

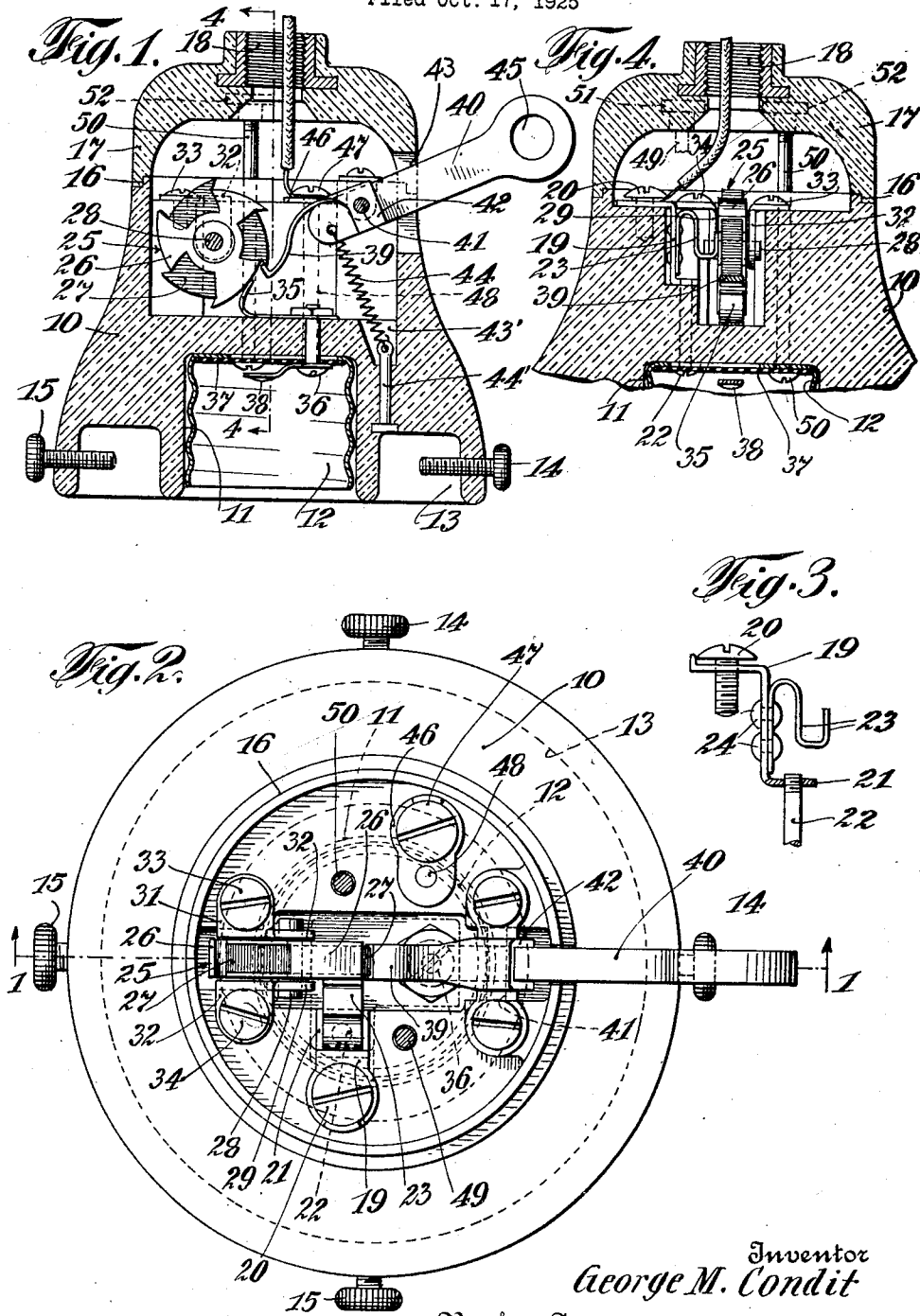
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SWITCH SOCKET

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SWITCH SOCKET.

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My present invention relates to a switch socket and more particularly to that type of such devices adapted for use in lighting fixtures in conjunction with which it is desirable to support a lamp shade. I am aware that heretofore lamp sockets have been associated with devices for making and breaking an electrical circuit to the terminals of an electric lamp bulb, and also that such devices have been fitted with shade holders. The object of my invention however, is the provision of an article of this type in which the construction is such that the parts are readily assembled, and in use there is no danger whatsoever of any of the parts being short-circuited, and consequently the elimination of shocks in handling the device is effected and the risk of such dangers as fire from short circuits is prevented.

In carrying out the invention the device includes a body member integral with a shade holder and fitted with a cap, all of which are made of insulating material and preferably in the shape of a bell, although the configuration may be varied. The body member and cap are detachably connected in a convenient manner and are adapted to receive the operative parts of the apparatus, while the cap is constructed to be connected to a suitable support and the shade holder to have a lamp shade connected thereto as will be hereinafter more particularly described.

In the drawing, Figure 1 is a central section illustrating the switch socket shade holder embodying my present invention.

Fig. 2 is a plan view with the cap member removed.

Fig. 3 is an elevation of one of the terminals and contact member forming a part of the switch mechanism, and,

Figure 4 is a partial section on line 4-4, Figure 1.

Referring to the drawing my improved switch socket shade holder preferably consists of a body member 10 made of any suitable insulating material and preferably shaped in the form of a bell. At the base of the body member there is a centrally disposed cavity 11 adapted to receive a screw socket 12 for the reception of the base of the commonly employed electric lamp bulb. In the base of the body member there is also an annular recess 13 adapted to receive the rim or flange at the end of a lamp shade

which may be secured in position in the recess by suitable set screws 14, 15, or otherwise. At the upper end of the body member the same is provided with an angular shoulder 16 adapted to receive the base of a cap or cover 17 which as illustrated, is fitted with a centrally disposed bushing molded in the cap and tapped, as indicated at 18, so as to be secured to a connection forming a part of a lighting or other fixture.

In a recess provided therefor, in the upper portion of the body member, I employ a terminal 19 fitted with a binding screw 20 and adapted to make connection with one of the lead wires extending into the screw socket. At its opposite end the terminal 19 is provided with a flange or angular portion 21 by means of which and a suitable screw 22, this terminal member is fixed in position, it being understood that the screw 22 passes upwardly from the base of the body member so as to engage with the flanged portion 21 of the terminal 19. As illustrated in the drawing, the terminal 19 is fitted with a contact member 23 secured thereto by rivets 24 or otherwise. Also mounted in a recess provided therefor, in the upper portion of the body member, there is a ratchet 25. This ratchet preferably consists of segmental sections 26 of conducting material and intermediate segmental sections 27 of a suitable insulating material. The ratchet is mounted on a shaft 28 journaled in bearing plates 29 and 30 provided respectively with flanges 31 and 32 which are fitted into recesses in the upper face of the body member, and which are secured in position by screws 33, 34 or otherwise. The contact member 23 is so formed as to yieldingly bear against the adjacent side surface of the ratchet 25. The switch mechanism also includes a contact spring 35 adapted to bear against the face portions of the segmental sections of the ratchet 25. This contact spring is fixed in position by a bolt 36 which passes through an opening provided therefor in the body member, through the base of the screw socket 12 from which it is suitably insulated, and also through a sheet of insulation 37 placed at the base of the screw socket 12, and also through an opening provided therefor, in the center contact 38 so as to also maintain this center contact in its proper position.

The ratchet 25 is actuated by a spring

pawl 39. The spring pawl 39 is connected to one end of a lever 40 which is pivotally mounted as indicated at 41 in the body member 10. As illustrated, the end portion of the spring pawl 39 is of sufficient extent to extend over the upper edge of the lever 40, and also over the sides thereof as indicated at 42, so that the pivot upon which the lever is mounted also extends through the side portions 42 at the end of the spring pawl. The lever 40 is sufficiently long to extend through an aperture 43 provided for this purpose in the walls of the body member 10 and the cap 17, and is normally maintained in an initial position by means of a spring 44 or otherwise. As illustrated in the drawing, the outer extremity of the lever 40 may be provided with a hole 45 for the attachment of a pull chain or cord for the operation of the lever when it is not readily available for manual actuation.

One end of the spring 44 is connected to the inner end of the lever 40 while the opposite end of the spring 44 is secured to the end of a pin 44' which is fixed in the body 10 and at its inner end projects into a recess 43' whereby the inner end of the pin 44' is made readily accessible for the attachment of the spring 44 thereto.

The other lead terminal of the apparatus is indicated at 46. This is provided with a binding screw 47 and is fitted into a recess provided therefor in the upper portion of the body member 10. This terminal 46 is preferably fixed in position by a screw 48 which extends upwardly through the body member so as to engage with the terminal to secure the same in place. It will be understood that the head end of the screw 48 passes through and is electrically in contact with the base of the socket member 12.

The cap or cover 17 may be secured to the body member in any suitable manner, but it is preferable to secure these parts to one another, for example by screws 49 and 50, which pass upwardly through the body member and are turned down into nuts 51 and 52 molded into the cap for this purpose.

The electric circuit as will now be understood is completed through the device by connecting the lead wires to the terminals 19 and 46, assuming the terminal 19 to be the positive terminal, the circuit through the lamp is complete from this terminal 19 through the contact 23 to the portion of the ratchet which is of conducting material, thence through the spring contact 35 to the bolt 36, through the center contact 38, through one terminal of the lamp, thence to the other terminal of the lamp and the screw socket 12 to and through the screw connection 48 with the other terminal 46. It will also be understood that when the

spring contact 35 bears against the face of a segment of insulating or non-conducting material in the ratchet, the electric circuit will be broken and that the ratchet is turned with a step by step movement with each operation of the lever 40, whereby each movement of lever either breaks or makes the circuit to the lamp.

I claim as my invention:

1. In a switch socket, a body member of insulating material, a lamp socket, a ratchet having alternating sections of conducting and insulating material mounted in the said body member, a contact bearing against the side of the said ratchet, a spring contact adapted to bear successively against the faces of the segmental sections of the ratchet, and means for actuating the ratchet.

2. In a switch socket, a body member of insulating material, a lamp socket, a ratchet having alternating sections of conducting and insulating material mounted in the said body member, a contact bearing against the side of the said ratchet, a spring contact adapted to bear successively against the faces of the segmental sections of the ratchet, a lever, and a spring pawl carried thereby for operating the ratchet when the lever is actuated.

3. In a switch socket, a body member of insulating material, a lamp socket therein, a central contact member, a ratchet having alternate sections of conducting and insulating material, a contact bearing against the side of the ratchet, a lead terminal connected to the contact, a spring contact adapted to bear successively against the faces of the segmental sections of the ratchet, an electrical connection between the spring contact and the said center contact, means for actuating the ratchet, a lead second terminal, and an electrical connection between the said second lead terminal and the said lamp socket.

4. In a switch socket, a body member of insulating material, a lamp socket therein, a central contact member, a ratchet having alternate section of conducting and insulating material, a contact bearing against the side of the ratchet, a lead terminal connected to the contact, a spring contact adapted to bear successively against the faces of the segmental sections of the ratchet, an electrical connection between the spring contact and the said center contact, a lever pivotally mounted in the body member and extending exteriorly thereof, a spring pawl carried by the said lever and adapted in the actuation thereof to operate the ratchet, means for normally returning and maintaining the lever in an initial position, a lead second terminal, and an electrical connection between the said lead second terminal and the said lamp socket.

5. In a switch socket, a body member, a cap therefor, the said body member and cap

being made of insulating material in a bell shaped form, means for securing the cap to the body member, a lamp socket in the body member, a ratchet having alternating sections of conducting and insulating material mounted in the said body member, a contact bearing against the side of the said ratchet, a spring contact adapted to bear successively against the faces of the segmental sections of the ratchet, a lever, and a spring pawl carried thereby for operating the ratchet when the lever is actuated.

6. In a switch socket, a body member, a cap therefor, the said body member and cap being made of insulating material in a bell shaped form, means for securing the cap to the body member, a lamp socket in the body member, a central contact member, a ratchet having alternate sections of conducting and insulating material, a contact bearing against the side of the ratchet, a lead terminal connected to the contact, a spring contact adapted to bear successively against the faces of the segmental sections of the ratchet, an electrical connection between the spring contact and the said center contact, means for actuating the ratchet, a lead second terminal, and an electrical connection

between the said lead second terminal and the said lamp socket.

7. In a switch socket, a body member, a cap therefor, the said body member and cap being made of insulating material in a bell shaped form, means for securing the cap to the body member, a lamp socket in the body member, a central contact member, a ratchet having alternate sections of conducting and insulating material, a contact bearing against the side of the ratchet, a lead terminal connected to the contact, a spring contact adapted to bear successively against the faces of the segmental sections of the ratchet, an electrical connection between the spring contact and the said center contact, a lever pivotally mounted in the body member and extending exteriorly thereof, a spring pawl carried by the said lever and adapted in the actuation thereof to operate the ratchet, means for normally returning and maintaining the lever in an initial position, a lead second terminal, and an electrical connection between the said lead second terminal and the said lamp socket.

Signed by me this 2nd day of October 1925.

GEORGE M. CONDIT.