Sept. 8, 1925. 1,553,188

G. H. SAUTON

LOCKING MEANS FOR ELECTRIC SWITCH BOXES

Filed July 31, 1924

Fig. 1.

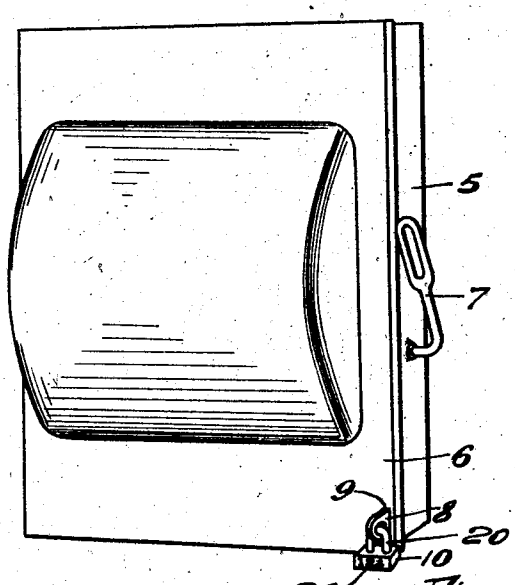


Fig. 2.

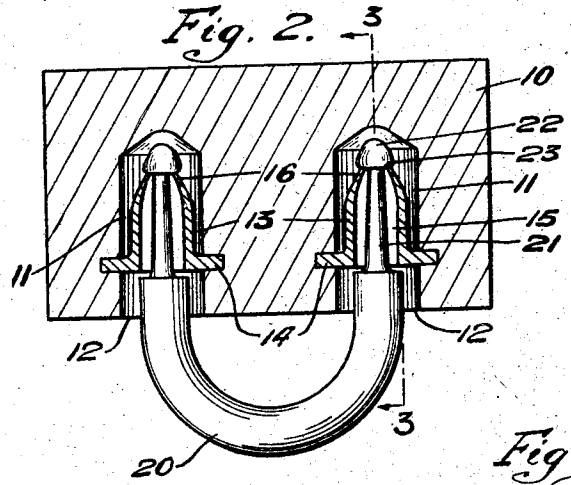


Fig. 3.

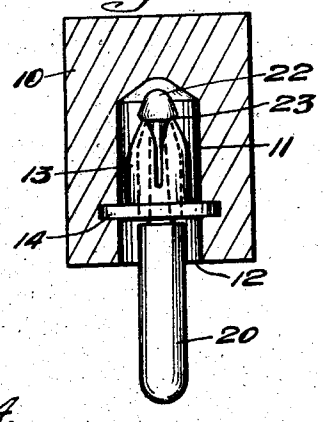


Fig. 4.

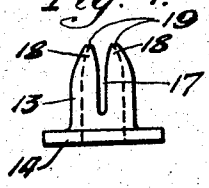
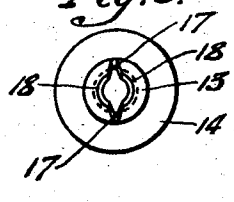


Fig. 5.



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UNITED STATES PATENT OFFICE.

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LOCKING MEANS FOR ELECTRIC-SWITCH BOXES.

Application filed July 31, 1924. Serial No. 729,395.

To all whom it may concern:

Be it known that I, GEORGE H. SAUTON, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented new and useful Improvements in Locking Means for Electric-Switch Boxes, of which the following is a specification.

This invention relates to locking means particularly intended for use with the switch boxes of electric meters but is adapted for use in connection with any enclosure requiring a like fastening or securement.

The primary object of the invention is to provide a double locking device comprising a shackle or analogous structure for engagement with a staple or other similar device and operable in connection with a body which receives the extremities of the shackle to secure a door, slide or other movable closure in such manner as to resist nefarious tampering and release of the locking means by unauthorized persons for the purpose of gaining access to the interior of the enclosure without detection.

A further object of the invention is to provide a comparatively inexpensive and simple form of locking means especially applicable to the switch box of an electric meter, to prevent opening of the box and irregular operation and manipulation of the switch by unauthorized persons for the purpose of defrauding electric companies and corporations.

With these and other objects and advantages in view, the invention consists in the construction and arrangement of the several parts which will be more fully hereinafter described and claimed.

In the drawings:

Fig. 1 is a perspective view of a switch box showing the improved locking means applied thereto.

Fig. 2 is an enlarged horizontal sectional view through the improved locking means.

Fig. 3 is a transverse vertical section on the line 3—3, Fig. 2.

Figs. 4 and 5 are detail views, respectively, in elevation and top plan of a part of the locking means.

For the purpose of illustrating one practical application of the improved locking means, it is shown in Fig. 1 in connection with a switch box 5 of an electric meter having the usual hinged door or closure 6, opening means 7, and a staple or apertured projection 8 secured to the box and movable through an opening 9 in the door or closure 6.

The improved locking means comprises a body 10, preferably of porcelain but capable of being formed from any other plastic material and suitably hardened as by baking or other treatment. The body 10 as shown is of rectangular form but its shape may be varied as desired. The improved locking means is of double form and the body 10 is constructed with two sockets 11 extending partially therethrough in a transverse direction and opening through one side edge as at 12. Secured within the body 10 at the time of formation of the same are two spring metal caps 13, there being one of these caps located in each socket 11. Each cap has a base flange 14 and a central bore 15 opening through the center of the flange and also through a tapered and reduced end 16, which is diametrically slotted, as at 17, to form two spring jaws 18 having blunt free ends 19. The base flange 14 of each cap is partially imbedded in the material of the body 10 at a distance inwardly from the inlet openings 12 of the sockets 11, both caps being at equal distances inwardly in the sockets from the openings 12. The locking means also includes a shackle 20, which may be of any form in cross section, this shackle being of U-shape and having reduced extremities in the form of tapered shanks or stems 21 terminating in convex heads 22, one on each shank or stem, with inner straight circumferential shoulders 23. The maximum diameter of each cap is materially less than the diameter of the socket 11 in which it is fitted and the jaws 18 are therefore free to expand when the shanks or stems 21 of the shackle 20 are associated with or forced through the caps.

In the operation of the improved locking means, the shackle 20 is inserted through the staple or projection 8 after the door 6 has been closed, as shown by Fig. 1, and the body 10 is pushed upwardly against the depending shanks or stems 15 with sufficient

force to cause the heads 22 to pass through the caps 13 by expanding the jaws 18 and until the heads 22 pass through or beyond the tapered ends of the caps, when the jaws 18 will spring inwardly and engage the circumferential shoulders 23, to thereby prevent disengagement of the shackle 20 from the body 10. After the shackle 20 has been associated with the body 10 as shown by Figs. 1, 2 and 3, it will be impossible to disengage the shackle from the said body without breaking the latter, and even though the body 10 may be broken by unauthorized persons, the caps 13 will still be in engagement with the shanks or stems 21 and will have to be pried off or broken to disengage the same from the said shanks or stems before the shackle 20 can be released from the staple or projection 8. This operation of release of the locking means, which can be accomplished only by breaking the body 10 and disengaging the caps 13 from the shanks or stems 21 of the shackle 20, renders it practically impossible for anyone other than authorized persons to gain access to the interior of the switch box after the improved locking means has been applied as hereinbefore described, and, moreover, if unauthorized persons should break the body 10 and disengage the shackle 20, there will be no means for supplying a similar locking means by those persons endeavoring to defraud electric companies and corporations by manipulation of the switch within the body 5, as it is obvious that persons having such intent will not be equipped with similar replacement devices, or devices corresponding to the body 10 having the caps 13 therein and the shackle 20. Hence tampering with a switch box for the purpose of changing the switch or otherwise modifying the same with fraudulent intent cannot be accomplished without detection, and, furthermore, the expense of replacing the broken parts of the locking means in the event that it would be possible for unauthorized persons to provide the same would be far greater than the advantage that might accrue from irregular manipulation of the switch. As a further precautionary means each body 10 will be provided with a number or other identifying character 24 for registration and identification as to the application of a particularly numbered lock or locking means in connection with a switch box at certain locations, or in houses, factories or other places.

As hereinbefore indicated, the improved locking means may also be efficiently used in connection with any other enclosing means requiring a positive securement of the type provided by the present improved locking means, or to prevent access to such enclosing means without detection. It is also proposed to modify the dimensions, proportions and details of construction of the several parts of the improvel device without departing from the spirit of the invention.

What is claimed as new is:

1. A locking means of the class specified, comprising a body composed of hard molded material formed with two sockets extending partially therethrough and opening outwardly through one edge thereof, tubular metal locking devices having flanged portions located inwardly a distance from the outlets of the sockets and imbedded in the body, the said tubular metal locking devices having reduced portions centrally disposed in and standing clear of the walls of the sockets and terminating a distance from the inner ends of the said sockets, the free terminals of the tubular portions of the locking devices being provided with yielding jaws, the material of the body around the sockets being relatively thick, and a relatively thick U-shaped metal shackle having reduced extremities terminating in shouldered heads insertable in the sockets and through the tubular portions of the locking devices to permit the jaws of said tubular portions to engage the shoulders of the said heads and hold the shackle in connection with the body, the shackle being separable from the body only by fracture and destruction of the said body.

2. A locking means of the class specified, comprising a molded porcelain body having spaced parallel sockets extending partially therethrough in a transverse direction and fully opening through one edge of the body, a locking device mounted in each socket and having a flange at one end imbedded in the body at a distance inwardly from the edge through which the sockets open, each locking device being tubular and the free extremity thereof provided with yielding jaws extending longitudinally with relation to its socket, the free end of each locking device terminating a distance from the inner terminal of its socket, and a shackle having reduced extremities with shouldered terminal heads and insertable in the said sockets and through the locking devices, the heads of the reduced extremities of the shackle being held between the free ends of the locking device and the inner terminals of the sockets and the shouldered portions of the shackle produced by the formation of the reduced extremities thereof being located close to the inlets of the locking devices to obstruct insertion of implements into the locking devices for springing the yielding jaws apart and releasing the shackle, the shackle being separable from the porcelain body only by fracturing and destroying the said body.

In testimony whereof I have hereunto set my hand.

GEORGE HAMILTON SAUTON.