

S. E. WILMORE.
 LOCK FOR VENDING MACHINES.
 APPLICATION FILED APR. 7, 1909.

944,398.

Patented Dec. 28, 1909.

Fig. 1.

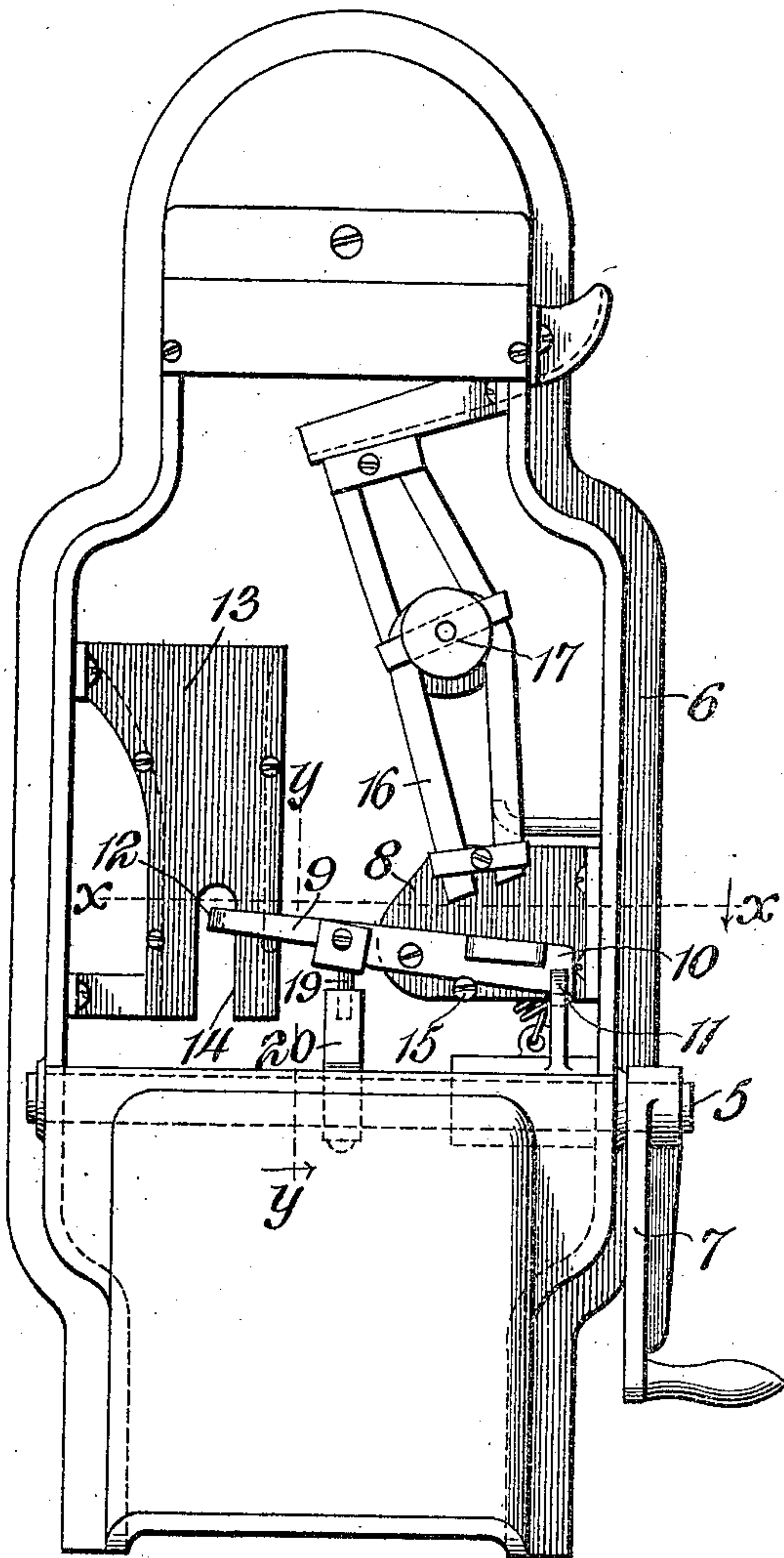


Fig. 2.

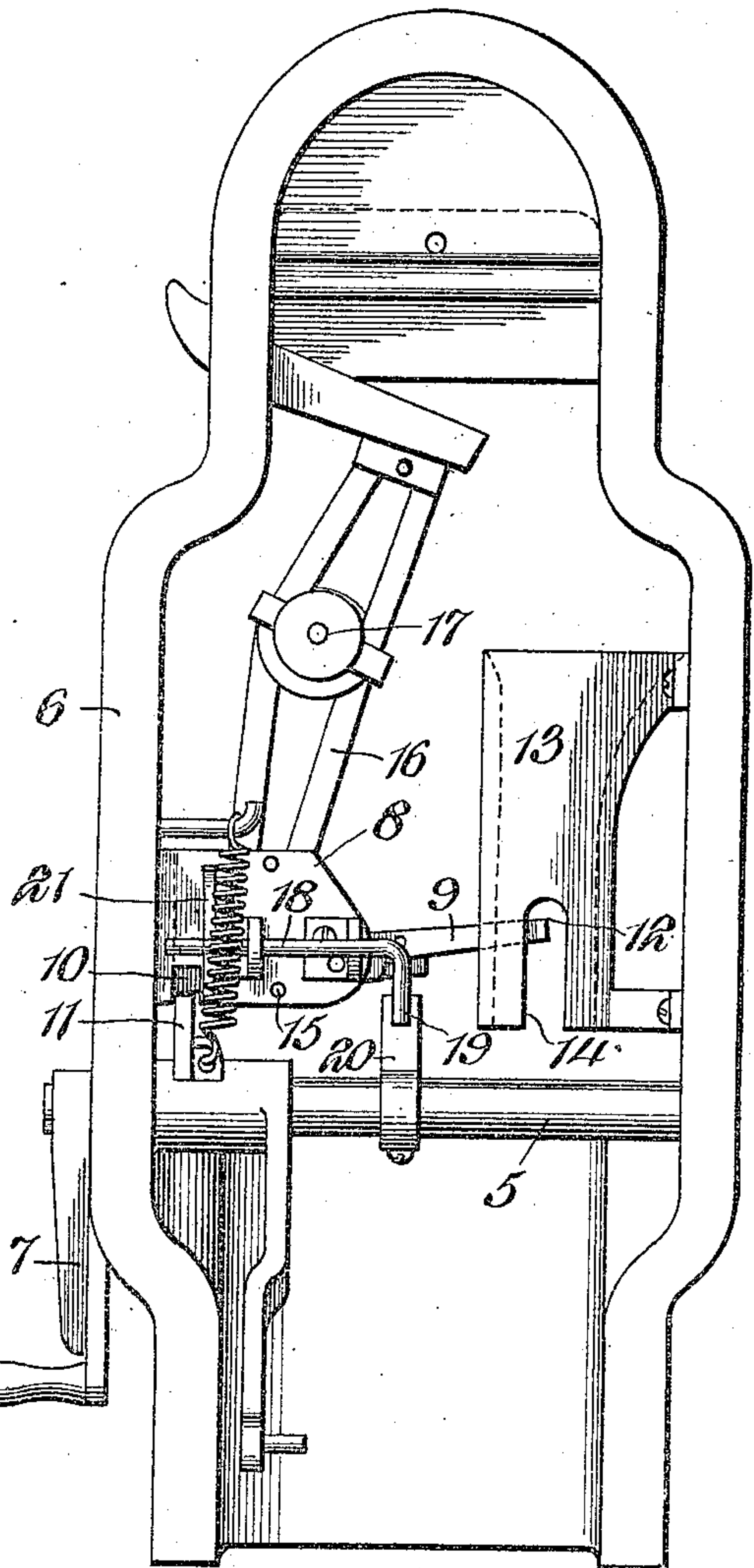
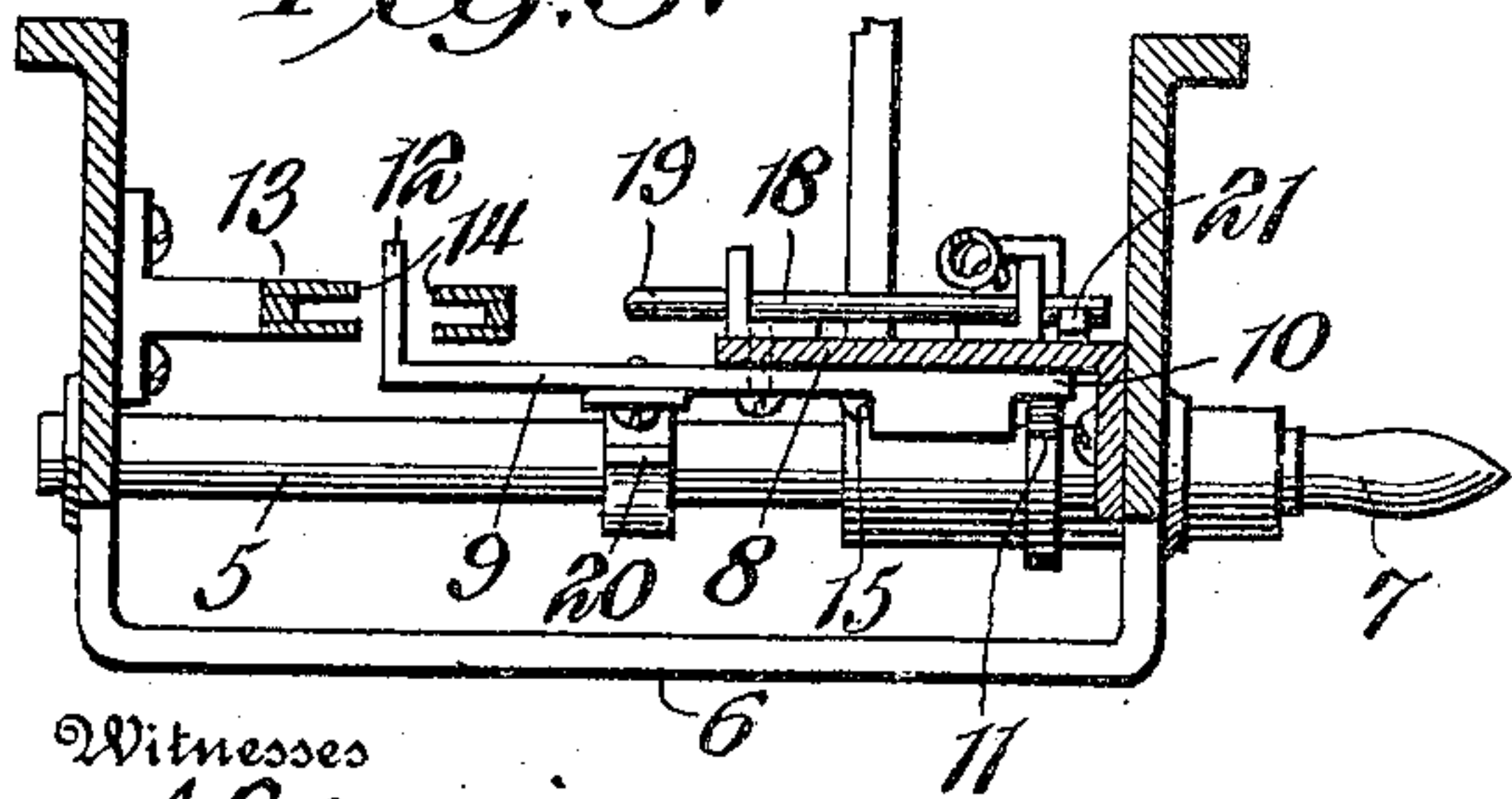


Fig. 3.



Witnesses

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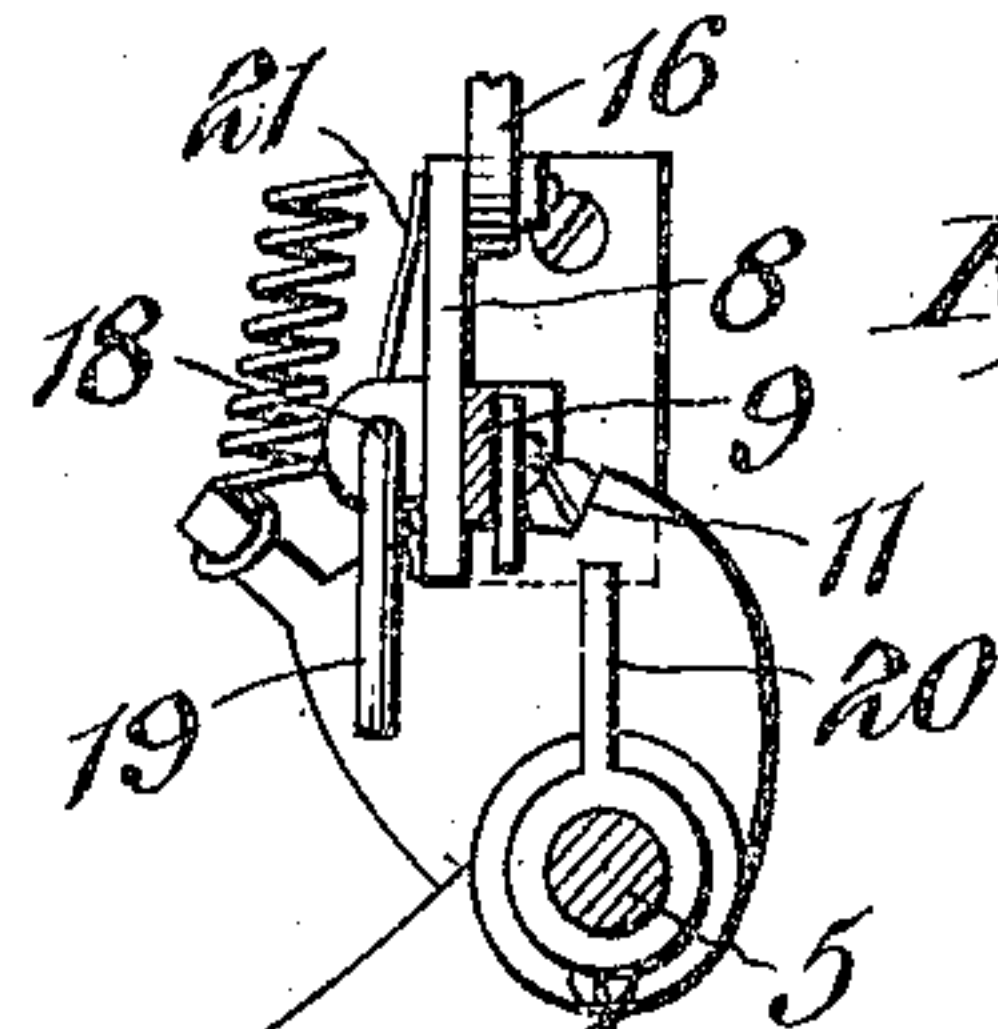


Fig. 4.

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LOCK FOR VENDING-MACHINES.

944,398.

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To all whom it may concern:

Be it known that I, SILAS E. WILMORE, a citizen of the United States, residing in the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Locks for Vending-Machines, of which the following is a specification.

The present invention relates more particularly to means for controlling the operation of the actuating mechanism of a vending machine, and the object is to provide an exceedingly simple structure that is very effective in operation, and is composed of a few simple parts, which can be easily manufactured and assembled, said parts not being liable to displacement or injury.

The preferred form of construction is illustrated in the accompanying drawings, wherein:—

Figure 1 is a front elevation of the mechanism. Fig. 2 is a rear elevation of the same. Figs. 3 and 4 are respectively cross sectional views on the line $x-x$ and $y-y$ of Fig. 1.

Similar reference numerals designate corresponding parts in all the figures of the drawings.

In the embodiment illustrated, an actuator is employed, comprising a rock shaft 5, extending through the usual casing 6 of the vending machine and having an external operating crank 7. This rock shaft may be connected in any convenient manner with the vending mechanism, which is not shown, and which may be of any type desired, the same not constituting a feature of the present invention. Mounted within the casing 6, and directly above the rock shaft 5, is a suitable bracket 8, on which is fulcrumed a lever 9. One end 10 of this lever constitutes a holding latch that is arranged to engage behind a shoulder 11 formed upon the rock shaft 5, preferably adjacent to the casing wall. The other end of the lever is offset, as shown at 12, and extends across a check or coin chute 13, said end operating in longitudinal slots 14 formed in the opposite walls of said coin chute. The lever is such that the latch end 10 normally overbalances the other end, and consequently the latch is normally located behind the shoulder 11, thus preventing an operative movement of said rock shaft. The downward movement of the latch is preferably limited by a set screw 15. When, however, a check or coin is introduced into the chute 13, it will strike

the offset terminal 12, and overbalancing the latch, will cause the same to rise out of the path of movement of the shoulder 11, thus releasing the rock shaft, and permitting its operation.

For the purpose of holding the latch 10 in its inoperative position, after it has been actuated, a magnet 16 is employed that is clamped, as shown at 17 upon the bracket, and has its poles disposed in the path of movement of said lever. This lever is made of magnetic material, and consequently when the latch is raised, it is brought into the field of magnetism of said magnet. It therefore constitutes an armature, which is attracted to the poles, and is held thereby.

For the purpose of returning the latch, a rock shaft 18 is journaled upon the rear side of the bracket 8, and projects beyond the inner end of the same, where it is provided with an offset depending terminal 19. This terminal is disposed in the path of movement of an upstanding finger 20 secured to the rock shaft 5. The rock shaft 18 is normally held with the terminal 19 in its depending relation by means of a leaf spring 21 fastened to the outer end thereof, and substantially bearing against the rear side of the bracket 8 when the shaft is turned. The terminal 19 is swung in opposite directions by the finger 20, and upon the return movement of said finger 20, it is carried thereby into engagement with the under side of the lever 9 so that said latch end 10 of the said lever is swung downward out of the field of magnetism of the magnet.

Briefly described, the operation of the structure is as follows. As long as the parts are in the position, illustrated in Fig. 1, the rock shaft is locked, as already explained. When, however, a check or coin passes through the chute 13, the rock shaft is released, and the latch is held inoperative by the magnet 16 until said shaft is actuated. Upon the movement of the shaft from its normal position, the finger 20 strikes the terminal 19, and swings the same rearwardly, passing beyond the same. Consequently upon the return movement, said finger 20 again strikes the terminal 19, and swings it forwardly. It thereupon engages the under side of the lever and forces the same away from the magnet 16, permitting the latch 10 to again drop behind the shoulder 11.

From the foregoing, it is thought that

the construction, operation and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. In check controlled mechanism, the combination with an actuating rock shaft having a shoulder, of a lever pivotally mounted between its ends, one end of the lever engaging behind the shoulder to hold the shaft, means for directing a check against the other end of the lever to carry the latch away from the shoulder, means for holding it away from said shoulder when so moved, and means operated by the rock shaft to swing the lever away from the holding means and cause the latch to re-engage behind the shoulder.

2. In check controlled mechanism, the combination with an actuating rock shaft having a shoulder and a finger, of a lever fulcrumed between its ends, one end of the lever constituting a latch that engages behind the shoulder, means for directing a check against the other end of the lever to swing said latch away from the shoulder, means for maintaining it out of engagement with the shoulder when so swung, and a swinging trip engaged by the finger of the rock shaft and swung in opposite directions thereby, said finger engaging the lever to swing the same away from its holding means upon the return movement of the rock shaft.

3. In check controlled mechanism, the combination with actuating means, of a lock for preventing its operative movement, a magnet for holding the lock in position to permit the movement of the actuating means, and check-controlled mechanism for relatively moving the lock and magnet to bring the former into the field of magnetism of the latter.

4. In check controlled mechanism, the

combination with actuating means, of a lock for preventing its operative movement, a magnet for holding the lock in position to permit the movement of the actuating means, and check-controlled means for carrying the lock into the field of magnetism of the magnet and out of coöperative position with respect to the actuating means.

5. In check controlled mechanism, the combination with an actuator having a shoulder, of a latch that engages behind the shoulder, a magnet disposed in the path of movement of the latch, and check-controlled means for effecting the movement of the latch away from the shoulder and into the field of magnetism of said magnet.

6. In check controlled mechanism, the combination with an actuating rock shaft having a shoulder, of a lever fulcrumed between its ends, one end of the lever constituting a latch that engages behind the shoulder, means for directing a check against the other end of the lever, and a magnet located in the path of movement of the lever, said lever being carried into the field of magnetism of said magnet when actuated by a check.

7. In check-controlled mechanism, the combination with an actuating rock shaft having an outstanding shoulder and an outstanding finger, of a supporting bracket, a lever fulcrumed between its ends on the supporting bracket and having one end detachably engaging behind the shoulder, means for directing a check against the other end of the lever, a magnet mounted on the bracket and disposed in the path of movement of the lever, another rock shaft journaled on the bracket and having an offset terminal portion that is engaged by the finger upon the opposite movements of the actuating rock shaft and engages the lever to swing the same away from the magnet on the return movement of said rock shaft.

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

SILAS E. WILMORE.

Witnesses:

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