W. S. CORD & H. F. HEYWOOD.

LOCK SWITCH FOR ELECTRIC METERS.

APPLICATION FILED SEPT. 16, 1908.

919,423. Patented Apr. 27, 1909.

Fig. 1.

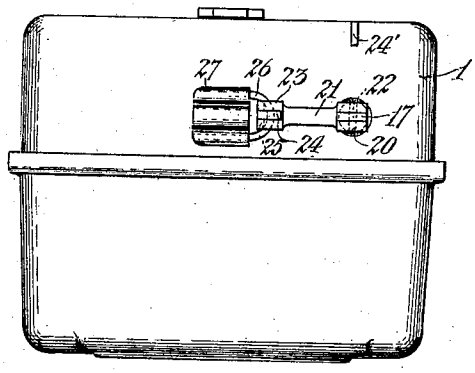


Fig. 2.

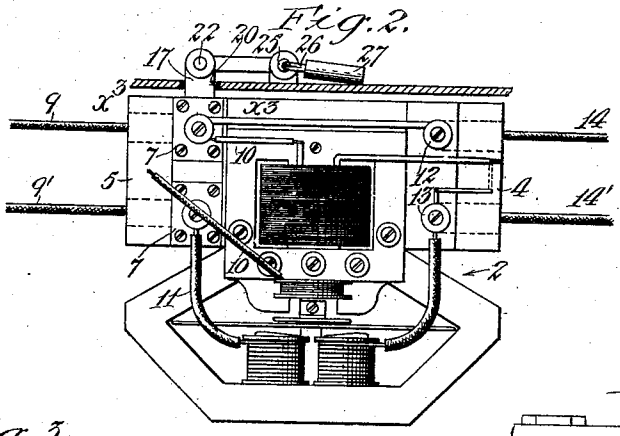


Fig. 3.

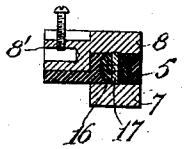


Fig. 4.

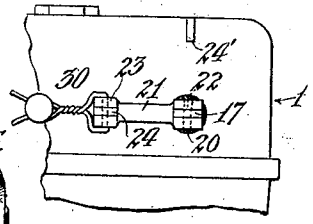


Fig. 5

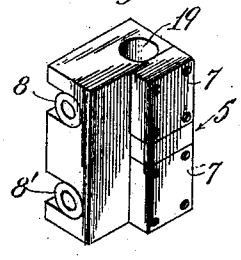
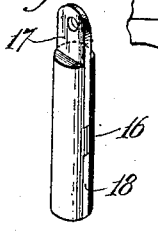


Fig. 6.



Witnesses:
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LOCK-SWITCH FOR ELECTRIC METERS.

No. 919,423. Specification of Letters Patent. Patented April 27, 1909.

Application filed September 16, 1908. Serial No. 453,369.

To all whom it may concern:

Be it known that we, WILLIAM S. CORD, residing at Oceanpark, and HERBERT F. HEYWOOD, residing at Los Angeles, county of Los Angeles, and State of California, both citizens of the United States, have invented a new and useful Lock-Switch for Electric Meters, of which the following is a specification.

The object of this invention is to provide in connection with an electric meter, a lock switch whereby the current can be locked on or off the service circuit by means which are contained within and protected by the meter casing.

The accompanying drawings illustrate the invention.

Figure 1 is a plan of the meter with the lock switch in locked "off" position. Fig. 2 is a rear view of the meter mechanism showing connection of the switch thereto, a part of the case being shown in section. Fig. 3 is a section on line x^3—x^3 Fig. 2. Fig. 4 is a plan of a modified form of lock. Fig. 5 is a perspective of the fixed portion of the switch. Fig. 6 is a perspective of the movable member thereof.

1 designates a meter case which contains and protects the meter mechanism 2 and lock switch, hereinafter described. The meter mechanism 2 may be of any usual construction and is not herein specifically described. The usual connection block 4 at one side of the mechanism is retained, but for the connection block at the other side is substituted a switch block or support 5 (see Fig. 4) of insulating material, having fastened thereto two pairs of metallic contact blocks 7, 8 each block 8 having a lateral extension 8′ formed as a socket to receive a connecting wire for the service leads 9, 9′, and the blocks 7 being connected by wires 10, 11 to the meter 3. Terminals 12, 13 on connection block 4 are connected to the service leads 14, 14′ leading to the lamps, etc. The movable member of the switch consists of a cylinder 16 of insulating material, through which extends two plates 17, 18, plate 17 extending above the upper end of the cylinder. Said cylinder fits, and is rotatably movable in, a bore or socket 19 extending vertically through the insulating connection block 5, aforesaid, in such manner that in a certain position of the said cylinder the plate 17 thereof will establish connection at the upper part of the switch between the upper blocks 8 and 7, and the plate 18 at the lower part of the cylinder will establish connection between the lower blocks 8 and 7, said blocks being exposed within said bore. When the cylinder is turned to a position at right angles to that above referred to the metal plates 17, 18 will be out of contact with the said contact blocks 7, 8 and the circuit will be interrupted at both sides, the switch being a double-pole switch. The upper plate 17 of the switch serves also as an operating means for the switch and extends through the opening 20 in the top of the containing case of the meter, an operating lever 21 being pivoted at 22 on this plate, said lever being preferably of insulating material and having a yoke or fork 23 adapted to embrace one or the other of two lugs 24, 24′ on the top of the meter case, these lugs being so situated as to hold the switch in either closed or open position. Lever fork 23 and lugs 24 are perforated as at 25 to receive a bolt 26 of a suitable key controlled lock, as, for example, a pad-lock 27.

When it is desired to turn off the current from the house the switch lever 21 is moved to the position shown in Fig. 1 and is secured in that position by means of the pad-lock 27. It is not possible for the consumer or other persons to then tamper with the switch so as to obtain current without destroying the lock. When service is to be rendered to a house the switch lever is moved to the position where its fork will engage with the other lug 24′ and locked in that position, thus locking the switch in position to establish connection to the house. This device takes the place of and dispenses with the usual outside connection switch which is liable to be tampered with, its terminals being exposed in such manner that it can be readily short circuited. By inclosing the lock switch within the meter case, the terminals are protected from any attempted short circuiting by unauthorized persons. In place of the key controlled lock any other lock may be used, for example, a lead or other seal, as shown at 30 in Fig. 4, or the switch plug may be removed bodily from the switch block, and retained by the party attending to the meter.

What we claim is:

1. In combination with an electric meter and its containing case, a switch contained

within the case and controlling the circuit through the meter, a fixed part on the meter and key controlled means for locking said switch to said fixed part in either closed or open position of the switch.

2. In combination with a meter and its containing case, said meter provided with terminals for supply and consumption circuits, a switch contained within the meter case and controlling the connection of said circuits and of said meter, an operating lever for said switch extending outside of said case, a fixed part on the case, and key controlled locking means for locking said lever to said fixed part.

3. In combination with an electric meter and its containing case, a switch contained in the meter case and comprising an insulating support having a bore, contacts exposed within said bore, an insulating cylinder mounted to rotate in said bore and having plates extending through same to connect the aforesaid contact in a given position of the cylinder, means extending from said cylinder to the outside of the meter case, an operating lever pivoted on said last-named means, lugs on the meter case and key controlled locking means for locking said lever to either of said lugs.

4. In combination with an electric meter and its containing case, a socket in said case having fixed terminals, a switch contained within the case and a removable fitting in said socket and provided with contacts cooperating with said fixed terminals for controlling the circuit through the meter, and means for locking said switch in position in said socket in either closed or open position of the switch.

5. In combination with an electric meter and its containing case, said case having a socket, a switch plug contained within the case and fitting within said socket, said plug being rotatable in the socket and provided with a part extending outside of the case, a fixed part on the case, means for connecting said plug to said fixed part, and key controlled means for locking said parts in such connection whereby the plug is locked in either closed or open position in its socket or, on unlocking the said connection, can be moved to either closed or open position or can be removed from its socket.

In testimony whereof, we have hereunto set our hands at Los Angeles, California, this 7th day of September 1908.

WILLIAM S. CORD.
HERBERT F. HEYWOOD.

In presence of—
ARTHUR P. KNIGHT,
FRANK L. A. GRAHAM.