

No. 719,883.

PATENTED FEB. 3, 1903.

J. SCHELL.
LOCK.

APPLICATION FILED JUNE 9, 1902.

NO MODEL.

2 SHEETS—SHEET 2.

FIG. 4.

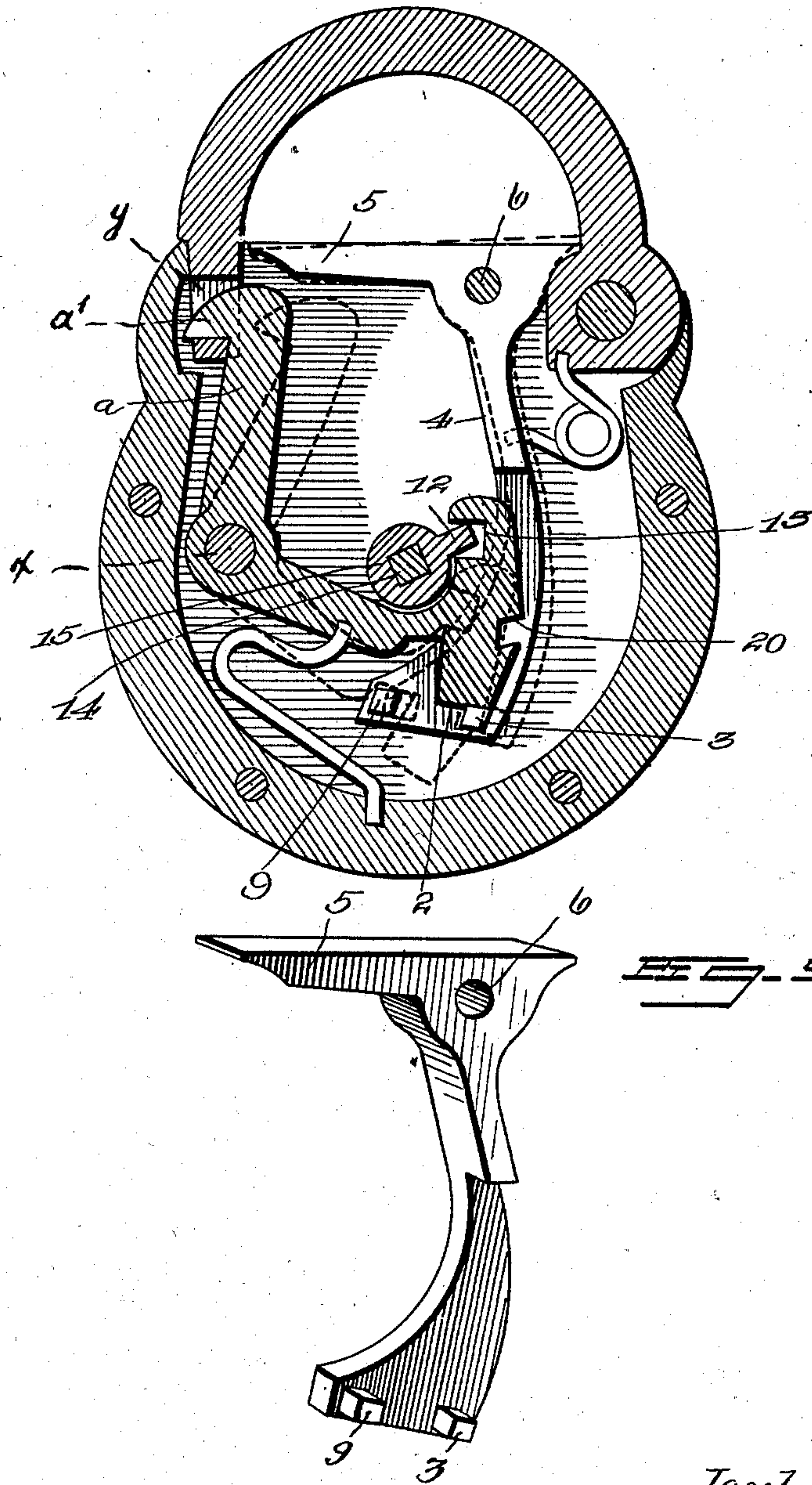


FIG. 5.

Witnesses

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JACOB SCHELL, OF SAVANNAH, MISSOURI.

LOCK.

SPECIFICATION forming part of Letters Patent No. 719,883, dated February 3, 1903.

Application filed June 9, 1902. Serial No. 110,886. (No model.)

To all whom it may concern:

Be it known that I, JACOB SCHELL, a citizen of the United States, and a resident of Savannah, in the county of Andrew and State of Missouri, have made a certain new and useful Invention in Locks; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the invention, reference being had to the accompanying drawings, and to letters and figures of reference marked thereon, which form a part of this specification.

Figure 1 is a vertical section of my lock to one side of the bolts and with the bolts in locking position. Fig. 2 is a similar view with the bolts retracted. Fig. 3 is a plan view of the lock. Fig. 4 is a vertical section of a padlock embodying my invention. Fig. 5 is a detail view of the bolt of the padlock.

The invention relates to locks for doors or other purpose, and has for its object the provision of a lock of simple and durable nature and of small cost in which the bolt is automatically secured in locking and unlocked positions and may only be retracted after first operating a suitable releasing device.

Other objects and advantages will hereinafter appear.

With this object in view the invention consists in the novel construction and combination of parts, all as hereinafter described, and pointed out in the appended claims.

In the accompanying drawings, illustrating the invention applied to a mortise-lock in which a latch is used in conjunction with a reciprocating lock-bolt, the letter *a* designates the bolt, and *b* the latch. The bolt *a* is provided with the operating-notch 13 and the holding-notch 20, a curved recess 18 in its rear end or heel, a rear hook 17, and an abutment 2. It also has a projection 11 for operation in connection with a holding-spring 10.

Fixed portions of the framing are indicated at *c*.

22 represents a latch, and 19 a latch-spring.

5 is a hidden releasing and holding device having bolt-holding abutments or projections 9 and 3, separated by an interval or passage (indicated at *d*) sufficiently extended to permit the passage through it of the end of the

bolt. The exterior knob or operating part of the releasing device is indicated at 7, and 6 designates its shaft or pivot.

14 represents the operating trunnion or device to move the lock-bolt, said trunnion having an arm 12, designed to engage the notch 13. A shaft 15, carrying the trunnion, is provided with a head or thumb-piece 16 for its manipulation.

The locked bolt *a* is normally kept in locked position by its rear abutment 2 abutting against the stud or projection 3 of the releasing device. When the projections 3 and 9 are brought by the rotation of the releasing device into such position that the interval *d* between them registers with the rear end of the bolt, the latter will still be held in locked position by the pressure of the spring 10 against its projection 11; but the bolt can now be moved to unlocked position by the operating device 14, its rear end passing through the interval *d* between the projections 3 and 9. By turning the bolt-operating device 14 in the opposite direction the bolt can be shot, when the releasing device will be moved by its spring, bringing its projection 3 behind the end of the bolt, locking the same in locked position. It will be seen that when the studs or projections 3 and 9 are moved to the position indicated by dotted lines in Fig. 1 if their movement is carried any farther the projection 9 will pass behind the hook 17 and will engage the bolt, preventing it from being unlocked. It will also be seen that when the parts are in the unlocked position (indicated in Fig. 2) the projection 9 being in the recess 18 of bolt 1 prevents the latter from being moved to locked position by means of the hook abutting against the stud 9; but if the knob or lever of the releasing device is let loose, so that the device is free to act, its spring 19, operating either directly or through the medium of the latch-bolt, will return the releasing device to position shown in Fig. 1, while the bolt remains drawn, as shown in Fig. 2, with its stud or projection 3 engaging the notch 20, in which position the bolt is securely held in unlocked position. The releasing device is provided with an arm 21 when a latch-bolt is designed to be used with the lock, said arm 21 engaging the latch-bolt. When, however,

the latch-bolt is not provided in the lock, the projection 3 may be operated by means of a thumb-button, thumb-lever, or pressure-piece instead of a knob-latch.

5 In Fig. 4, showing my lock mechanism adapted to a padlock, the letter α likewise designates the bolt, which is of angle form, turning upon shaft x at the angle thereof. The upper or upright arm of this bolt has a right-
 10 angle extension α' , adapted to engage a notch y of the hasp to lock the same in closed position, the other and lower arm of the bolt having the notch 13 for engagement with the arm 12 of the operating-trunnion. The hid-
 15 den releasing and holding device 5 in this case is also of angle form, its upper horizontal arm apparently forming the top of the padlock-casing and its lower arm extending downwardly from its pivot, which is located
 20 at the angle thereof, and said lower arm carrying at its lower end the bolt-holding projections or abutments 9 and 3. When the operating-trunnion is turned after the upper arm of the releasing and holding device has
 25 been depressed, the bolt α is forced downwardly, the projections 9 and 3 having been moved out of the way, and when the bolt arrives at the limit of its downward movement the projection 3 can enter the notch 20 there-
 30 of to lock the bolt in open position.

What I claim, and desire to secure by Letters Patent, is—

1. In a lock, the combination with a locking-bolt, and its operating device, of a hidden
 35 releasing and holding device for securing the

locking-bolt in both locked and unlocked positions and formed with holding projections, and between such projections, an interval or passage adapted to be brought into registra-
 40 tion with the heel of the locking-bolt, substantially as specified.

2. In a lock, the combination with the locking-bolt, of a pivotal shaft having two simultaneously-movable projections or abutments, and an intervening passage between such pro-
 45 jections, adapted to be brought into registration with the heel of the locking-bolt, substantially as specified.

3. In a lock, the combination with a bolt, having a recess in its heel, of a movable abut-
 50 ment projection adapted to act as an abutment behind said bolt, while in locked position, and to be moved out of engagement with such bolt, and into said recess for holding the bolt in its unlocked position, substantially as
 55 specified.

4. In a lock, the combination with the locking-bolt, and with the spring-latch, of the holding and releasing device having the separated projections and the interval or passage
 60 between such projections, and an operating-arm engaging said spring-latch, substantially as specified.

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

JACOB SCHELL.

Witnesses:

ADAM REED,
 GEORGE W. HINTON.