R. J. KEPPEL.

LOCK.

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1,079,351. Patented Nov. 25, 1913.

Fig. 1.

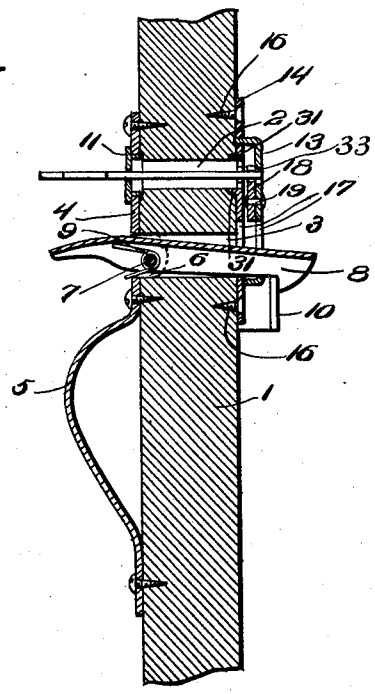


Fig. 2.

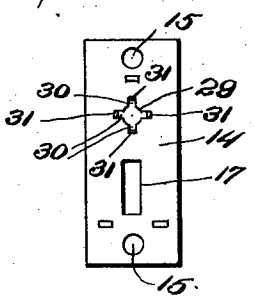


Fig. 3.

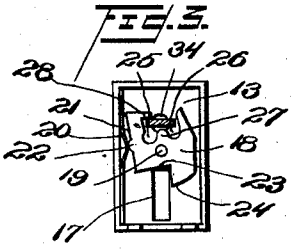


Fig. 4.

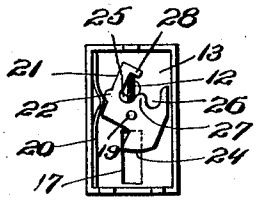


Fig. 5.

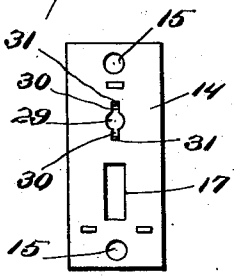
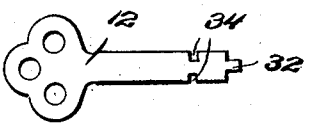


Fig. 6.



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LOCK.

1,079,351. Specification of Letters Patent. Patented Nov. 25, 1913.

Application filed August 14, 1911. Serial No. 643,853.

To all whom it may concern:

Be it known that I, RICHARD J. KEPPEL, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Locks, of which the following is a specification.

My invention relates to improvements in locks, and more particularly to locks designed for use in connection with china closets and other similar articles of furniture, which is adapted to hold the latch in its holding position, or release the latch as may be desired.

A further object is to provide a lock of this character which may be made from sheet metal, which will be comparatively cheap to manufacture, and which may be used in connection with any ordinary form of pivoted latch to maintain the latch in its holding position, or permit the latch to move.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings: Figure 1, is a view in vertical section illustrating my improvements. Fig. 2, is a face view of the lock. Fig. 3, is a view of the lock with the face plate removed, showing the tumbler in unlocked position. Fig. 4, is a view similar to Fig. 3 showing the tumbler in locked position. Fig. 5, is a view similar to Fig. 2 showing a modification, and Fig. 6, is a view of the key.

1, represents a door which is provided with two openings 2 and 3, the opening 2 being preferably directly above the opening 3.

4, represents an escutcheon plate which extends over both the openings 2 and 3, and has an integral handle 5. The escutcheon plate 4 at the opening 3 is provided with perforated ears 6 in which a pin 7 is secured, and serves as a fulcrum for a latch 8, and a coiled spring 9 positioned on the pin normally presses the inner end of the latch downward, and this inner end is hook shape as shown, and adapted to engage a keeper 10 when in locked position. Escutcheon plate 4, opposite the upper opening 2, is provided with a swiveled slotted key receiving plate 11, and through this plate a key 12 is adapted to be inserted to operate my improved lock which will now be described.

13, represents the casing of my improved lock, and 14 a face plate which is riveted to the casing and extends beyond the ends of the casing where it is provided with openings 15 for the reception of screws 16 to secure the lock to the inner face of the door. The face plate 14, and also the casing 13, are provided in their lower ends with registering slots 17 through which the latch 8 projects, and is normally movable up and down to engage or disengage the keeper 10. To prevent the upward movement of the latch, a tumbler 18 is provided in casing 13, and has rotary mounting on a stud 19. A bow spring 20 engages a flat face 21 of the tumbler, so as to hold the latter in either of its positions. This is accomplished by reason of the fact that the spring is bent between its ends, and the bent portion is centrally positioned on the flat face of the tumbler, and the tumbler on its flat face is provided centrally with a slight enlargement 22, which rides over the bent portion of the spring, and holds the tumbler against accidental movement. The tumbler 18 is recessed in its lower edge as shown at 23, and this recess normally registers with the slots 17 so as not to interfere with the movement of the latch. At one side of this recess 23, a shoulder 24 is provided which is adapted when moved across the upper edge of the latch to rigidly hold the latch against upward movement, and hence securely lock the door. To move the tumbler, the key 12 is provided, and the tumbler is made with recesses 25 and 26 at opposite sides of a central lug 27 in the upper portion of the tumbler. One side of this tumbler, which constitutes one wall of one of the recesses, is made with an inwardly projecting shoulder 28 which serves to limit the movement of the key in one direction, namely, in the direction to unlock. This is important, because it holds the key in a horizontal position when unlocked, so that ample room is provided between the key and the outer end of the latch for the insertion of the thumb to depress the latch. To prevent moving the tumbler, except by the proper key, the face plate 14 is made with

a key receiving opening 29 of a peculiar shape. In other words, a circular opening is provided and a series of radially projecting recesses 30, and in forming these recesses the metal is bent at right angles, constituting lugs 31 which are forced into the opening 2, and serve to center the lock.

The key 12 is provided at its inner end with an extension 32 adapted to enter an opening 33 in the lock casing 13, and turn therein. The width of the key is just sufficient to enter the recesses 31 and the side edges of this key is notched as shown at 34 to permit it to turn. The recesses 31 are so located that the key may be withdrawn in either its locking or unlocking position. It may be desirable, however, to provide but a single pair of these notches as shown in Fig. 5, and hence the key can only be withdrawn when the door is locked. It will therefore be noted that my improvements enable the ordinary spring latch to operate as a lock, and the combined latch and lock can be manufactured and placed on the market at a comparatively low cost, resulting in an improved construction, when in use, over the ordinary forms of independent latch and lock. While I have described the same as particularly adapted for use on a china closet, it may of course be put to various other uses, and I do not limit myself to the precise details set forth, but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

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

1. The combination with a door having two openings therein, of a pivoted latch projecting through the lower opening and extending beyond the inner face of the door, a lock casing secured to the inner face of the door independent of the latch and having openings registering with both openings in the door, said latch projecting through the lower openings in the lock, a tumbler mounted in the casing and adapted to be moved into the path of movement of the latch, and a key adapted to be projected through the upper openings in the door and lock and operate said tumbler, substantially as described.

2. The combination with a door having two openings therein, of a pivoted latch projecting through the lower opening and extending beyond the inner face of the door, a lock casing secured to the inner face of the door independent of the latch and having openings registering with both openings in the door, said latch projecting through the lower openings in the lock, a tumbler mounted in the casing and adapted to be moved into the path of movement of the latch, a face plate on said casing having an opening therein, and key receiving recesses at opposite sides of said opening, a key constructed to operate said tumbler, and notches in opposite sides of said key to receive the face plate between the recesses therein, substantially as described.

3. The combination with a door having two openings therein, of a pivoted latch projecting through the lower opening and extending beyond the inner face of the door, a lock casing secured to the inner face of the door independent of the latch and having openings registering with both openings in the door, said latch projecting through the lower openings in the lock, a tumbler mounted in the casing and adapted to be moved across the path of movement of the latch, a face plate on said casing having an opening therein, and key receiving recesses at opposite sides of said opening, a key constructed to turn said tumbler, and notches in opposite sides of said key to receive the face plate between the recesses therein, and a spring within the locked casing bent between its ends and bearing against the tumbler, whereby said tumbler is held in either its locked or unlocked position, substantially as described.

4. The combination with a door having two openings therein, of an escutcheon secured to the outer face of the door and positioned over the openings, a handle on said escutcheon, a latch pivoted to the escutcheon and projected through the lower opening, a lock casing secured to the inner face of the door independent of the latch and having an opening through which said latch projects, lugs struck from the face plate of said casing forming key receiving recesses, said lugs positioned in the upper opening in the door, a swiveled slotted key receiving plate in the escutcheon opposite the upper opening, a tumbler in said casing, and a key adapted to be projected through the upper opening to move said tumbler into position over the latch and limit the movement of the latch, substantially as described.

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

RICHARD J. KEPPEL.

Witnesses:
C. R. ZIEGLER,
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."