

J. G. PETERSON.
ELECTRIC LAMP SOCKET.
APPLICATION FILED DEC. 27, 1909.

Patented Mar. 15, 1910.

952,276.

Fig. 1.

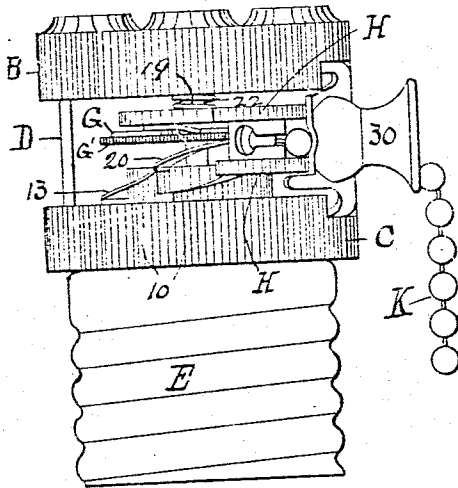


Fig. 2.

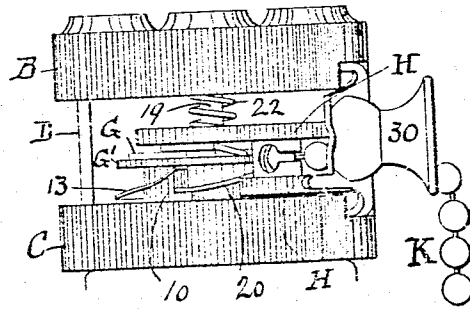


Fig. 5.

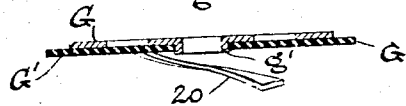


Fig. 3.

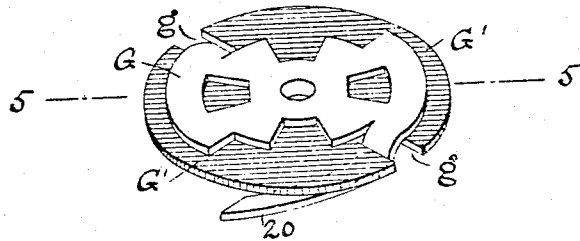
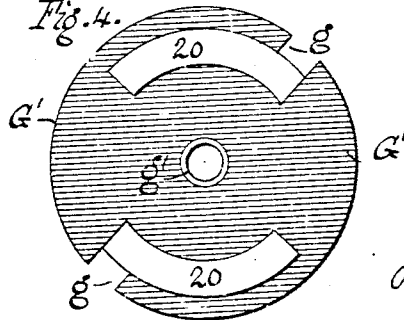


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHANN G. PETERSON, OF HARTFORD, CONNECTICUT, ASSIGNOR, BY MESNE ASSIGNMENTS, TO MARSHALL ELECTRIC COMPANY, OF HARTFORD, CONNECTICUT, A CORPORATION OF MAINE.

ELECTRIC-LAMP SOCKET.

952,276.

Specification of Letters Patent. Patented Mar. 15, 1919.

Application filed December 17, 1909. Serial No. 533,632.

To all whom it may concern:

Be it known that I, JOHANN G. PETERSON, a citizen of the United States of America, residing in the city of Hartford, in the county of Hartford, in the State of Connecticut, have invented certain new and useful Improvements in Electric-Lamp Sockets, of which the following is a specification.

My invention relates to improvements in the switch mechanism of electric lamp sockets and like electrical appliances, and the main object of my present invention is to so construct such switch mechanism that the several operating parts may be combined in a small space, and that there shall be as little danger as possible from short circuits by arcing or contact of parts of opposite polarity. This object I obtain by the construction which I will now describe, referring to the accompanying drawing in which I have shown my invention as embodied in an electric lamp socket of the pull socket type, that is to say, one in which the switch mechanism is operated by pulling on a flexible chain or cord.

In the accompanying drawing Figure 1 is a side elevation of such a socket, the usual inclosing cap and shell being omitted; Fig. 2 is a similar view of the upper part of the socket but showing parts of the switch mechanism in different positions from those which they occupy in Fig. 1; Fig. 3 is a perspective view of the contact plate or commutator; Fig. 4 is a view of the underside of the same; Fig. 5 is a section on the line 5-5, Fig. 3.

In the foregoing illustration of my invention, I have shown it applied specifically to that construction of pull socket which forms the subject of patents taken out by Harvey Hubbell, and more particularly the construction shown in his Patent No. 693,799, dated February 18, 1902, but it will be understood that I do not restrict my invention to employment in this particular type of socket.

Referring to Figs. 1 and 2, B is the upper insulating block and C the lower insulating block, the latter carrying the lamp-receiving contacts of the Edison or other type, the usual Edison screw shell E for the purpose being indicated in Fig. 1. The two blocks are spaced apart by suitable standards such as D, and in connection with one of the standards is provided a guide 30 for the

flexible chain K by which the switch mechanism is operated. The inner end of the chain is latched to the insulated operating wheel or plate H in the usual or any convenient way. This operating plate H is provided on its underside with pawl teeth, as usual, to engage shoulders on the upper face of the rotating contact plate G, which has curved spring contact fingers 20 to bear upon the inclined faces 10 on the upper side of the lower porcelain block C. The operating plate H turns on the central post 19 held in the two blocks, and the operating plate is held closely in engagement with the contact plate by means of the usual spiral spring 22, one end of which engages the post 19, while the other end engages the operating plate and acts to return the latter to its normal position, after each actuation by the chain and also to retain the contact fingers 20 of the contact plate closely in engagement with the inclines 10 upon the lower insulating block C.

On the upper face of one of the inclines 10 is a contact 13 in electrical connection with one of the posts D, which has a binding screw for one of the leading-in wires, as usual.

I construct my improved commutator or contact plate as shown more clearly in Figs. 3, 4 and 5, that is to say, I combine with the metal plate G, a sheet or disk of insulating material G', having radial notches g at diametrically opposite points for the passage therethrough of the curved spring contact fingers 20 which are suitably bent from the plate for that purpose, as best seen in Fig. 3. I prefer to draw the center of the metal plate G into a ferrule g' to be passed through a central opening in the disk G' to rivet the disk to the plate, as seen in Fig. 5. In the socket the insulating disk G' lies on the underside of the plate G except in so far as the curved spring contact fingers 20 of the plate project under the disk. I give such bends to these contact fingers 20 that when in the rotation of the contact plate a spring finger 20 drops off the top of one incline to the bottom of the next, as seen in passing from the position Fig. 1 to the position Fig. 2, the insulating inside G' of the plate G may, and preferably does, come into contact with the upper end of the contact 13, which would not be practicable but for the protecting disk G'. By this means I am enabled to bring

the plates B and C much closer together than heretofore. At the same time this descent of the disk G' under the action of the spring 22 gives a puff of air which will help to extinguish any arc formed by the contact finger 20 leaving the plate 13.

I claim as my invention—

1. A switch mechanism for electric appliances, comprising a series of inclined faces, and a contact thereon, in combination with a rotary contact plate having spring fingers to pass over said inclined faces and contact, means to intermittently rotate the contact plate, and insulating material carried by the contact plate on the side adjacent to the inclined faces.

2. A switch mechanism for electric appliances, comprising a series of inclined faces and a contact thereon in combination with a rotary contact plate having secured to that side of it which is adjacent to the inclined an insulating disk with notches through which pass the spring contact fin-

gers on the plate, an operating plate to intermittently rotate the contact plate, and a spring to press the operating plate and contact plate toward the inclined faces.

3. A contact plate for electric switch mechanism, having spring fingers and an insulating disk secured to one face of the plate and provided with notches through which said contact fingers pass.

4. A contact plate for electric switch mechanism having curved spring contact fingers bent up therefrom and a central ferrule with an insulating disk secured to the contact plate by said ferrule and having notches through which the contact fingers pass.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses.

JOHANN G. PETERSON.

Witnesses:

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