

No. 770,408.

PATENTED SEPT. 20, 1904.

N. D. WELLS.
LOCK.

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NO MODEL.

Fig. 1

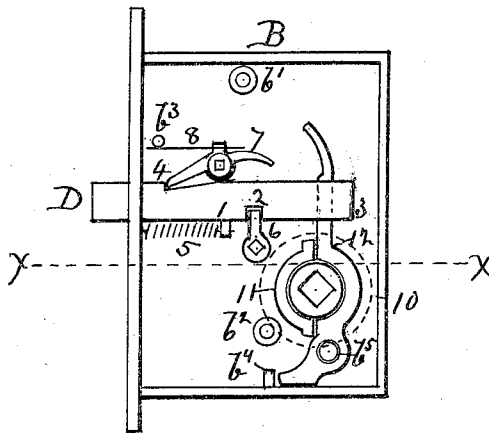


Fig. 2

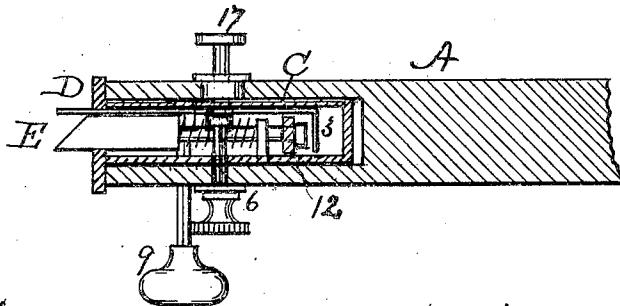
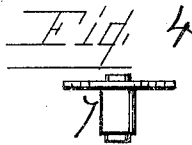
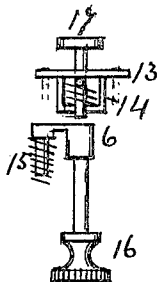


Fig. 3



WITNESSES:

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UNITED STATES PATENT OFFICE.

NELSON D. WELLS, OF DAYTON, OHIO.

LOCK.

SPECIFICATION forming part of Letters Patent No. 770,408, dated September 20, 1904.

Application filed April 6, 1904. Serial No. 201,930. (No model.)

To all whom it may concern:

Be it known that I, NELSON D. WELLS, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Door-Locks; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in door-locks and is that form of locks designated "mortise-locks."

The object of my invention is to provide a guard to prevent the sliding bolt being forced back by the entering of a plate or instrument between the jamb and door by which to force back the sliding bolt and thereby unlock the door.

The device is adapted to the ordinary mortise-lock and does not require a material modification of the lock in its adaptation.

The mechanism is illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of the lock with the closing-plate of the case removed. Fig. 2 is a transverse section of Fig. 1 on line *x*, including a portion of a door. Fig. 3 is a detailed elevation of the releasing devices. Fig. 4 is a side view of the pawl.

The letters and numerals designate like parts throughout the several views.

The illustration Fig. 1 shows a well-known form of mortise-lock and includes the device for securing the sliding bolt against an attempt to force the same back by engaging the outer end of said bolt by an instrument entered from without between the jamb and the door.

The case B comprises the face-plate, the lugs *b'* *b''* for the screws that hold the closing-plate C in position, the lug *b'''* as a bearing for the flat spring 8, which holds the pawl or dog 7 against the guard-plate D, the arresting-lug *b''''*, and the pivotal lug *b''''''*, on which is held the arm 12, that operates the sliding bolt E (shown in Fig. 2) beneath said guard-plate. The part

11 is pivoted, as usual, in the back and front of the case and the turning of which is by a spindle that occupies the square orifice of this part. The spindle is not shown, and knobs are attached to said spindle, the position of which is indicated by the circular dotted line at 10, Fig. 1. The use of this part is to carry the sliding bolt back to release the door. The guard-plate D comprises the lip 1, to which is attached the spiral spring 5, the other end being fastened to the face edge of the case, the use being to carry said plate outwardly, the square notch 2, and the downward extension 3, that engages the rear portion of the sliding bolt and arrests the outward movement of said guard-plate.

In orifices in the sides of the case is pivoted the dog 7, which is made to bear against the upper edge of the guard-plate D, and when this plate is thrown outward sufficiently it engages the shoulder 4 of said plate, which serves to hold said plate extended over the outer surface of the sliding bolt, the position being shown in Fig. 2. It is necessary to enlarge the orifice in the face of the case to receive this guard-plate, the other portion bearing against the closing-plate to maintain its position. This dog is provided with a square orifice to freely receive the key 9, by which the same is operated and by which means the dog may be raised from the shoulder of the guard-plate, and the spiral spring will carry said plate outwardly to its normal position. The catch 6 is provided with the button 16 and is supported in a plate attached to the door and extends to the closing-plate, and there it is held by the spiral spring 15, and in this position it rests in the notch 2 of the guard-plate, which is thereby fixedly held. By taking hold of the button and pulling the catch is carried beneath the guard-plate, and the same is free to move. The button 17 is held out of engagement by the spiral spring 14, supported in the case 13, attached to the door, and is arranged directly in line with the shaft of the former, and by pressure on this button the disengagement is effected, as above described. The former is operated from the inside and the latter from the outside, and the effect of which is to

release the sliding bolt from its locked position. When the guard-plate is engaged, such is the relation of the parts that this plate or the sliding bolt cannot be released until freed
5 from the catch and dog that the door may be opened, the final movement being by the knob.

Having described my invention, what I claim is—

1. In a door-lock of the mortise type the
10 combination of the case provided with an enlargement of the orifice of the sliding bolt, the guard-plate to move freely within said orifice, the sliding bolt held in said orifice and beneath
15 said guard-plate, the dog, with its spring, adapted to engage the shoulder in said guard-plate to hold the same extended over the nose of said sliding bolt when in position for locking, the spiral spring to retain said guard-
20 plate extended without the case, and the key to operate said dog to effect the release of said guard-plate and thereby relieve the sliding bolt, substantially as described.

2. In a door-lock of the mortise type the combination of the case provided with an enlargement of the orifice of the sliding bolt, the
25 guard-plate to move freely within said orifice, the sliding bolt held in said orifice and beneath said guard-plate, the dog, with its spring, adapted to engage the shoulder in said guard-
30 plate and to hold the same extended over the nose of said sliding bolt when in position for locking, the spiral spring to retain said guard-plate extended without the case, the catch to engage the square notch in said guard-plate
35 to lock securely said guard-plate and the contacting sliding bolt, and the button to draw

said catch out of said notch to effect the unlocking, substantially as described.

3. In a door-lock of the mortise type the combination of the case provided with an enlargement of the orifice of the sliding bolt, the
40 guard-plate to move freely within said orifice, the sliding bolt held in said orifice and beneath said guard-plate, the dog with its spring adapted to engage the shoulder in said guard-plate
45 and to hold the same extended over the nose of said sliding bolt when in position for locking, the spiral spring to retain said guard-plate extended without the case, the catch to engage the square notch in said guard-plate
50 to lock securely said guard-plate and the contacting sliding bolt, and the button on the outside, by depression to effect the unlocking, substantially as described.

4. In a door-lock of the mortise type the
55 combination of the case provided with an enlargement of the orifice of the sliding bolt, the guard-plate to move freely within said orifice, the sliding bolt held in said orifice and beneath
60 said guard-plate, the spiral spring to retain said guard-plate extended without the case, the catch to engage the square notch in said guard-plate to lock the same and the sliding bolt, and the inner button to release said
65 guard-plate, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

NELSON D. WELLS.

Witnesses:

ANNA B. ROBERTSON,
S. RUFUS JONES.