

C. D. WEEKS.  
PADLOCK.

APPLICATION FILED JULY 29, 1909.

956,007.

Patented Apr. 26, 1910.

Fig. 1.

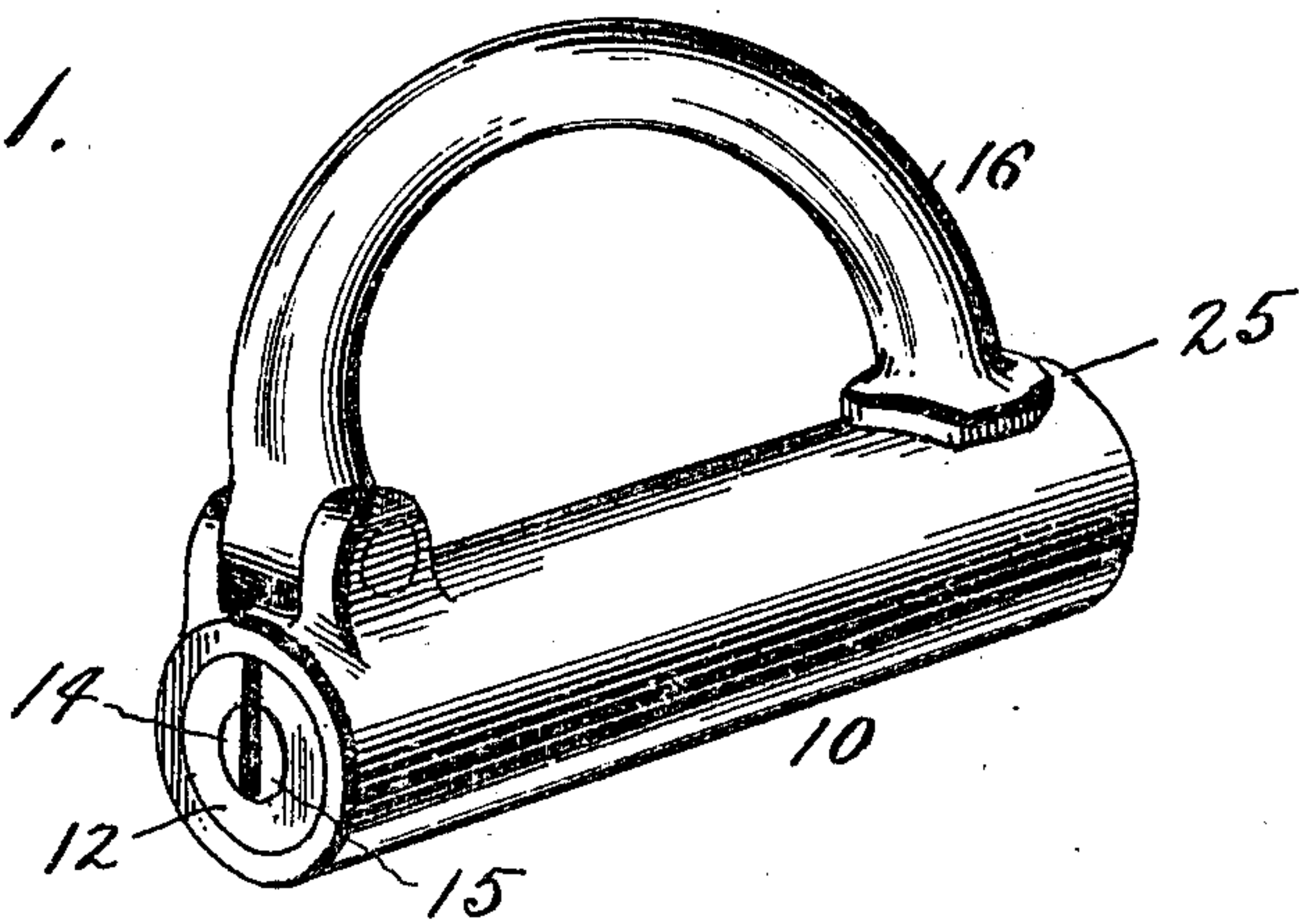


Fig. 2.

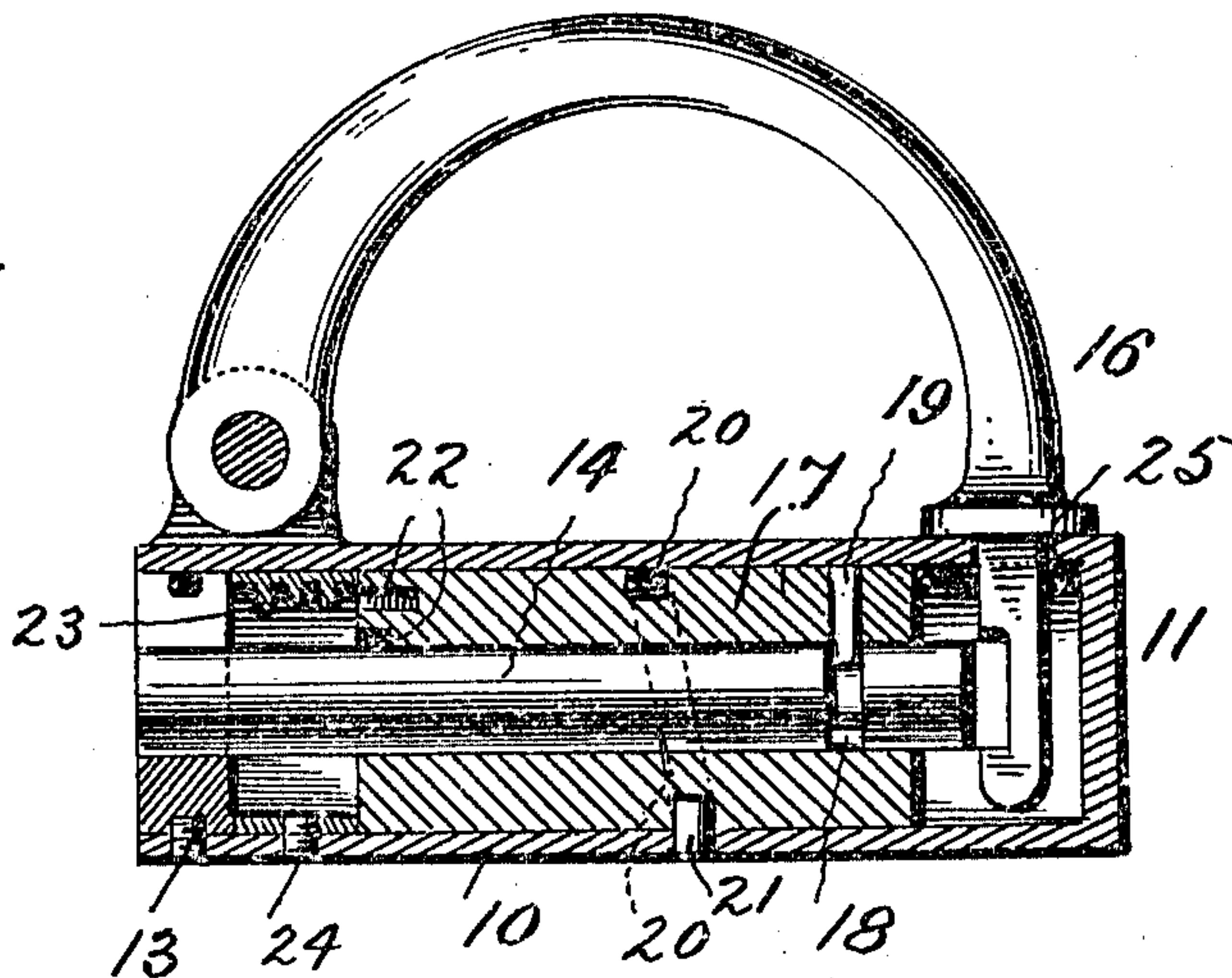
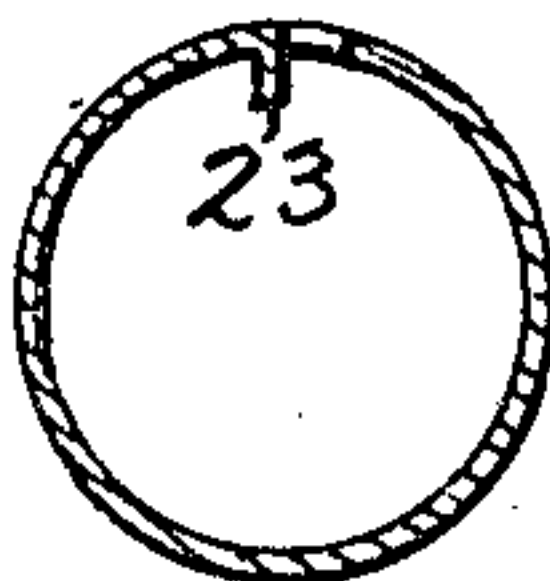


Fig. 3



WITNESSES

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# UNITED STATES PATENT OFFICE.

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## PADLOCK.

956,007.

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*To all whom it may concern:*

Be it known that I, CHARLES D. WEEKS, of Akron, in the county of Summit and in the State of Ohio, have invented a certain new and useful Improvement in Padlocks, and do hereby declare that the following is a full, clear, and exact description thereof.

The object of my invention is to provide a construction of pad lock which will possess the characteristics of strength and simplicity, security, facility and inexpensiveness of alteration to prevent duplication of parts so as to avoid the likelihood of the same or substantially the same keys opening a particular lock, and to this end my invention consists in the lock having the construction substantially as hereinafter specified and claimed.

Referring to the accompanying drawings, Figure 1 is a perspective view of a pad lock embodying my invention; Fig. 2 a longitudinal section of the same. Fig. 3 a detail view in cross section illustrating one form of a set of teeth that I may use.

Although I illustrate and shall describe my invention as embodied in a pad lock, to which it is especially adapted, yet it is proper to say that I do not restrict myself to its embodiment in a pad lock in respect to those characteristics of it which permit of its embodiment in other locks than pad locks.

In the embodiment of my invention illustrated, I employ a tubular or hollow cylindrical casing 10, closed at each end, the closure at one end being a permanently attached end wall 11, and at the other end a removably attached end wall or plug 12, that is rotatable in the casing, the connection between the two being, for example, a circumferential slot in the plug, and a pin 13 passing through the casing wall and into said slot, and being removable to afford access to the interior of the casing when required.

Within the casing 10 is a rotary and longitudinally movable bolt 14, one end of which passes through a central opening in the plug 12, and is diametrically slotted to provide a key-hole or slot 15, while the other end is adapted to engage the inserted notch or shouldered end of a hasp 16, whose other end is pivoted or hinged to the casing 10. Surrounding the bolt 14, and loosely fitting the casing 10, is a sleeve or tube 17, between which and the bolt is a rotatable

connection formed by an annular groove 18 in the bolt, and a radial pin 19 in the sleeve, whose end engages the bolt screw, and in the periphery of said sleeve is an obliquely extending groove 20 that extends partially around the sleeve and is engaged by a pin 21 fixed to and projecting within the casing 10, so that by a revolution of the sleeve it will be moved longitudinally and carry with it the bolt, moving the latter either into or out of engagement with the hasp or other cooperating member or part. For turning the sleeve it has in its end several holes or notches 22 for the reception and engagement of the correspondingly shaped end of the proper key, so that when the key is inserted and revolved, the sleeve may be turned and the bolt moved longitudinally. Between the key-engaging end of the key and the plug 12 is a space, and into said space projects a series or plurality of teeth 23 of unequal length, which will obstruct the rotation of the inserted key, unless it be the proper one having openings or slots coinciding with the teeth, and said teeth are removable so that whenever desired, for the purpose of requiring a different key to operate the lock, a different set of teeth may be substituted.

A convenient way of constructing the device with the teeth is that illustrated in the drawings, which consists in taking a short section of tubing and forcing or punching inward portions thereof to form the teeth. The tubing is of a diameter to enable it to be readily slid into and out of the cylindrical casing, and there removably secured, as by means of a screw 24. The device may otherwise be formed, as, for example, by punching a flat plate to simultaneously form the set of teeth and the key, the plate being attached to the casing 10 as by being set in a groove therein.

In order to prevent the entrance of water or dirt into the lock through the hasp slot in the casing 10, I provide a flange 25 on the hasp that covers the hasp opening when the hasp is locked.

I, of course, do not restrict myself to the particular construction of parts shown in the drawings. For example, the bolt may have simply a rotary movement within the casing 10, instead of a longitudinal movement, in which case the end of the bolt next the hasp is provided with a lug which by the revolution of the bolt is moved into and out of engagement with the hasp. Again, the



sleeve or tube and the bolt may be integral, and the periphery of the sleeve provided with screw threads to cause the longitudinal movement of the same when it is revolved by means of the key.

The hasp engaging end of the bolt has a smooth surface and the notch in the hasp is also smooth so that the engagement and disengagement of the bolt and hasp involve merely the sliding of the smooth surface of one over the corresponding surface of the other.

Having thus described my invention, what I claim is—

1. In a lock, the combination of a casing, a hasp having a bolt engaging notch and a rotatable bolt having a smooth end movable into and out of engagement with the hasp notch.

2. In a lock, the combination of a casing, and a rotatable and longitudinally movable bolt-operating member said member being key-actuated by a detachable key and secured within the casing.

3. In a lock, the combination of a casing, a longitudinally movable bolt, a sleeve around the bolt, having an inclined groove, and a pin on the casing engaging the groove.

4. In a lock, the combination of a casing, having a wall with a key-inserting aperture, a bolt-moving member adapted to be engaged by a key, and separate and radially arranged teeth of different lengths situated between the bolt-moving member and the wall having the key-inserting aperture.

5. In a lock, the combination of a casing, having a wall with a key-inserting aperture, a bolt-moving member adapted to be engaged by a key, and teeth of different lengths situated between the bolt-moving member and the wall having the key-inserting aperture, said key being removable.

6. In a lock, the combination of a casing, having a wall with a key-inserting aperture, removable teeth within the casing, a hasp, and a rotatable bolt movable into and out of engagement with the hasp.

In testimony that I claim the foregoing I have hereunto set my hand.

CHARLES D. WEEKS.

Witnesses:

C. F. SCHNEE,

GEORGE W. SIRBER.