(No Model.)

O. F. TEED.

LOCK.

No. 530,862. Patented Dec. 11, 1894.

FIG. 1.

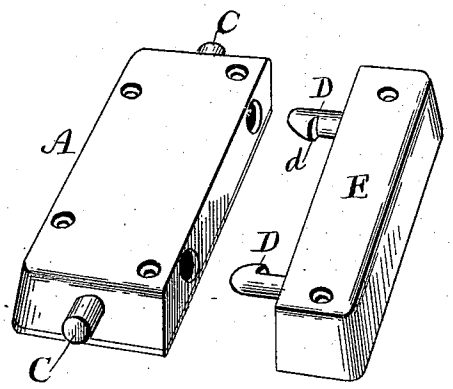


FIG. 2.

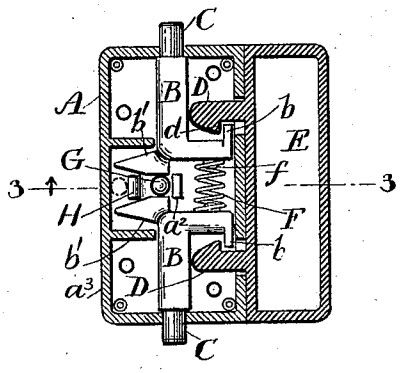


FIG. 3.

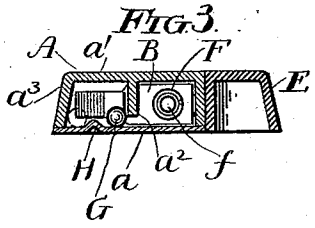


FIG. 5.

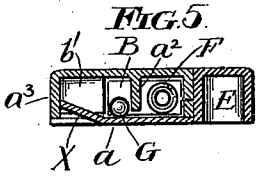
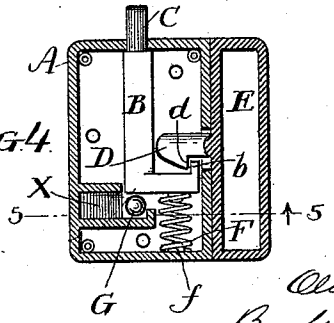


FIG. 4.



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UNITED STATES PATENT OFFICE.

OLIVER F. TEED, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE WESTERN LEATHER MANUFACTURING COMPANY, OF SAME PLACE.

LOCK.

SPECIFICATION forming part of Letters Patent No. 530,862, dated December 11, 1894.

Application filed April 9, 1894. Serial No. 506,885. (No model.)

To all whom it may concern:

Be it known that I, OLIVER F. TEED, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Locks, of which the following is a specification, reference being had to the accompanying drawings, which are made a part hereof, and in which—

Figure 1 is a perspective view of a lock embodying the invention. Fig. 2 is a horizontal section thereof. Fig. 3 is a vertical section thereof on the line 3—3, Fig. 2. Fig. 4 is a horizontal section of a lock embodying the invention under a slight modification. Fig. 5 is a vertical section thereof on the line 5—5, Fig. 4.

The invention consists in the features of novelty that are particularly pointed out in the claims hereinafter.

ing, and B, B, a pair of L-shaped bolts mounted

In the drawings A represents a suitable casso as to be capable of sliding therein, and having portions C which project through openings in the opposite ends of the case and form, in effect, push buttons by which the bolts may be moved. Through one side of the casing are formed two openings for the admission of a pair of hasps D, which are preferably cast integral with a hollow block E which is secured to one of the two parts that are to be locked together. The hasps have beards *d* that are presented in opposite directions, preferably toward each other, and are adapted to be engaged by lips *b* formed upon the bolts B. Between the bolts B is interposed a spring which bears in opposite directions against them and causes the lips *b* to project normally beyond the margins of the openings in the side of the casing, so as to be normally in position to automatically engage the beards *d* when the hasps are forced in through said openings. As shown in the drawings, a coiled spring F is used for this purpose, and in order to hold it in proper position its ends fit over small studs *f* formed upon the bolts. The hasps are liberated by pressing the buttons C inward, in opposite directions, overcoming the resistance of the spring F.

It frequently happens that where a lock has but one push button it may be accidentally struck and the bag, or other device to which it is attached, be thereby permitted to open, and this, under very many circumstances which it is not necessary to enumerate, is objectionable; but by providing duplicate bolts and duplicate push buttons, that are located upon opposite sides of the case and must be moved in opposite directions in order to effect such a movement of the bolts as will permit the bag to open the liability to accidents of this sort is materially reduced.

G is a gravity tumbler, which, as shown in the drawings, takes the form of a ball and rests upon the bottom plate *a* of the lock case, and *b'* are projections that are integral with the bolts B, and between which the tumbler G is located. Projecting downward from the top plate *a'* is a lug a^2, and projecting upward from the base plate *a* is a rib H, which is located, approximately, midway between the lug a^2 and the side a^3 of the case. Adjacent the lug a^2 the faces of the projections *b'* are parallel with each other, and are of just sufficient distance apart to easily admit the ball, and outside of these parallel portions the faces of the projections flare outward, as shown in Fig. 2. This arrangement is such that when the ball G is between the parallel portions of the projections, and the lock case is maintained in practically horizontal position, the gravity tumbler is prevented from moving in one direction by the lug a^2, and in the other direction by the rib H. While in this position it prevents the bolts from being pressed inward. When it is desired to release the bolts from the engagement of this tumbler, the lock is tilted to such an angle that the tumbler will roll over the rib H, from the position shown by full lines to the position indicated by dotted lines. It will then be between the flaring portions of the projections *b'*, and these flaring portions are such distance apart that the bolts B may approach each other the distance necessary for releasing the hasps D without coming in contact with the tumbler. This constitutes a very simple, inexpensive and effective lock, which is particularly useful upon medicine cases, as it not only effectually locks the case and prevents accidental opening, but it does away with the necessity for a detachable key.

In Fig. 4 I have shown a lock case which has only a single bolt B, and the bottom of the case of which is provided with an inclined plane X, so arranged that it will hold the gravity tumbler G in engagement with the bolt until the case is tilted to such position that said inclined plane reaches and passes a horizontal position. The object of this arrangement is to insure that the bolt shall be always locked while the case is in normal position. In the lock here shown the bolt is without any projection such as b', this projection not being an essential feature of the invention, but only an incident of the construction and arrangement shown in the preceding figures.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. In a lock the combination of a case, a bolt, a push button for moving the bolt in one direction, a spring for moving the bolt in the opposite direction, a hasp adapted to be engaged by the bolt and a gravitating tumbler so arranged that when the case is tilted one way the tumbler engages the bolt and prevents its movement by pressure upon the push button, and when the case is tilted another way the tumbler disengages the bolt and permits its movement, substantially as set forth.

2. In a lock, the combination with a case, a pair of bolts located so as to leave a space between them and movable in opposite directions, a push button for moving each of said bolts in one direction, and a spring for moving it in the opposite direction, and a gravitating tumbler so arranged that when the case is tilted one way the tumbler will enter the space between the bolts and prevent their movement toward each other, and when the case is tilted another way said tumbler will escape from between the bolts and permit their movement toward each other, substantially as set forth.

3. In a lock, the combination with a case, and a bolt arranged to slide therein, of a gravitating tumbler so arranged that when the case is tilted one way the tumbler engages the bolt and prevents its movement, and when the case is tilted another way the tumbler disengages the bolt and permits its movement, the case being provided upon its bottom with a rib for confining the tumbler in each of its two positions until the case is tilted to a certain angle, substantially as set forth.

4. In a lock, the combination with a case having a pair of bolts movable in opposite directions, of the gravitating tumbler G movable to and from a position between said bolts which will prevent their movement toward each other, and a rib for holding the tumbler in each of its two positions until the case is tilted to a certain angle, substantially as set forth.

5. In a lock, the combination with a case, of the bolts B movable toward each other and having the projections b' with parallel portions and portions flaring outward therefrom, the gravitating tumbler G located between said projections, the lug a^2 projecting from the case so as to limit the movement of the tumbler, and a rib H projecting upward from the bottom plate of the case, substantially as set forth.

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