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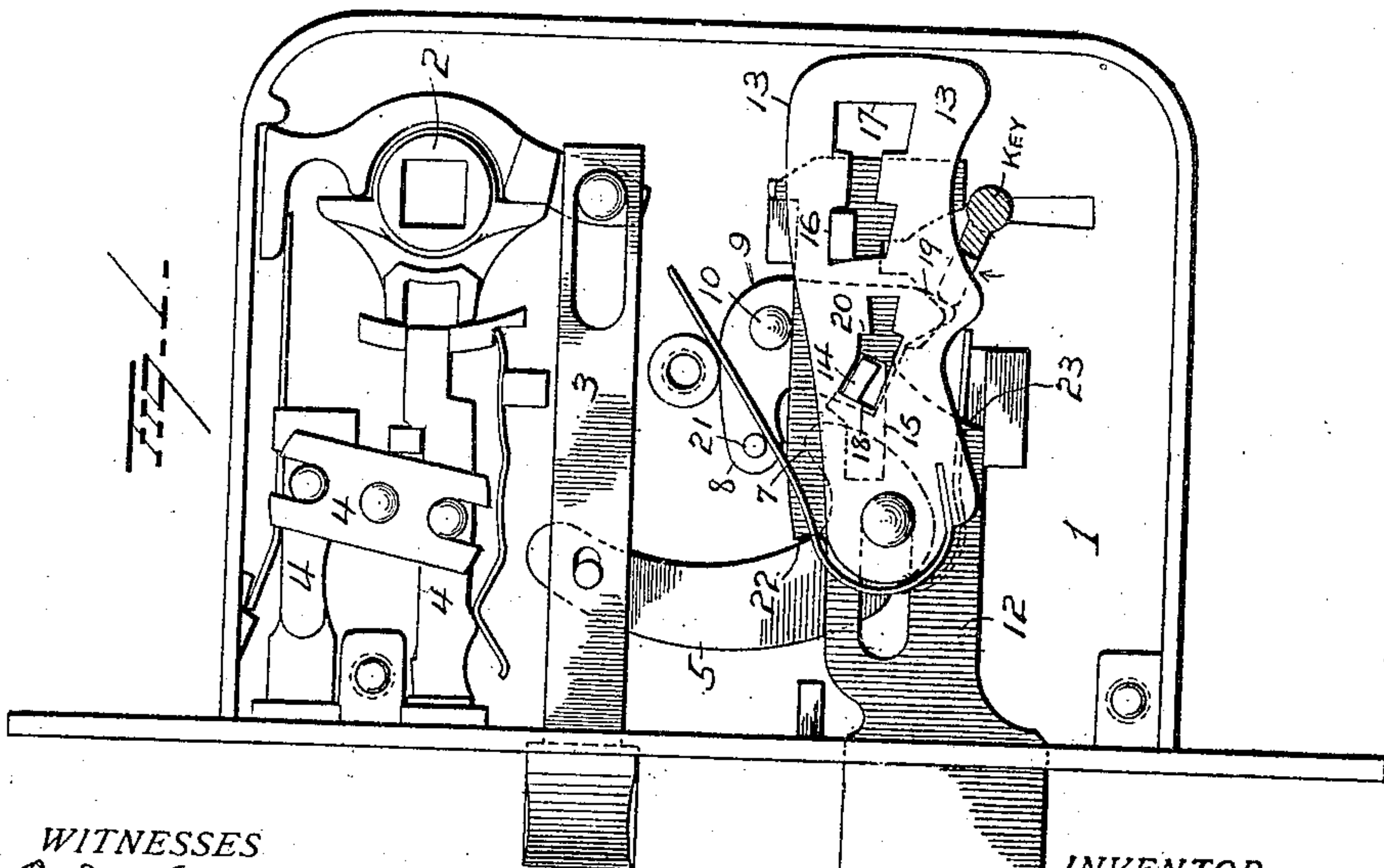
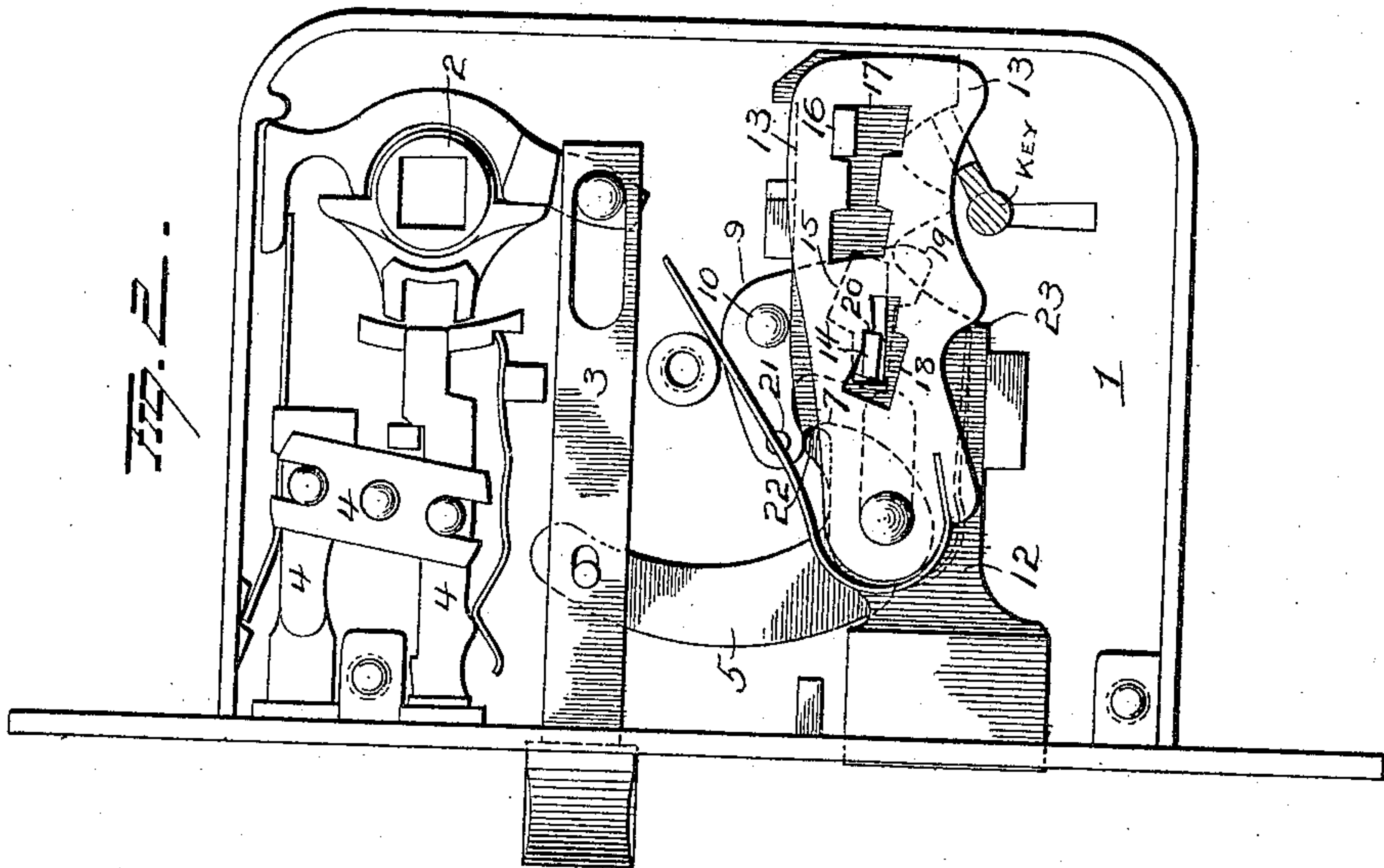
P. F. AUGENBRAUN.

LOCK.

APPLICATION FILED JULY 30, 1908.

Patented Apr. 6, 1909.

2 SHEETS—SHEET 1.



WITNESSES  
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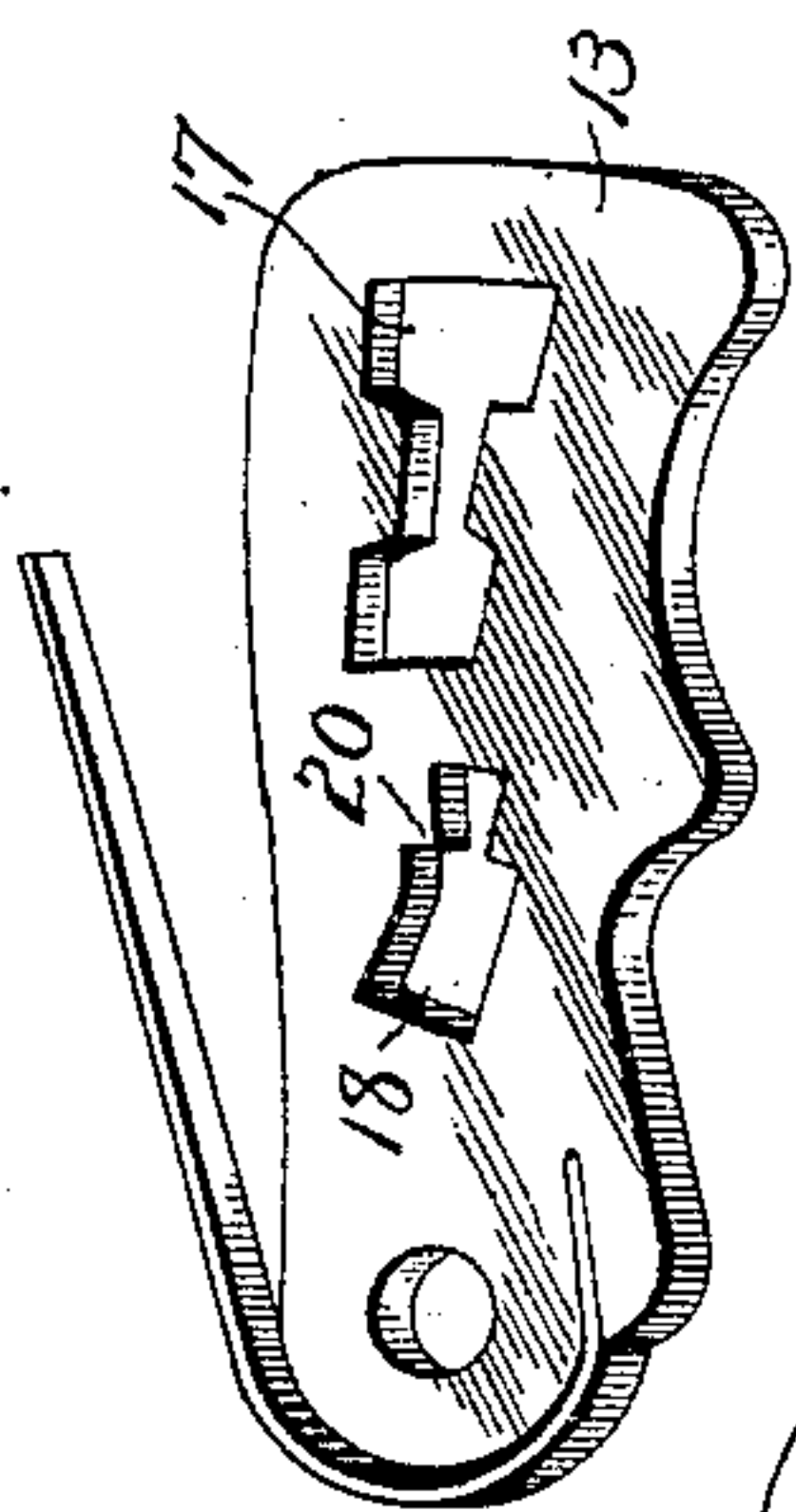
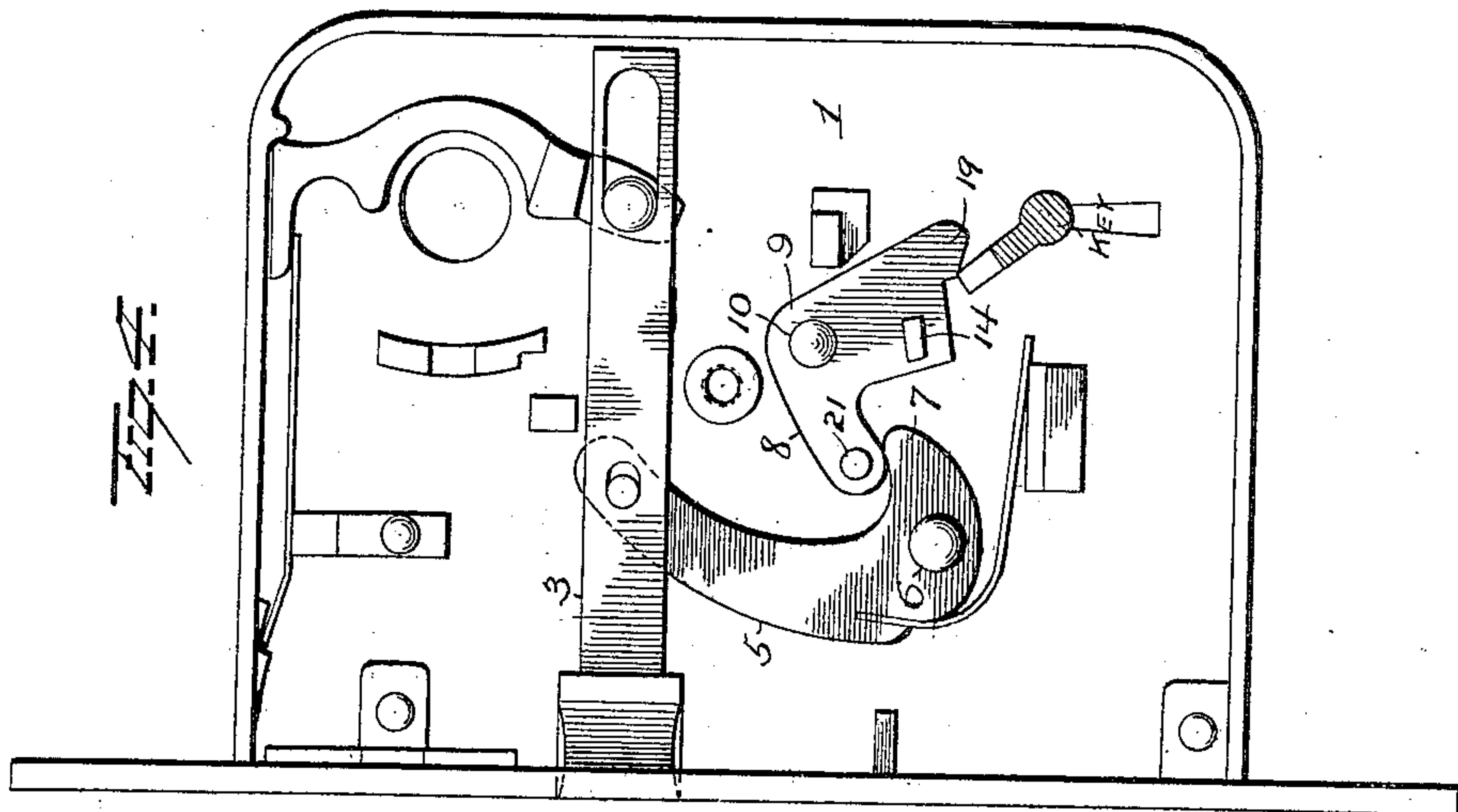


Fig. 5.

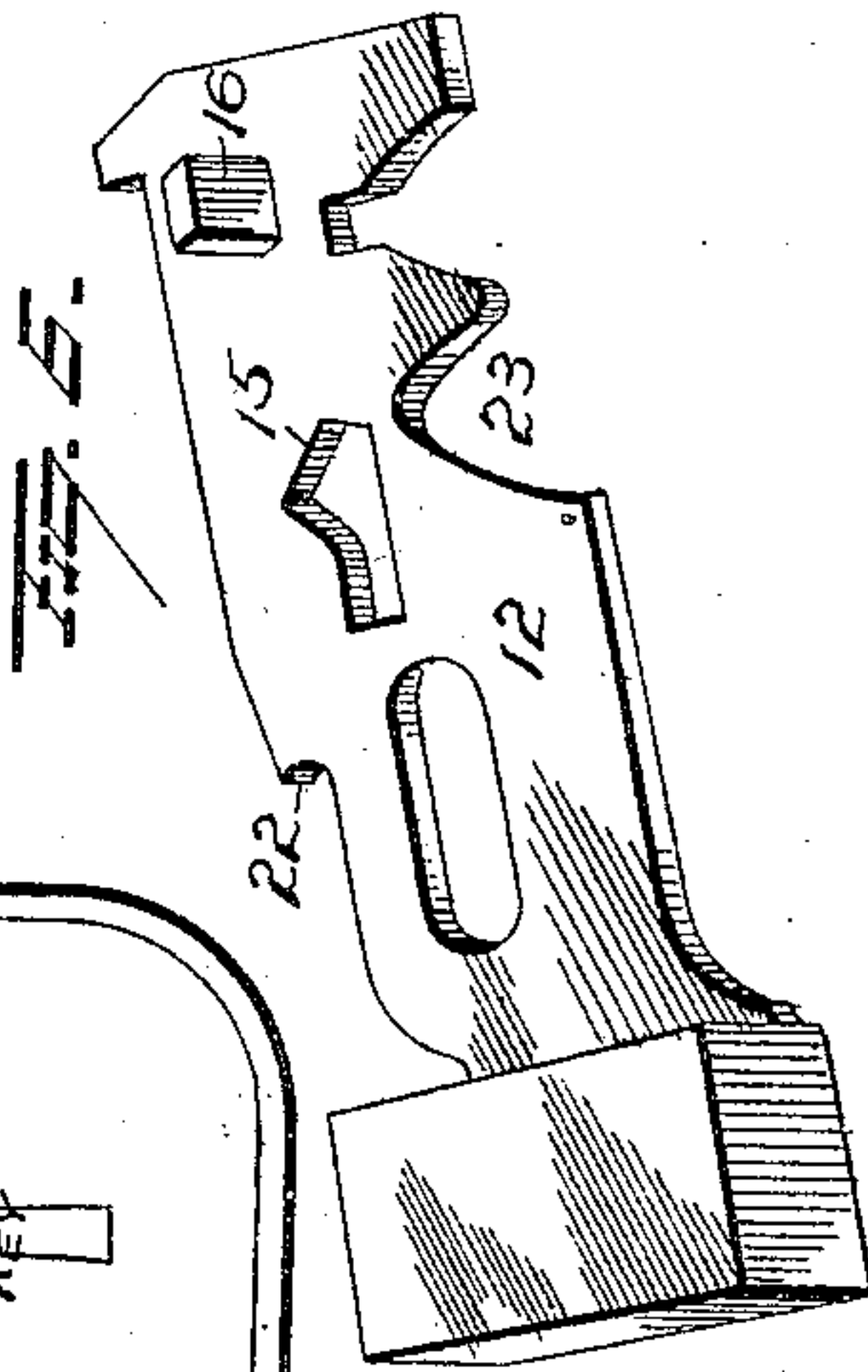


Fig. 6.

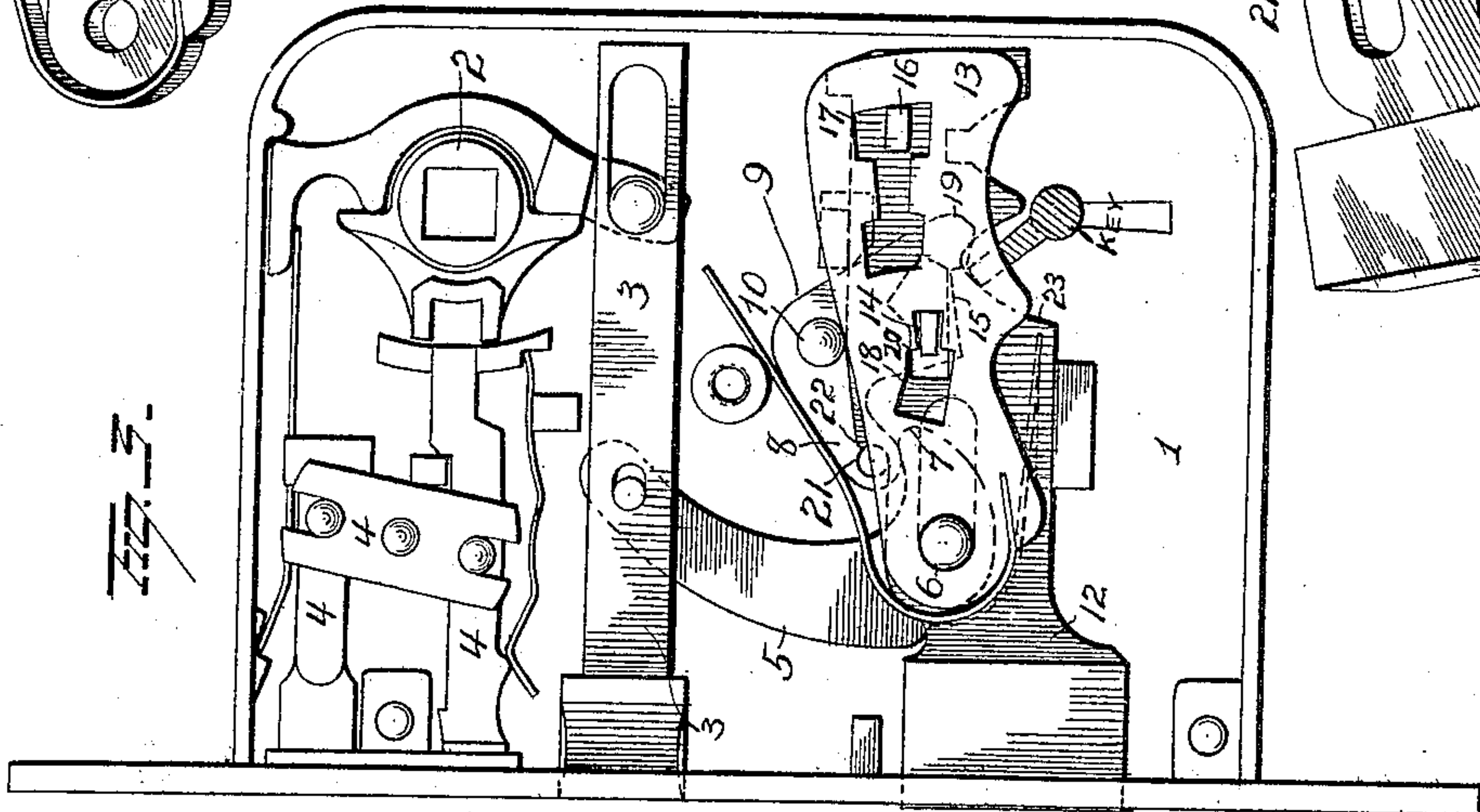


Fig. 3.

WITNESSES

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# UNITED STATES PATENT OFFICE.

PETER F. AUGENBRAUN, OF STAMFORD, CONNECTICUT, ASSIGNOR TO THE YALE & TOWNE MANUFACTURING COMPANY, OF STAMFORD, CONNECTICUT, A CORPORATION OF CONNECTICUT.

## LOCK.

No. 917,399.

Specification of Letters Patent.

Patented April 6, 1909.

Application filed July 30, 1908. Serial No. 446,110.

*To all whom it may concern:*

Be it known that I, PETER F. AUGENBRAUN, of Stamford, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Locks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in locks, the object being to provide improved means for retracting the dead bolt and the latch bolt by a single key, and it consists in the parts and combinations of parts as will be more fully described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in elevation of my improved lock, the cover plate being removed and both bolts projected. Fig. 2 is a similar view showing the dead bolt retracted and the latch bolt projected. Fig. 3 shows both bolts retracted. Fig. 4 is a view showing the latch actuating means, the dead bolt and tumbler being removed. Fig. 5 is a perspective view of the tumbler, and Fig. 6 is a similar view of the dead bolt.

1 represents a lock case provided with the usual hubs or roll backs 2, actuated by knobs, for retracting the latch bolt 3, and 4 is a stop work or push button mechanism of the usual form for deadlocking the hub or roll back of the outer knob, thus preventing the latch bolt from being retracted from the outside, except by the use of a key as will be hereinafter explained. The latch bolt 3 is pivotally connected at a point between its ends to the bell-crank lever 5, the latter being pivoted near its elbow to the pin 6 carried by the lock case 1. The short arm 7 of the bell-crank is adapted to be engaged by an arm 8 of the bell-crank 9 pivoted at 10 to the lock case 1. Spring 11 tends to normally move the bell-crank 5 in a direction to project the latch bolt 3, while the movements and position of the bell-crank 9 are controlled by the dead bolt 12 and the tumbler 13. The shorter arm 7 of bell-crank 5 rests within the path of movement of arm 8 of bell-crank 9. When the dead bolt 12 is projected, as in Fig. 1, the adjacent ends of the bell-cranks 5 and 9 are some distance removed, but after the dead bolt 12 has been retracted as shown in Fig.

2, the ends abut so that any further movement of lever 9 toward arm 7 of lever 5 turns the latter in a direction to retract the latch bolt 3.

Lever 9 is provided with a fence 14 which rests within the gating 15 of the dead bolt 12. This gating is longer than the fence, hence when the dead bolt is engaged and moved rearwardly by the key, it moves nearly to its retracted position before the front end wall thereof engages the fence 14. This engagement of the end wall of the gating with the fence 14 turns member 8 of bell crank 9 into engagement with the member 7 of bell-crank 5. Dead bolt 12 is also provided with a fence 16 which rests in the gating 17 of the tumbler 13. This tumbler also has a gating 18 in which the fence 14 on lever 9 rests, the two gatings being arranged horizontally, and so constructed and located with relation to the two fences, that when the tumbler 13 is moved by the key to a position to permit of the retraction of the dead bolt 12, the fence 14 on bell crank 9, will be free to be moved rearwardly by the engagement therewith of the end wall of gating 18 in the dead bolt as previously explained, thus moving the arm 8 of lever 9 into contact with arm 7 of lever 5, and bringing the end 19 of lever 9 into the path of the key. After the dead bolt has been retracted, the fence 14 rests against the shoulder 20 in gating 18, (as shown in Fig. 2) consequently the lever 9 and the latch bolt are locked against manipulation except by a key properly constructed to move the tumbler 13 and engage and move the lever 9. By now again turning the key in the same direction it was turned to retract the dead bolt 12, the tumbler 13 will be raised to release the fence 14, and the lever 9 will be turned in a direction to move lever 5, by the engagement of the key with the end 19 of the lever 9. This movement of the lever 9 retracts the latch bolt thus leaving the door free to be opened from the outside, hence if the outer knob be deadlocked by the stop work mechanism 4, the latch bolt 3 can be retracted by the proper key. Upon the release of the key the latch bolt will be forced to its projected position, thus performing the function of an ordinary night latch. When the dead bolt 12 is in its locked position and the key inserted and turned to the right, the first turn of the key retracts the dead bolt



and the second turn the latch bolt. By this means I am enabled, by the same tumblers to lock both the dead bolt and the latch bolt.

Lever 9 is provided at its free end with a pin 21. When the dead bolt is retracted, and the tumblers lifted by the key, as it must be in order to permit the fence 14 on lever 9 to pass the shoulder 20, the fence on the dead bolt will be released thus freeing the latter. The continued movement of the key, engages, as before explained the lever 9 and turns same in a direction to retract the latch bolt. This movement of the lever 9 carries the pin 21, in front of the shoulder 22 on the bolt 12, as shown in Fig. 3, thus preventing any endwise movement of the dead bolt and consequent trapping of the lock during the time the dead bolt is released from the tumbler.

From the construction disclosed, it will be seen, that when the dead bolt is projected and the key inserted and turned to the right, the key actuates the tumbler to release the dead bolt and then moves the dead bolt to its retracted position. As the dead bolt nears its retracted position, the end wall of gating 15 engages fence 14 on lever 9 and turns the latter to the position shown in Fig. 2, and brings its end 19 within the cut away portion 23 of the shank of dead bolt 12. As the key is again revolved to the right, it first lifts the tumbler 13 thus releasing fence 14 from the shoulder 20 on said tumbler and then engages the end 19 of lever 9 and turns the same in a direction to retract the latch bolt.

I have shown a single tumbler but it is evident that I may use any number. It is also evident that changes in the construction and relative arrangement of the several parts might be made without avoiding my invention and hence I would have it understood that I do not restrict myself to the particular construction and arrangement of parts shown and described, but,—

Having fully described my invention what I claim as new and desire to secure by Letters-Patent, is,—

1. In a lock, the combination with a dead bolt actuated by a key, and a latch bolt, of lever mechanism connected with the latch bolt and adapted to be actuated by the key, and a tumbler for locking the dead bolt and the lever mechanism of the latch bolt.

2. In a lock, the combination with a dead bolt actuated by a key, and a latch bolt actuated by knob mechanism, of lever mechanism connected to the latch bolt and adapted to be actuated by the key which actuates the dead bolt, and a tumbler for locking the dead bolt and the lever mechanism of the latch bolt.

3. In a lock, the combination with a dead bolt actuated by a key, a dead bolt tumbler

and a latch bolt, of lever mechanism connected to the latch bolt, and adapted to be operated by the dead bolt key for retracting the latch bolt, the said lever mechanism having a fence movable in a gating in the dead bolt tumbler.

4. In a lock the combination with a dead bolt, a latch bolt, knob mechanism for the latch bolt, and dead locking means for the outer knob, of lever mechanism connected to the latch bolt and actuated by the dead bolt key, and a single tumbler mechanism for locking the dead bolt and the lever mechanism of the latch bolt.

5. In a lock, the combination with a dead bolt and a latch bolt, of lever mechanism pivotally mounted on bearings fixed to the lock case, and connected with the latch bolt for retracting same and adapted to be engaged by the dead bolt key after the dead bolt has been retracted.

6. In a lock, the combination with a dead bolt having a fence, and a latch bolt, of lever mechanism connected to the latch bolt and having a fence, and a tumbler having a gating for the fence on the dead bolt and a gating for the fence on the lever mechanism, one member of said lever mechanism adapted to be engaged by the dead bolt key.

7. In a lock, the combination with a dead bolt having a fence and a slot, and a latch bolt connected with knob mechanism, of lever mechanism connected with the latch bolt and adapted to be actuated by the dead bolt key, one member of said lever mechanism having a fence passing through the slot in the dead bolt and a tumbler having a gating for the fence on the dead bolt and a gating for the fence on the lever mechanism.

8. In a lock, the combination with a dead bolt and a latch bolt, of a bell crank lever pivoted to the lock case and connected with the latch bolt, a second lever engaging the first mentioned lever and adapted to be engaged by the dead bolt key, and a single tumbler mechanism for locking the dead bolt and also the lever mechanism.

9. In a lock, the combination with a dead bolt and a latch bolt, of the two bell-crank levers, one of which is connected to the latch bolt and the other adapted to be engaged by the dead bolt key, and provided with a pin adapted to be moved into contact with a shoulder on the dead bolt when the latch bolt is retracted.

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

PETER F. AUGENBRAUN.

Witnesses:

SCHUYLER MERRITT.

WARREN H. TAYLOR.