

No. 720,455.

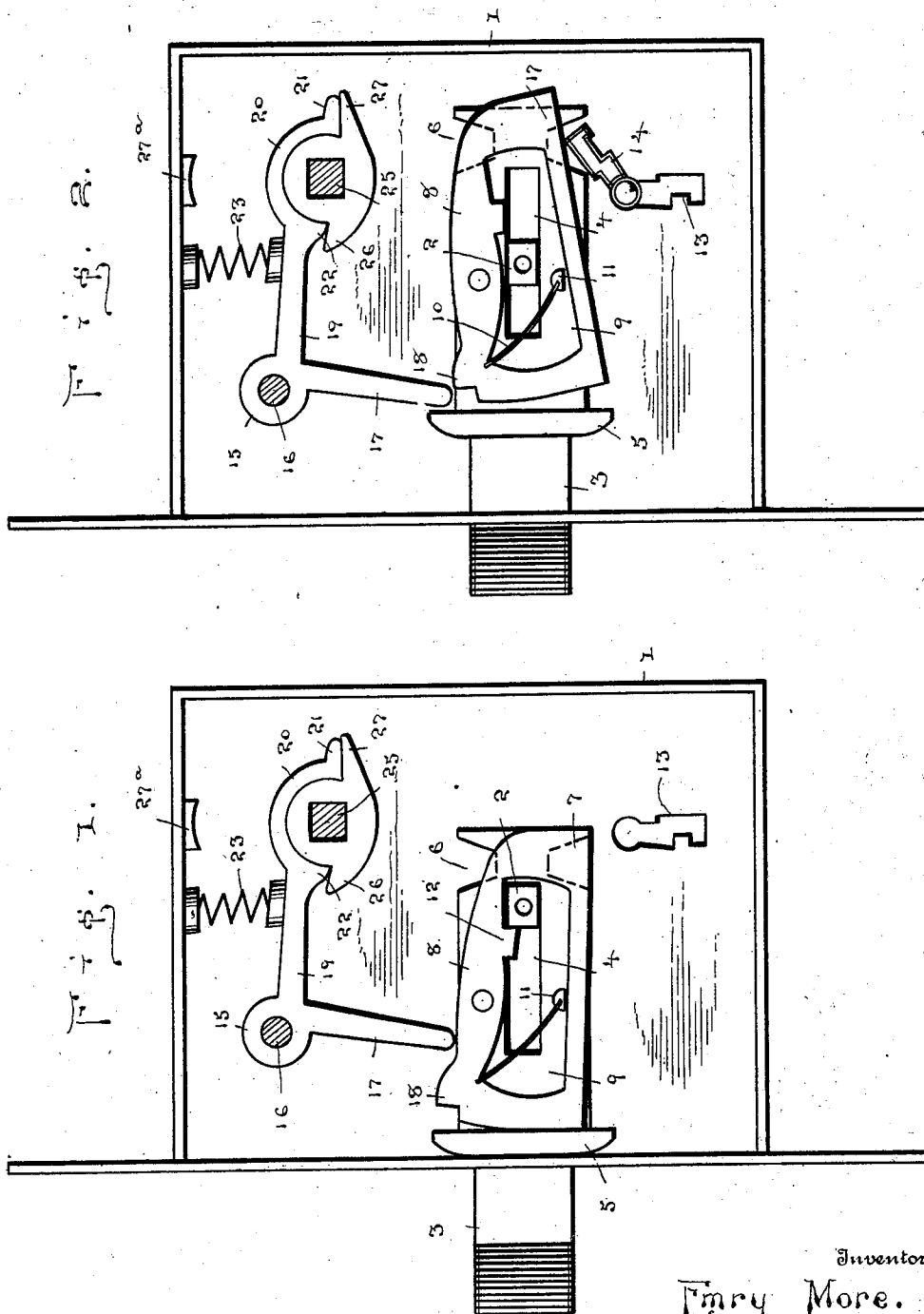
PATENTED FEB. 10, 1903.

E. MORE.
COMBINED LOCK AND LATCH.

APPLICATION FILED AUG. 16, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses,
J. W. C. Cuy.
B. L. Lunk

By

Victor J. Evans

Inventor

Emory More.

Attorney.

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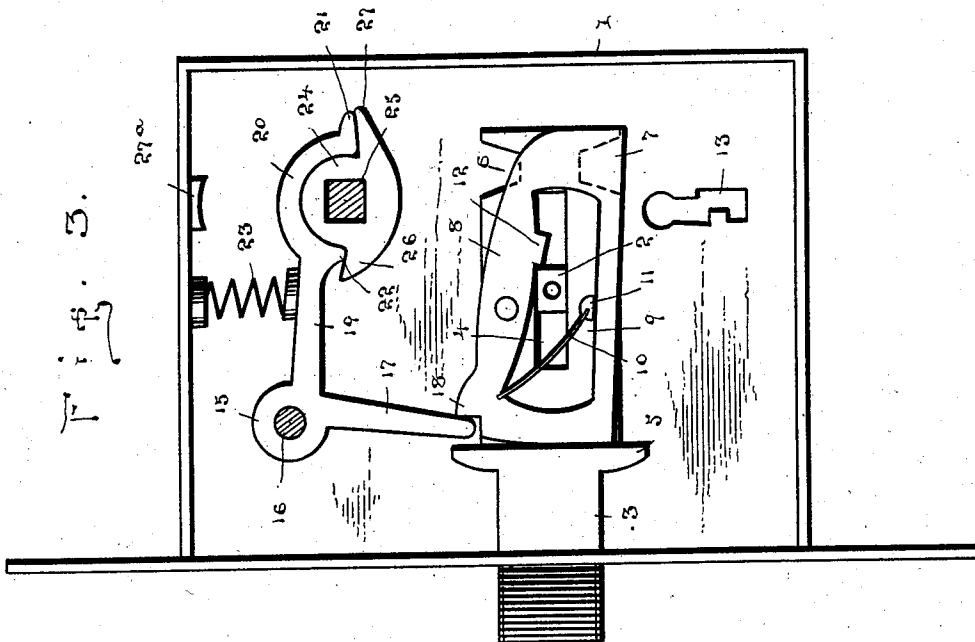
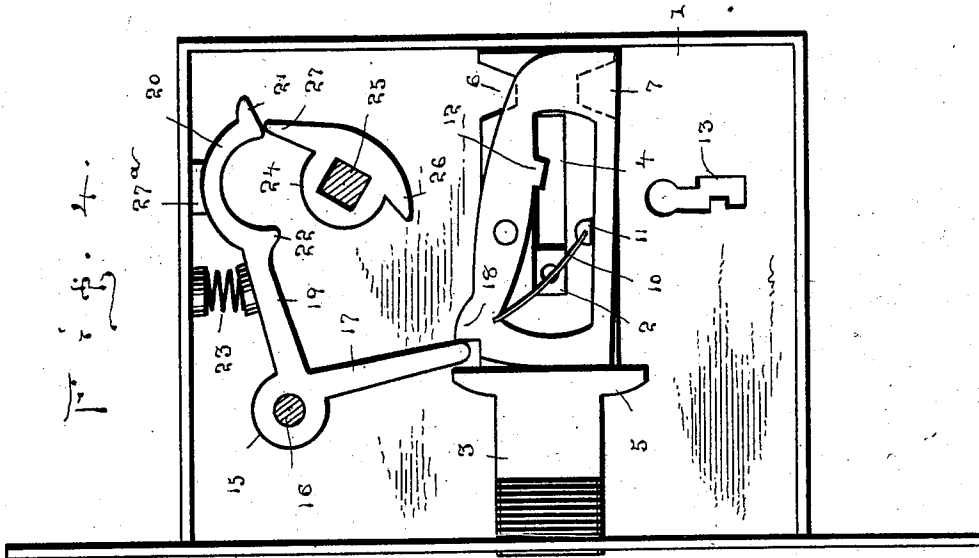
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Witnesses

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UNITED STATES PATENT OFFICE.

EMRY MORE, OF WINDBER, PENNSYLVANIA.

COMBINED LOCK AND LATCH.

SPECIFICATION forming part of Letters Patent No. 720,455, dated February 10, 1903.

Application filed August 16, 1902. Serial No. 119,885. (No model.)

To all whom it may concern:

Be it known that I, EMRY MORE, a citizen of the United States, residing at Windber, in the county of Somerset and State of Pennsylvania, have invented new and useful Improvements in a Combined Lock and Latch, of which the following is a specification.

This invention relates to combined locks and latches; and the object thereof is to provide a single mechanism which may be interchangeable into a lock or latch by a key of suitable construction.

The invention consists in certain novel arrangement of parts and combination of parts to be referred to hereinafter.

In the drawings, Figure 1 represents a plan view of the bolt and coöperating mechanism properly arranged within a case and illustrated as being in a locked position. Fig 2 is a similar view showing the bolt in a position to be retracted by the key. Fig. 3 is a like view showing the bolt projected, the parts being in position whereby the mechanism may be used as a latch; and Fig. 4 is a similar view showing the bolt retracted by the latch mechanism.

The reference-numeral 1 designates a casing of suitable construction provided centrally thereof with a rigid rectangular guide-block 2. Slidably secured within the casing and projecting through an opening in the edge thereof is a bolt 3, having a longitudinally-arranged slot 4 therein, through which the guide-block 2 projects. This bolt is also provided intermediate its ends with a shoulder 5, the respective ends of which project beyond the longitudinal edges of the bolt. The rear extremity of the bolt is provided with diametrically oppositely arranged cut-out portions or recesses 6 and 7, the purpose of which will be explained hereinafter.

The reference-numeral 8 designates a tumbler pivotally secured to the bolt near its upper edge, said tumbler being approximately rectangular in form and normally resting over the cut-out portion or recess 7. The tumbler is provided with a longitudinally-arranged slot 9, coinciding with the slot 4 in the bolt 3, and on the forward side of the fulcrum of the tumbler is arranged a flat spring 10, one end of which is secured to a pin or lug 11, projecting from the bolt. The free

end of the spring is secured to the upper edge of the slot 9 of the tumbler 8 to normally force the rear end of the tumbler over the cut-out portion or recess 7. The purpose of the spring is also to retain the bolt in a retracted or projected position by forcing the projection 12 in contact with either the forward or rear edge of the guide-block 2, which also constitutes a stop to lock the bolt in either position unless the latch mechanism, to be referred to hereinafter, is brought into play. In order to retract the bolt, a key is inserted through a keyhole-slot 13, and the ward 14 is turned so as to cause it to enter the recess 7 and force the rear end of the tumbler up and the forward end down, thus throwing the projection 12 out of contact with the block 2 and permitting the bolt to be retracted. In doing this the key will make a complete revolution, and as soon as the bolt is retracted the ward will have passed out of contact with the tumbler, permitting the spring 10 to force the forward end thereof upward and the rear end downward, so that the projection 12 will engage the rear edge of the block 2 and prevent the bolt from projecting through the case unless actuated by a key.

The foregoing description has defined the construction and use of the device when it is to be applied as a lock. When, however, it is desired to utilize the device as a latch, the parts will be thrown in relative position, as shown in Figs. 3 and 4.

In order to destroy the identity of the device as a lock and convert it into a latch, I employ the bell-crank lever, (designated by the reference-numeral 15,) which is pivoted to the case by a suitable pin 16. The arm 17 of the lever will be caused to project between the upper projection of the shoulder 5 and the lip 18 of the tumbler 8, so that when a rearward movement is imparted thereto the bolt will be retracted within the casing, as shown in Fig. 4.

The lateral arm 19 of the lever 15 is provided on its extremity with an arcuate head 20, having bearing-edges 21 and 22. This arm 19 is spring-pressed by a spring 23, which is interposed between the arm and the edge of the case 1. Fitting in the concave portion of the arcuate head 20 is a cam 24, having an

angular opening 25, through which may project a suitable spindle having on its end knobs whereby the cam can be turned.

From either side of the cam project fingers 5 26 and 27, respectively, so that by turning the cam one of the fingers will press against the bearing-surfaces 21 or 22, causing the arcuate head to ride thereon and forcing the same against the stop 27, projecting from the 10 edge of the case.

The upward movement of the head will cause the arm 17 to move rearward, thus withdrawing the bolt within the case. As soon as the knob is released the spring 23 15 will force the arm 19 downward and the arm 17 forward, causing it to bear against the projection on the shoulder 5, whereby the bolt will be projected.

While I have specifically set forth what at 20 this time appears to be the very best means of accomplishing the desired result, I would have it understood that I do not limit myself to the exact details of construction shown, but reserve the right to make such slight 25 changes and alterations as may suggest themselves from time to time and without departing from the spirit of this invention.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination with a lock-casing, of a 30 sliding bolt therein, a spring-pressed tumbler pivoted to the bolt, adjacent to and intermediate the ends of the upper edge and having a longitudinally-arranged slot there- 35 in, a projection extending into the slot to form a stop, a projection extending from the edge of the slot for engagement with the stop, a shoulder on the bolt, a lip arranged adjacent to the shoulder, a pivoted bell-crank le- 40 ver carried by the casing, one end of which can be seated between the lip on the tumbler and the shoulder on the bolt whereby the bolt can be retracted, an arcuate head on the 45 other end of the lever, and a cam device associated with the arcuate head for throwing the lever out of contact with the tumbler and bolt.

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

EMRY MORE.

Witnesses:

ANDREW ZEMANY,
GEORGE HUDAKY.