Sept. 7, 1926. 1,599,150

C. A. TAILLEFER

SPRING LOCK

Filed March 28, 1925

FIG. 1

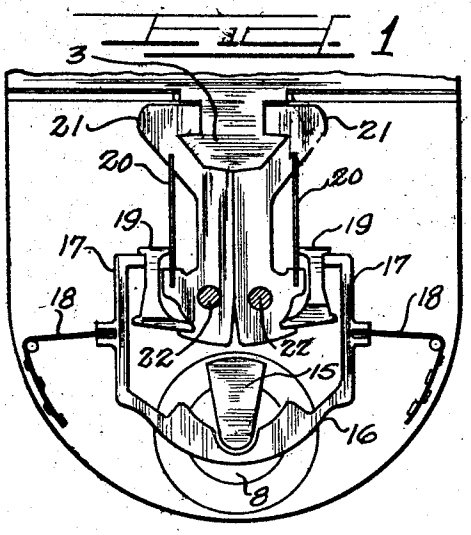


FIG. 4

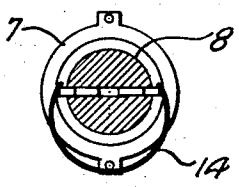


FIG. 2

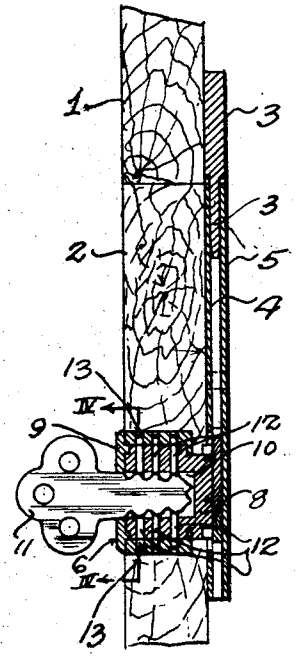
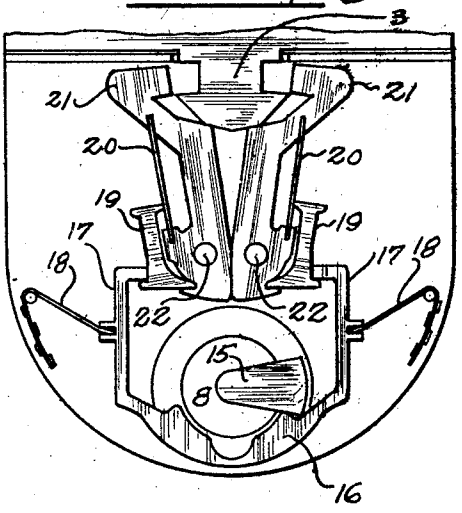


FIG. 3



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UNITED STATES PATENT OFFICE.

CARTER A. TAILLEFER, OF CHICAGO, ILLINOIS.

SPRING LOCK.

Application filed March 28, 1925. Serial No. 18,937.

This invention relates to spring locks and more particularly to such locks as are desired to occupy a minimum amount of space. It is accordingly an object of this invention to provide an efficient spring lock.

It is also an object of this invention to provide such a lock which is compact, which is easily operated, and which may be economically constructed.

With the above and other objects in view, as will be apparent, this invention consists in the combination, construction and arrangement of parts, all as hereinafter more fully described, claimed and illustrated in the accompanying drawings.

On the drawings:

Figure 1 represents an elevational view with parts removed of a lock embodying this invention.

Figure 2 is a cross-sectional view of the lock of Figure 1.

Figure 3 is an elevational view with parts removed showing the lock of Figure 1 in unlocked position.

Figure 4 is a detail sectional view along the line 4—4 of Figure 2.

As shown on the drawings:

As shown in Figure 2, numerals 1 and 2 represent two parts which are desired to be locked together. Rigidly secured to the part 1 is a latch member 3. The member 3 has its lower portion planed to fit within a pair of plates 4 and 5 (Figure 2). The plates 4 and 5 are rigidly secured to the part 2 in spaced position. The part 2 is recessed to receive therein a lock 6. The lock 6 comprises a cylinder 7, a barrel 8 extending into said cylinder and therethrough and an apertured plate 9. The barrel 8 is slotted at 10 to receive a key 11. The key 11 has a double edge which coacts with tumblers 12 on either side of the slot 10 for the key 11, the barrel 8 and cylinder 7 being suitably apertured for this purpose. Outside of the tumblers 12 are tumblers 13, the tumblers 13 being alined with the tumblers 12. The cylinder 7 is cut to a smaller diameter adjacent the tumblers 12 and 13, as shown in Figure 4, to receive a spring 14 which is adapted to press the tumblers inwardly. The lengths of the tumblers 12 and 13 bear the same relation with the edges of the key 11 as in an ordinary Yale lock, with the exception that in this case a double edge on the key and a double set of tumblers therefor is provided so as to obtain a maximum number of locking members with a minimum length of lock. The barrel 8 extends through the inner plate 4 and has provided on the inner end thereof a member 15. A member 16 is supported around the end of the barrel 8 and has integral therewith a pair of arms 17. The member 16 is normally spring pressed in upward position by means of springs 18.

As shown in Figure 1, the barrel 8 is in locked position with the member 15 thereon in position as shown in said figure. In this position the springs 18 have pressed the member 16 in upward position so that the arms 17 on the latter engage a pair of cam members 19 inwardly for engaging a pair of springs 20 secured to a pair of locking members 21. The locking members 21 being pressed inwardly engage with the latch member 3 for locking the parts 1 and 2. The locking members 21 are pivotally supported upon pins 22 mounted between the plates 4 and 5. The members 19 are shaped so that when the barrel 8 is turned to unlocked position and the member 15 thereon engages the member 16 for drawing the latter downwardly to the position shown in Figure 3, the arms 17 will cam the lower portions of the members 19 inwardly. The members 19 are so supported on the locking members 21 below the pivot points 22 thereof that said members 19 are cammed inwardly by the arms 17 on the downward movement of the latter that the upper ends of the locking members 21 will be forced outwardly disengaging the latch 3. It will be seen that I have provided a very compact, simple, rugged and economical lock.

I am aware that many changes may be made, and numerous details of construction may be varied through a wide range without departing from the principles of this invention, and I therefore do not purpose limiting the patent granted hereon, otherwise than necessitated by the prior art.

I claim as my invention:

1. A lock of the class described comprising a latch member, pivotal locking means adapted to engage said latch member, a reciprocable member for actuating said locking means to and from locking engagement with said latch member, a resilient connection between said reciprocable member and said locking means and means operatively

connected to said reciprocable member for actuating the same.

2. The combination in a lock of the class described, of a latch member, locking means for engaging said latch member when in locking position, a reciprocable member for actuating said locking means to and from locking position, a resilient connection between said reciprocable member and said locking means, and a rotatable member for actuating said reciprocable member.

3. The combination in a lock of the class described, of a latch member, locking means engaging said latch member, a reciprocable member for actuating the locking means to locked position, a resilient connection between said reciprocable member and said locking means, a rotatable member adapted to actuate said reciprocable member, and means for normally holding said reciprocable member in actuated position for keeping said locking means in locked position.

4. The combination of a pair of parts to be locked, a latch member rigidly secured to one of said parts, a pair of spaced plate members rigidly secured to the other of said parts, said latch member being adapted to extend into said plates when the parts are together, pivoted locking means mounted between said plates, a reciprocable member between said plates, a resilient connection between said reciprocable member and said locking means, means associated with said reciprocable member when in one position for actuating said locking means to lock said latch member therewith, means associated with said reciprocable member when in another position for actuating said locking means to disengage said latch member, means for normally holding said reciprocable member in the first position, and a rotatable member for actuating said reciprocable member to the second position.

5. The combination with a pair of parts to be locked, a latch member rigidly secured to one of said parts and extending outwardly therefrom toward the other of said parts, the other of said parts being adapted to receive the same, pivoted locking means on the last mentioned part, a reciprocable member on the latter part, a resilient connection between said reciprocable member and said locking means, means associated with said reciprocable member when in one position for actuating said locking means to lock said latch member therewith, means associated with said reciprocable member when in another position for actuating said locking means to disengage said latch member, and a rotatable member for actuating said reciprocable member.

6. A lock of the class described comprising a latch member, pivotal locking means adapted to engage with said latch member, spring means operatively connected with said locking means, cam means operatively connected with said spring means, a reciprocable member slidably connected with said cam means for actuating said first means and means operatively connected with said reciprocable member for actuating the same.

7. A lock of the class described comprising a latch member, pivotal locking means adapted to engage said latch member for locking the same thereto, and a rotatable member resiliently and operatively connected to said locking means for actuating the same to and from locking position.

In testimony whereof I have hereunto subscribed my name.

CARTER A. TAILLEFER.