No. 673,612. Patented May 7, 1901.

E. L. APPLEBY.

LOCK.

(Application filed Feb. 13, 1900.)

(No Model.)

Fig. 1.

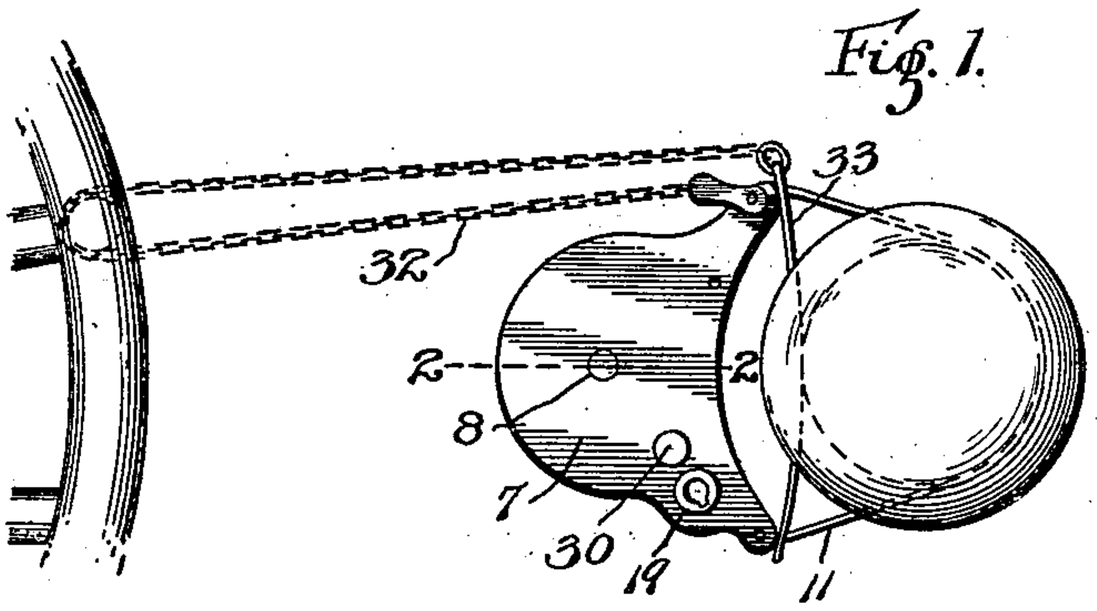


Fig. 4.

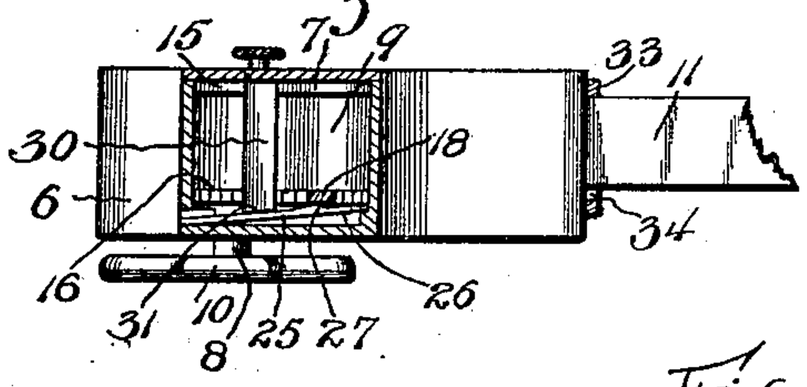


Fig. 2.

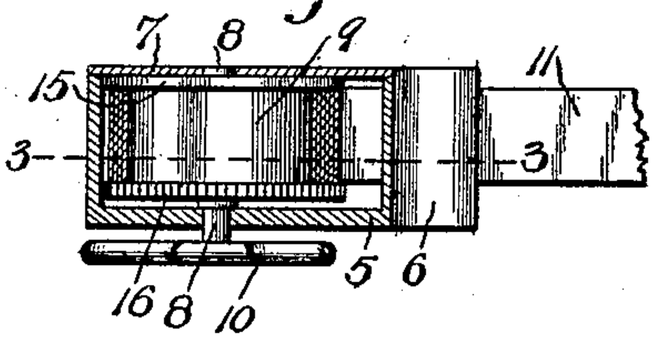
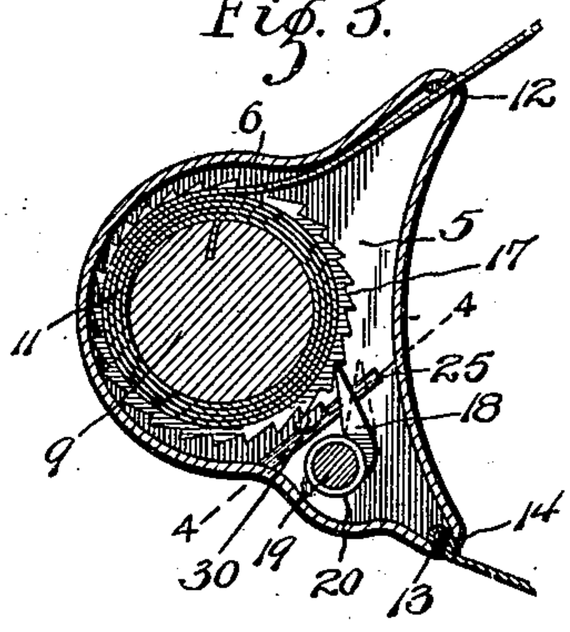


Fig. 3.



Witnesses
Ralph A. Shepard
H. E. Chandlee

Inventor
by E. L. Appleby
Chandlee & Chandlee
Attorneys

UNITED STATES PATENT OFFICE.

ERNEST L. APPLEBY, OF BRADFORD, PENNSYLVANIA.

LOCK.

SPECIFICATION forming part of Letters Patent No. 673,612, dated May 7, 1901.

Application filed February 13, 1900. Serial No. 5,071. (No model.)

To all whom it may concern:

Be it known that I, ERNEST L. APPLEBY, a citizen of the United States, residing at Bradford, in the county of McKean, State of Pennsylvania, have invented certain new and useful Improvements in Locks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to locks in general, and more particularly to portable locks; and it has for its object to provide a simple and convenient construction that may be manufactured and sold at a reasonable price and which may be employed for positively locking an umbrella, cane, or similar article to a fixed object.

A further object is to provide a construction that is adjustable for use upon articles of different diameters and one which may be used for locking bundles when desired.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a plan view showing the manner of using the lock of the present invention. Fig. 2 is a plan view of the lock with a side plate of the casing removed to show the interior arrangement with the parts in their locked positions. Fig. 3 is a view similar to Fig. 2 and showing the parts in their unlocked positions.

Referring now to the drawings, the lock of the present invention comprises a casing including a base-plate 5, having a flange 6 at its edge, this casing having the general shape of a padlock, the front edge thereof being concaved, as shown. The open side of the casing is provided with a cover-plate 7, and in this cover-plate and in the base-plate is journaled the axle 8 of a winding-drum 9, which is adapted to be rotated by means of a knob or other form of a handle 10, secured to one end of the said axle exteriorly of the lock-casing.

A flexible metallic strap 11 has one end attached to the drum 9 and lies in a slot 12 at one end of the front side of the lock-casing, the opposite end of the strap being passed inwardly of the casing through a slot 13 and then bent around a pin 14 therein to prevent withdrawal of the strap, this pin forming also a rivet for holding the parts of the casing together. At the sides of the drum 9 are disks 15 and 16, and the disk 16 is provided with serrations forming ratchet-teeth 17, extending in a direction opposite to the direction of winding rotation of the drum. These teeth are adapted for engagement by a pawl 18 to prevent unwinding of the strap from the drum, this pawl being carried by a rock-shaft 19, which is mounted in the base and cover plates and which is held slidably in a direction to engage the pawl with the ratchet by means of a helical spring 20, which encircles the rock-shaft and has one end disposed in a perforation in the shaft, while the opposite end rests against the inner face of the flange 6. The pawl 18 normally engages the ratchet-disk, and to disengage the pawl the shaft 19 is formed hollow and has a longitudinal interior slot adapted to receive the nib of a key which is adapted to enter and fit the hollow shaft. Thus by means of the key the shaft may be moved to draw the pawl from the ratchet-disk, when the drum may be rotated in an opposite direction to the winding operation, and the flexible strap may be drawn outwardly. In order to hold the pawl retracted, a spring-finger 25 is fixed at one end to the base-plate and lies with its opposite end above the base-plate. This free end of the spring has a depression 26 at its extremity, resulting in the formation of a shoulder 27, and the pawl 18 when in engagement with the ratchet-disk lies upon that portion of the finger between its base and the shoulder 27 and depresses the finger, and when the pawl is moved from engagement with the ratchet-disk and against the tendency of its opening it moves beyond the shoulder 27, when the finger rises and the shoulder prevents the return of the pawl to engage the ratchet. To disengage the shoulder from the pawl and permit it to engage with the ratchet, a push-rod 30 is mounted in the base-plate and cover-plate and has a projection 31, which lies upon the upper face of the finger. Thus as the push-rod is pressed inwardly it depresses the finger for the purpose mentioned. Thus it will be seen that with the present structure the metallic strap may be wound in or let out to any desired extent and may be held firmly in any of its adjusted positions.

Coöperating with this metallic strap of the lock is a chain or cord 32, one end of which is fixed to the casing of the lock, while the other end is provided with a plate 33, in which is formed a slot 34, extending approximately from one end of the plate to the other and slightly wider than the metallic strap. Thus in practice the chain is first passed through or wound around some stable object, such as the back of a chair 50, (shown in Fig. 1 of the drawings,) and the strap having been drawn from the lock-casing to the desired extent the bight of the loop of the strap is passed through the slot 34. An umbrella 51 or other object to be secured is then passed through the loop between the plate and the bight, after which the drum is operated to wind in the strap until it tightly encircles the article, the lock mechanism having of course been adjusted to hold the strap at whatever point it may stop. When the article is to be released, the key is operated in the manner above described and the strap is drawn outwardly. By pressing the push-rod the ratchet will again be thrown into operation and the strap may be wound up. When it is desired to release the umbrella, the key is first inserted and the lock is unlocked. The strap 11 may be then drawn outwardly to a sufficient extent to permit removal of the umbrella from the strap. After the umbrella has been removed the strap may be wound into the casing and will be drawn from the opening in the plate 33, which latter will then fall from its position against the curved face of the casing. If it be then desired to lock a cane or other article to a support, such as a chair-back, the strap is drawn outwardly a sufficient distance, the plate is passed over the bight of the strap, so as to receive the strap in the rectangular opening in the plate, and the cane is placed between the strap and the plate, it being of course understood that the chain has first been passed around the chair-back. The push-rod is then operated to release the pawl and the strap is wound up to an extent sufficient to hold the cane firmly.

Having thus described my invention, what I claim is—

A lock comprising a casing having a drum rotatably mounted therein and provided with a ratchet, a flexible strap having one end permanently attached to the casing and having its opposite end permanently attached to the drum, means for rotating the drum to wind the strap thereon, a ratchet carried by the drum, a rotatable rod having a key-seat, a pawl carried by the rod for engagement with the ratchet to hold the drum against unwinding, a spring-plate fixed to the casing and having a shoulder in the path of movement of the pawl for engagement thereby to hold the pawl out of operative relation to the ratchet, a push-rod slidably mounted in the casing for engaging the plate to move it with its shoulder from engagement with the pawl, a chain attached to the casing, a plate secured to the free end of the chain and a longitudinal slot in the plate through which the flexible strap may be passed.

In testimony whereof I affix my name in the presence of two witnesses.

ERNEST L. APPLEBY.

Witnesses:

C. J. CURTIS,

L. MEAD.