

J. DUNAI.

LOCK.

APPLICATION FILED MAY 5, 1911.

1,006,922.

Patented Oct. 24, 1911.

2 SHEETS-SHEET 1.

FIG. 1.

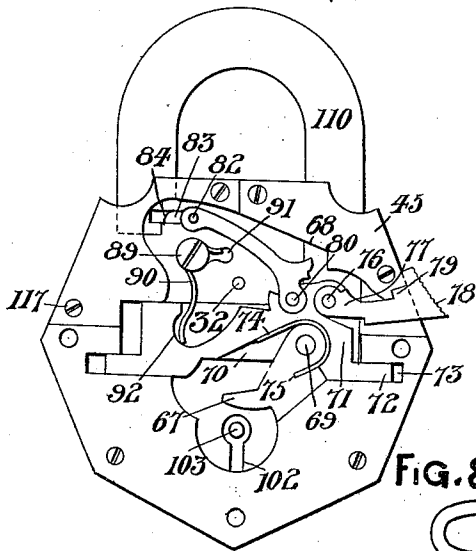


FIG. 2.

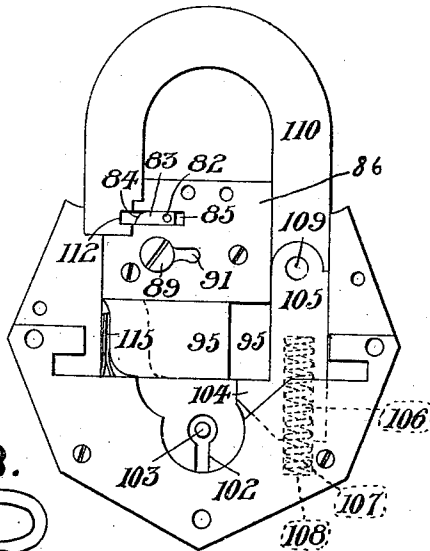
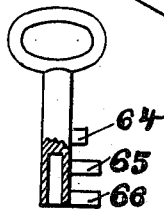


FIG. 8.



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2 SHEETS—SHEET 2.

FIG. 3.

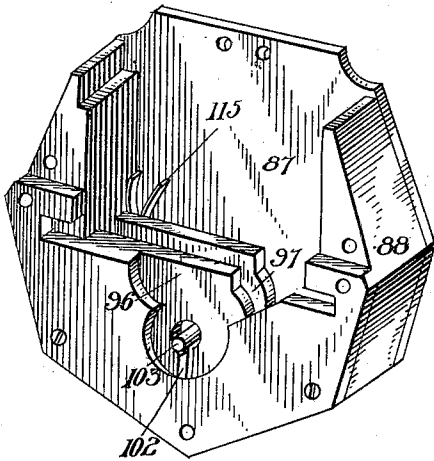


FIG. 5.

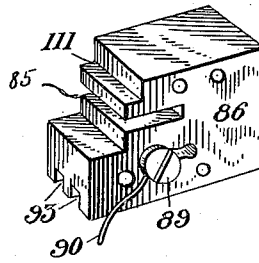


FIG. 6.

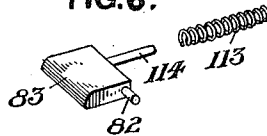


FIG. 7.

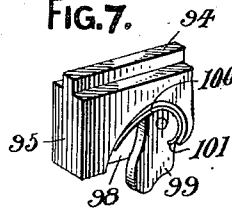
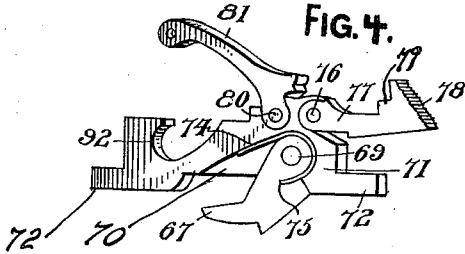


FIG. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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LOCK.

1,006,922.

Specification of Letters Patent.

Patented Oct. 24, 1911.

Application filed May 5, 1911. Serial No. 625,151.

To all whom it may concern:

Be it known that I, JOSEF DUNAI, a subject of the King of Hungary, residing at Racine, in the county of Racine and State of Wisconsin, 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 more particularly to that type of lock commonly known as a padlock and has for its object to provide a lock of such type in a manner as hereinafter set forth which is comparatively simple in its construction and arrangement, strong, durable, efficient in its use, conveniently manipulated when opening the same, and comparatively inexpensive to manufacture.

With the above and other objects in view the invention resides in a novel construction, combination and arrangement of parts to be hereinafter specifically described and then claimed.

Reference will now be had to the drawings, wherein like numerals designate corresponding parts throughout the several views, in which:—

Figure 1 is a front elevation of the lock showing a portion of the mechanism. Fig. 2 is a similar view of the lock showing another portion of the mechanism. Fig. 3 is a perspective view of the body of the lock. Figs. 4 to 7 inclusive are detailed views of a portion of the mechanisms contained within the body of the lock. Fig. 8 is an elevation of a key adapted to operate the lock.

Referring to the drawings in detail, 45 denotes a plate which is secured to the lock body 88 and is provided with an enlarged irregular shaped opening 68 in which is arranged a trigger 67 adapted to be engaged by the ward 65 of the key 1, the latter being also provided with a ward 66. The trigger 67 is pivotally mounted upon a pin 69, carried within a recess 70 of an oblong slidable member 71, said member having tongues 72 with the ends thereof riding in slots 73 provided therefor in the plate 45. The trigger 67 is normally retained in an inactive position and in engagement with one of the walls of the opening 68 by a flat spring 74 arranged in the recess 70, said spring having one end thereof mounted in a slot 75 provided therefor in the trigger 67.

Pivotally connected to the slidable mem-

ber 71 by a pin 76 is a latch 77 arranged in the open end of the opening 68, said latch having the outer end thereof knurled, as at 78 to correspond to the knurled edge of the plate 45. The outer end of the latch 77 has a tooth 79 adapted to engage the wall of the opening 68 and retain said latch in a raised and extended position. After the latch is extended by a movement of the key, it is necessary that the latch be held by the tooth 79 engaging the wall of the opening 68 or said latch will recede and prevent a successful unlocking of the lock.

Pivotally connected to the slidable member 71 by a loose pin 80 is a link 81 and the upper end of this link is loosely mounted upon a pin 82 carried by a keeper 83 having a beveled end 84. The keeper 83 is slidably mounted in a kerf 85 formed in a block 86 arranged centrally of the upper edge of a recess 87 formed in the lock body 88. The block 86 is provided with a screw 89 and mounted upon this screw is a compression spring 90 having one end thereof engaging in the block, as at 91 and the opposite end thereof engaging in a recess 92 provided therefor in the upper edge of the slidable member 71. After the key has been rotated clockwise to move the trigger 67, the member 71, link 81 and the keeper 83, and the latch 78 set, the key is turned counter-clockwise and further inserted in the lock body 88.

The block 86 of the lock body has the bottom thereof provided with two longitudinal grooves 93 and slidably mounted in these grooves are the tongues 94 of tumblers 95. These tumblers are slidably supported upon the upper edges of vertical partitions 96 and 97 arranged in the lower part of the lock body 88. The tumblers 95 have the confronting sides thereof recessed, as at 98 for pivoted dogs 99, said dogs being normally retained in a lowered position by springs 100 arranged in the recesses 98 and having the ends thereof mounted in slots 101 provided therefor in the dogs 99.

The partitions 96 and 97 are provided with key openings 102 for the key, which is adapted to fit over a post 103, carried by the lock body. The wards 65 and 66 of the key are adapted to engage the dogs 99 between the partitions 96 and 97 and shift the tumblers 95 between the lower edge of the block 86 and the upper edges of the partitions 96 and 97.

The inner ends of the tumblers 95 nor-

5 mally extend over a keeper 104 carried by the lower end of a holder 105 slidably mounted between the block 86 and the walls of the lock body 88. The lower end of the holder 105 has a socket 106 accommodating the upper convolutions of a coiled compression spring 107, mounted in a socket 108 provided therefor in the lower part of the body 88. When the tumblers 95 release the keeper 104, the spring 107, which is normally under tension, forces the holder 105 upwardly.

10 Pivotally connected to the upper end of the holder 105 by a pin 109 is one end of a shackle 110 movably arranged in the body 88. The opposite end of the shackle is adapted to engage a shoulder 111 of the block 86, said shoulder limiting the inward movement of the shackle 110, whereby the notch 112 of said shackle will register with the kerf 85 of the block 86. The notch 112 is adapted to receive the keeper 83 and this keeper is normally pressed by a coiled compression spring 113 arranged in a socket provided therefor in the block 86, the outer convolutions of the springs 113 engaging over a pin 114 carried by the keeper 83. The tumblers 95 are normally retained over the keeper 104 of the holder 105 by the ends of a spring 115 arranged between the body 88 and the partition 97 thereof.

What I claim is:—

1. A lock including a body, a shiftable holder mounted therein, a shackle extending in said body and having one end connected to said holder and its other end formed with a notch, tumblers engaging with said holder for maintaining it from movement, a trigger within said body, a member adapted to be shifted by said trigger, a latch operable from one side of said body for holding said member, a keeper normally engaging said notch and adapted to be shifted to release one side of the shackle, and means whereby said tumblers can be shifted clear of the holder thereby releasing the other side of the shackle.

2. A lock including a body, a normally locked shiftable holder mounted therein, a shackle having one side connected to said holder and shiftable outwardly when the holder is released, a trigger within said body, a member operated by said trigger, a releasable latch for holding said member, a shiftable keeper normally engaging the other side of said shackle for holding it, a holder locking means, and means for releasing said holder locking means after the keeper has been shifted thereby allowing of the shifting of the holder and the releasing of the shackle.

3. In a key operated lock, a body, a trigger arranged in said body and adapted to be moved by a key, an operable member adapted to be shifted by said trigger, a latch operable from the side of said lock to hold said member in a shifted position, a link connected to said operable member, a keeper adapted to be moved by said link, a holder arranged in said body, tumblers adapted to retain said holder therein and adapted to be shifted by a key, and a shackle having one end thereof pivotally connected to said holder and adapted to have the opposite end thereof retained in said lock by said keeper.

4. A lock comprising a body, a trigger arranged therein and adapted to be moved by a key, a shiftable member actuated by said trigger, a latch operable from one side of the lock body for holding said member in a shifted position, a spring controlled holder arranged in said body, shiftable tumblers engaging said holder for maintaining it from movement and adapted to be operated by a key, a shackle having one end pivotally connected to said holder and its other end formed with a notch and maintained locked when the tumblers are in engagement with the holder, and a shiftable keeper operatively connected with said member and normally engaging in the notch and constituting a further means for locking the shackle.

5. A lock comprising a body, a block secured therein, a trigger arranged in said body and adapted to be moved by a key, an operating member shifted by said trigger, a latch operable from one side of said body for holding said member in a shiftable position, a spring controlled holder arranged in said body, shiftable tumblers engaging in said lock and extending over a portion of the holder for maintaining it from movement, a shackle having one side pivotally connected to said holder and locked in the body when the tumblers engage with the holder, said shackle having its other side provided with a notch, a shiftable keeper carried by said block and normally engaging in said notch to constitute a further lock for the shackle, and means connected with said member and adapted when the member is shifted in one direction to move the keeper free of the notch, and means adapted to be engaged by a key for shifting the tumblers clear of the holder.

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

JOSEF DUNAI.

Witnesses:

LOUIS SUFKO,

JOHN K. KLIURKO.