

(No Model.)

2 Sheets—Sheet 1.

D. W. PARKER & E. B. SLATER.

LOCK.

No. 303,183.

Patented Aug. 5, 1884.

FIG. 1.

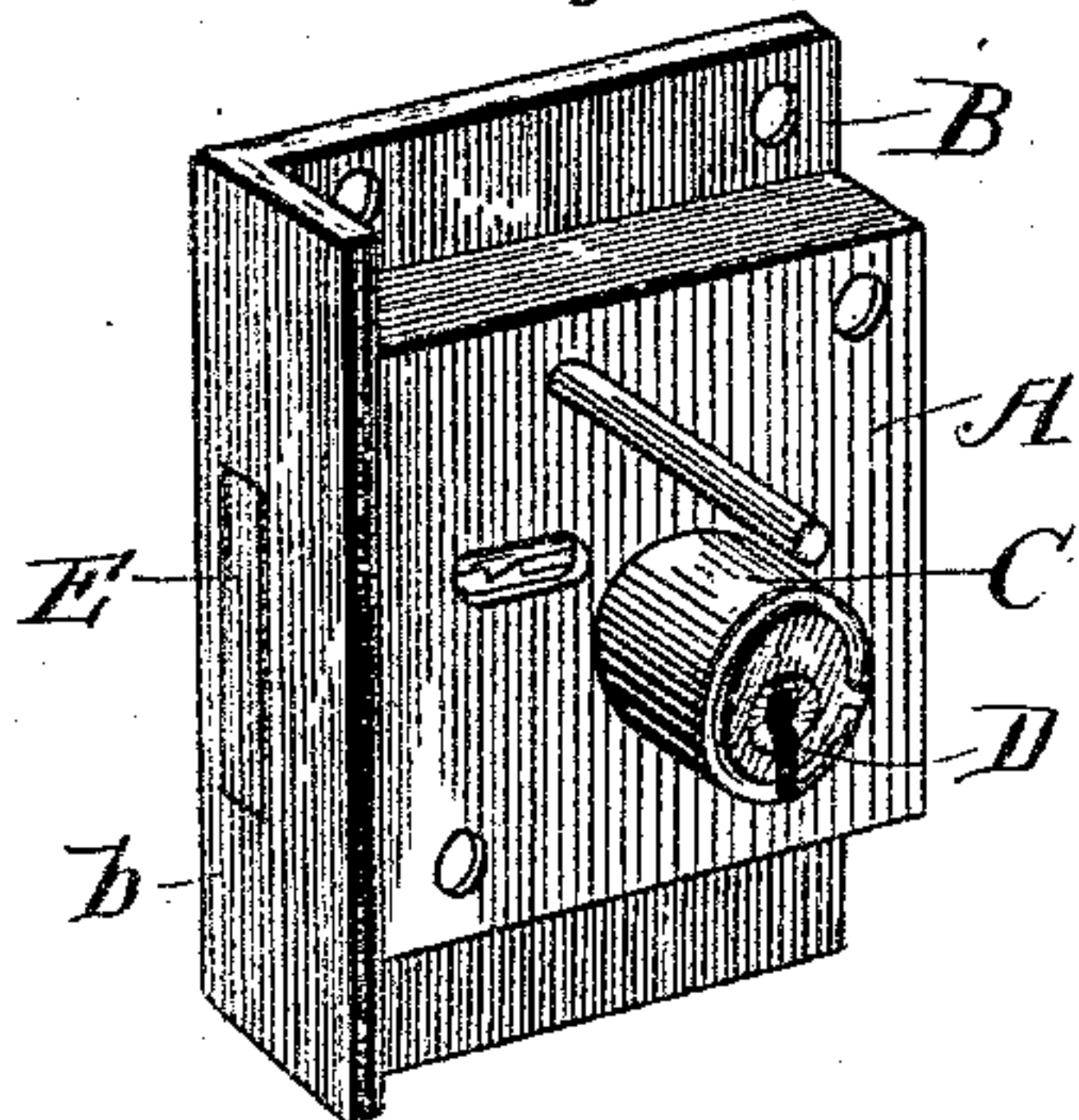


FIG. 2.

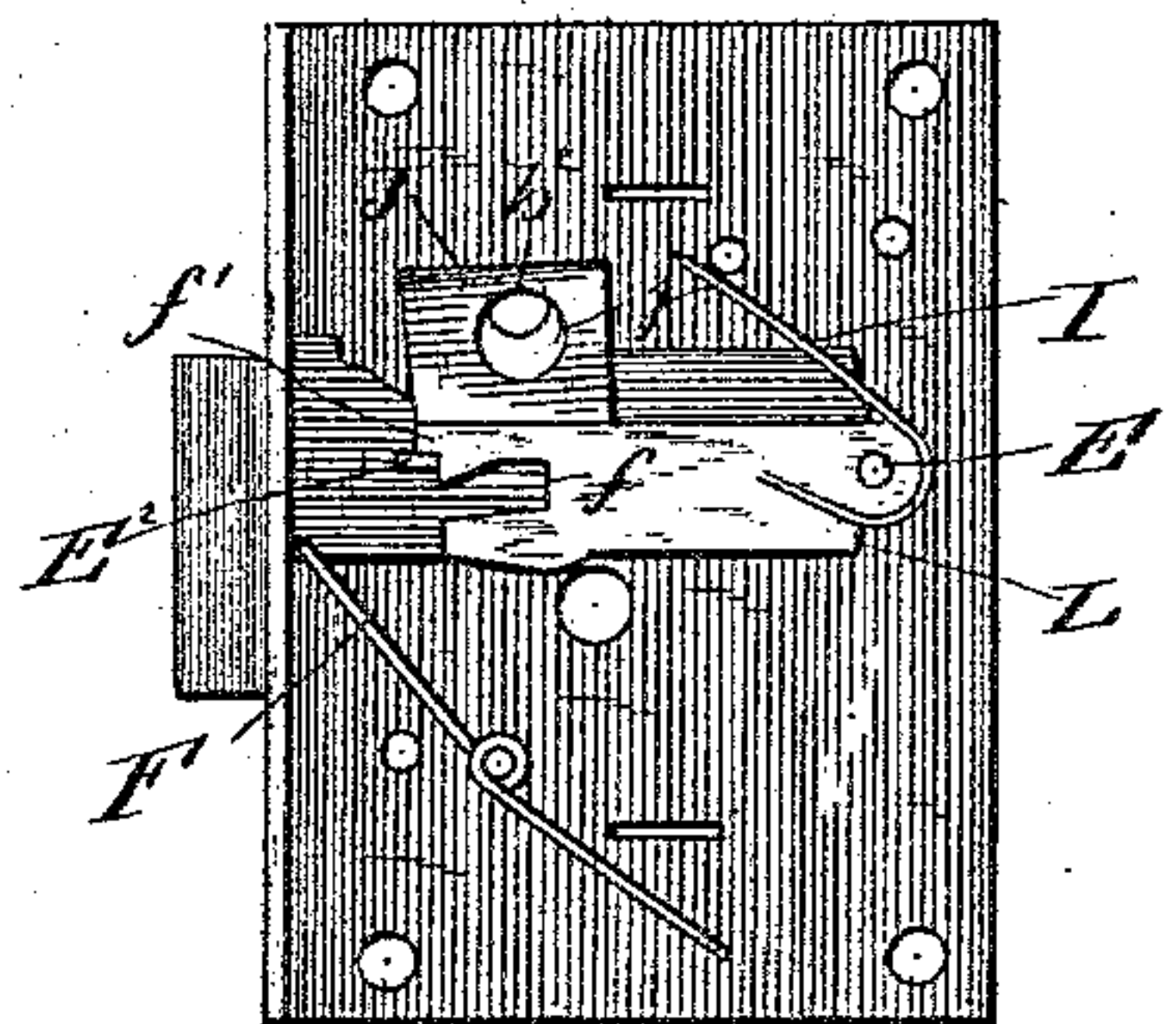


FIG. 3.

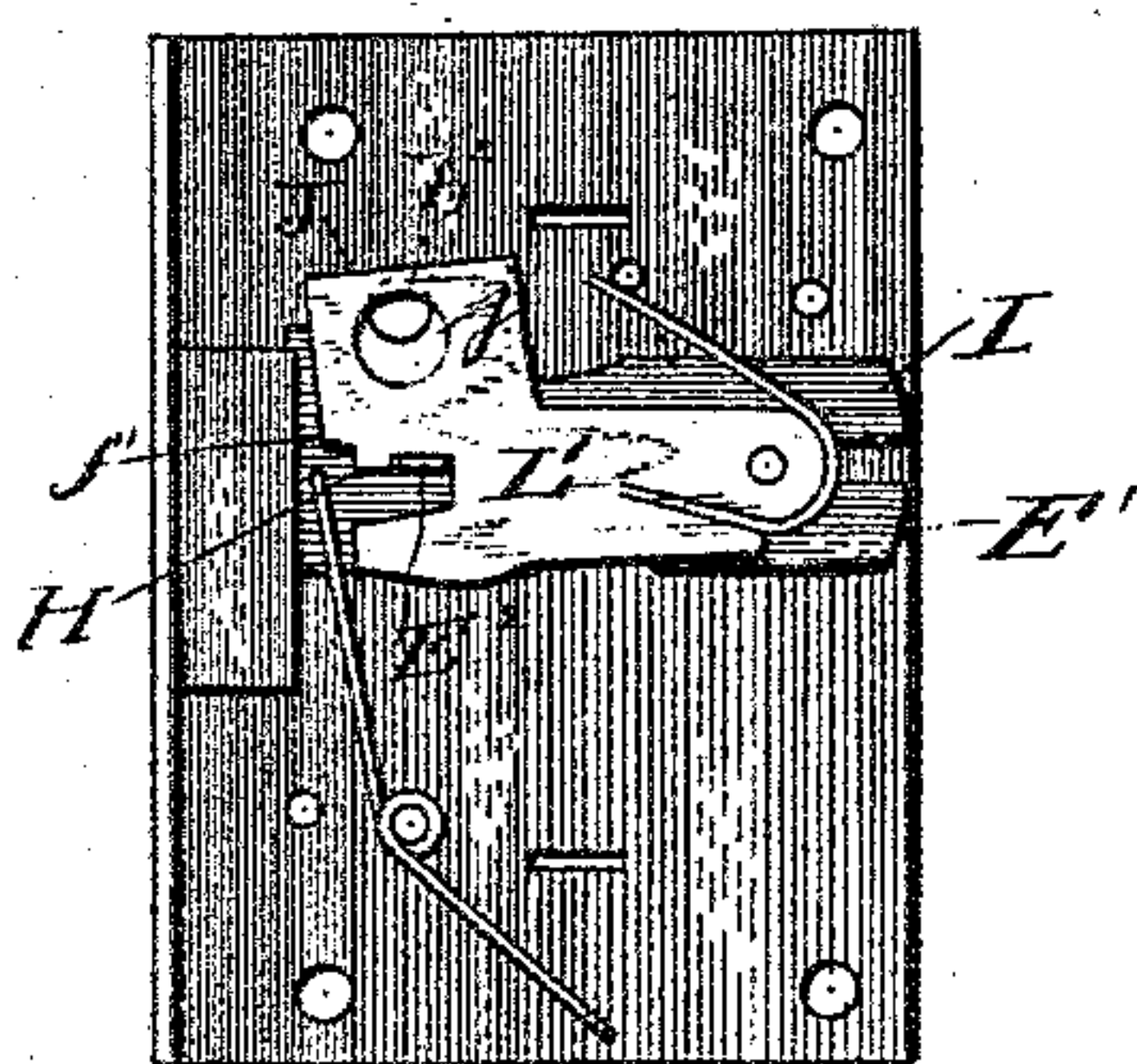


FIG. 4.

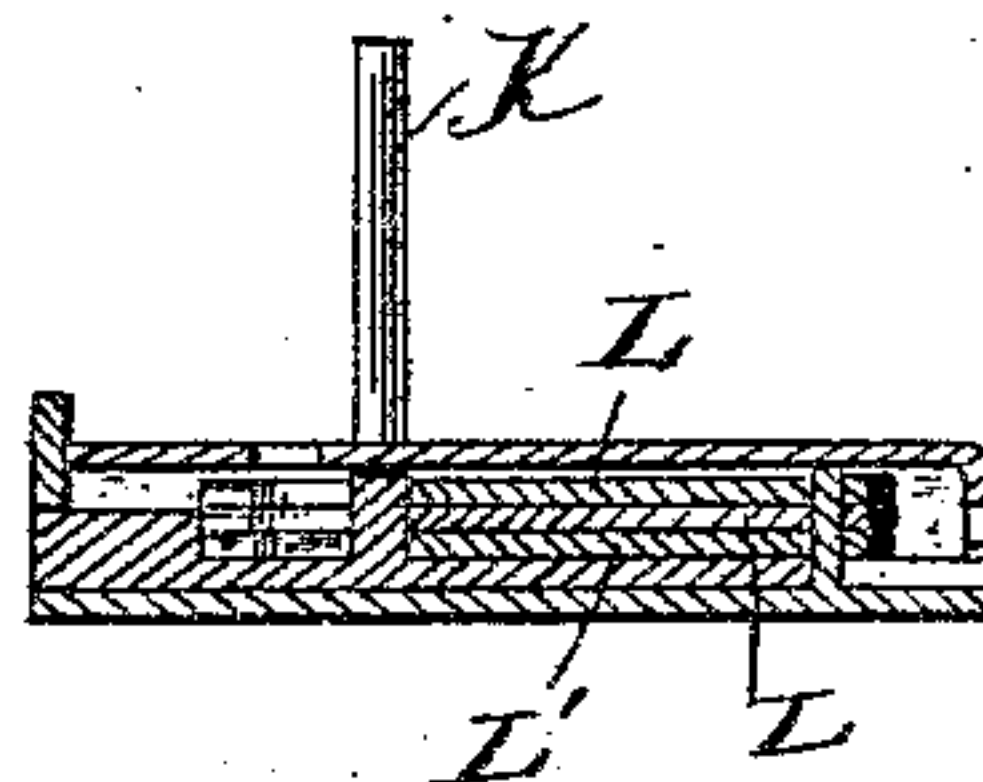


FIG. 10.

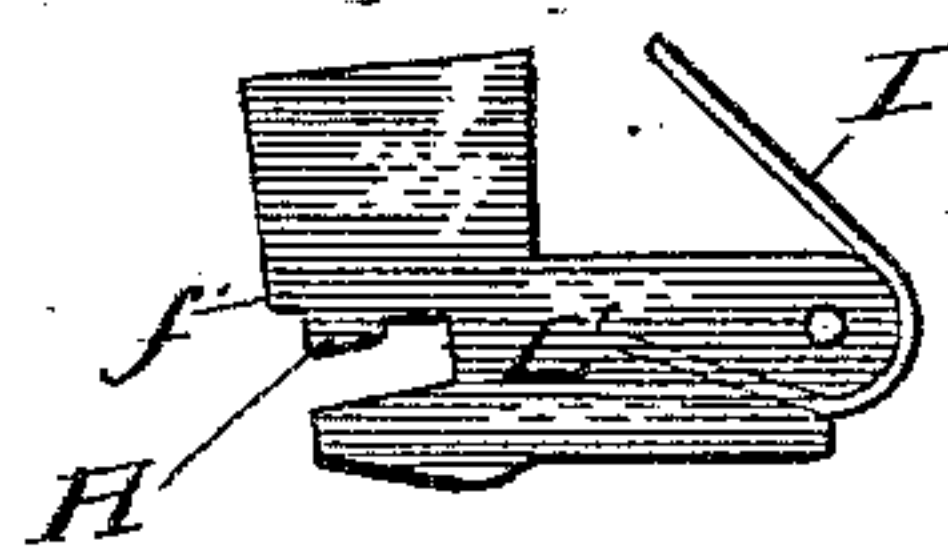
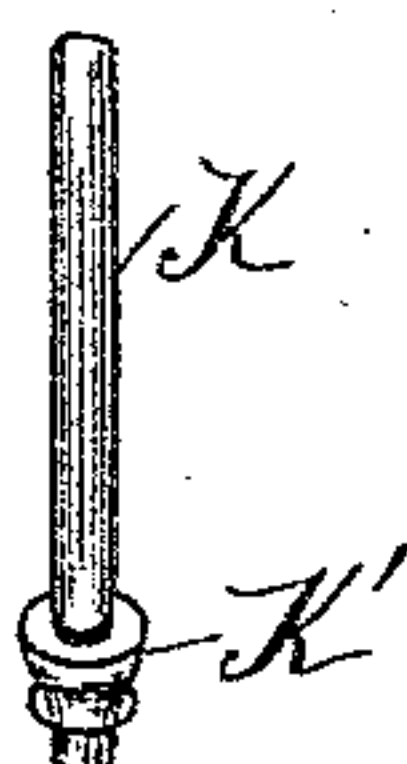


FIG. 11.



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Fig. 7.

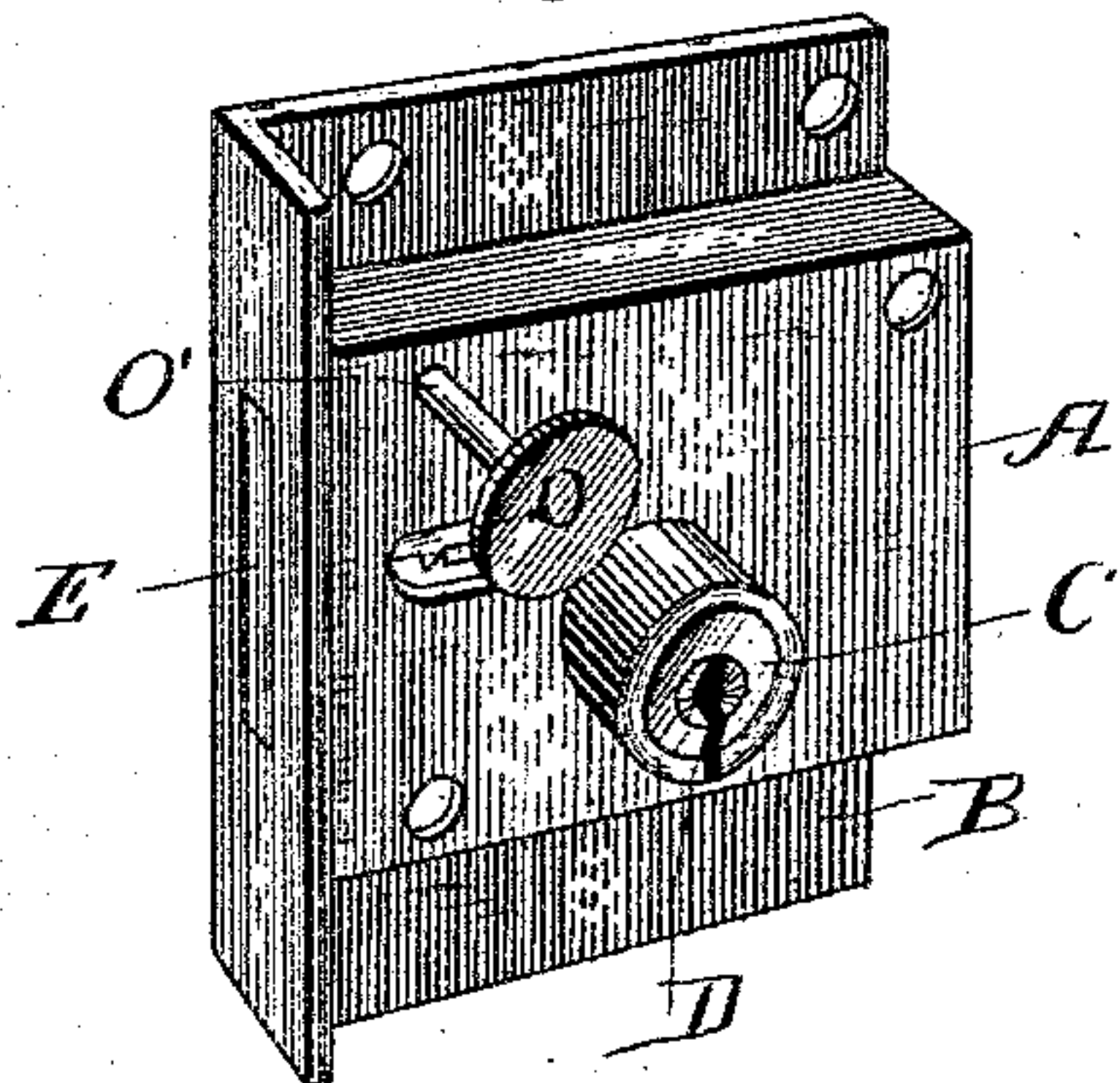


Fig. 5.

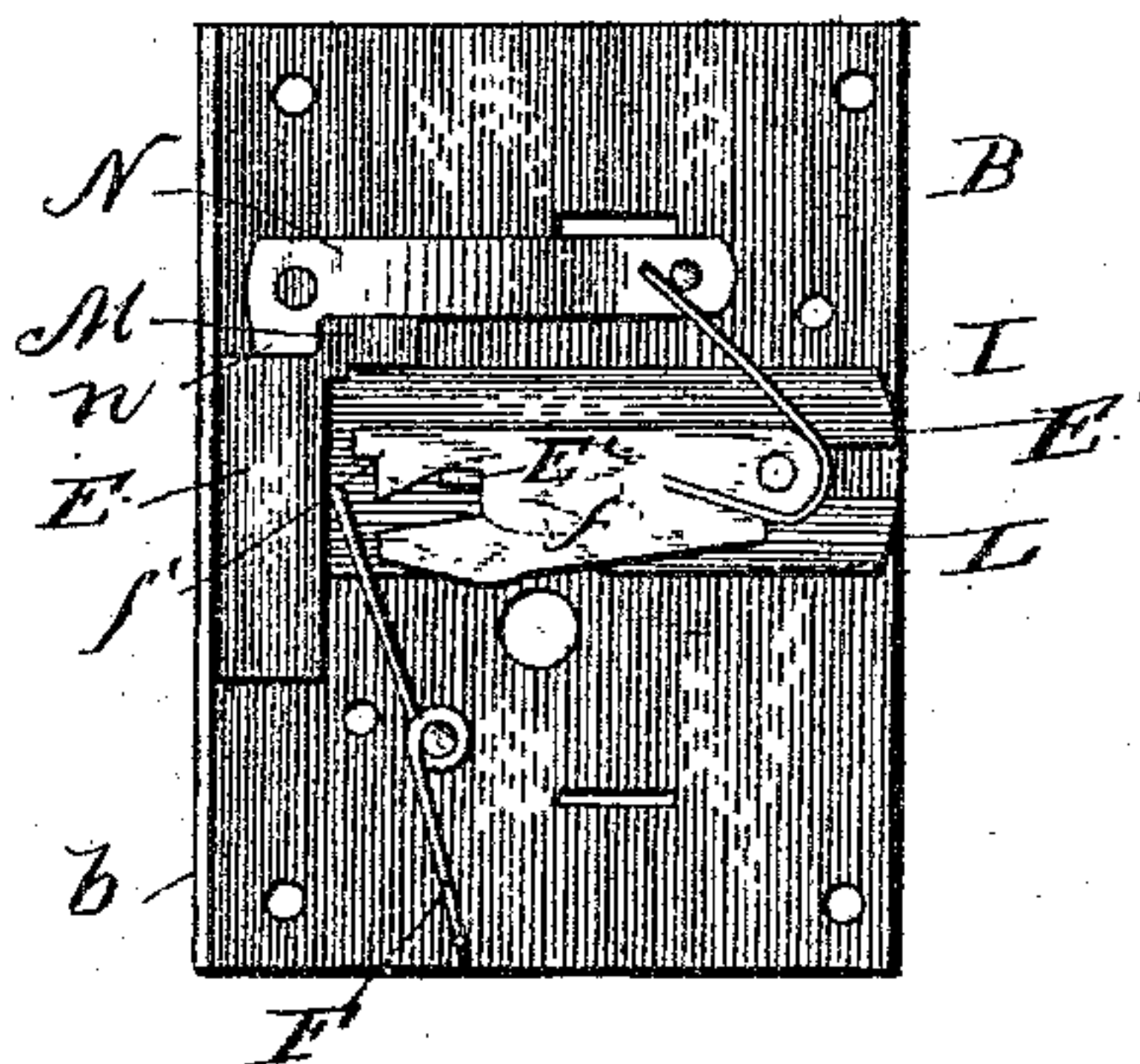


Fig. 8.

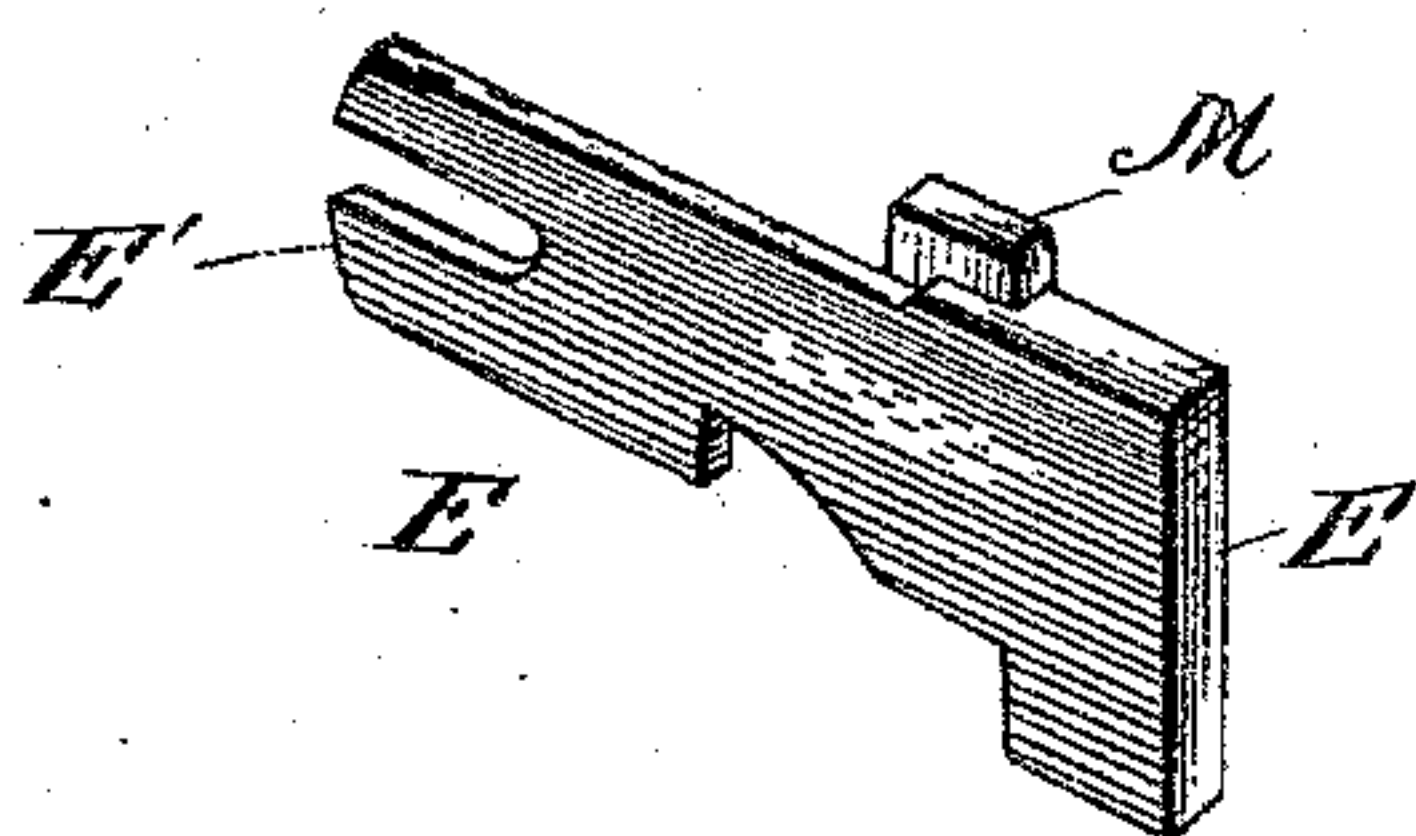


Fig. 9.

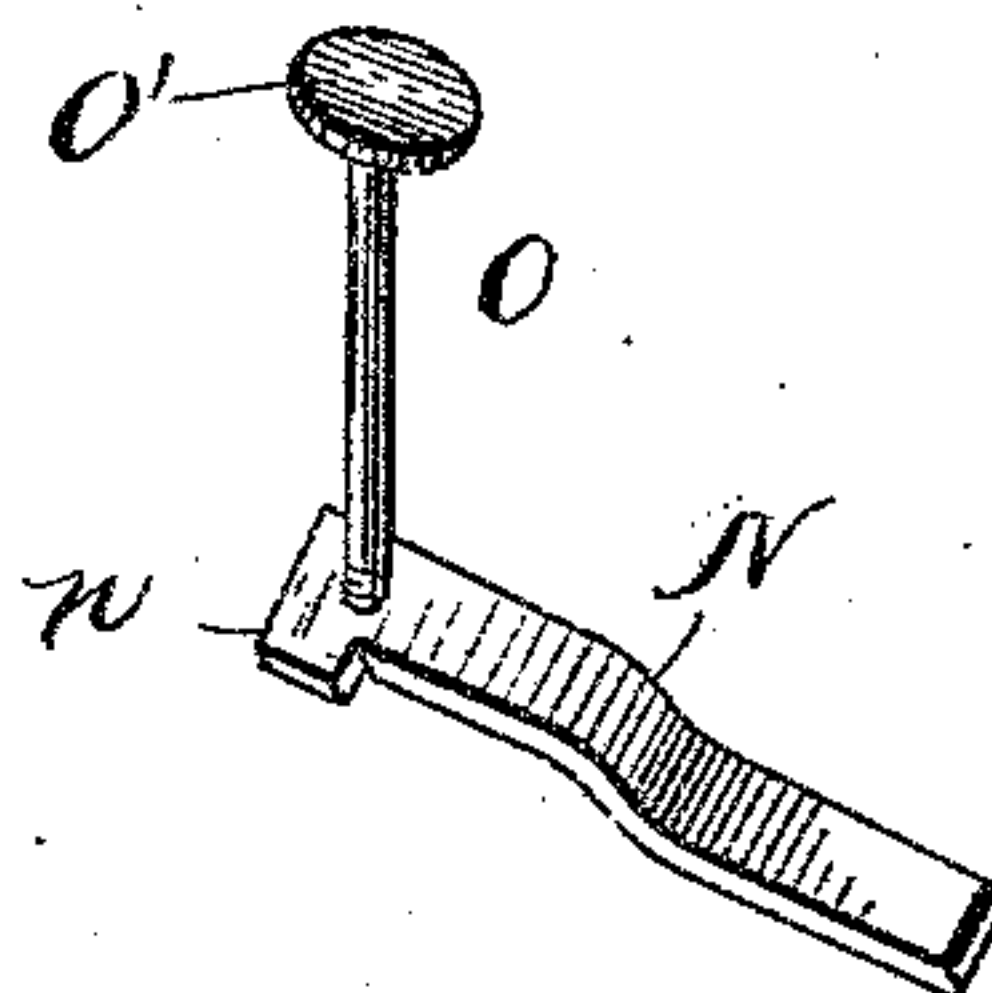
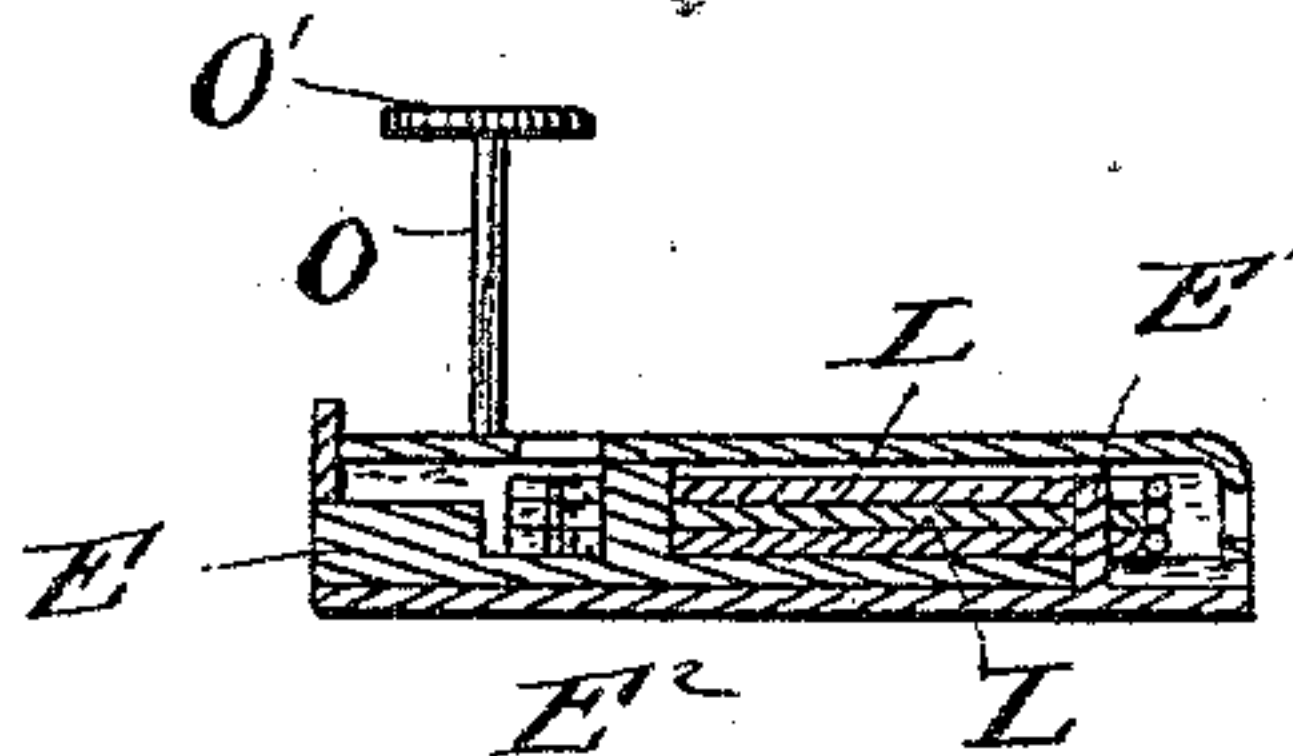


Fig. 6.



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UNITED STATES PATENT OFFICE.

DEXTER W. PARKER AND EDMOND B. SLATER, OF MERIDEN, CONNECTICUT,
ASSIGNORS TO THE CHARLES PARKER COMPANY, OF SAME PLACE.

LOCK.

SPECIFICATION forming part of Letters Patent No. 303,183, dated August 5, 1884.

Application filed April 8, 1884. (No model.)

To all whom it may concern:

Be it known that we, DEXTER W. PARKER and EDMOND B. SLATER, both citizens of the United States, residing at Meriden, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Drawer-Locks, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to locks, and more especially to drawer and till locks, which are provided with means, independent of the key, for locking at will or retaining the bolt within the lock-case when locking is not desired. To effect these objects we make use of a catch which engages with the spring-bolt when the latter is in its withdrawn or unlocked position; and we employ a movable or sliding piece which extends through the lock-case, and which, when forced inward, will move said catch laterally out of engagement and allow the bolt to be shot, this sliding piece being entirely separate from the key and key-holder. The catch may be one of the tumblers, or it may be a separate piece. Each of these forms has certain advantages over the other.

In the accompanying drawings, Figure 1 represents a front view of our lock, in which the tumbler forms the catch. Fig. 2 represents a similar view of the same, the front-plate, key-holder, and catch-releasing device being removed. Fig. 3 represents a similar view with all the tumblers removed except the rear one, in which the catch is formed. Fig. 4 represents a transverse section on the line *xx* of Fig. 1. Fig. 5 represents a view, similar to Fig. 2, of a lock embodying the other form of catch. Fig. 6 represents a sectional view of this latter lock, similar to Fig. 4, on the line *yy* of Fig. 5, but showing the releasing device in addition to the front plate; Fig. 7, an exterior perspective view of this form of lock; Fig. 8, a detail view of the bolt; Fig. 9, a detail view of the catch and releasing device; Figs. 10 and 11, details of the form of lock first described.

The same letters indicate corresponding parts in the several figures.

A designates the front plate of a lock; B, the back plate thereof; C, the barrel; D, the

key-holder within said barrel; E, the bolt working through the usual opening in the front flange, *b*, of said back plate; and F, the bolt-spring which tends to shoot said bolt so as to cause locking. These parts are old and well known in the art. They will require no further description or explanation of their relation to one another.

Each of the locks shown is provided with three tumblers, although the number may be varied at will and according to convenience. These are pivoted at their rear ends to a stud on the back plate, B. In the bolt shown in Figs. 1, 2, 3, and 4 the two outer tumblers are alike in shape, and have only the normal or usual function of guarding against the use of any key except the one intended for the lock and adapted to said tumblers. These outer tumblers are designated L, (as are all the tumblers in Figs. 5 and 6,) and the inner or rear tumbler, which serves also as a catch to prevent unlocking, is designated L'. Each tumbler is provided at its outer end with a recess or opening, *f*, which gives it a bifurcated shape, and the upper fork of this bifurcation is provided with a shoulder, *f'*, having a square front and an inclined rear. In the rear tumbler, L', however, this inclination terminates abruptly so as to form a square catch. This we have designated H. The tumbler-springs I operate to hold the upper arm of the fork, formed in said tumblers, individually against a stud, E², raised on the shank E' of the bolt. When the bolt is shot, the stud E² is against the forward face of each shoulder L, and cannot be withdrawn until the key is forced inward, (after the usual manner of operating Yale locks,) so as to remove said shoulders from said stud. There is sufficient face presented by the shoulder *f'* of each tumbler to allow this operation. There is, then, in the lock shown in Figs. 1, 2, 3, and 4 no obstacle to retracting the bolt within its case by the use of the key in the ordinary manner. When the bolt is in this withdrawn or rearward position, the drawer is of course unlocked. The key may be used for locking by again forcing the catch-tumbler L', as well as the other tumblers, out of the way; but until said catch-tumbler is withdrawn or moved laterally for

that purpose the bolt is held back by the engagement of catch H, formed on said tumbler, with stud E² on said bolt.

It often becomes convenient to lock a drawer 5 or door without using a key. To effect this we provide the tumbler L' with a sidewise extension or wing, J, which has in it an opening, j, eccentric to an opening, b², in the back plate, B, the center of the latter opening being farther from the stud E² than is the center 10 of the former opening. We also use a rod, K, which extends transversely through the lock-plates A B, and through the intermediate opening, j, in the wing J of tumbler L'. Its rear end enters the opening b² in the back 15 plate, and its front end passes through a similar opening in the front plate, so as to be conveniently accessible, and said rod is movable in the direction of its length. It is provided 20 with a conoidal enlargement or collar, K', which tapers inwardly, and the inner end of which extends to or within the opening j. The conoidal enlargement or collar K thus necessarily overlaps the edge of the opening j 25 on the side away from stud E², and therefore by forcing this rod inward this conoidal enlargement or collar K' is brought against the said edge or side of said opening, and by continued pressure the wing, tumbler L', and 30 catch H, being all in one piece, are moved laterally, so as to free the stud E² from said catch, and the bolt-spring F then shoots the bolt outward, and the operation of locking is thereby accomplished.

35 When the form of lock shown in Figs. 5 and 6 is employed, the bolt cannot be shot by the use of the key alone, inasmuch as the bolt is held by a catch which the key does not operate on, the tumblers in this form of lock being 40 all alike, and having no effect in preventing the shooting of the bolt. The bolt E in this instance is provided with a shoulder, M, which is flush in front with the operating part of the bolt, but extends laterally therefrom, and is 45 of less thickness than said head, so as to leave a space between said shoulder and the back plate. A spring-plate, N, is provided at one end with a lateral lip, n, which is adapted to engage said shoulder, and thereby hold said 50 bolt within the case. The other end of this spring plate or catch N is attached to a fixed stud on the back plate, B, and said plate or catch is bent so that the operative end on which lip n is formed will normally be in the position of engagement above stated. To this bent 55 operative end is attached a rod, O, which extends out through the front plate, A, where it is provided with a milled head or button O'. By pressing against this head or button the 60 catch N is forced so far toward plate B that the lip n will be beyond the shoulder M of the bolt, and will be in the space, before referred

to, between said shoulder and plate B, while said bolt is shot by the automatic action of the bolt-spring. This form of lock has certain 65 advantages in making the catch independent of the tumblers and the tumbler-springs, since a much stronger spring may be used to resist the bolt-spring than would be satisfactory as a tumbler-spring. On the other hand, the 70 lock shown in Figs. 1, 2, 3, and 4 may be locked without using or touching anything except the key; whereas the lock shown in Figs. 5 and 6 requires the head or button O' to be pressed before the key is turned and the bolt 75 shot. In both locks the bolt-retaining catch is freed by pressure on a rod, or equivalent device, which is in no way connected with the key-hole or the parts surrounding the same. The operation of said rod is not in the least 80 affected by anything which may get into and clog the barrel, and it does not require any special construction of the key-holder.

Our catch is not at all affected by the opening or closing of the drawer, it not being in 85 position to come in contact automatically with anything.

We are aware that it is not new to provide a spring-actuated bolt with a catch which holds it within the case, and a device which engages 90 the door-jamb whenever the door is closed, and automatically releases said bolt from said catch. This, however, we do not claim, the action being, essentially, the reverse of the action of our lock; but 95

What we do claim, and desire to secure by Letters Patent, is—

1. The combination of a spring-pressed bolt with a catch or tumbler which locks it within the case, and a longitudinally-depressible rod 100 provided with a conoidal collar, said collar normally overlapping the edge of one part of said tumbler, in order that when said rod is pressed in said collar may bear against said edge and force said tumbler away from said 105 bolt, thus releasing the latter, as set forth.

2. A spring-actuated sliding bolt and a catch for holding it from being shot, which is provided with an extension, J, having an opening, j, and a longitudinally-depressible rod, 110 K, arranged eccentrically in said opening and provided with a conoidal collar, K', that bears against one edge of said opening when said rod is depressed, and thereby moves said tumbler laterally so as to free said bolt therefrom, 115 substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

DEXTER W. PARKER.
EDMOND B. SLATER.

Witnesses:

FREDK. PEASE,
RALPH A. PALMER.