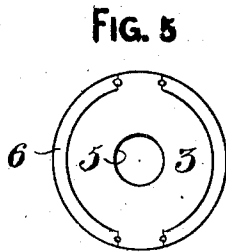
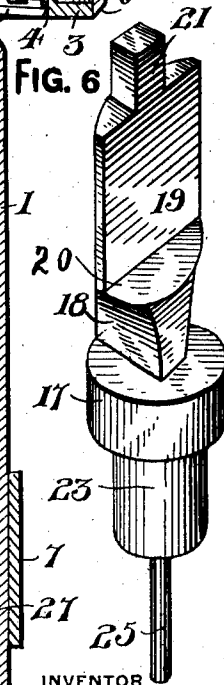
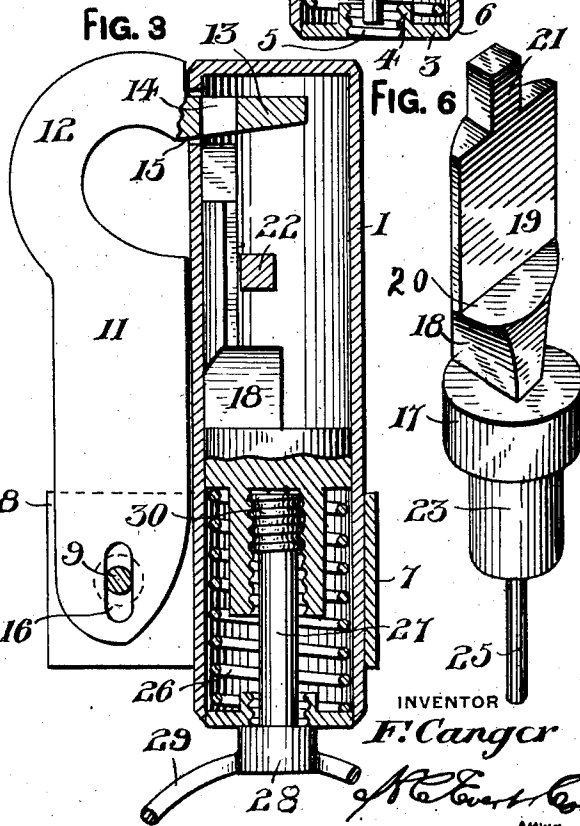
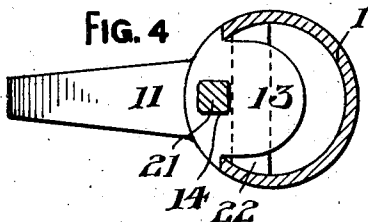
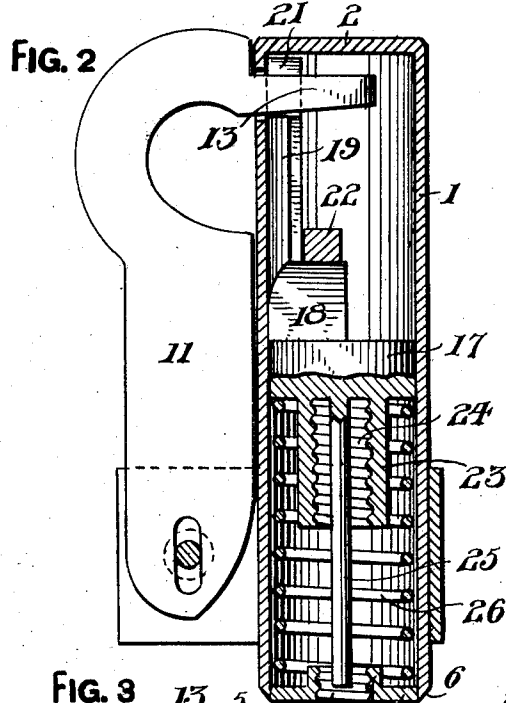
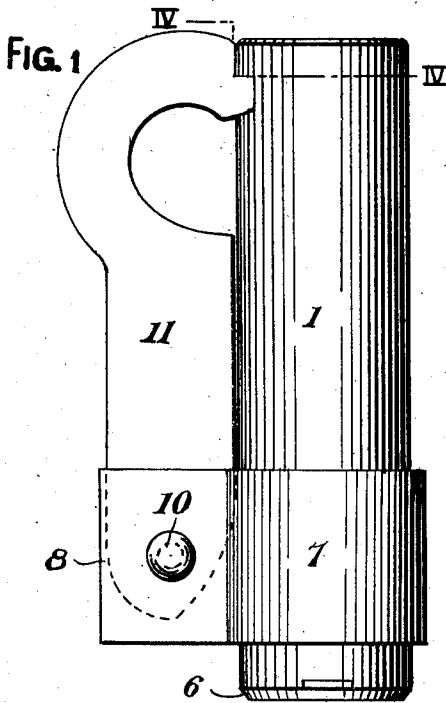


F. CANGER.
LOCK.

APPLICATION FILED JULY 29, 1912.

1,043,569.

Patented Nov. 5, 1912.



WITNESSES

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UNITED STATES PATENT OFFICE.

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LOCK.

1,043,569.

Specification of Letters Patent.

Patented Nov. 5, 1912.

Application filed July 29, 1912. Serial No. 711,999.

To all whom it may concern:

Be it known that I, FRANK CANGER, a subject of the Czar of Russia, residing at Alsen, in the county of Greene and State of New York, have invented certain new and useful Improvements in Locks, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to locks, and has for its object to provide in a manner as hereinafter set forth a lock capable of being used in a manner as the well known form of padlock and which is comparatively simple in its construction and arrangement, strong, durable, efficient in its use, readily set up in operative position and comparatively inexpensive to manufacture.

With the foregoing and other objects in view the invention consists of the novel construction, combination and arrangement of parts as hereinafter more specifically described and illustrated in the accompanying drawing, wherein is shown an embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which come within the scope of the claims hereunto appended.

In the drawing like reference characters denote corresponding parts through the several views, in which:—

Figure 1 is a side elevation of a lock in accordance with this invention, closed, Fig. 2 is a longitudinal sectional view of the lock when closed, Fig. 3 is a longitudinal sectional view of the lock illustrating the locking bolt released from the shackle, Fig. 4 is a section on line IV—IV of Fig. 1, Fig. 5 is an end view of the barrel, and Fig. 6 is a perspective view of the spring pressed locking bolt.

Referring to the drawing in detail: 1 denotes a cylindrical barrel closed at one end, as at 2 and having its other end open. Mounted in the open end of the barrel 1 is a plate 3 formed with a centrally disposed opening and an inwardly projecting annular flange 4, the inner face of said flange forming a continuation of the wall of the opening. The wall of the opening and the inner face of the flange are threaded, as at 5. The plate 3 is secured to the barrel by upsetting the end 6 so as to overlap the plate 3.

Secured to the barrel 1 in proximity to that end provided with the plate 3 is a

band 7 formed with a pair of spaced flanges 8 which support centrally thereof a spaced rivet 9 having each end thereof upset, as at 10 to provide a head, said heads engaging the outer faces of the flanges 8.

Slidably connected to the rivet 9 is a shackle consisting of a longitudinally extending body portion 11 terminating at one end in a curved arm 12 which has formed integral with its free end a tapering extension 13 formed with a squared opening 14. The extension 13 is adapted to project through a slot 15 formed in the barrel in proximity to the end 2. The other end of the body portion 11 of the shackle extends between the flanges 8 and is provided with a longitudinally extending slot 16 through which extends the rivet 9 and the latter in connection with the slot 16 pivotally as well as slidably connects the shackle to the flanges 8. The width of the extension 13 is less than the width of the free end of the arm 12 whereby when said extension projects through the slot 15 the arm 12 will abut against the barrel 1, as clearly shown in Fig. 1.

Arranged within the barrel 1 is a locking bolt consisting of a cylindrical body 17 having projecting from one face thereof a tapering projection 18 which terminates in a segment-shaped carrier 19 of less thickness than the thickness of the projection 18 thereby providing a shoulder 20. The carrier 19 has projecting centrally from its free end a squared locking lug 21 which is adapted to extend through the opening 14 of the extension 13, as shown in Fig. 2, whereby the shackle is locked to the barrel. The head 17 is of a diameter substantially equal to the inner diameter of the barrel 1, but of such diameter as to permit of the head shifting longitudinally of the barrel when occasion so requires.

The carrier 19 has its curved face riding against the inner face of the barrel, as clearly shown in Fig. 2 and said carrier is interposed between a transversely extending member 22 formed integral at its ends with the inner face of the barrel 1. The member 22 constitutes a support for the carrier 19 and furthermore provides a stop which is engaged by the shoulder 20 whereby the movement of the locking bolt in one direction will be arrested so that the lug 21 will not abut against the inner face of the end 2 of the barrel. Projecting from the

other face of the head 17 is a tubular extension 23 which is of less diameter than the diameter of the head 17 and has its inner face formed with threads 24. Projecting from that face of the head 17 with which the tubular extension 23 is formed integral and centrally of said face is a cylindrical key guide rod 25 which when the locking bolt is in engagement with the extension 13 of the shackle, is of such length as to extend into the annular flange 4. Arranged within the barrel 1 and interposed between the plate 3 and the head 17 and further surrounding the extension 23 and the flange 4 is a coiled spring 26, the function of which is to permanently force the locking bolt toward the end 2 of the barrel 1.

The rod 25 is utilized as a guide for the hollow shank 27 of a key. The shank at its outer end is formed with an enlarged headed boss 28 to which is connected a grip 29 to facilitate the operation of the key when occasion so requires. The shank 27 at its inner end is enlarged and provided with peripheral threads 30 which are adapted not only to engage the threads 24 of the extension 23 but is also adapted to engage the threads 5 of the flange 4. When the key is rotated in one direction it will pass the flange 4 and it is then shifted to engage the threads 24 of the extension 23, a further rotation of the key 27 will draw the locking bolt toward the plate 3 whereby the lug 21 will be moved out of the opening 14 and clear of the extension 13 enabling the shackle to be swung outwardly on the pivot 9. The locking bolt when moved to inoperative position will assume the position shown in Fig. 3 against the forcing action of the spring 26 and will be held in such position until the threaded portion of the shank 27 is shifted clear of the threads of the extension 23 when the key is revolved in the opposite direction. When the threaded portion of the shank 27 is clear of the extension 23, the spring 26 bearing against the head 17 will force the locking bolt to the position shown in Fig. 2. A further rotation of the shank of the key will permit of the key being removed from the barrel 1.

What I claim is:—

1. A lock comprising a cylindrical barrel, a shackle having one end slidably and pivotally connected to said barrel exteriorly thereof and including an apertured extension adapted to project into the barrel, a locking bolt including a head having a car-

rier integral therewith, a lug projecting from the carrier and capable of engaging in the apertured extension of the shackle for maintaining the shackle closed, resilient means arranged within the barrel and engaging said head for permanently forcing the locking bolt to operative position, said locking bolt further including an interiorly threaded tubular extension, a threaded key adapted to extend through one end of the barrel and engage with the threads of said extension for shifting the locking bolt to released position against the action of said means and for further maintaining the locking bolt in released position, and a cylindrical guide rod for said key, said rod integral with said head and projecting through and from said tubular extension and extending to that end of the barrel through which the key is inserted.

2. A lock comprising a cylindrical barrel, a shackle having one end slidably and pivotally connected to said barrel exteriorly thereof and including an apertured extension adapted to project into the barrel, a locking bolt including a head having a carrier integral therewith, a lug projecting from the carrier and capable of engaging in the apertured extension of the shackle for maintaining the shackle closed, resilient means arranged within the barrel and engaging said head for permanently forcing the locking bolt to operative position, said locking bolt further including an interiorly threaded tubular extension, a threaded key adapted to extend through one end of the barrel and engage with the threads of said extension for shifting the locking bolt to released position against the action of said means and for further maintaining the locking bolt in released position, a transversely extending member arranged within said barrel and constituting a support for the carrier and further providing a stop for arresting the movement of said locking bolt when shifted by said resilient means, and a cylindrical guide rod for said key, said rod integral with said head and projecting through and from said tubular extension and extending to that end of the barrel through which the key is inserted.

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

FRANK CANGER.

Witnesses:

PETER KONOPKA,
FRANK ANDRUSZYS.