No. 693,114. Patented Feb. 11, 1902.

A. F. CORBIN.

KEYLESS LOCK.

(Application filed July 9, 1901.)

(No Model.)

Fig. 1

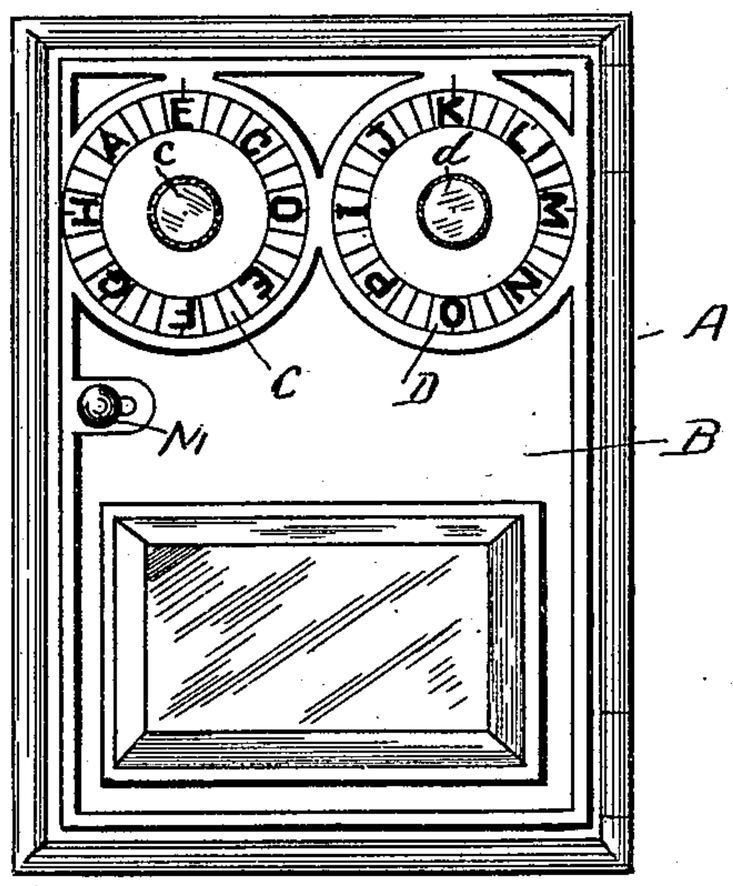


Fig. 2

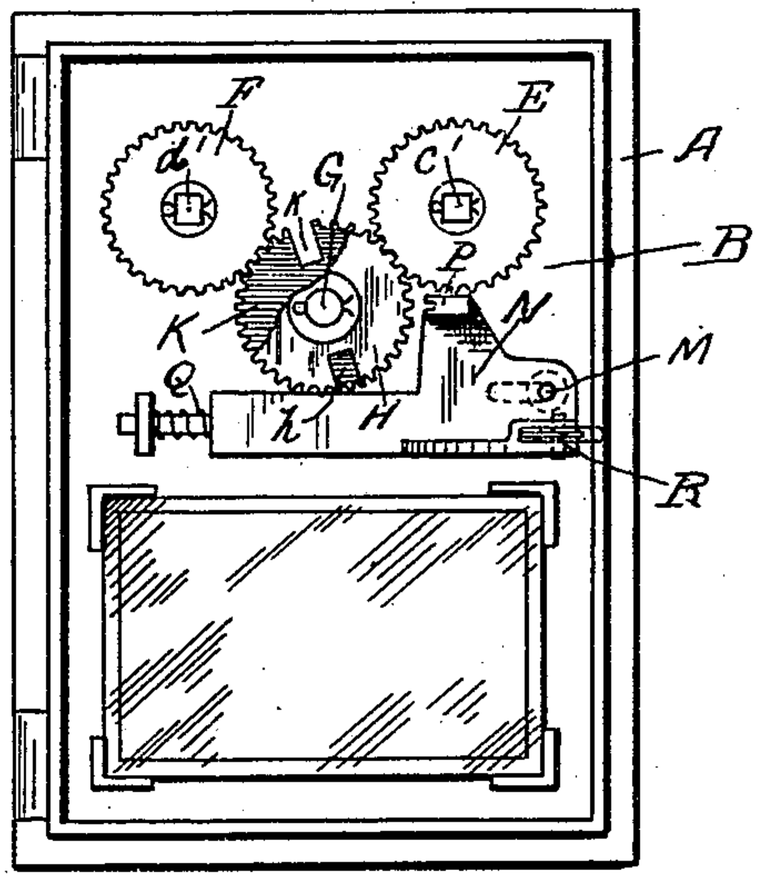
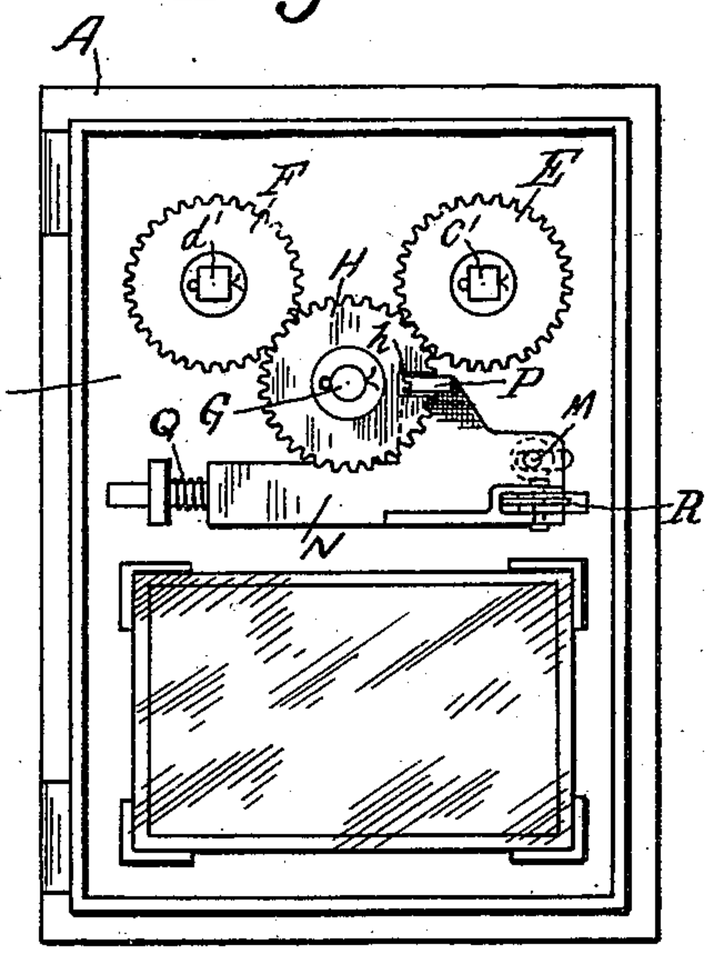


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

ALBERT F. CORBIN, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO CORBIN CABINET LOCK COMPANY, OF NEW BRITAIN, CONNECTICUT, A CORPORATION OF CONNECTICUT.

KEYLESS LOCK.

SPECIFICATION forming part of Letters Patent No. 693,114, dated February 11, 1902.

Application filed July 9, 1901. Serial No. 67,624. (No model.)

To all whom it may concern:

Be it known that I, ALBERT F. CORBIN, a citizen of the United States, and a resident of New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Keyless Locks, of which the following is a description, whereby any one skilled in the art may make and use the same.

The object of my invention is to produce a lock of this description having features of novelty and advantage. The uses to which sum a lock may be applied are numerous, and I do not care to limit myself to any particular use.

In the drawings I have shown my invention as embodied in a lock for use on post-office-box doors.

Figure 1 is a front view of a post-office-box door and frame. Fig. 2 is a rear view showing the bolt locked. Fig. 3 is a rear view showing parts in position so that the bolt may be retracted.

Referring to the drawings, A denotes the frame of an ordinary post-office lock-box, and B the door hinged thereto.

C D are dials similar to those usually employed in keyless or combination locks. The dials, as shown in the drawings, are located in recesses in the door and have knobs *c d*, by which they are turned. At the rear these dials have stems *c' d'*, which project through openings in the door. Secured to the stems are gears E F. These gears are keyed to the stems *c' d'*, so that they will turn with the stems. One way of doing this is illustrated in the drawings, where the stems are shown as having a square or irregular cross-section, the gears fitting closely on the stem and held in place by cotters.

Loosely mounted on the stud G are the gears H K, one of said gears H meshing with the gear E and the other gear K meshing with the gear F. In the peripheries of these gears H K there are formed slots or recesses *h k*. The bolt M carries the spring-actuated locking-latch N and a stump P. This bolt has a limited sliding movement. It is apparent from the drawings that when the parts are in position shown in Fig. 2 the bolt M cannot be retracted, because the gears H K lie in the path of movement of the stump P, which is carried by the bolt. When the parts are in the position shown in Fig. 3, the slots in the gears H K registering with one another and the stump alining with the slots, the bolt may be retracted and the door unlocked. This bolt M is normally held in its forward position by the spring Q, and it carries on it a spring-latch R, which permits the door to be closed when the combination is off. The relation of the slots in the gears H K with the characters on the face of the dial may be changed at will to alter the combination.

It is clear that modifications and alterations in the arrangement and number of the parts may be made without departing from the spirit of my invention, and I intend to include herein any and all such modifications.

I claim as my invention—

1. In a keyless lock two or more dials, gears operated thereby, tumblers corresponding in number to the number of gears, said tumblers being revolubly mounted on the same stud, teeth formed about the peripheries of said tumblers whereby a tumbler is moved by its corresponding gear and dial, a slot formed in the periphery of each tumbler, the sliding lock-bolt provided with a stump, said stump being adapted to enter the recesses in all the tumblers when said recesses register with one another and lie in the path of movement of said stump, all substantially as described and for the purposes set forth.

2. In a keyless lock in combination the dials having operating-handles, and stems projecting from their rear faces, gears mounted on the dial-stems, means for varying the angular relation of said gears with respect to said dials, a corresponding number of gears revolubly mounted on the same stud, each of the first-mentioned gears meshing with one of the gears on the dial-stems, slots in the peripheries of the revolubly-mounted gears, the sliding lock-bolt, and the stump carried thereby and adapted to coöperate with the slots in the revolubly-mounted gears whereby the bolt may be retracted when said slots register with one another and lie in the path of movement of the stump.

ALBERT F. CORBIN.

Witnesses:
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