

W. H. TAYLOR.
Drawer-Lock.

No. 197,683.

Patented Nov. 27, 1877.

Fig 1.

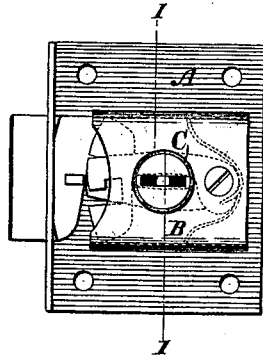


Fig 2

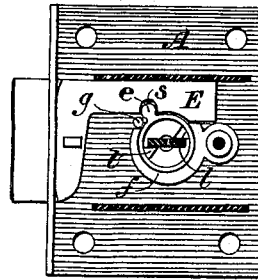


Fig 3.

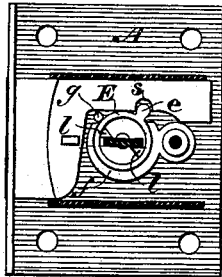


Fig 4.

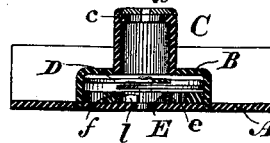


Fig 5.

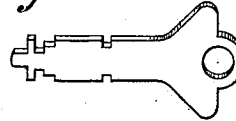


Fig 6.

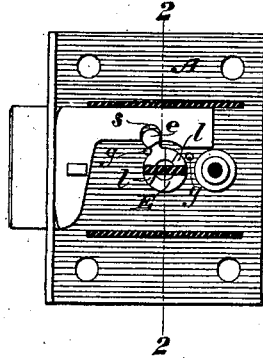


Fig 7

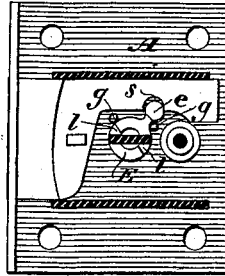
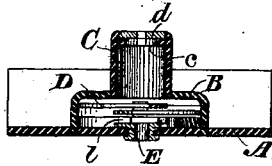


Fig 8



WITNESSES

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INVENTOR

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By his Attorneys

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UNITED STATES PATENT OFFICE.

WARREN H. TAYLOR, OF STAMFORD, CONNECTICUT, ASSIGNOR TO THE
YALE LOCK MANUFACTURING COMPANY, OF SAME PLACE.

IMPROVEMENT IN DRAWER-LOCKS.

Specification forming part of Letters Patent No. **197,683**, dated November 27, 1877; application filed
September 13, 1877.

To all whom it may concern:

Be it known that I, WARREN H. TAYLOR, of Stamford, in the county of Fairfield and State of Connecticut, have invented certain Improvements in Drawer-Locks, of which the following is a specification, that will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings.

My invention is an improvement upon the lock patented to me February 1, 1876, No. 172,899; and relates to an improved construction of the talon for throwing the lock-bolt, and of the nosing or key-barrel.

The construction and operation of the tumblers, springs, bolt, and other parts are substantially as set forth in my said patent, and therefore need not be particularly described here.

In the accompanying drawings, Figure 1 is a plan view of the inner side of a lock-case containing my improvements, showing the bolt in the locked position, and the tumblers dotted in; Fig. 2, a similar view, with the top of the case and the tumblers removed to show more clearly the talon-ring and its connection with the bolt; Fig. 3, a similar view, showing the bolt retracted or unlocked. Fig. 4 is a transverse section on the line 1 1 of Fig. 1; Fig. 5, a perspective view of the key; Fig. 6, a view similar to Fig. 2, showing a modification of the rotating talon; Fig. 7, a like view, showing the bolt retracted or unlocked; and Fig. 8 a transverse section on the line 2 2 of Fig. 6.

A indicates the back plate of the lock; B, the cap carrying the nosing or key-barrel; C and D, the tumblers.

Instead of forming the talon of an irregular-shaped bent lever, pivoted at one side of the key-pivot, as shown in my said patent, I form it of a ring, E, provided with a central key-aperture, in which the key will turn loosely, with lugs or projections *l l*, to be struck by the key-bits after the partial rotation of the key has spread and disengaged the tumblers; and also with a cam, *e*, on one side, fitting in a corresponding notch or socket, *s*, in the lock-bolt, to throw it in locking and unlock-

ing. This cam-ring has a corresponding axis, and turns concentrically with the key, which passes through it; and it may rest in a suitable bearing, *f*, secured to the lock-case, as shown in Figs. 2, 3, and 4, in which event I place the key-lugs on its interior periphery; or it may be journaled in the lock-plate, as shown in Figs. 6, 7, and 8, in which event I place the key-lugs on its flat surface.

Suitable pins or stumps *g g* are provided, when necessary, to limit the throw of the cam-ring.

I form the key-barrel of drawn-brass tubing of such thickness as to permit counterboring, and to leave the annular ledge or projection *c* on the inside to support the external disk *d*, and to be notched on opposite sides to permit the passage of the key, and prevent its withdrawal except when the slot in the rotating disk *d* is coincident with the notches, when the lock will be locked or unlocked.

This key-barrel is secured to the cap of the lock by brazing or otherwise, and does not rotate with the key. The latter should be of sheet metal, bitted alike on both sides, and it enters the barrel, and spreads the tumblers, and throws the bolt for locking and unlocking substantially in the manner described in my patent referred to, operating the cam-ring, however, instead of a bent talon-lever.

The advantage of the cam-ring consists in its simplicity of construction and adjustment, while it increases the extent of the throw of the bolt by the key, the same as the bent talon-lever.

Having thus described my improvements, what I claim as my invention, and desire to secure by Letters Patent, is—

1. A ring for a lock, provided with a central key-aperture, in which the key will turn loosely to spread and disengage the tumblers, having lugs to be struck by the key-bits to turn the ring concentrically with the key after the tumblers have been disengaged by the partial rotation of the key, and having a cam or talon on its periphery to engage with and throw the bolt, substantially as described.

2. In combination with the bolt and spreading-tumblers of a key-lock, a ring provided

with a central key-aperture and a cam and lugs, substantially as specified, and arranged to oscillate concentrically with the rotation of the key after the tumblers have been spread and disengaged, as set forth.

3. A non-rotating nosing or key-barrel of a lock adapted for a sheet-metal key, counter-bored to form an annular internal projecting ledge, *c*, integral with the barrel, to support

the external disk *d*, and notched on opposite sides, substantially as described.

In testimony whereof I have hereunto subscribed my name.

WARREN H. TAYLOR.

Witnesses:

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CHAS. E. VAIL.