

J. V. THOMPSON.
LOCK.
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1,057,898.

Patented Apr. 1, 1913.

Fig. 1.

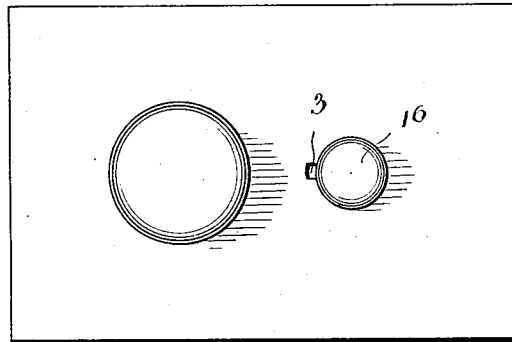


Fig. 2.

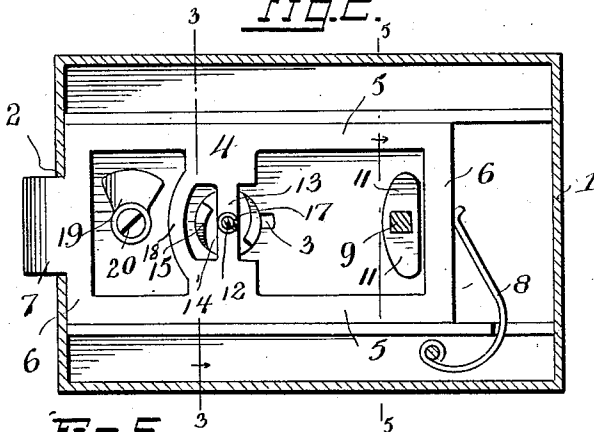


Fig. 3.

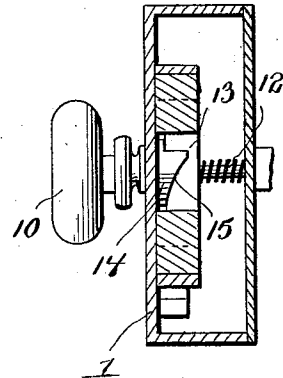


Fig. 5.

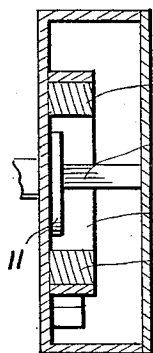
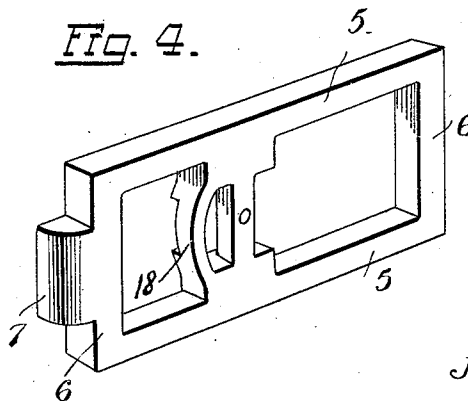


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES V. THOMPSON, OF SPENCER, WEST VIRGINIA.

LOCK.

1,057,898.

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To all whom it may concern:

Be it known that I, JAMES V. THOMPSON, a citizen of the United States, residing at Spencer, in the county of Roane and State of West Virginia, have invented new and useful Improvements in Locks, of which the following is a specification.

This invention relates to improvements in locks and has particular application to a lock of the combined lock and latch type.

In carrying out the present invention, it is my purpose to provide a lock wherein the bolt may be readily projected and retracted for latching purposes and locked in projected position for locking purposes.

Furthermore, I aim to provide a lock wherein the locking bolt may be readily projected from and drawn into the casing of the lock and moved laterally relatively to the casing so as to be relieved of the influence of the projecting and retracting means.

It is also my purpose to provide a combined lock and latch which will embrace the desired features of simplicity, efficiency and durability coupled with cheapness of cost in manufacture and marketing and which will operate efficiently as either a lock or latch.

With the above and other objects in view, the invention consists in the construction, combination and arrangement of parts hereinafter set forth in and falling within the scope of the claims.

In the accompanying drawing; Figure 1 is a view in elevation of a combined lock and latch constructed in accordance with the present invention. Fig. 2 is a longitudinal sectional view taken through the casing, the mechanism of the lock being shown in elevation. Fig. 3 is a sectional view on the line 3—3 of Fig. 2. Fig. 4 is a perspective view of the locking bolt removed from the casing. Fig. 5 is a sectional view on the line 5—5 of Fig. 2.

Referring now to the accompanying drawing in detail, the numeral 1 indicates the casing of the lock which may be constructed of any suitable or preferred material and is preferably of rectangular formation. One end of the casing is formed with a slot 2, while the front wall is equipped with a slot 3 located approximately centrally of the width of the casing for a purpose which will presently appear. Slidably disposed within the casing 1 and adapted to be projected into locking or latching position and

drawn into the casing is a bolt 4 composed, in the present instance, of side bars 5, 5 suitably spaced apart, end bars 6, 6 interconnecting the side bars, and a nose 7 adapted to be projected and retracted by way of the slot 2 in the end wall of the casing. A suitable tension device as a spring 8 is disposed within the casing and acts to hold the nose 7 of the bolt in projected position, while extending through the front and rear walls of the casing between the side and end bars of the bolt 4 is a knob spindle 9 equipped at its opposite ends with suitable knobs 10, 10 by means of which the spindle may be rotated. Suitably fastened upon the spindle 9 within the casing 1 are oppositely disposed fingers 11, 11 arranged adjacent to the inner side of the respective end bar 6 of the bolt and adapted, under the action of the shank 9, to retract the bolt against the action of the spring 8. Thus, it will be seen that the bolt 4 may be utilized for latching purposes and in such use is normally projected by means of the spring 8. To retract the bolt, one or the other of the knobs 10 may be grasped to rotate the shank 9 and so engage one or the other of the fingers 11 with the adjacent surface of the bar 6, thereby drawing the bolt into the casing and against the action of the spring.

In order to lock the bolt in projected position and relieve the same of the influence of the arms 11, 11, suitable means are employed for shifting the bolt from one side of the casing to the other and out of the path of movement of the arms 11, 11. In the present instance, I employ a pin 12 carried by a cross bar 13 terminally connected to the side bars 5, 5 of the bolt and extending through the slot 3 in the front wall of the casing. Mounted upon the pin 12 is a disk 14 having formed on one face thereof at diametrically opposite points cam surfaces 15, 15 and adapted to be rotated under the action of a knob 16 secured to the free end of the pin 12. By means of this construction, it will be seen that when the knob 16 is rotated in one direction or the other, the respective cam surfaces 15 will engage the adjacent face of the bar 13 and so throw the bolt to the opposite side of the casing. A spring 17 encircles the pin 12 and has one end bearing upon the cross bar 13, while the opposite end engages the adjacent face of the casing, the spring acting to hold the

bolt 4 normally in the path of movement of the arms 11, 11.

To project and retract the bolt when thrown to locking position, under the action of the disk 14, I employ a lug 19 pivotally mounted within the casing 1 and provided with a keyhole slot 20 adapted to receive a key. When the lug is rotated in one direction under the action of the key, said lug engages the adjacent edge of a curved bar 18 carried by the side bars 5, 5 of the bolt in the rear of the end bar 6 equipped with a nose 7, to retract the bolt, the spring 8 forcing the bolt to projected position.

From the foregoing description taken in connection with the accompanying drawing, the construction, mode of operation and manner of employing my invention will be readily apparent. It will be seen that I have provided a combined lock and latch wherein the locking bolt may be shifted to one side or the other of the casing so that said bolt may be disposed in locking or latching position, as desired.

While I have herein shown and described one preferred form of my invention by way of illustration, I wish it to be understood that I do not limit or confine myself to the precise details of construction herein described and delineated, as modification and variation may be made within the scope of the claims and without departing from the spirit of the invention.

I claim:

1. In a latch, the combination with a casing, of a bolt slidably disposed within said casing and adapted to be projected from the casing and drawn into the casing for latching purposes, means for retracting said bolt, and means for moving the bolt laterally within the casing and out of the influence of said retracting means whereby the bolt will be locked in projected position.

2. In a latch, the combination with a casing, of a bolt slidably disposed within said casing and movable laterally therein, means normally holding the bolt against lateral movement, means for projecting and retracting the bolt, and means for shifting the bolt laterally within the casing and out of the influence of the retracting means whereby the bolt will be locked in projected position.

3. In a latch, the combination with a casing having a slot in one end thereof, of a bolt slidably disposed within said casing and comprising longitudinal side bars, end bars connecting said side bars, a nose on one of said end bars and adapted to be projected from the casing by way of the slot, a knob shank extending through the casing, oppositely disposed arms on said shank and adapted to engage the respective end bar of the bolt to retract the same, means acting at all times to hold the bolt projected, a cross bar connected to the side bars of the bolt between the end bars thereof, a pin carried by said cross bar and extending outwardly of the casing, a disk carried by said pin and provided with cam surfaces adapted to engage the cross bar to force the bolt laterally of the casing, a knob for rotating the disk whereby the bolt will be relieved of the influence of said arms, a spring normally holding the bolt against lateral movement, and a key-operated lug pivoted within the casing and adapted to actuate the bolt to retracted position subsequent to the bolt being relieved of the influence of the said arms.

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

JAMES V. THOMPSON.

Witnesses:

HOWARD BARTLETT,
HARRY H. CAMP.