M. G. KENNEDY.

PROTECTING DEVICE.

APPLICATION FILED AUG. 22, 1910.

999,231. **Patented Aug. 1, 1911.**

Fig. 1.

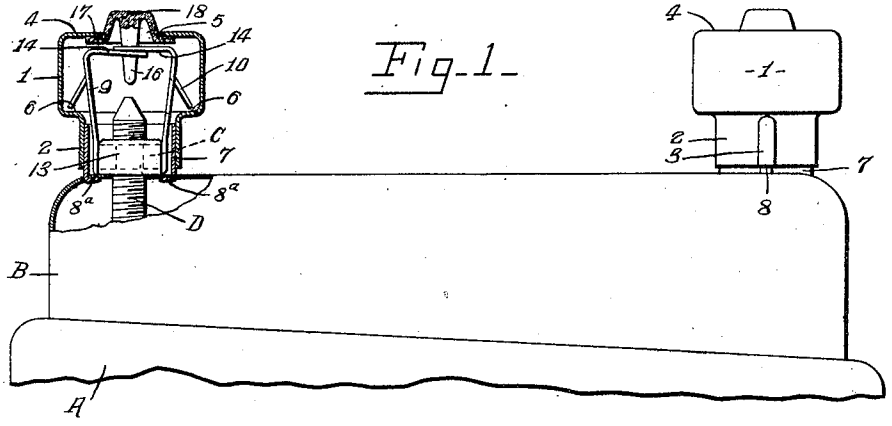


Fig. 2.

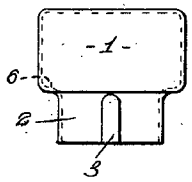


Fig. 3.

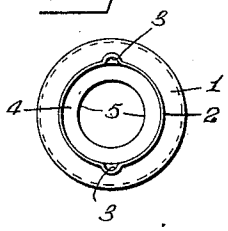


Fig. 4.

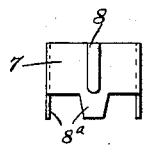


Fig. 5.

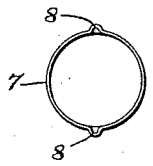


Fig. 6.

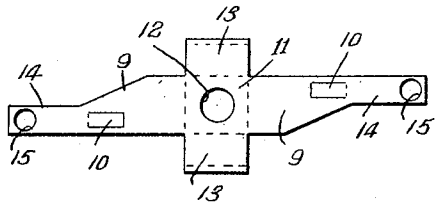


Fig. 7.

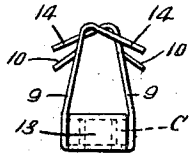
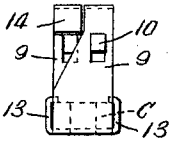


Fig. 8.



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MATTHEW G. KENNEDY, OF SYRACUSE, NEW YORK.

PROTECTING DEVICE.

999,231. Specification of Letters Patent. **Patented Aug. 1, 1911.**

Application filed August 22, 1910. Serial No. 578,326.

To all whom it may concern:

Be it known that I, MATTHEW G. KENNEDY, of Syracuse, in the county of Onondaga and State of New York, have invented a certain new and useful Protecting Device, of which the following is a specification.

My invention aims to provide a device for preventing unauthorized access being had, without visually indicating the same, to a nut, or the like part, employed for retaining in place a member which is not to be removed or shifted save by an authorized person.

The invention is primarily intended for protecting the cover retaining devices of electric meters, which devices must be manipulated in order to remove or shift the meter cover so as to adjust or otherwise alter the meter mechanism, but the protecting device may be used to advantage in many other situations.

The object of the invention is to provide a protecting device which is particularly simple in construction and very efficacious in use.

One exemplification of my invention is illustrated in the accompanying drawings wherein:—

Figure 1 shows two of the devices applied to the cover retaining nuts of a common form of electrical meter, one of the devices being shown in side elevations, and the other in vertical section. Fig. 2 is an elevation of the cap of the devices. Fig. 3 is a plan view of the same. Fig. 4 is an elevation of the guiding collar for the cap. Fig. 5 is a plan view thereof. Fig. 6 is a plan view of the blank out of which the locking member is formed. Fig. 7 is an edge view showing the locking member associated with the nut. Fig. 8 is a view of the same parts at a quarter turn from Fig. 7.

The invention includes generally an inclosing casing or cap, a locking member for holding the casing or cap in position, and a destructible sealing member held in place by the cap, and closing an opening therein through which, when said sealing member is destroyed, access may be had to the parts inclosed within the cap.

In the accompanying drawings a fragment of a conventional form of meter casing is shown at A, the same including a cover B, which is retained in place by nuts C, threaded on bolts D, projecting through openings in the cover.

The cap of each protecting device is designated 1, and preferably includes a cylindrical neck 2, provided with one or more vertically disposed grooves 3, and a head 4, having an axial opening 5 in the top thereof and provided with an annular shoulder 6. The cap is preferably guided on a collar 7, which is arranged concentrically of the bolt D, and is provided with one, or more, ribs 8 cooperating with the grooves 3 for preventing the rotation of the cap. The collar 7 may be rigidly attached to the cover B in any desired manner, as by providing lugs 8^a on its lower edge which pass through openings in the cover and are headed up, or clenched against, the inner face thereof.

The locking member preferably includes a pair of arms 9 extending upwardly from the nut C, and secured at their lower ends thereto, so as to be incapable of rotation about the bolt independently thereof. Wings 10 extend downwardly and outwardly from the arms 9, and when the latter are separated, or occupy their outward position the ends of these wings are located directly over, or in the path of, the shoulder 6 of the cap 1.

The locking member is preferably formed from a sheet metal strip having an intermediate portion 11 embracing the under face of the nut C, and provided with an opening 12 registering with the threaded opening in such nut, integral wings 13 embracing opposite sides of the nut and having their marginal edge portions turned over the upper edges of the same, and the arms 9 embracing the remaining sides of the nut, and extending a distance above the upper face thereof, and terminating in horizontal portions 14 extending toward each other, and each provided with an opening 15. The horizontal parts 14 are preferably disposed out of alinement with each other, or in different vertical planes, so that the major portions of said arms may more closely approach each other than would be the case if the parts 14, were in alinement.

The wings 10 are preferably bent out of intermediate portions of the arms 9. The entire locking member may be formed from a flat sheet metal blank of the general shape illustrated in Fig. 6.

The sealing member is provided with a stem 16 coacting with the openings 15 for holding separated the arms 9 with the wings 10 in positions to interlock with the shoul-

der 6, with a flange 17 disposed between the horizontal portions 14 of the locking member and the top on the cap adjacent the opening 5, and coacting with the cap for preventing longitudinal axial movement of said member, or the removal thereof intact through the opening 5, and with the head portion 18 which projects through the opening 5, and coöperates with the wall of the latter for preventing lateral displacement of the flange 17 and coöperates with the latter for effectually closing the opening 5 against the insertion of any sort of an instrument which might be used for tampering with the locking member.

The entire sealing member may be made of fragile material, but if desired only the head portion 18 need be of such material. By providing an annular space between the side wall of the head 18 and the periphery of the stem 16 the head may be readily fractured by a sharp blow, or by compressing the same between the jaws of a pair of pliers.

In applying the protector, the collar 7 is first attached to the cover B. The latter is then closed and the nut C, having the locking member associated with it, is then screwed upon the bolt D. The arms 9 are then separated and the parts 14 are forced into alinement so as to register the openings 15 and then the stem 16 of the sealing member is inserted in said openings 15 for holding the arms apart and finally the cap 1 is forced down in place. In this operation the wings 10 are forced inwardly by the neck 2, but spring outwardly again immediately and the shoulder 6 passes beyond their inner edges, and in the final movement of the cap the top thereof engages the flange 17 and serves to hold the sealing member in place.

In order to remove the cover of a meter equipped with the described protecting device, access must be had to the nut C, and this can be obtained only by breaking the sealing member, whereupon the stem 16 thereof may be removed and the arms 9 of the locking device will thereupon move toward each other, or may be forced toward each other, until the wings 10 are shifted out of interlocking relation with the shoulder 6, thus permitting the cap to be removed, and the nut C, unscrewed from the bolt. After the sealing device is broken the nut C, might be removed from the bolt by inserting a suitable tool in the opening 5, and unscrewing the nut by engaging the tool with the locking member, but whatever method is used for unscrewing the nut, it involves the breaking of the sealing member, and consequently after this is done the parts can only be restored to their original condition by the use of a duplicate sealing device. As these sealing devices cannot be obtained by one not authorized to remove the meter cover, any unauthorized tampering with the cover securing means involving the breaking of the seal would at once be made apparent by the absence of this element.

What I claim is:—

1. In a meter protector, a locking member associated with the meter cover retaining nut, a cap inclosing the locking member and provided with a shoulder, coöperating with such member, and with an opening giving access to the same, and a sealing member closing such opening, and provided with a part coöperating with the locking member, substantially as and for the purpose described.

2. In a protecting device, a cap having an internal shoulder, and an opening in its head, a locking member inclosed within the cap and having a part coöperating with the shoulder thereof, and a sealing member having a part coöperating with the locking member, a part coöperating with the cap for preventing longitudinal axial movement of the sealing member, and another part coöperating with the cap for preventing lateral movement of the sealing member, substantially as and for the purpose specified.

3. The combination with a cover, a bolt extending therethrough, and a nut threaded on the bolt, of a collar secured to the cover concentric with the bolt, a cap having a neck portion, guided on the collar, and an enlarged head portion forming an annular shoulder, and a locking member associated with the nut and having a part coöperating with said internal shoulder of the cap, substantially as and for the purpose set forth.

4. The combination with a cover, a bolt extending therethrough, and a nut threaded on the bolt, of a collar secured to the cover concentric with the bolt, and having a lengthwisely extending rib, a cap having a neck portion guided on the collar and provided with a groove coöperating with said rib, a shoulder located within the cap, and a locking member engaging the nut and having a part coöperating with said shoulder, substantially as and for the purpose described.

5. The combination with a cover, a bolt extending therethrough, and a nut threaded on the bolt, of a locking member comprising a body portion embracing the under face of the nut, lateral wings embracing opposite sides of the nut, and arms embracing the remaining sides of the nut, extending beyond the face thereof and terminating in horizontally extending portions, wings extending downwardly and outwardly from said arms, a cap having an internal shoulder, with which the wings coöperate, and an opening giving access to the locking member, and a sealing device for such opening, substantially as and for the purpose specified.

6. The combination with a cover, a bolt extending therethrough, and a nut threaded on the bolt, of a locking member comprising arms embracing the opposite sides of the nut, extending beyond the face thereof and terminating in horizontally extending portions, wings extending downwardly and outwardly from said arms, a cap having an internal shoulder, with which the wings cooperate, and an opening giving access to the locking member, and a sealing device having a stem coöperating with the horizontal portions of the arms for holding the latter separated, substantially as and for the purpose set forth.

7. The combination with a cover, a bolt extending therethrough, and a nut threaded on the bolt, of a locking member comprising arms embracing opposite sides of the nut and terminating in horizontally extending portions, wings extending downwardly and outwardly from said arms, a cap having an internal shoulder with which the wings cooperate, and an opening giving access to the locking member, and a sealing device for such opening, having a stem coöperating with the horizontal portions of the arms for holding the latter separated, a flange disposed between the said horizontal portions of the locking member and the cap, and a part projecting into the opening in the cap, substantially as and for the purpose described.

8. The combination with a cover, a bolt extending therethrough, and a nut threaded on the bolt, of a locking member engaging the nut and comprising arms provided with horizontally extending portions disposed out of alinement with each other, and also provided with downwardly and outwardly extending wings, a cap inclosing the locking member having a shoulder coöperating with the wings thereof, and an opening giving access to the locking member, and a sealing member including a stem coöperating with the horizontally extending portions of said arms and a part coöperating with the cap for preventing the displacement of the stem while the sealing member is intact, substantially as and for the purpose specified.

9. A sealing member of substantially inverted cup-shape provided with an outwardly extending edge flange and with an axially depending stem, substantially as and for the purpose set forth.

10. A sealing member of substantially inverted cup-shape provided with an outwardly extending edge flange and with an axially depending stem, the side wall of the cup-shaped part being separated from the stem, and being formed of fragile material, substantially as and for the purpose described.

11. In combination, a cap having an internal shoulder and an opening giving access to its interior, a locking member located within the cap and having a part coöperating with the shoulder thereof, and a destructible member closing said opening, substantially as and for the purpose specified.

12. In a protecting device the combination with a part to be protected, a locking member engaging such part, a cap inclosing said part and locking member, and provided with an opening for permitting access thereto, and with a part coöperating with the locking member for retaining the cap in position, and sealing means associated with the cap for closing the opening therein.

In testimony whereof, I have hereunto signed my name in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York this 11th day of Aug., 1910.

MATTHEW G. KENNEDY.

Witnesses:
S. DAVIS,
F. B. SMITH.