit the end of the escutcheon to have a good bearing on the surface of the lock-plate. When so constructed the several parts may be placed within the cylinder, and the whole readily combined with the bolt and lock-plate, the recess arbitrarily locating the cylinder and its contents in proper position in relation to the bolt. An escutcheon, provided with a bolt-slot centrally located, may be placed with either end of its slot coincident with the recessed opening at the inner end of the cylinder, which receives the bolt, and yet when the cylinder is in its recess in the lock-plate, the bolt, escutcheon, and rotating tumbler-case will all occupy their proper relative positions.

The bolt is shown at D, Fig. 1, and also in Fig. 7. It differs from bolts as heretofore constructed in this class of locks, in having a talon, which is formed by recessing laterally from one edge of the bolt, and leaving a solid portion of the bolt extending across the recess, as at *h*, preferably so that the edge line of the bolt remains continuous across the edge entrance to the recess, as clearly shown in the several views of Fig. 7. Bolts as heretofore generally constructed for this class of locks have had talons, which were so formed as to give the rear end of the bolt the form of a hook, and, as already herein stated, the portion of such bolts which lies to the rear of the recess is liable to be sprung out of position while the recess is being milled, and when in position and operated, the corners on each side of the recess at the edge of the bolt, and also at the rear of the bolt, are liable to engage with the corners of the bolt-slot in the adjacent portion of the escutcheon. The end of the key protrudes through the eccentric, and therefore the longitudinal slot *i*, which extends across the recessed talon, is provided to receive it. When the edge line of the bolt is continuous across the talon recess then the full value of my improvement is attained, because the bolt may be readily "machined," and there is no possibility of its engaging with the escutcheons, as before stated.

In a certain class of locks, which are intended to be set in round recesses formed by boring with an auger, and have bolts which are moved to and fro in a line at right angles to the plane of the head or face of the lock-case, and parallel with the smooth sides of the aperture which receives the lock, the bolts have heretofore been recessed from one side, and from one edge to receive a cam or eccentric for actuating the bolt. In this class of locks there exists no possibility of the engagement of the bolt during its movement either with other portions of the lock or with any portion of the recess in which it is placed for use. I therefore do not, broadly, claim a bolt so recessed, but limit my invention to such a bolt, provided with the key-slot *i*, in combination with an escutcheon, having edges adjacent to the talon with which the ordinary open talon-bolt is liable to engage, and thereby prevent its proper action.

Having thus described my invention, I claim as new, to be secured to me by these Letters Patent—

A bolt, provided with the key-slot *i*, and a talon recessed into the bolt from one side and from one edge, in combination with a rotative tumbler-case, which actuates the bolt, and an escutcheon, provided with a lateral recess at one end for receiving the bolt, substantially as described, and for the purposes specified.

FREDERICK H. YOUNG.

Witnesses:

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