

(No Model.)

V. WATROUS.
LATCH LOCK.

No. 597,341.

Patented Jan. 11, 1898.

FIG. 1.

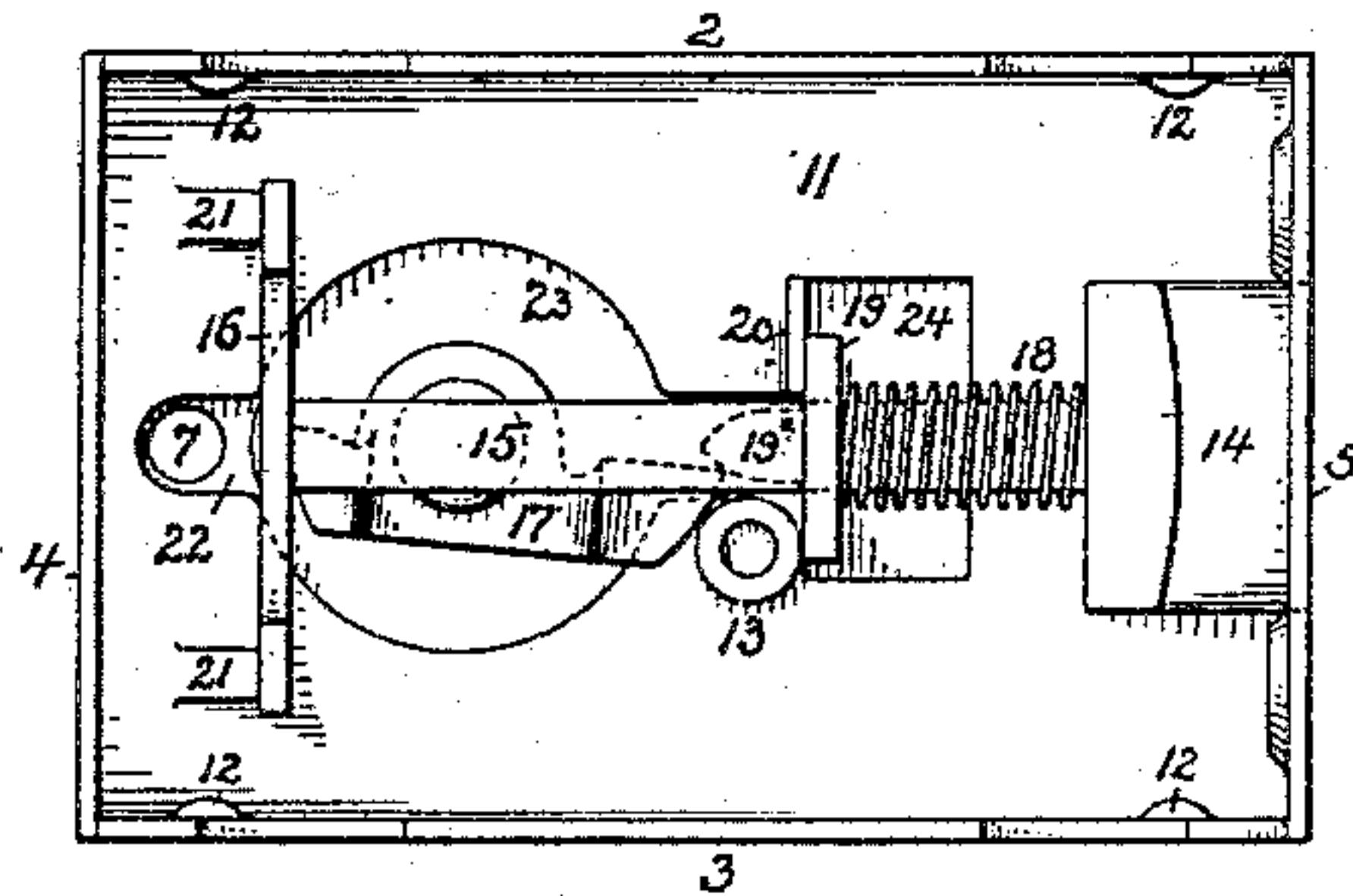


FIG. 3.

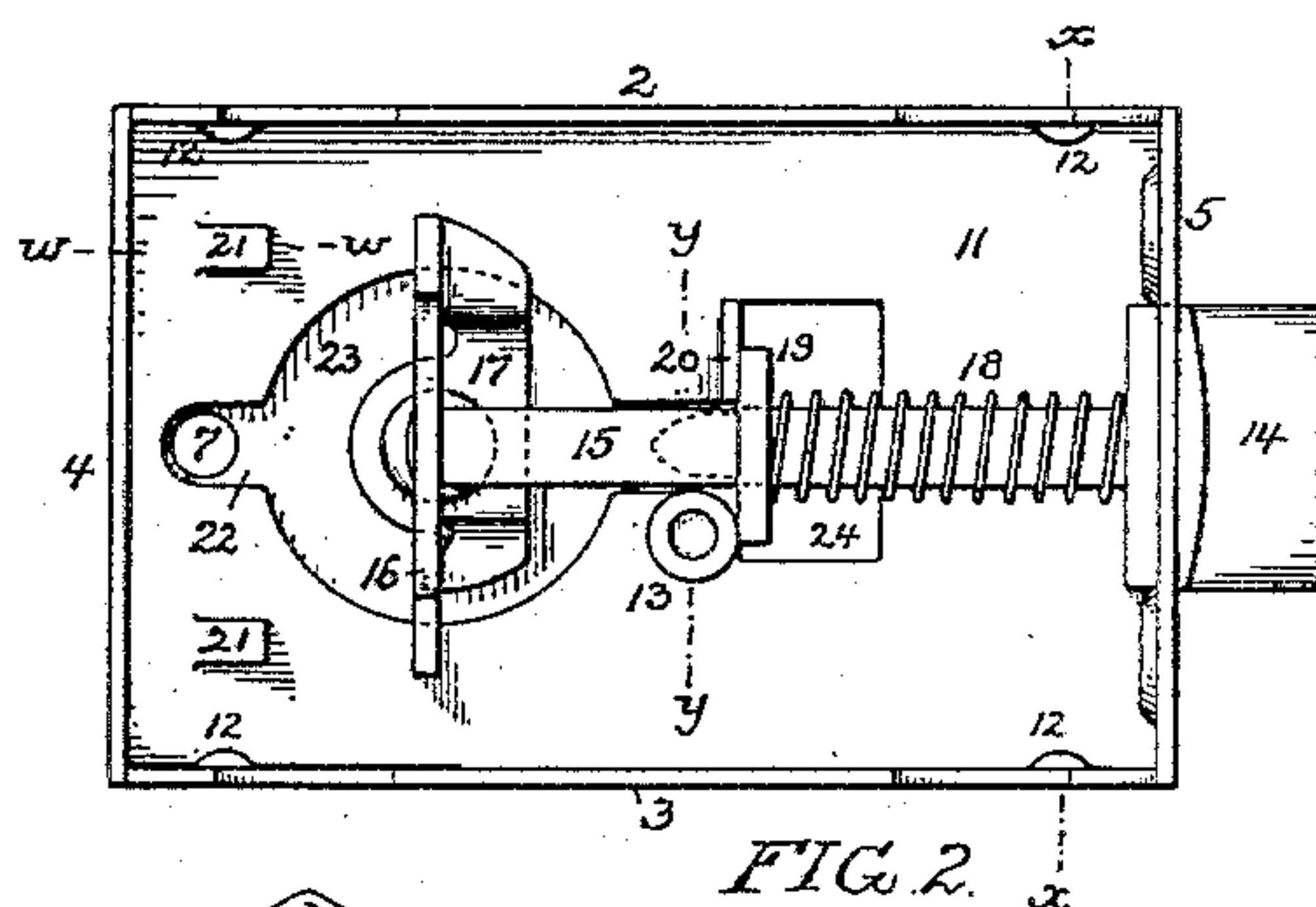
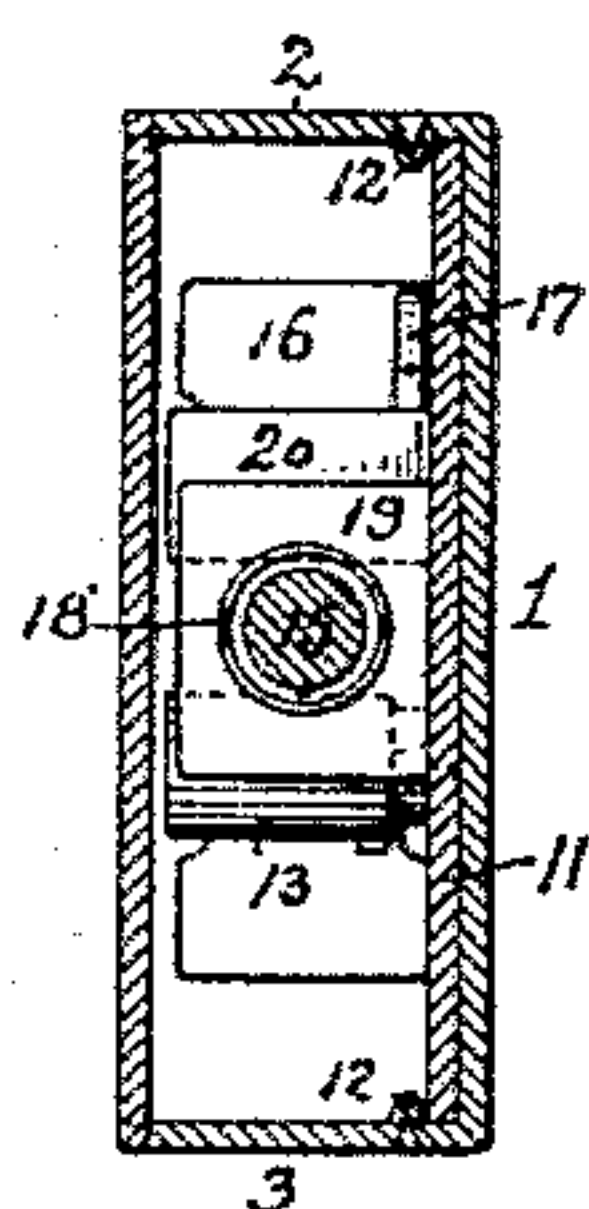


FIG. 2.

FIG. 4.

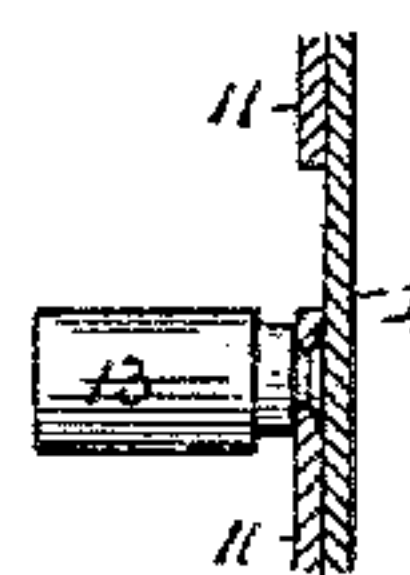


FIG. 5.

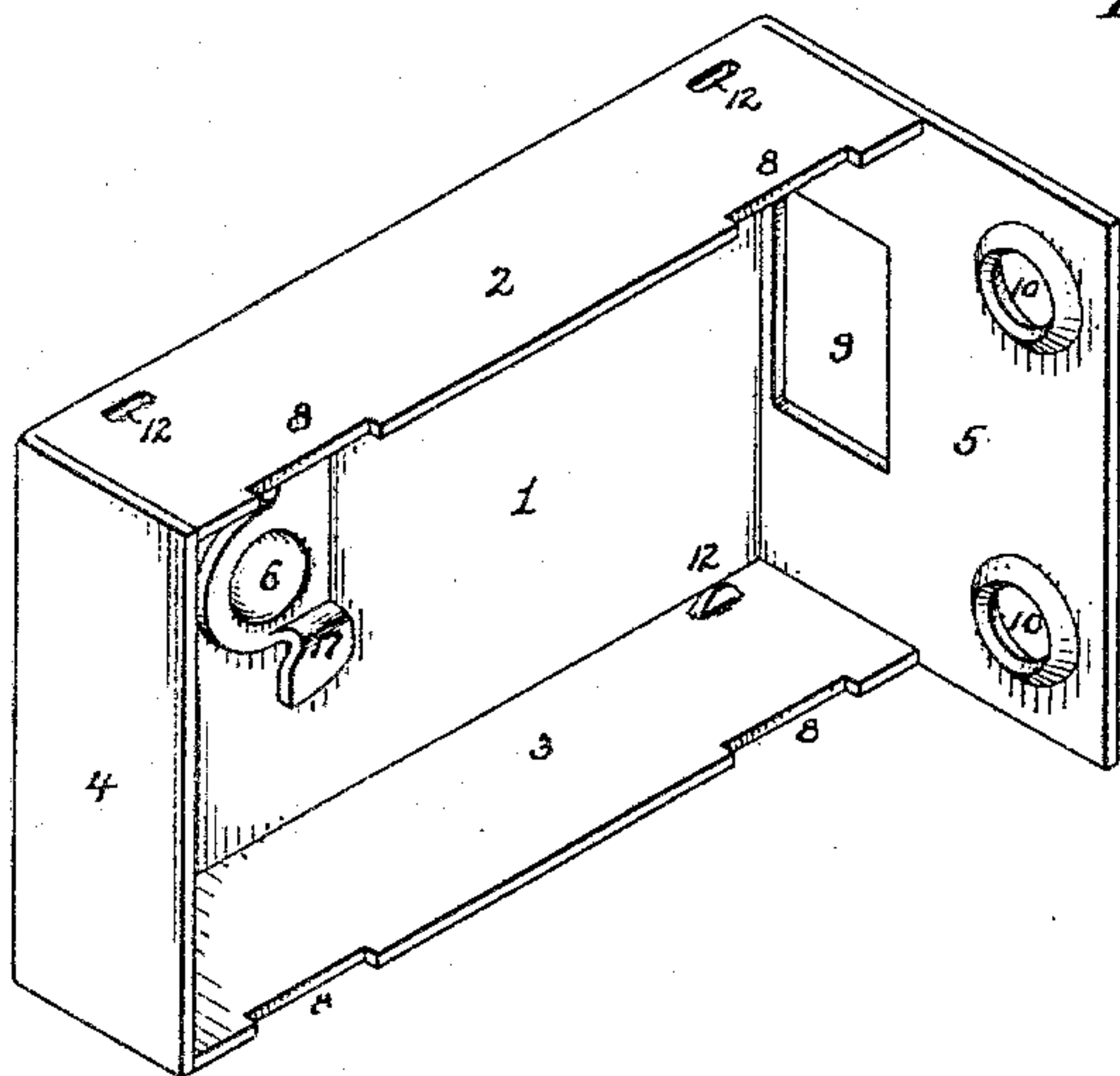
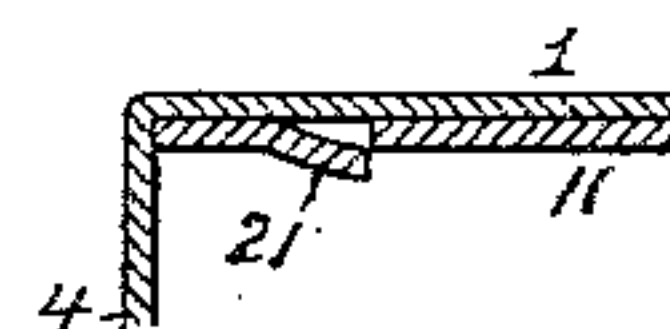
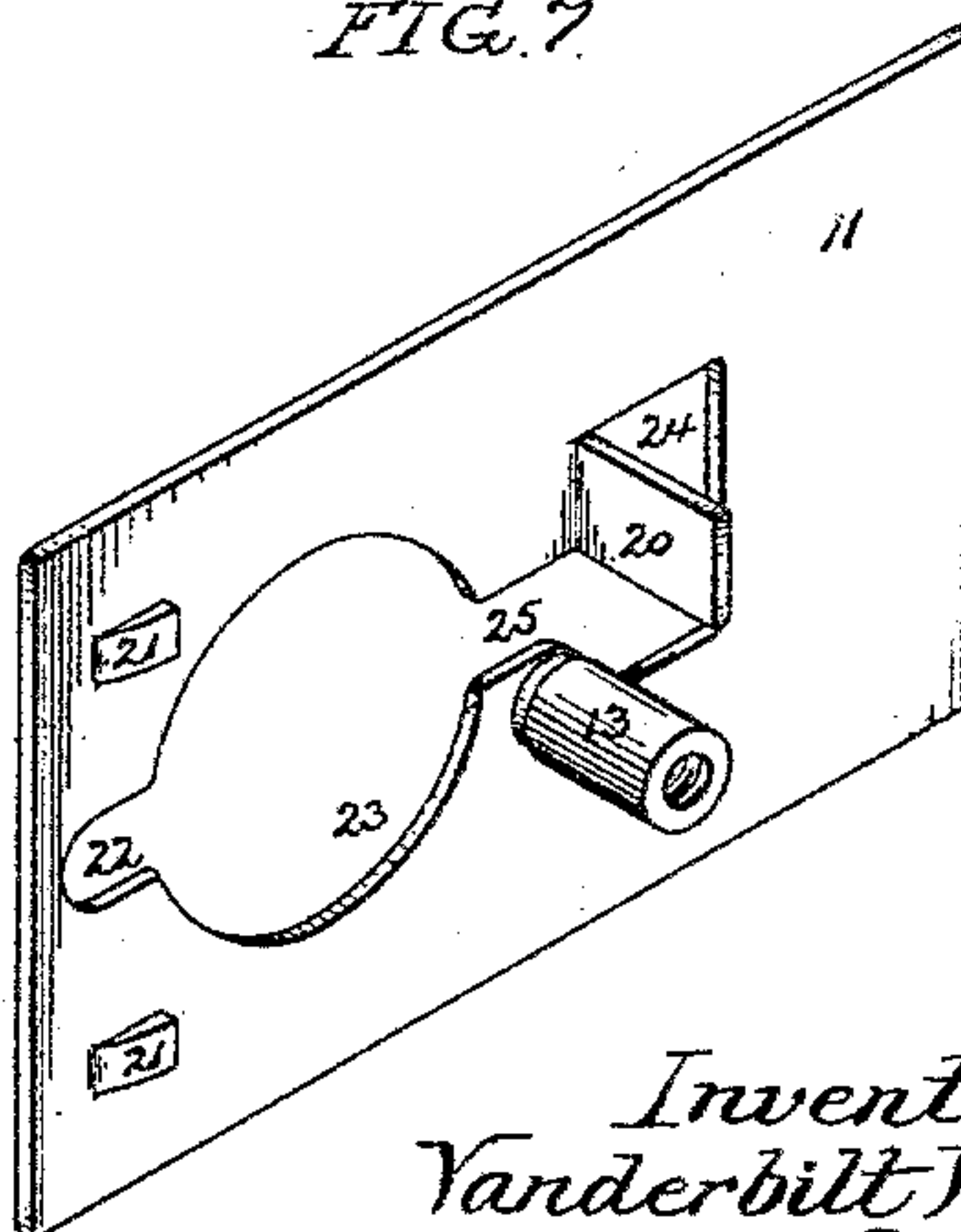


FIG. 6.

FIG. 7.



Witnesses:
Hamilton D. Turner
Frank E. Bechtold

Inventor:
Vanderbilt Watrous
by his Attorneys,
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UNITED STATES PATENT OFFICE.

VANDERBILT WATROUS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
THE MILLER LOCK COMPANY, OF SAME PLACE.

LATCH-LOCK.

SPECIFICATION forming part of Letters Patent No. 597,341, dated January 11, 1898.

Application filed September 22, 1897. Serial No. 652,577. (No model.)

To all whom it may concern:

Be it known that I, VANDERBILT WATROUS, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Latch-Locks, of which the following is a specification.

The object of my invention is to cheapen the construction of a latch-lock case and improve its external appearance, an object which I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a view of the inner side of a latch-lock from which the inner cover-plate has been removed. Fig. 2 is a similar view showing the working parts of the lock in a different position. Fig. 3 is a transverse section on the line $x x$, Fig. 2, with the inner cover-plate in place. Fig. 4 is a transverse section on the line $y y$, Fig. 2, with the latch-bolt omitted. Fig. 5 is a section on the line $w w$, Fig. 2. Fig. 6 is a perspective view of the lock-casing, and Fig. 7 is a perspective view of a lining-plate used in connection therewith.

In making an ordinary latch-lock the stud for receiving the screw which confines the back plate, the lug serving as a bearing for the latch-bolt spring, and in some cases other parts of the lock are secured to the front of the case by riveting them thereto, an operation which necessitates the grinding off of the front of the case before the same can be polished, japanned, or otherwise finished. This grinding operation is an expensive one and the ends of the rivets are always more or less apparent upon the outer face of the lock-casing after the same is finished, thereby detracting from the appearance of the lock.

In carrying out my invention I attach the various studs, lugs, or other projections needed for the proper construction of the lock to a lining-plate which is secured against the inner side of the front plate of the lock-casing, so that the latter presents a surface which is unbroken, except for the openings formed therein for the reception of the knob-spindle and one of the securing-screws, no rivets passing through the front plate of the casing and no grinding of the latter being required in

order to put it into proper condition for polishing, japanning, or other finishing.

In the drawings, 1 represents the front plate of the lock-casing; 2 and 3, respectively, the top and bottom plates of the same; 4, the inner end plate, and 5 the outer end plate, all of these being formed, by preference, from a single plate of sheet metal struck up in order to bring the parts into proper relation to each other, the front plate having formed in it the usual opening for the reception of the knob-spindle 6 and also an opening 7 for the reception of the screw, whereby the lock is secured to the face of the door, the top and bottom plates having the usual recesses 8 for the reception of lugs upon the back plate of the lock and the outer end plate 5 having the opening 9 for the reception of the bolt and other openings 10, with countersunk rims for the reception of the screws, whereby said end plate 5 is secured to the end of the door.

The lining-plate is represented at 11, Fig. 7, and consists of a central flat plate of sheet metal of longitudinal and vertical dimensions corresponding with those of the interior of the lock-case, this plate being fitted closely against the inner face of the front plate 1 of the lock-case and being firmly secured in such position by means of inwardly-projecting lugs 12, formed by indenting the top and bottom plates 2 and 3 of the casing, as shown in Figs. 3 and 6.

To the plate 11 is riveted the stud 13, which has a threaded opening for receiving the screw or bolt, whereby the back plate is secured to the lock-casing, the lining-plate 11 also having such other projections as the character of the working parts of the lock may require. In the present instance these working parts are similar to those shown and described in an application for patent, Serial No. 616,039, filed by Milton Jackson and Frank Soley on the 17th day of December, 1896, and comprise a bolt 14, with stem 15, having at the inner end a cross-bar 16, which is acted upon by either of two arms on the knob-lever 17, a spring 18 surrounding the bolt-stem 15 and acting upon a plate 19, which has a lug 19^a for engaging with the longer arm of the lever 17 when the latter is ad-

justed to the position shown in Fig. 1, so as to prevent its accidental movement from that position. In this case the lining-plate 11 of the lock has a lug 20 struck up therefrom and serving, in conjunction with the stud 13, as a bearing for the plate 19, and said lining-plate also has struck up therefrom short fingers 21, which serve as stops to limit the inward movement of the cross-bar 16 of the bolt-stem, as shown in Fig. 1.

In the lining-plate is formed a continuous opening comprising the portion 22 for the reception of the securing screw or bolt, which passes through the opening 17, a larger opening 23, in which the knob-lever works, an opening 24 for the reception and movement of the front portion of the plate 19, and a connecting slot or channel 25 for the reception and movement of the front portion of the lug 19^a; but it will be evident that the special construction of the lining-plate may be modified to accord with a modified construction of the operating parts of the lock without departing from the essential features of my invention.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. The combination of a lock-casing, with a lining-plate carrying the internal fixtures of the lock, substantially as specified.

2. The combination of a lock-casing, with a lining-plate carrying the internal fixtures

of the lock and secured against the inner face of the front of the lock-casing by means of lugs struck up from the top and bottom plates of the casing, substantially as specified.

3. A lining-plate for the casing of a latch-lock, having thereon the fixtures for coöperating with the movable parts of the lock, and the stud for the reception of the screw or bolt whereby the back plate of the lock is secured in position, substantially as specified.

4. A lining-plate for the casing of a latch-lock having struck up therefrom the fixtures which coöperate with the moving parts of the lock, and having secured to it a stud for the reception of the screw or bolt which retains the back plate of the lock, substantially as specified.

5. A lining-plate for the casing of a latch-lock having upon it the fixtures for acting in conjunction with the operative parts of the lock, said lining-plate also having formed in it openings for the reception of some of the working parts of the lock, substantially as specified.

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

VANDERBILT WATROUS.

Witnesses:

EDWARD S. JACKSON,
GEORGE L. BATTERSBY.