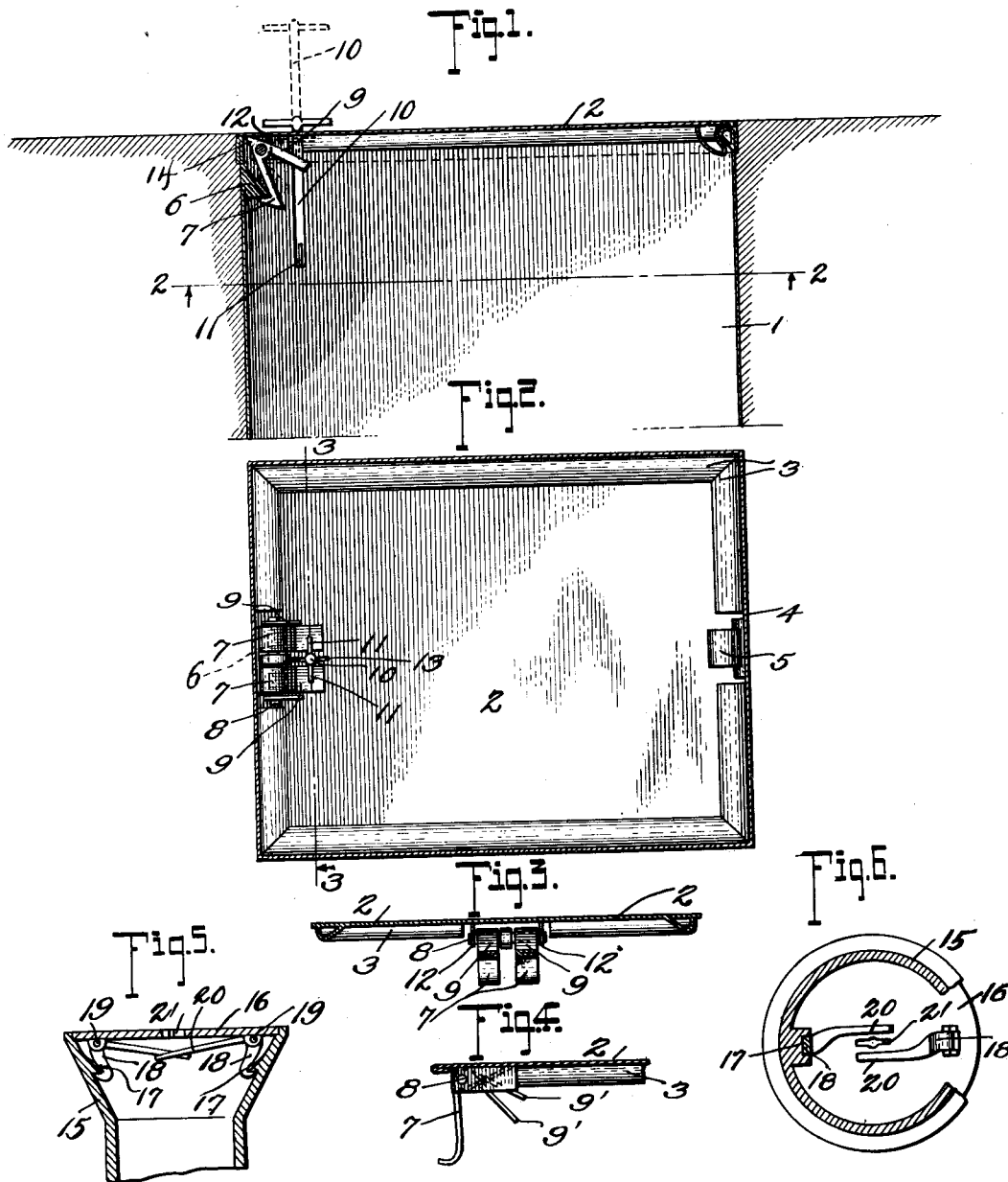


R. M. REDDING.
BOX COVER FASTENER.
APPLICATION FILED OCT. 3, 1912.

Patented Mar. 11, 1913.

1,055,797.



Inventor
R. M. Redding

Witnesses
E. H. Wagner.
H. M. Brooks.

By *Robert Cobb*
Attorneys.

UNITED STATES PATENT OFFICE.

RUFUS M. REDDING, OF MACON, GEORGIA.

BOX-COVER FASTENER.

1,055,797.

Specification of Letters Patent.

Patented Mar. 11, 1913.

Application filed October 3, 1912. Serial No. 723,759.

To all whom it may concern:

Be it known that I, RUFUS M. REDDING, a citizen of the United States, residing at Macon, in the county of Bibb and State of Georgia, have invented certain new and useful improvements in Box-Cover Fasteners, of which the following is a specification.

This invention relates to improvements in locking attachments for meter housings.

The object in view is the provision of simple and efficient means for positively locking the cover plate of a meter housing in position, which means shall be susceptible of release by means capable, in its continuous movement subsequent to the release, of moving the cover plate from the closed position.

With this and other objects in view, as will in part hereinafter be stated, and in part become apparent, the invention comprises certain novel constructions, combinations and arrangements of parts as herein specified and claimed.

In the accompanying drawing: Figure 1 is a longitudinal vertical central section through a meter housing provided with an embodiment of the present invention. Fig. 2 is a transverse horizontal section taken on the plane indicated by line 2—2 of Fig. 1, and looking upwardly. Fig. 3 is a vertical section taken on the plane indicated by line 3—3 of Fig. 2, and looking in the direction indicated by the arrow. Fig. 4 is a section similar to Fig. 2, of a fragment of a modified embodiment of the present invention. Fig. 5 is a longitudinal vertical central section through a modified embodiment. Fig. 6 is a horizontal section taken approximately on the planes indicated by line 6—6 of Fig. 5, parts being broken away.

Referring to the drawing by numerals, 1 indicates a meter housing, having an open end normally closed by a cover plate 2, the cover plate having an inwardly extending flange 3, substantially fitting about the walls of the housing 1. Any preferred or well known type of hinged connection for the cover plate 2 with the housing may be provided, as for instance the interlocking flanges shown. The wall of housing 1 is formed with an inwardly extending keeper 6, in operation adapted to be engaged by the hooks of latches 7, 7, each of said latches being pivotally sustained by a shaft 8, and being normally disposed pendent therefrom. A laterally extending arm 9 is fixed to the

upper end portion of each latch 7, the arms 9 being spaced apart a distance sufficient to accommodate therebetween the shank of a key 10, which key is provided with bits 11, 11 projecting from opposite sides of the shank in position for being disposed beneath the arms 9 for enabling elevation of said arms with the resultant movement of the hooks of latches 7 out of locking engagement with the keeper 6, that is, to the position indicated in dotted lines in Fig. 1.

The shaft 8 is journaled or otherwise mounted in brackets 12, 12 fixed to and pendent from the cover plate 2, and the cover plate is formed with a keyhole 13 disposed in the longitudinal vertical planes of the housing between the adjacent edges of the arms 9, so that the key 10 may be inserted through the hole 13, and dropped down past the arms 9, the bits 11 being disposed substantially parallel to the arms 9, and thus being free to pass between said arms. After the key 10 has been dropped to this position, the operator turns the key to the position indicated in full lines in Fig. 1, whereupon the bits 11 extend transversely of and are thus overhung by the arms 9. The operator then merely elevates the key until the bits strike the arms 9, and, swinging the same upwardly, release the hooks of latches 7 from keeper 6, and the operator, by continuing this upward movement elevates the cover plate 2 and swings it back upon its hinged or locking flange connection with the housing, and the cover plate may then be bodily lifted off of the housing 1.

It is to be noted that the keeper 6 stands from the wall a distance sufficient to extend beyond the vertical plane of the axis of the pivot of latches 7, whereby the outstanding arm 9 of each latch tends to constantly maintain the respective latch in engagement with the keeper through gravitation. This tendency is sufficient to cause the latches to swing beyond the line of the pivot, if permitted to do so, and in order to maintain the latches, when the cover 2 is elevated, in position for readily engaging the keeper, each latch is formed with a shoulder or extension 14 which projects upwardly and forwardly from the pivot to a position for engaging the under face of cover plate 2 when the respective latch 7 is in proper position for being caused to engage the keeper by lowering of the cover 2 to its closed position. The lower end of

each latch 7 is preferably beveled off and corresponds with the upper bevel of keeper 6 so as to direct each of the latches 7 inwardly as the cover 2 is descending to its closed position, each latch swinging again outwardly as soon as the hook portion of the latch arrives below the plane of the keeper 6.

An important advantage of the present invention resides in the fact that the operator has to perform but one continuous movement to accomplish the unlocking and the removal of the cover plate. Another advantage in the employment of a plurality of latches 7 resides in the fact that the arms 9 may be disposed at different elevations when the hooks of the latches engage the keeper, and by this arrangement an unauthorized person might readily be confused as to just how he ought to dispose the key 10 to effect a release. In taking advantage of this feature, the construction would be slightly modified from the embodiment illustrated in Figs. 1 and 3, and preferably assume an embodiment such as is illustrated in Fig. 4, wherein the latches 7' are pivotally sustained by shaft 8', and the arm 9' of one latch extends laterally at one inclination and the arm 9' of the other latch extends at another inclination and is, therefore, disposed beneath the first arm so that an unauthorized operator in introducing the key 10 could by turning the key at the wrong point engage the upper arm 9' and release the latch, but the cover plate would still remain locked. An authorized operator would simply introduce the key and pass it downwardly until he was sure the bits of the key were beyond the lowermost arm, and the operation would be accomplished after the manner above described.

In Figs. 5 and 6 I have illustrated a further modified embodiment in which an annular housing 15 is provided with a detachable cover plate 16, the cover plate being merely disposed to rest on an annular shoulder formed from the material of the housing, the plate not being pivotally connected to the housing. When this type of cover plate is employed, preferably diametrically opposite keepers 17 are provided and engaged by latches 18, 18 pivotally sustained as at 19, 19 by the cover plate 16, each latch 18, having an inwardly extending arm 20, and the arms 20 being relatively long and of sufficient length to have their inner end portions lapping. The lapping portions of the arms 20 are spaced laterally apart for accommodating a key similar to key 10, the cover plate 16 being formed with the requisite keyhole 21. It is apparent that the operation is substantially the same with respect to this modified embodiment as above set forth, the operator simply intro-

ducing the key through the hole 21, and lowering it with the bits parallel to the arms 20 until the bits pass below said arms, and thereupon the operator turns the key to a position with the bits at right angles to their former position so that the bits are disposed beneath the arms 20. The operator may then elevate the key with the result that he will elevate the arms 20, and release the latches 17, and the upward movement of the key may be continued for lifting the cover plate 16 bodily from the housing 15.

Having thus described the invention, what is claimed as new is:

1. The combination with a housing, of a cover plate therefor, a keeper on the housing, a plurality of latches engaging the keeper for locking the cover plate in position, each latch having a laterally extending arm, the arms being spaced apart, and the cover plate being formed with a keyhole disposed substantially in line with the space between said arms for enabling the introduction of a double-bitted key between the arms enabling simultaneous elevation of the arms and also enabling elevation of the cover plate by continued movement of the operation of elevating the key.

2. The combination, with a housing, of a cover plate therefor, a keeper on the housing, a latch pivotally sustained by the cover plate and engaging the keeper for locking the cover plate in position, said latch having a laterally extending arm, the cover plate being formed with a keyhole disposed at one side of the arm adapted to permit the admission of a key whose bit is adapted to pass beneath the arm and to engage the arm with an unward movement of the key for releasing the latch, the continued upward movement of the key after the release of the latch serving to remove the cover plate from its closed position.

3. The combination with a housing and a cover plate therefor, of a pivotally mounted latch adapted to lock the cover plate in a closed position, an operating arm connected with the latch and extending in a position for subjecting the latch to gravitation tending to press the latch toward a locking position, and an extending shoulder projecting from the latch in position for engaging a portion of the cover plate for preventing the latch, when the cover plate is detached from the housing, from moving beyond a relatively operative position.

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

RUFUS M. REDDING.

Witnesses:

L. A. MAGRAW,
S. W. HATFIELD.