T. M. FLETCHER.

LOCK.

APPLICATION FILED FEB. 24, 1919.

1,330,856.

Patented Feb. 17, 1920.

Fig. 1.

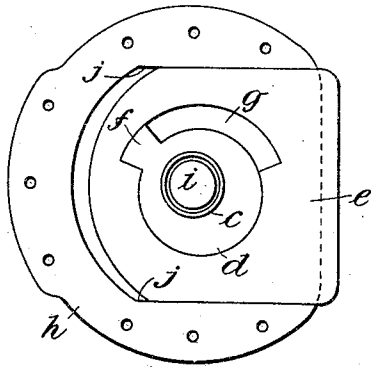


Fig. 2.

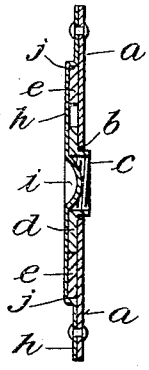


Fig. 3.

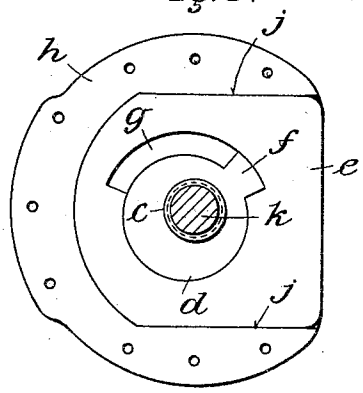
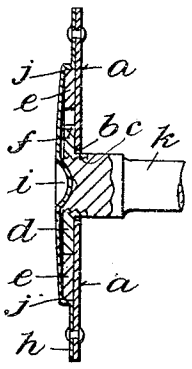


Fig. 4.



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LOCK.

1,330,856. Specification of Letters Patent. Patented Feb. 17, 1920.

Application filed February 24, 1919. Serial No. 278,928.

To all whom it may concern:

Be it known that I, THOMAS MOORE FLETCHER, a subject of the King of Great Britain, residing at London, England, have invented new and useful Improvements in Locks, of which the following is a specification.

This invention relates to an improved lock and consists of a pair of steel stampings inclosing a flat steel bolt, in the center of which and between the said steel stampings revolves an eccentric on the insertion of a key, which is made of round steel and threaded at its end to fit a tapped hole in the eccentric, whereby the eccentric is rotated and the locking and unlocking effected as may be desired. The key does not become effective in turning the eccentric until the end of the key presses against the back plate and relieves the grip of the eccentric between the two plates, and the length of the thread gives greater protection to the lock. The lock is particularly applicable for use on an automatic coin-operated vending machine as used in theaters for the sale of confectionery, because apart from the protection afforded by the absence of a keyhole, the act of removing the key forces the bolt outward, thereby securely locking the door of the receptacle; for commercial purposes the lock may be adapted for many other uses and with numberless variations.

In order that my invention may be clearly understood, an example of a lock constructed in accordance therewith is illustrated in the annexed sheet of drawings, in which Figure 1 is an elevation with the front cover-plate removed showing the bolt shot in the locked position, and Fig. 2 a transverse section of Fig. 1 presuming the key to have been withdrawn; while Figs. 3 and 4 are similar views of the same lock with the parts in the unlocked position, Fig. 4 illustrating the effect of the insertion of the key when the unlocking operation is accomplished.

Referring now to the drawings, in which similar letters of reference relate to like parts in all the figures, *a* is the front plate which obviously instead of being a part of the lock-casing may be an integral part of the article to which the lock is to be applied. The plate *a* is provided with a hole *b* that forms a bearing for the screw-threaded boss *c* of the eccentric *d* and retains the same in its central position. The eccentric *d* snugly fits the hole provided therefor in the bolt *e* and is furnished with an extension or projection *f* that works in a corresponding segmental opening *g* formed in the bolt *e*. The bolt *e* and the eccentric *d* are retained in position by the metal stamping or cover-plate *h* which is provided with an indentation *i* that is coincident with the boss *c* and walls *j* that form guides to secure the regular reciprocatory movement of the bolt *e*. In the locked position, as illustrated in Figs. 1 and 2, the eccentric *d* is firmly held or gripped between the plates *a* and *h*, and to insure this the surface of the eccentric adjacent to the plate *h* may be cambered or slightly protrude beyond the surface or thickness of the bolt *e*. By the insertion of the screw-threaded key *k* into the screw-threaded boss *c* and when said key is screwed home, as illustrated in Figs. 3 and 4, the cover-plate *h* is pressed away from the eccentric *d* which is thereby released and turned into its opposite position so that the projection *f* is brought into engagement or contacts with the other end of the segmental opening *g* of the bolt *e*. The act of withdrawing or unscrewing the key *k* firstly projects the bolt *e* forward into the position shown in Fig. 1, the limitation of movement being determined by the projection *f* and its engagement with the opposite end of the segmental opening *g*, the key *k* being then withdrawn reëstablishes the grip of the eccentric *d* between the plates *a* and *h* and the consequent retention of the bolt *e* in the locked position.

Claims.

1. A lock comprising two plates, a bolt mounted therebetween, an eccentric rotatably engaging said bolt, and means for causing said eccentric to be gripped between said plates when the bolt is in one of its positions, and free from said plates when the bolt is in the other position, said means being adapted to be controlled by a key.

2. A lock including a bolt, plates on each side of said bolt, operating means for said bolt adapted to be gripped between said plates in one position of the bolt and free from said plates in another position, and a key adapted to release the pressure on said operating means and thereafter to operate said means to effect the shifting of said bolt.

3. A lock comprising a front and back

plate, a bolt slidably mounted therebetween, an eccentric contained within said bolt, adapted to actuate the same and firmly gripped between the said front and back plates when in the locked position, and means for controlling the gripping action of said plates and the movements of the eccentric, substantially as described.

4. In a lock comprising a front and a back plate, a bolt slidably mounted therebetween, a screw threaded eccentric contained within said bolt and adapted to actuate the same, said eccentric being firmly gripped between the said front and back plates when in the locked position, a screw-threaded key adapted to control the gripping action of the plates and the movements of the eccentric, the screw threads of the eccentric being engaged by the screw threads of the key, and a projection on the eccentric co-acting with a segmental opening in the said bolt, substantially as described and for the purpose set forth.

In testimony whereof I have signed my name to this specification.

THOMAS MOORE FLETCHER.