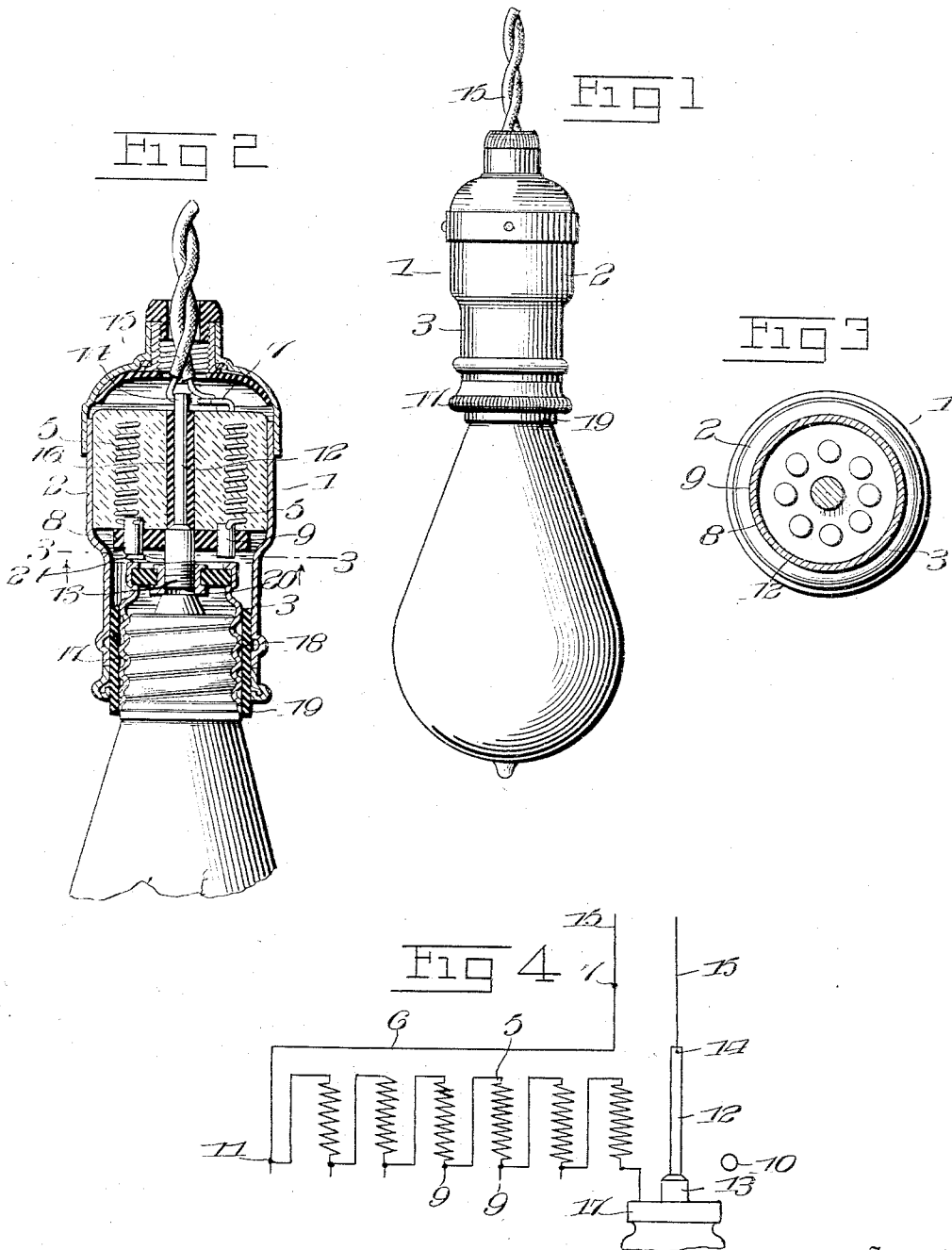


M. J. HOPPOCK.
ELECTRIC LAMP SWITCH.
APPLICATION FILED JULY 10, 1912.

1,055,177.

Patented Mar. 4, 1913.



Witnesses

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MURRAY JAY HOPPOCK, OF FRANKFORT, MICHIGAN.

ELECTRIC-LAMP SWITCH.

1,055,177.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MURRAY J. HOPPOCK, a citizen of the United States of America, residing at Frankfort, in the county of Benzie and State of Michigan, have invented new and useful Improvements in Electric-Lamp Switches, of which the following is a specification.

This invention relates to improvements in electric lamp switches and has particular application to switches of the variable resistance type.

In carrying out the present invention, it is my purpose to provide a switch of the class described whereby any predetermined quantity of current may be delivered to the filaments of the lamp without the use of snap switches, turn buttons and the like, thereby enabling the lamp to give forth any desired candle power.

It is also my purpose to provide a variable resistance electric lamp switch wherein by means of a plurality of sections of resistance and a rotatable lamp socket member any desired amount of current may be fed into the filaments of the lamp for illuminating purposes and the filaments cut into and out of the circuit independently of the resistance sections so that the lamps may receive the full quantity of current and be extinguished, respectively, without placing the resistance sections in the circuit.

Furthermore, I aim to provide a lamp switch of the type set forth which will embrace the desired features of simplicity, efficiency, durability and convenience and which may be manufactured and marketed at a relatively low cost.

With the above and other objects in view, the invention consists in the construction, combination and arrangement of parts hereinafter set forth in and falling within the scope of the claim.

In the accompanying drawing: Figure 1 is a side elevation of a lamp switch constructed in accordance with my invention, the lamp bulb being shown attached thereto. Fig. 2 is a vertical central sectional view of the same. Fig. 3 is a transverse sectional view on the line 3—3 of Fig. 2, and Fig. 4 is a diagrammatic view of the circuit connections.

Referring now to the accompanying drawing in detail, the numeral 1 designates a shell or casing constructed of any suitable material and formed, in the present in-

stance, with a relatively large section 2 and a small section 3 integral with the large section and depending therefrom. Suitably fastened within the relatively large portion 2 of the casing is a body of insulating material 4 in which is embedded a plurality of resistance sections 5 connected in series with a wire 6 terminating in a suitable form of contact 7 appropriately fastened to the upper surface of the body of insulating material. Arranged within the casing 1 preferably at the junction of the sections 2 and 3 thereof is a disk 8 preferably constructed of insulating material and provided on its under surface with a plurality of contacts 9 each forming a terminal of one of the resistance sections 5, a dead contact 10, and a contact 11 connected in the wire 6 in advance of the resistance sections and permitting the full amount of current to be delivered. These contacts 9, 10 and 11 are arranged in a circular path on the free surface of the disk 8 at suitable distances apart and are disposed concentrically of the center of such disk. Passed centrally through the body of insulating material 4 and the disk 8, is a central terminal 12 which, in the present instance, is in the form of a shank having a threaded end 13 extending beyond the contact bearing surface of the disk, while the free extremity thereof forms a contact member 14 disposed in proximity to the contact member 7 and cooperating therewith to receive the current conductors 15, 15 forming the circuit for delivering current to the lamp, a suitable insulating sleeve 16 incasing the central terminal to effectively insulate the same.

A socket forming member for receiving the lamp is designated by the numeral 17 and in the present instance consists of a metallic shell 18 threaded interiorly to receive the lamp plug, and surrounded by a strip of insulating material 19, an internally threaded ring 20 being carried by the upper end of the shell 18 and suitably insulated therefrom and disposed approximately centrally of the shell. Also secured upon the upper surface of the shell 18 is a contact finger 21 adapted to engage the contacts 9, 10 and 11 on the disk 8 to extinguish and illuminate the lamp carried by the socket member. The ring 20 is designed to be threaded onto the end 13 of the central electrode 12 and is rotatable thereon so as to impart a circular movement to the contact

finger 21 whereby such finger will engage the contacts on the disk 8 thereby cutting sections of the resistance into and out of the circuit.

5 From the foregoing description taken in connection with the accompanying drawing, the construction and manner of employing my invention will be readily apparent. When it is desired to illuminate the lamp, the lamp
10 bulb may be grasped by the hand of an operator and rotated thereby rotating the socket member whereby the contact finger 21 will successively engage the contacts 9 and the resistance sections will be out of the circuit
15 gradually. Should it be desired to illuminate the lamp to give forth a predetermined candle power, the lamp socket member is rotated until the desired sections of the resistance have been cut in or out of the circuit.
20 On the other hand, should it be desired to permit the full current to enter the filaments of the lamp, the socket member is rotated in an opposite direction thereby engaging the contact finger 21 with the contact 11, the latter being disposed immediately adjacent the dead contact 10, such last-named contact being out of the circuit so that when the finger 21 is in engagement therewith the lamp is extinguished. Thus,
30 by rotating the lamp socket member in one direction from the dead contact, the sections of resistance may be cut out of the circuit successively, while an opposite movement of the socket member enables the full quantity
35 of current to be delivered to the filaments of the lamp independently of the resistance sections.

40 It will be noted that I have provided an exceedingly simple, yet efficient and durable form of variable resistance electric lamp switch wherein the use of snap switches,

turn buttons and the like is eliminated and by means of which the current may be fed to the lamp in any desired quantity.

While I have herein shown and described 45 one preferred form of my invention by way of illustration, it is to be understood that I do not limit myself to the precise details of construction herein described and delineated, as modification and variation may be 50 made within the scope of the claim and without departing from the spirit of the invention.

I claim:

An electric lamp switch comprising a 55 shell formed with a relatively large section and a small section depending from the large section, a plurality of resistance sections connected in series with one another and disposed within the large section of the 60 shell, an insulating disk within the shell and provided with a plurality of contacts arranged in a circular path and forming the terminals of said resistance sections, a central terminal within the shell and extended 65 through said disk centrally of the contacts and provided with a threaded extremity, a socket member mounted within the small section of the shell, an interiorly threaded 70 ring carried by said socket member and insulated therefrom and threadedly engaging the adjacent end of said terminal, and a spring finger carried by said socket member and adapted to contact with any one of said 75 contacts.

In testimony whereof I affix my signature in presence of two witnesses.

MURRAY JAY HOPPOCK.

Witnesses:

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