

J. H. WOODRUM.
COMBINATION-LOCK.

No. 180,301.

Patented July 25, 1876.

Fig. 1.

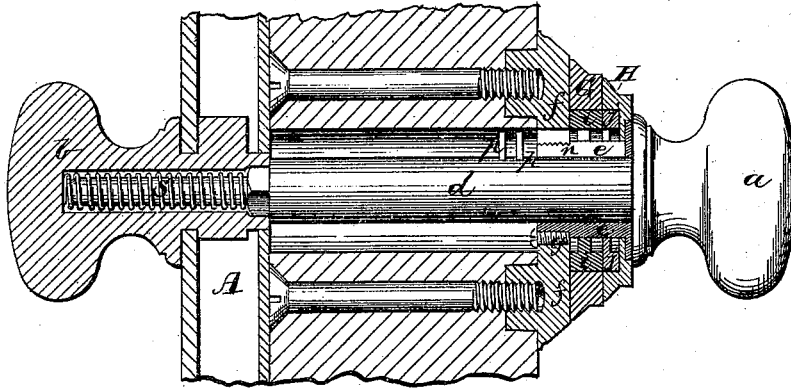


Fig. 2.

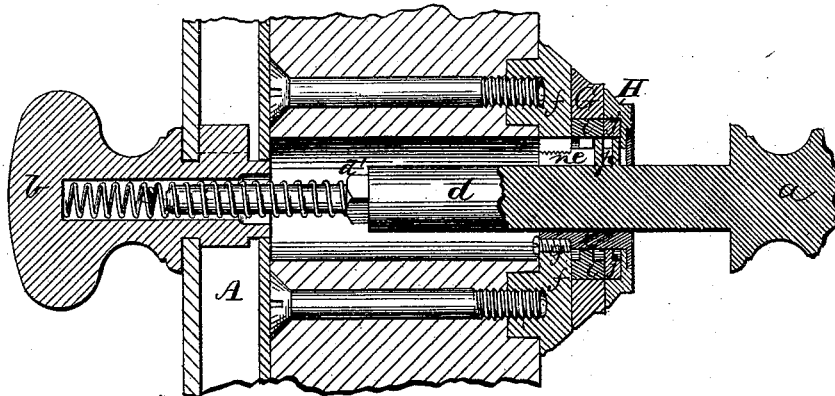
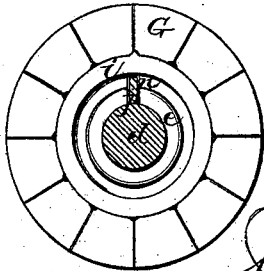


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN H. WOODRUM, OF PORTLAND, OREGON.

IMPROVEMENT IN COMBINATION-LOCKS.

Specification forming part of Letters Patent No. **180,301**, dated July 25, 1876; application filed April 3, 1876.

To all whom it may concern:

Be it known that I, JOHN H. WOODRUM, of Portland, Multnomah county, State of Oregon, have invented an Improved Lock; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvement without further invention or experiment.

This invention relates to an improvement in locks for doors; and it consists in a lock operated by a knob from the inside of a door, in the ordinary way, and an adjustable spindle surrounded by a sleeve, carrying the combination-rings and devices hereinafter referred to upon the outside of said door, whereby said lock may be operated from either the inside or the outside as an ordinary bolt, or be locked from the outside by the combination locking device, all substantially as hereinafter more fully set forth and claimed.

Referring to the accompanying drawings, A represents the lock-case, which is provided with an ordinary sliding bolt and spring-tumbler, operated by a knob, *b*, in the usual way.

The shank of this knob is formed with a square-shaped recess, for engagement with the square portion *d'* of the spindle *d* of a knob arranged to operate the bolt from an opposite side to the knob *b*. S is a coiled pressure-spring, which abuts against a shoulder of said spindle, and fits into the recess within said knob *b*. Upon the spindle *d*, which is attached to the knob *a*, is a loosely-mounted slotted sleeve, *e*, which is screwed into a plate, *f*, and prevented from turning therein by a small pin or screw, *g*, or other suitable means, whereby an essential requisite—that the slot *e'* of said sleeve shall be kept in line with a corresponding notch in the plate *f*—is attained.

This plate *f* is secured to the door upon the outside, and in any suitable or convenient way—as, for instance, by bolts or screws from the inside.

G H are two combination-rings, having any desired number of figures or letters upon their peripheries, and formed with annular recesses upon their interior sides, for the reception of notched rings adapted to be fitted

therein in various positions relatively to the figures upon the combination-rings, whereby the set combination may be changed at pleasure.

The interior ring *i* of ring G may be adjusted and held in position by means of a pin thereon entering one of a series of notches in ring G, and the ring *j* of ring H by notches engaging with a pin upon ring H, or either or both, as desired.

The spindle *d* is provided with pins *p p*, which, when the knob and spindle are drawn outward, slide through the groove and notch of the sleeve *e* and plate *f*, and also through the notches *n n* of rings *i* and *j*, when the same are brought into line according to the combination of number previously set.

The operation is substantially as follows: The lock-case being secured upon the inside of a door, the bolt may be thrown backward and forward by turning the knob *b* within the house, and it may be operated in like manner from the outside by turning the knob of spindle *d*, the square portion *d'* of which engages with the correspondingly-shaped recess in the knob *b*.

If it is desired to lock the door from the outside, the combination is set by turning the rings in the usual way, and the knob *a* and spindle *d* drawn forward until the pins *p p* therein have passed through the notches of the combination-rings, and the combination destroyed by revolving said rings.

This lock is especially designed for hotel use, affording more than ordinary security to guests, and at the same time doing away with a very serious annoyance and expense often felt in hotels—viz., the loss of keys, the trouble of which only a hotel man can understand.

Nearly all the room robberies take place while the guest is asleep in the room, and with this arrangement, when locked, it is almost impossible to effect an entrance, while in cases of necessity in getting out it is as simple as turning a key.

The ease by which the combination can be changed makes it so that changes can be often made, and avoid the necessity of using the same figures.

All the fastenings being on the inside prevents any possibility of taking off the lock on the outside.

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

1. The recessed knob *b*, arranged to operate the bolt of lock *A*, in combination with the adjustable knob-spindle *d* and the combination-rings *G H*, whereby the spindle is capable of being either connected to the recessed knob, so as to operate the bolt, or of discon-

nection therefrom, and being itself locked by means of the combination-rings, substantially as set forth.

2. The stationary plate *f* and sleeve *e*, carrying the combination-rings *G H*, in combination with the adjustable spindle *d*, provided with projecting pins *p* and the recessed knob *b*, substantially as specified.

JOHN H. WOODRUM. [L. S.]

Witnesses:

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