

N. E. CROW.
COMBINATION MAIL BOX LOCK AND COLLECTION INDICATOR.
APPLICATION FILED MAR. 2, 1907. RENEWED JULY 17, 1909.

934,959.

Patented Sept. 21, 1909.

Fig. 2.

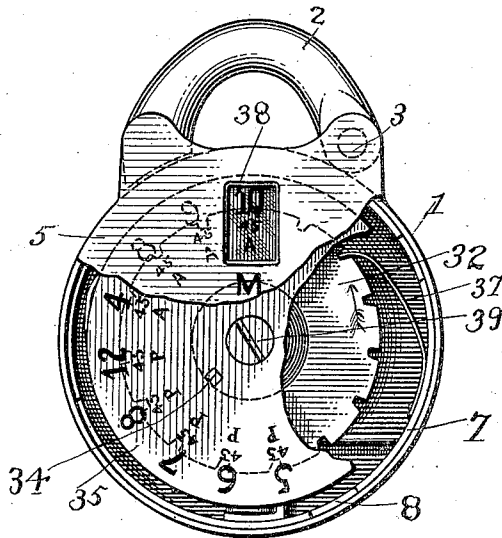


Fig. 1.

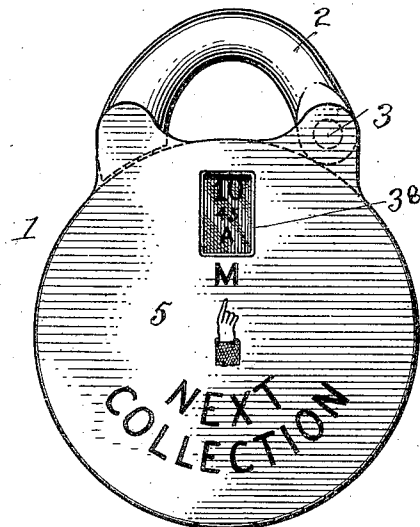


Fig. 3.

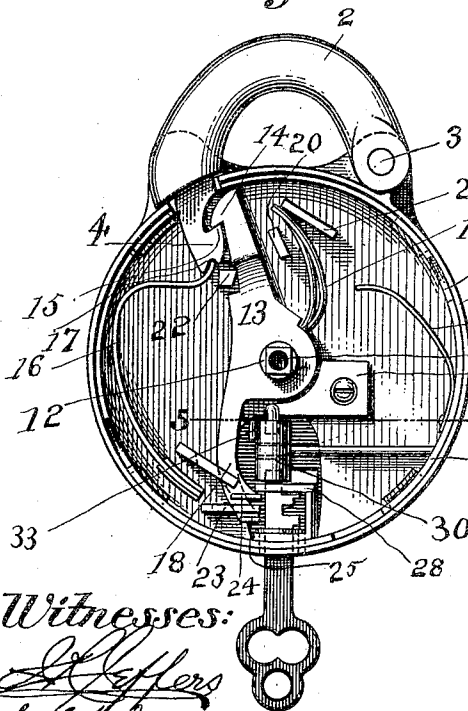


Fig. 4.

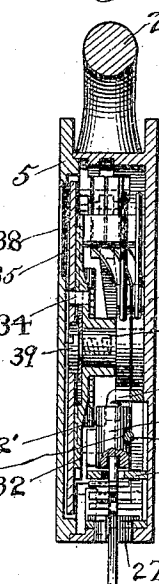


Fig. 6.

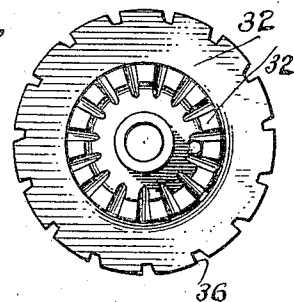
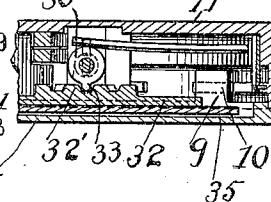


Fig. 5.



Witnesses:

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COMBINATION MAIL-BOX LOCK AND COLLECTION-INDICATOR.

934,959.

Specification of Letters Patent. Patented Sept. 21, 1909.

Application filed March 2, 1907, Serial No. 360,264. Renewed July 17, 1909. Serial No. 508,146.

To all whom it may concern:

Be it known that I, NEWTON E. CROW, a citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented a new and useful Device to be Known as Combination Mail-Box Lock and Collection-Indicator, of which the following is a specification.

My invention relates to improvements in combined mail box lock and collection indicator.

The object of my invention is to provide a lock for mail boxes in which a dial is so located that the turning of the key within the lock turns the dial and indicates the time of the next collection, whereby the time of the next collection is plainly visible upon the lock. This also serves as a check against the mail collector, as an inspector could readily tell whether the carrier has collected from the box by looking at the lock.

Another object of my invention is to provide a more simple, cheap and effective lock of this character.

In the accompanying drawings, Figure 1 is a side elevation of my improved lock. Fig. 2, is a side elevation similar to Fig. 1, showing the casing partly broken away, and also showing the dial partly broken away. Fig. 3 is a side elevation of the lock with the removable side the dial and the disk removed and the key inserted. Fig. 4, is a vertical, transverse, sectional view. Fig. 5 is a detail sectional view showing the dial operating mechanism, taken on the line 5—5, of Fig. 3 and Fig. 6 is a rear view of the disk operated by the key and which carries the dial.

Referring now to the drawings, 1 represents my improved lock which is made of the usual shape, and preferable of a metal which is impervious to climatic conditions, and will not rust. The lock is as before stated, of the usual shape of the ordinary pad-lock, having the bow 2 pivoted at 3 and having the end 4 adapted to enter the lock and to be locked therein in a manner to be hereinafter more fully described. The lock shown is of a circular form, and provided with the removable top plate 5. The circular wall 6 of the lock is provided on its inner circumference with a beading 7 which is broken away at intervals as indicated at 8. The removable top plate 5 is provided with lugs 9 which

are of a width equal to the cut-away portion 8, whereby the plate is readily placed in position. The outer faces of said lugs are provided with grooves 10 which are of a width slightly greater than the beading 7, and by turning the top plate a short distance the beading enters said grooves and the top plate is locked in position.

The bottom plate 11 of the lock is provided at its center with the inwardly extending stud 12 upon which is mounted the tumbler 13 which is provided with a hooked end 14 which engages the hooked end 15 of the bow, whereby the same is held in its closed position. In order to throw the said bow outwardly when it is released I provide a spring 16 which has one end secured to the body of the lock and the other end entering a notch 17 in the bow, whereby the same is thrown outwardly. The tumbler 13, as shown, is mounted upon the stud 12 intermediate its ends, one end, as before described, engaging the bow of the lock, while the opposite end 18 is adapted to be operated on by the key for rocking it upon the stud and throwing the hooked end out of engagement with the bow, as will be hereinafter more fully described.

In order to hold the tumbler in the position shown in Fig. 3, I provide the spring 19 secured to the tumbler and working between the lugs 20 and 21. The tumbler is prevented from being thrown too far by the spring by means of the lug 22. The end 18 of the tumbler passes through a guide 23 and is provided with two laterally turned portions 24 and 25 between which passes the guide 23 carried by the frame of the lock. The key enters the lock through the key-hole 27 and is of such a shape that when turned it will straddle the guide 23 and engage the laterally-turned portions 24 and 25, oscillating the tumbler on the stud and thus releasing the hooked end from the bow.

The bottom plate 11 opposite the key hole is provided with the two studs 28 and 29 between which is rotatably mounted a radially arranged member 30 which is provided with an opening in its outer end, in which the squared end of the key extends, and by means of which it is rotated. In order to prevent the said member 30 from rotating too far I provide a spring 31 resting in a recess 31' on one side of the member 30.

Mounted upon the stud 12 is a disk 32 which is provided with a circular row of cog teeth 32' which are arranged directly above the member 30, and said member 30 is provided with a lug 33 which is adapted to engage said teeth and rotate the disk. The disk on its outer face is provided with a lug 34 by means of which the dial 35 is keyed or locked to the disk. In order to prevent the disk from rotating in but one direction I provide the outer periphery with notches 36 in which the curved spring 37 extends, and whereby the same is allowed to rotate in but one direction.

The dial has any desired number of figures thereon to indicate the hours of collection, and are so spaced that each movement of the disk heretofore described will turn the dial sufficiently to bring another numeral opposite the opening 38 in the removable top plate. In order to prevent the dial from slipping laterally from the disk I provide a screw 39 which enters the screw-threaded opening 40 in the stud. Below the numbers carried by the outer periphery of the dial are numbers to indicate the minute at which the collection is to be made, and below the last named numerals are letters to indicate whether the collection is a. m. or p. m., all of which can be readily changed to suit circumstances, without departing from my invention.

By the construction herein set forth it will be seen that the key is inserted, and when turned to the right the tumbler 13 is oscillated to release the bow. The member 30 is simultaneously rotated by the square end of the key and the lug 33 engages the teeth carried by the disk and rotates the same to the left in the direction indicated by the arrow in Fig. 2, and whereby the succeeding numeral thereon is brought opposite the opening and is in plain view to indicate the hour and minute of the next collection.

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

1. A lock of the character described, comprising a casing, a pivoted bow, means for locking the bow in the casing, a disk within the casing, cog teeth carried by the under face of the disk, a member having a lug meshing with the cog teeth of the disk, and adapted to be operated by a key, a removable dial carried by the disk but held against rotation thereon, whereby the dial is operated with the disk for the purpose described.

2. A lock of the character described, comprising a casing, a pivoted bow, means for locking the bow in the casing, a stud carried by the casing, a disk rotatably mounted upon the stud, cog teeth carried by the under side of said disk, means for engaging the periphery of the disk to prevent it from rotating too far during each operation thereof, means adapted to be operated by a key for engaging

the cog-teeth for rotating the disk, and a removable dial carried by the disk but held against rotation thereon.

3. A lock of the character described, comprising a casing, a bow pivotally carried thereby, a stud centrally carried by the casing, a tumbler pivotally mounted upon the stud, and having one end engaging the bow and the opposite end adapted to be operated on by a key for releasing the bow, a disk rotatably mounted upon said stud, and having ratchet teeth in its outer periphery, a pawl for engaging said teeth and preventing it from being rotated in but one direction, cog teeth rigidly carried by the lower face of said disk, a radially arranged member within the casing, a lug carried by said member and engaging the cog teeth carried by the disk, said member at its end formed to receive a locking key for rotating the shaft, means for limiting rotation of said shaft by said key, a dial secured to the disk and having figures thereon to indicate the various times for the collection of the mail, and a removable cover for the casing having an opening exposing one of the numerals for the purpose set forth.

4. A lock of the character described, comprising a casing, a bow pivotally carried thereby, a stud carried by the casing, a tumbler pivotally mounted upon said stud intermediate its ends, one end of said tumbler engaging the bow, means at the opposite end whereby it is adapted to be moved on its pivot by a key, a disk rotatably mounted upon said stud and having ratchet teeth in its outer periphery, a spring carried by the casing and engaging said teeth to prevent retrograde movement of said disk, cog teeth carried by the lower face of said disk, a dial carried by the disk and held against rotation thereon, a radially arranged member within the casing, a lug carried by the member and engaging the cog teeth carried by the disk, said member having a slot in its end and in which a locking key is adapted to be inserted for rotating the member when operating the tumbler, said member having a recess, a spring carried by the casing and entering said recess to limit rotation of the shaft during each operation of the key, and the dial having figures which show through an opening in the casing, substantially as described.

5. A lock of the character described, comprising a casing, a bow pivotally carried thereby, a stud carried by the casing, a tumbler pivotally mounted upon said stud intermediate its ends, one end of said tumbler engaging the bow, means at the opposite end whereby it is adapted to be moved on its pivot by a key, a disk rotatably mounted upon the stud, means whereby said disk is limited to rotation in one direction, cog teeth carried by the lower face of said disk, a removable dial carried by the disk and held

against rotation thereon, a radially arranged
rotatory member pivoted within the casing,
a lug carried by the member and engaging
the teeth carried by the disk, said member
5 formed at its outer end to receive a key, a
spring secured to the casing and extending
transversely of the member and entering a
recess thereof to limit rotation thereof, and

a removable plate covering the dial and hav-
ing an opening with which the figures on the 10
dial are adapted to register.

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Witnesses:

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