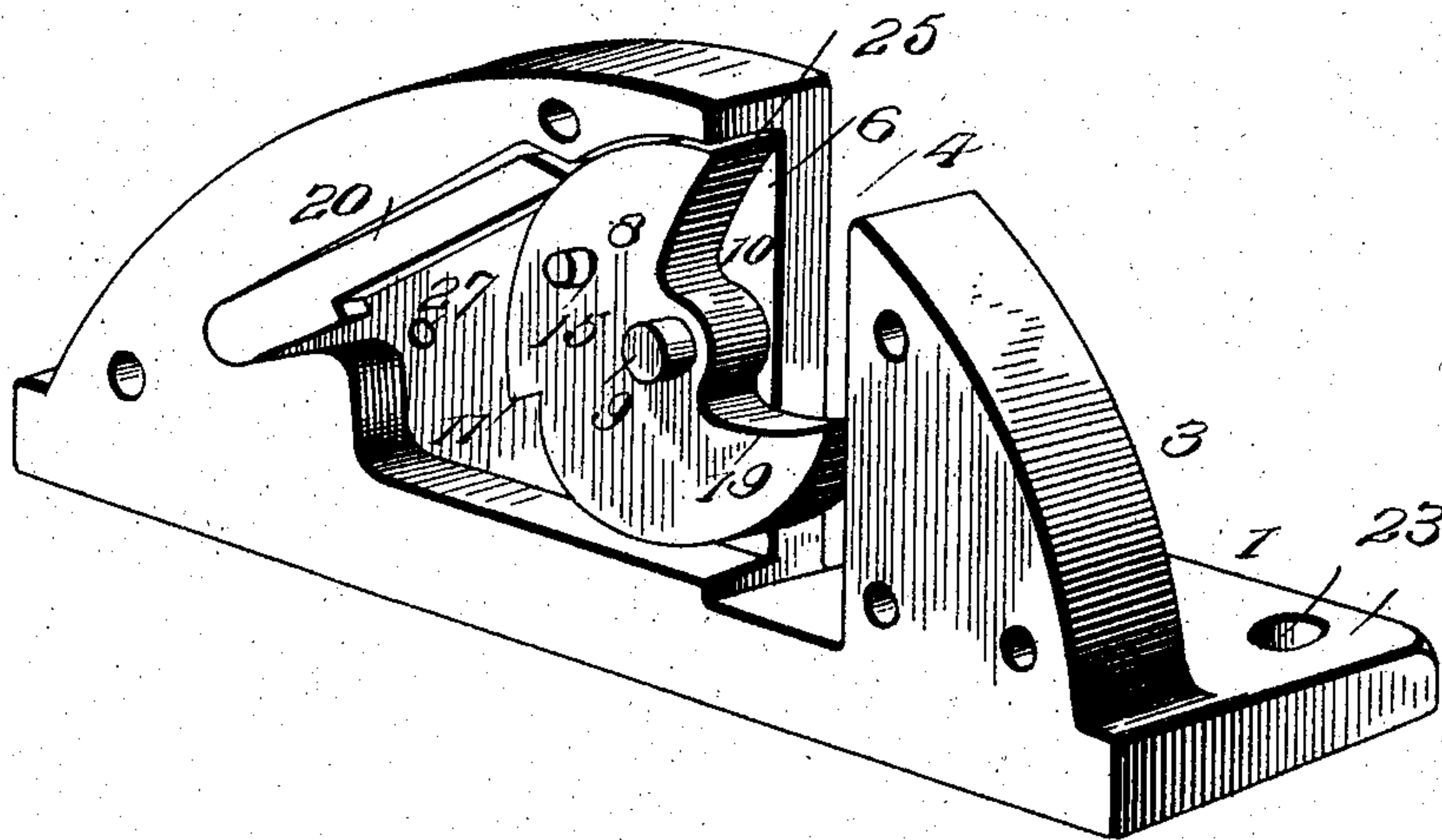
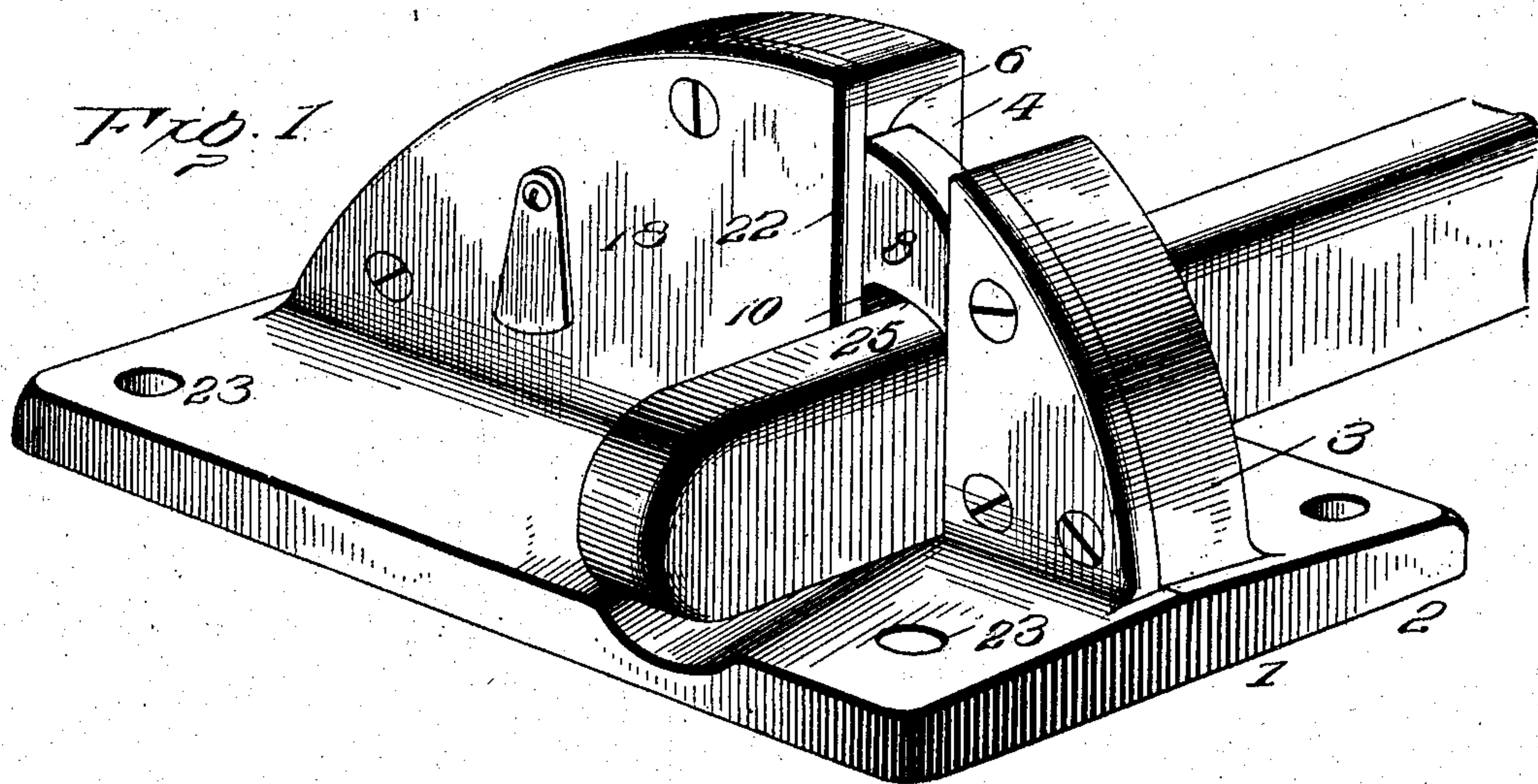


No. 796,292.

PATENTED AUG. 1, 1905.

W. J. BUSH.  
SWITCH LEVER LOCK.  
APPLICATION FILED OCT. 29, 1904.

2 SHEETS—SHEET 1.



Witnesses

*Chas. Morris*  
*L. H. Schmidt*

Inventor

*W. J. Bush*

By

*John M. M. M.*

Attorney

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2 SHEETS—SHEET 2.

FIG. 3.

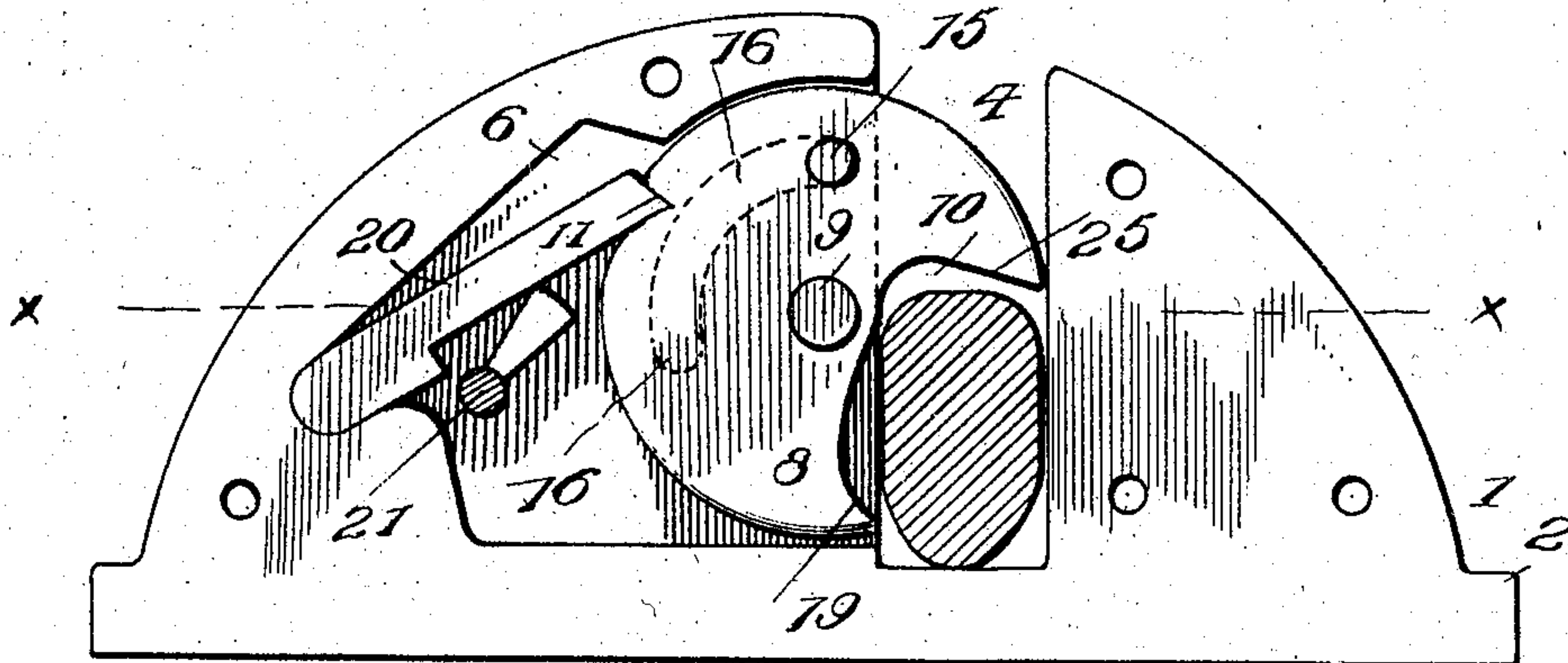
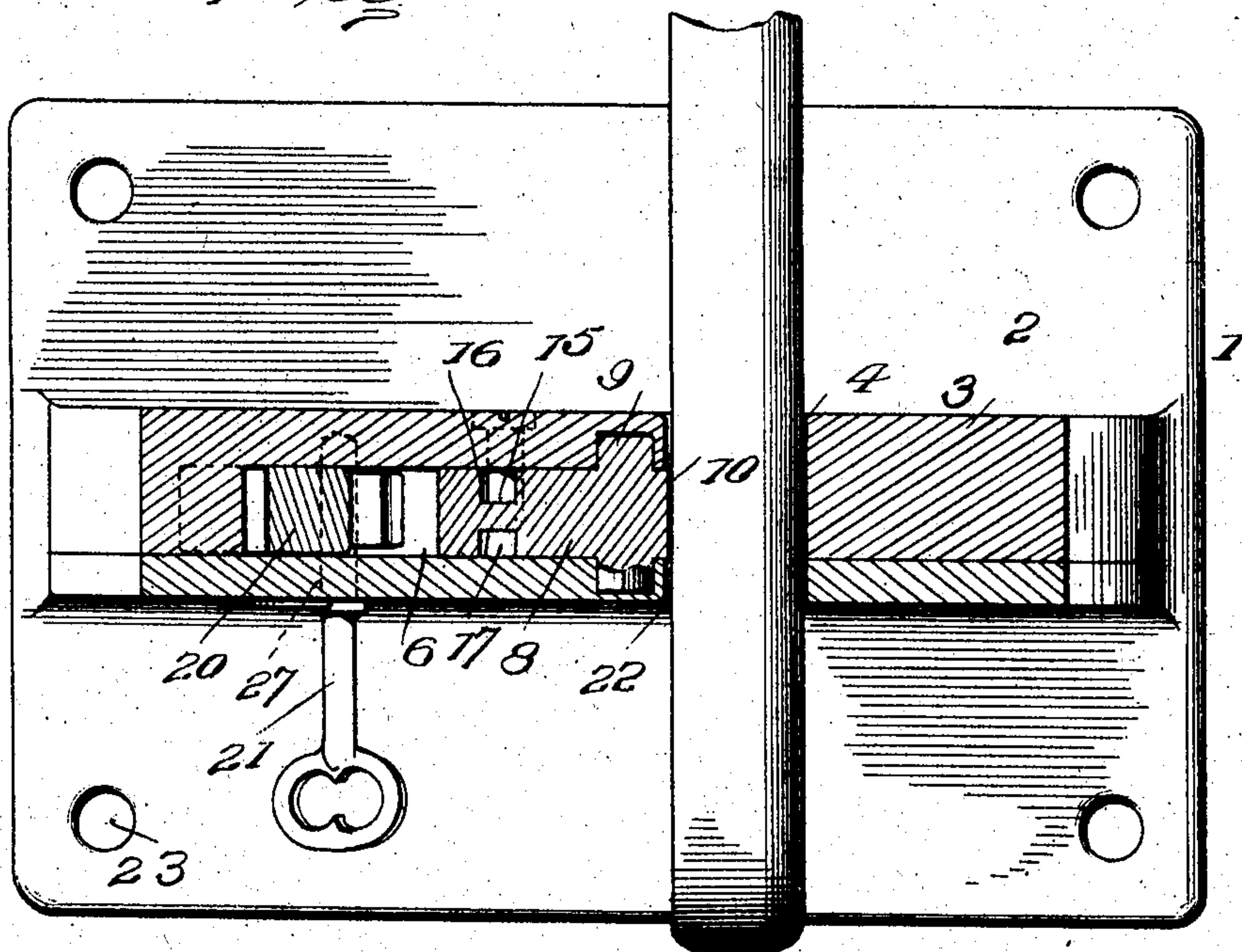


FIG. 4.



Witnesses

Chas. Morris  
J. H. Schmidt.

Inventor

W. J. Bush

334

for

Attorney



# UNITED STATES PATENT OFFICE.

WILLIAM J. BUSH, OF EAST GREENSBURG, PENNSYLVANIA.

## SWITCH-LEVER LOCK.

No. 796,292.

Specification of Letters Patent.

Patented Aug. 1, 1905.

Application filed October 29, 1904. Serial No. 230,477.

*To all whom it may concern:*

Be it known that I, WILLIAM J. BUSH, a citizen of the United States, residing in the borough of East Greensburg, in the county of Westmoreland and State of Pennsylvania, have invented a new and useful Switch-Lever Lock, of which the following is a specification.

This invention relates to improvements in switch-locks.

The object of the invention is to provide a gravitating revoluble switch-locking element formed with a lock-seat which coöperates with a switch-lever and mechanism for guiding and operating the revoluble locking element.

A further object of the invention is to relate the parts in such manner that a revolving locking element may be released with a key and be automatically set to receive a switch-lever.

The invention also comprehends improvements in the specific arrangement of the parts and the details of construction thereof.

In the drawings, Figure 1 is a perspective view of my improved switch-lock. Fig. 2 is a similar view, parts being removed to illustrate the operative features. Fig. 3 is a face view of the parts shown in Fig. 2, the locking element engaging a switch-lever. Fig. 4 is a section on the line *x x*, Fig. 3.

The numeral 1 indicates an angular-shaped casting formed with a base 2 and vertical flange 3. The flange is provided with a switch-receiving notch 4, and the base 2 inclines outwardly from the notch to shed water and snow to prevent the operating parts becoming clogged and rusting, &c. In the face of the flange is formed a cavity 6 to receive the locking mechanism. The locking mechanism consists of a revoluble element 8, having trunnions 9, suitably mounted, and formed in its periphery with a cut-out portion 10 and V-shaped notch 11. The locking element is so mounted that the part below the cut-out portion acts as a weight to normally hold it in proper position to be operated by the switch-lever which is to be locked.

Projecting from the sides of the locking element are guide-pins 15, which fit in grooves 16 in the flange 3 and grooves 17, formed in the vertical flange of a companion casting 18. The grooves 16 and 17 are arranged to limit the revoluble movement of the locking element 8, whereby the bottom part 19 of the cut-away portion 10 will be in position to be struck by a switch-lever when the device is unlocked, and also limits the reverse move-

ment of the locking element so that it will be balanced to swing open when unlocked.

20 indicates a locking-pawl mounted in the cavity 6 and positioned to fall by gravity and engage the notch 11 when a switch is locked, and 21 indicates a key for disengaging the pawl to release a switch-lever.

After the parts described are properly assembled the casting 18 is placed against the casting 1 and the two are secured together, forming a substantial and closed lock-casing. The vertical flange of the casting 18 is formed with a notch 22, which registers with the notch 4 in casting 1. The lock-casing is bolted or otherwise secured to the ties by fastening means passing through the openings 23.

In operation, assuming the parts being in the position shown in Fig. 2, a switch-lever to be locked is thrown down on the bottom of the cut-out portion 10, which revolves the locking element and throws the other wall 25 of the cut-away portion over the lever and prevents its movement. When the locking element is revolved, the gravity-pawl automatically falls into the notch 11 and prevents the reverse movement of the locking element, while the grooves 16 and 17 and the switch-bar prevent further advance movement, as shown clearly in Fig. 3. To unlock the switch-bar, the key 24 is inserted in the key-opening 27 and turned toward the left, which disengages the gravity-pawl from the notch 11, whereupon the weight of the locking element or the lifting of the switch-lever causes it to turn toward the left until it assumes the position shown in Fig. 2, the movement in this direction being arrested by the grooves 16 and 17.

The invention is extremely simple in construction and durable in character, the parts being so arranged and related to each other as to positively insure the switch-lever being locked against unauthorized persons.

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

1. A switch-lock comprising a revoluble locking element having a locking-notch, and a pawl-notch formed in its periphery, pins and grooves with which the pins engage to limit the movement of the locking element, a gravity-pawl engaging the pawl-notch, and a key for disengaging the pawl from the locking element, substantially as described.

2. A switch-lock comprising a revoluble locking element having a locking-notch and a pawl-notch formed in its periphery, means for limiting the movement of the revolving lock-



ing element, a gravity-pawl positioned to engage the pawl-notch when the locking-notch engages a switch-lever, and a key for disengaging the gravity-pawl from the revoluble element, the revoluble element when disengaged from the gravity-pawl being retained in position to receive a switch-lock by gravity.

3. A switch-lock comprising a casing formed in sections with a cavity between them, a notch intersecting the cavity, a revoluble locking element mounted in the cavity with its periphery projecting in the notch of the casing, and a switch-bar notch and a pawl-notch formed in the periphery of the locking element, the switch-bar notch registering with the notch in the casing to receive a switch-bar, substantially as described.

4. A switch-lock comprising a casing formed

with a vertical notch to receive a switch-bar, a revolving locking element having a notch which registers with the vertical notch, means for limiting the movement of the revolving element, means for locking said element when the notch registers with the vertical notch, and a key for disengaging said means, the locking element assuring a position by gravity to receive a switch-bar after it is disengaged, substantially as described.

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

WM. J. BUSH.

Witnesses:

JNO. W. SCOTT,  
DAVID L. NEWILL.