

No. 746,174.

PATENTED DEC. 8, 1903.

J. SCHELL.  
LOCK.

APPLICATION FILED JULY 17, 1903.

NO MODEL.

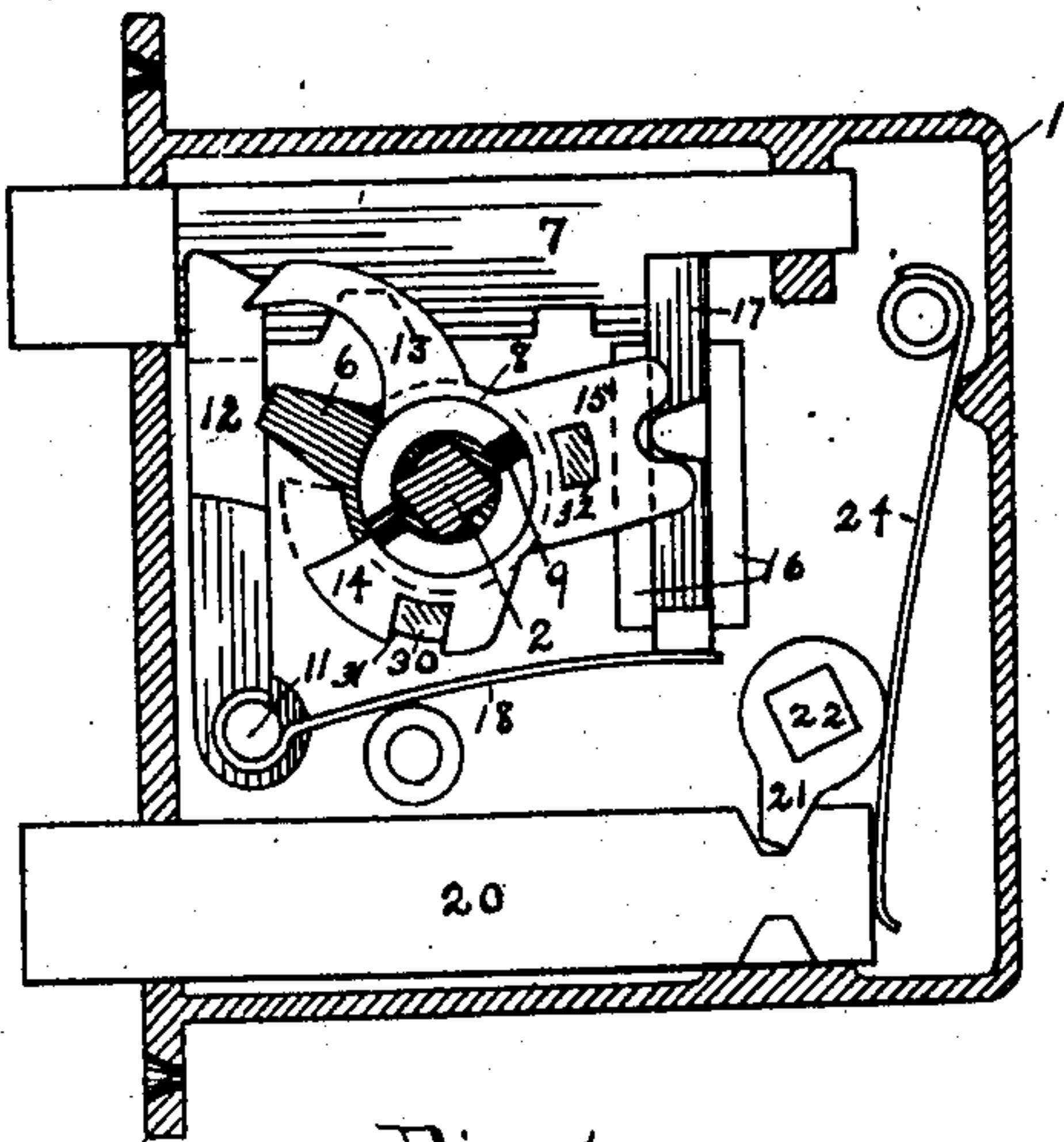


Fig. 1.

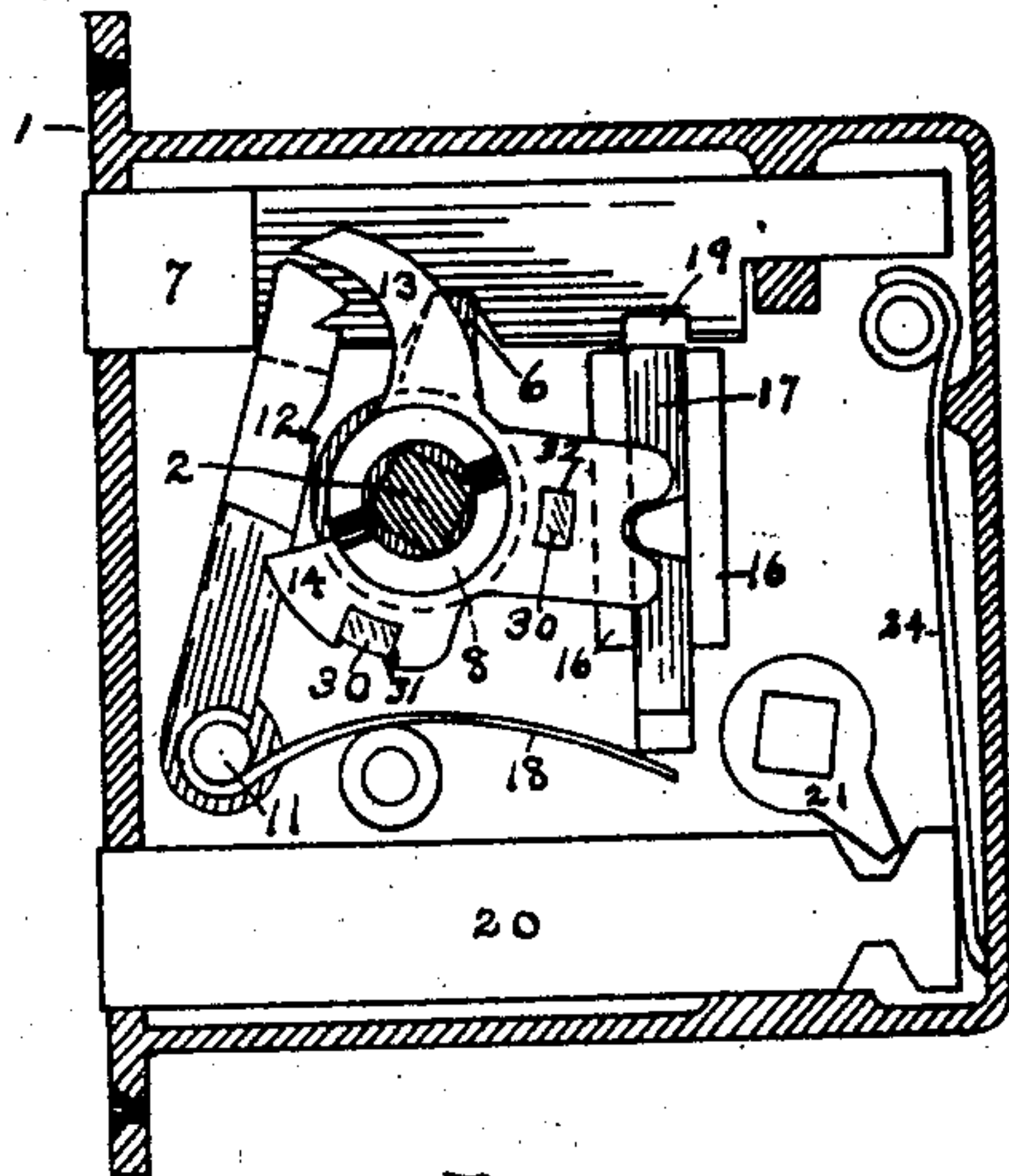


Fig. 2.

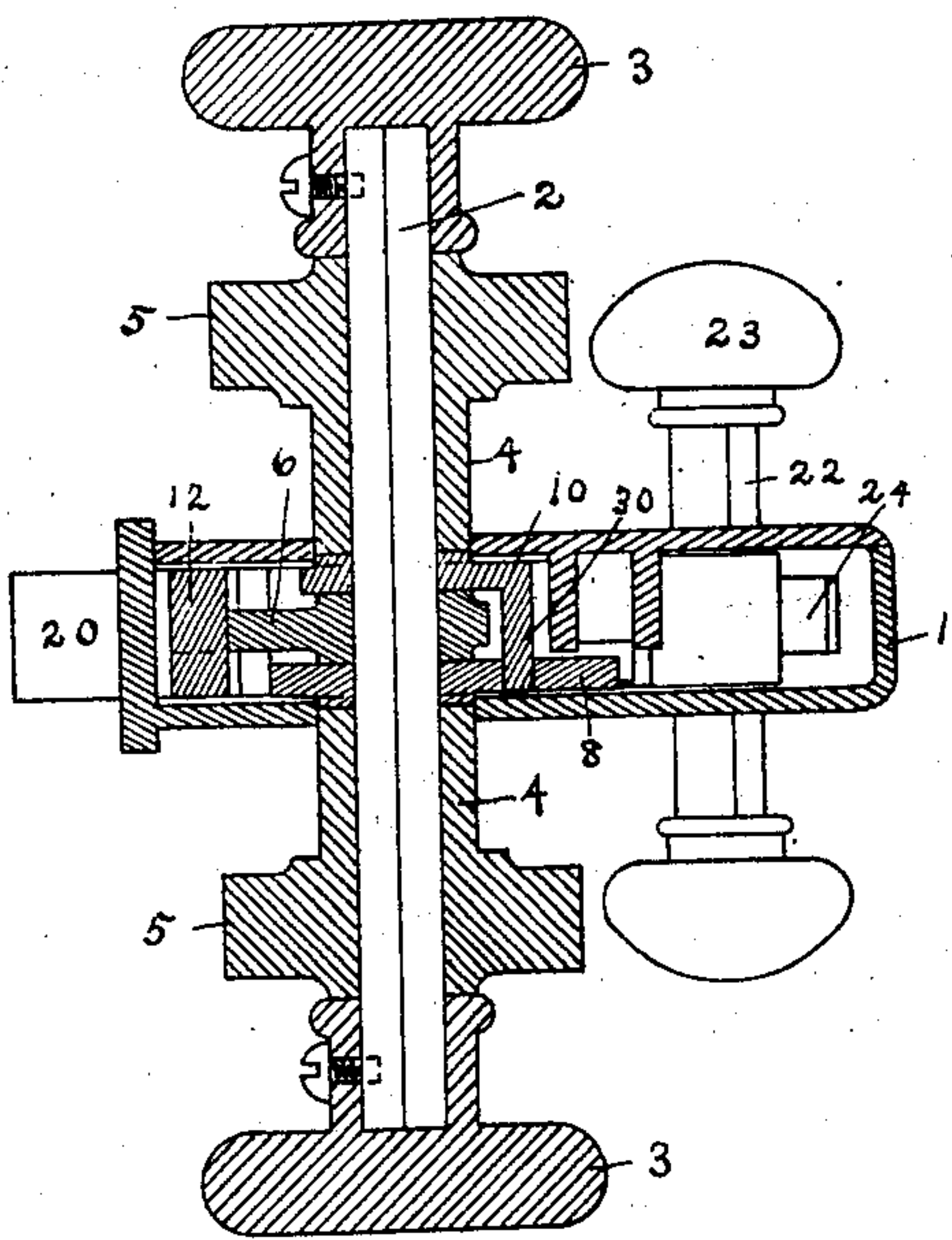


Fig. 3.

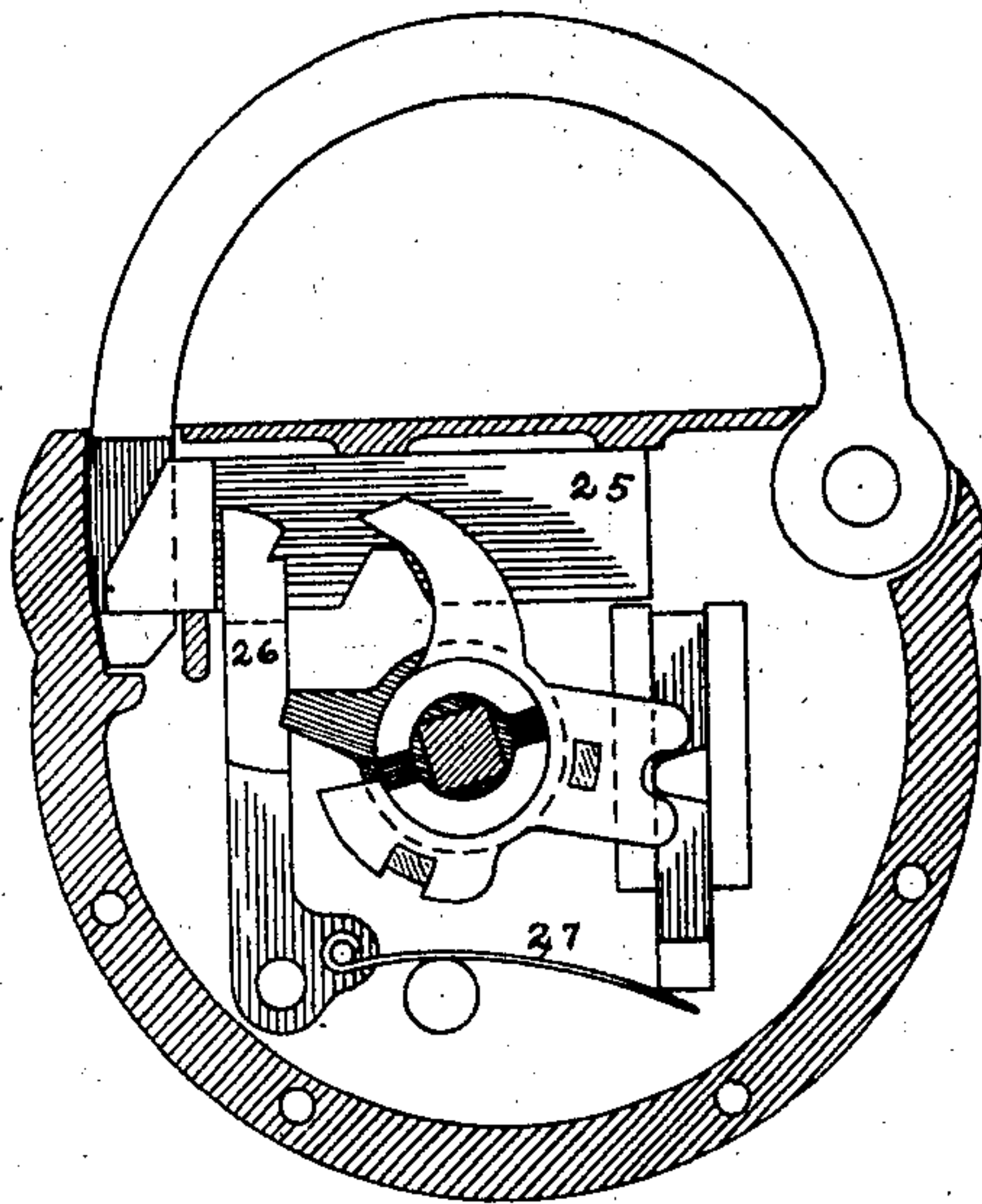


Fig. 4.

Witnesses.

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# UNITED STATES PATENT OFFICE.

JACOB SCHELL, OF SAVANNAH, MISSOURI.

## LOCK.

SPECIFICATION forming part of Letters Patent No. 746,174, dated December 8, 1903.

Application filed July 17, 1903. Serial No. 185,965. (No model.)

*To all whom it may concern:*

Be it known that I, JACOB SCHELL, a citizen of the United States, residing at Savannah, in the county of Andrew and State of Missouri, have invented a new and useful Lock, of which the following is a specification.

My invention relates to keyless locks; and the objects of my improvement are to construct a lock that shall be simple and strong, that cannot be opened except by a person familiar with its operation, one in which the reciprocating bolt is automatically secured in either locked or withdrawn position and which, if desired, may have an auxiliary bolt that may be operated together with or independent of the main bolt. I attain these objects by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a view of the mechanism with the bolts in locking position, one side of the casing being removed. Fig. 2 is a view of the same in the unlocked position. Fig. 3 is a horizontal cross-section through the shaft, and Fig. 4 shows a padlock constructed with my improved mechanism.

Similar reference characters refer to like parts throughout the specification.

Through the case 1 of the usual form extends the square shaft 2, to the ends of which are secured the knobs 3. Loose on this shaft are the sleeves 4, having knobs 5. Fast on the shaft is mounted the releasing and locking collar, having a lug 6, which engages in a notch in the bolt 7 to withdraw or shoot the same. On one side of lug 6 is the tumbler 8, loose on the shaft, provided with a groove 9, into which fit lugs on the end of one of the sleeves 4. On the other side of lug 6 is a second tumbler 10, which is also loose on the shaft and is provided with a similar groove to be engaged with lugs on the other sleeve. This tumbler 10 has arms 30, that project around lug 6 without contacting and enter openings 31 and 32 in the tumbler 8. The two sleeves 4 and the two tumblers will therefore turn together. Mounted on the pin 11 is the bar 12, which is provided with two notches and which is partly cut away on the sides. The upper end rests against the head of the bolt 7. The tumbler 8 is provided with an arm 13, a lug 14, and a second notched arm 15. Guides 16, attached to the case, hold the

slidable bolt 17 in place. A spring 18 presses bolt 17 upward. When the bolt 17 is in the locked position, as shown in Fig. 1, the bar 12 is held by the arm 13 and lug 6. The bolt 17 is held up behind a shoulder of the bolt 7. When the bolt is to be withdrawn, a knob 5 is turned to the right, lifting arm 13 out of its notch in bar 12 and depressing bolt 17. A knob 3 is then turned, which causes lug 6 to engage in the tapering notch in the bolt 7, withdrawing the said bolt. If tumbler 8 is turned too far, the lug 14 will assume the dotted position in Fig. 1 and prevent bar 12 from moving rearward. Upon the release of knob 5 the spring 18 will press the bolt 17 into notch 19, thus locking bolt 7 in the withdrawn position. To shoot the bolt, a knob 5 must first be turned back a distance sufficient to disengage bolt 17 from the notch 19, when turning a knob 3 to the left will shoot the bolt.

An auxiliary bolt 20, moved by the lug 21, fast on a collar on shaft 22, may be provided. This shaft has knobs 23. The spring 24 keeps this bolt 20 in the forward position. This part of the lock may be used while the bolt 7 is held locked in its withdrawn position. It will be observed that bolt 7 must be withdrawn before the operation of the knobs 23 will avail.

Fig. 4 shows a padlock with my improvement. The bolt 25 has no notch 19, as the construction is that of the well-known "spring-lock." The bar 26 under the influence of spring 27 constantly tends to throw the bolt 25 to the left. The method of unlocking is the same as in the door-lock shown.

Having now explained my improvement, what I claim as my invention, and desire to secure by Letters Patent, is—

1. In a lock, the combination of the case, a locking-bolt slidable therein, a hinged bar for holding said bolt in the locking position, a pivoted tumbler engaging said bar, a shaft with knobs on both ends to rock said tumblers and a slidable bar for holding said bolt in the locking and withdrawn positions.

2. In a lock, the combination of the case, a locking-bolt slidable therein, a shaft passing through said case, means attached to said shaft for actuating said bolt, sleeves loose on said shaft, a tumbler fitted to the inner end of each sleeve, one of said tumblers having



arms engaging openings in the other tumbler so that the sleeves and tumblers will revolve together, said tumblers controlling the actuation of the locking-bolt.

5 3. In a lock, the combination of the case, a locking-bolt slidable therein, a shaft passing through said case, knobs on the ends of said shaft, means fast on said shaft to actuate said bolt, sleeves on said shaft, a hinged bar  
10 to hold said bolt in its locking position, and means attached to said sleeves to hold said hinged bar in position to secure the locking-bolt.

4. In a lock, the combination of the case, a  
15 locking-bolt slidable therein, a slidable bar to hold said bolt in the locking and withdrawn positions, a shaft, a collar on said shaft having a lug for actuating said locking-bolt, a pivoted bar controlling the operation of the  
20 locking-bolt, and means supported by said shaft for engaging the pivoted bar and for actuating the slidable bar to release the locking-bolt.

5. In a lock, the combination of the case, a  
25 locking-bolt slidable therein, a shaft passing through the casing, a collar fast on said shaft

having a lug to actuate the bolt, a pivoted bar having a notch, a slidable bar for locking the bolt in the advanced and withdrawn positions, a spring attached at one end to the pivot  
30 of the pivoted bar and serving to press the slidable bar toward the locking-bolt, and means loose on the shaft to slide said bar and having an arm to engage in said notch and lock said pivoted bar.

6. In a lock, the combination of the case, a locking-bolt slidable therein, a shaft passing through said case, knobs on the ends of said shaft, means fast on said shaft to actuate said bolt, sleeves on said shaft, a hinged bar to  
40 hold said bolt in its locking position, means attached to said sleeves to hold said hinged bar in position to secure the locking-bolt, an auxiliary bolt in said case, and means for operating said auxiliary bolt.

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

JACOB SCHELL.

Witnesses:

EMILY J. LAYTON,  
WM. M. KERR.