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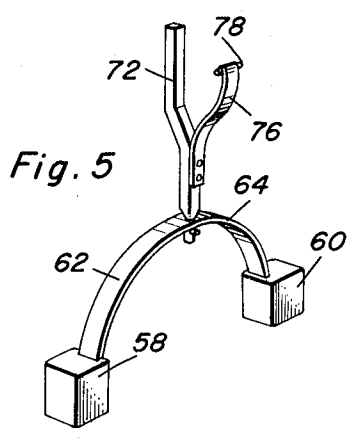
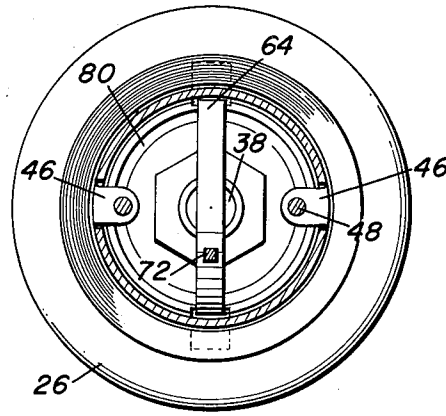
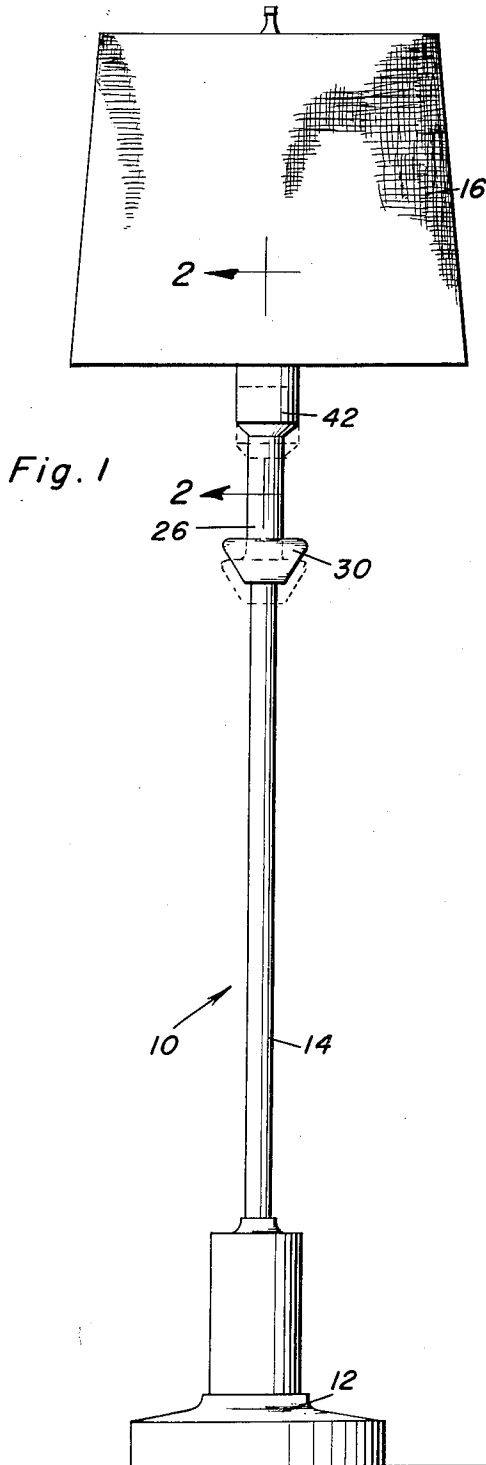
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2,721,244

SWITCH ACTUATION DEVICE

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2 Sheets-Sheet 1



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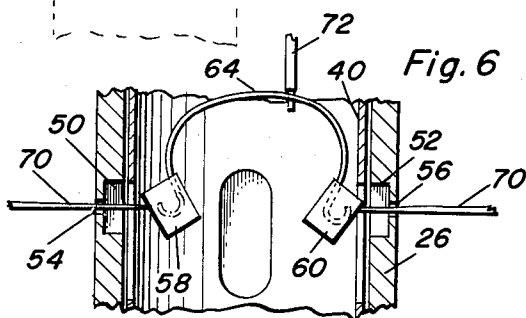
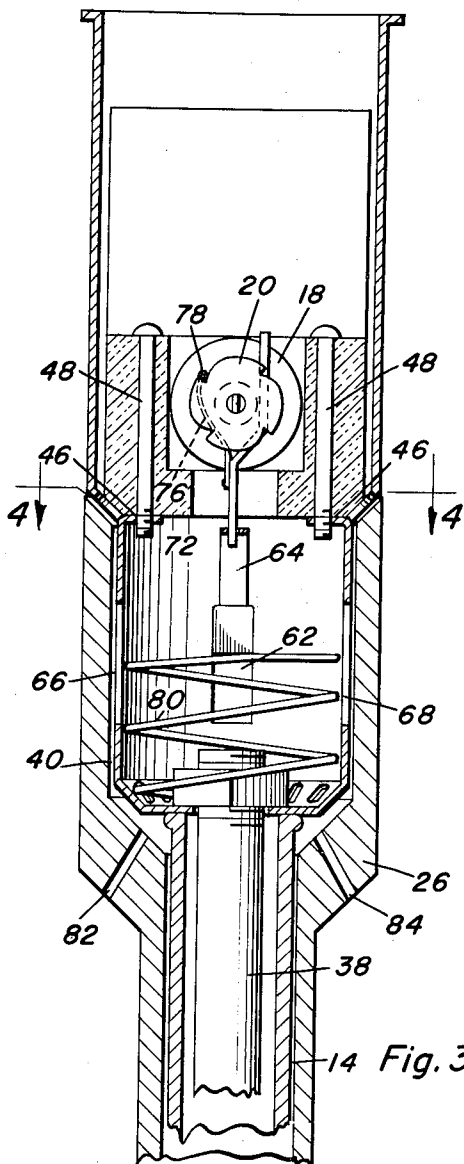
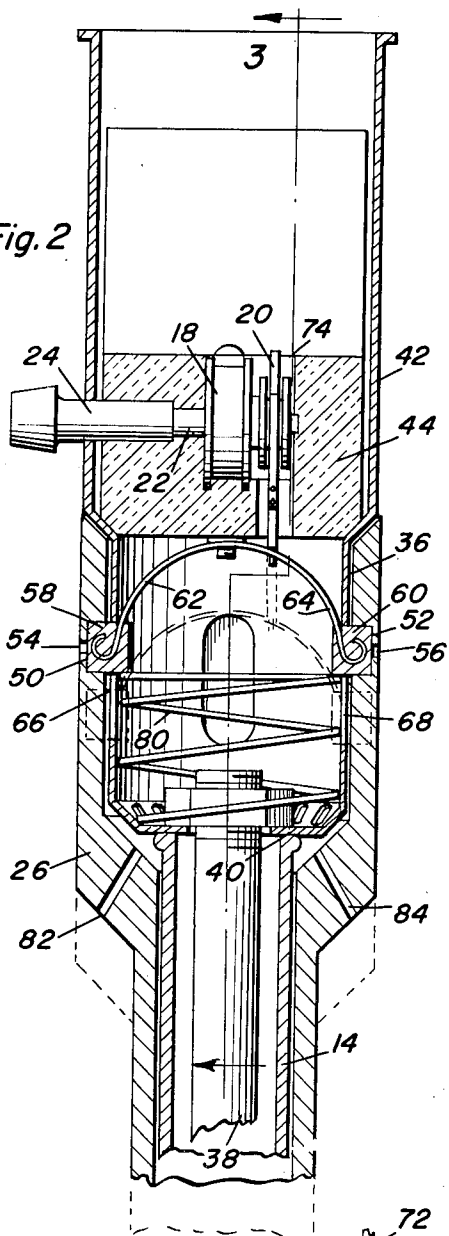
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SWITCH ACTUATION DEVICE

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2 Sheets-Sheet 2

Fig. 2



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SWITCH ACTUATION DEVICE

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2 Claims. (Cl. 200—168)

This invention relates generally to the class of circuit makers and breakers and more particularly to a novel electrical switch and actuation means therefor.

The primary object of the present invention resides in the provision of a switch actuation mechanism which will enable a conventional rotary switch to be operated by a slight manipulation of a sleeve slidably mounted about a lamp stand or the like thus providing a large surface area which can be easily grasped in the dark or by an amputee, arthritis victim or other afflicted person thus eliminating fumbling around and searching for the switch button or chain in the dark and providing means for actuating the switch by disabled persons.

A further object of the invention resides in the provision of an actuation means for an electric lamp or the like which enables the device to be operated, as may be desired, in the conventional manner by rotation of a switch knob by the fingers of a person.

The construction of this invention teaches a novel actuation member which is removably positioned within recesses in a sleeve slidably mounted about the lamp standard. The actuation member extends through slots in a tubular support member for the rotary switch and carries an arm engageable with the cam wheel of the rotary switch.

Still further objects and features of this invention reside in the provision of a switch and actuation means therefor which is strong and durable, simple in construction, inexpensive to produce, and highly efficient in operation.

These, together with the various ancillary objects and features of the invention which will become apparent as the following description proceeds, are attained by the switch actuation device, a preferred embodiment of which has been illustrated in the accompanying drawings, by way of example only, wherein:

Figure 1 is a side elevational view of a lamp showing the invention as operatively installed thereon;

Figure 2 is an enlarged sectional view as taken along the plane of line 2—2 in Figure 1 of the switch actuating device and rotary switch controlled thereby;

Figure 3 is a vertical sectional view as taken along the planes of line 3—3 in Figure 2;

Figure 4 is a horizontal sectional view as taken along the plane of line 4—4 in Figure 3 illustrating the construction of the actuation member;

Figure 5 is a perspective view of the actuation member showing the manner in which the arm is mounted into the spring interconnecting the blocks of the actuation member; and

Figure 6 is a sectional detail view illustrating the manner in which the actuation member may be removed from the sleeve.

With continuing reference to the accompanying drawings wherein like numerals designate similar parts throughout the various views, reference numeral 10 generally designates an electric lamp comprising a base 12 from which a standard 14 rises, the standard 14 being adapted to support a lamp about which a lamp shade 16 is posi-

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tioned. In order to control the flow of electric energy to the bulb of the lamp 10 there is provided a rotary switch 18 of conventional construction having a cam wheel 20 for controlling the contacts of the switch 18 by rotation thereof. In order to rotate the cam wheel 20 there is provided, as is conventional, a shaft 22 controlled by a knob 24 the rotation of which rotates the shaft 22 and hence the wheel 20.

The construction of this invention teaches means for rotating the cam wheel 20 upon movement of a sleeve 26 slidably mounted with respect to the standard 14. This sleeve 26 terminates in an enlarged portion 30 at the lower end thereof so as to permit the sleeve 26 to be more readily grasped.

The standard 12 houses or supports a tubular bolt 38 which extends the length of the standard and engages the lower flange 40 of the tubular member 36. The lower flange 40 rests on top of the standard 14 and is secured by a nut 43 spot welded to the flange 40. The bolt 38 is threadedly engaged in nut 43. The tubular member 36 has an upper portion 42 of increased dimension so that the sleeve 26 has its upper portion lying flush therewith. The rotary switch 18 is mounted in the tubular member 40 by means of a porcelain block 44 or a block constructed of other insulative material which is held to lugs 46 pressed from the tubular member by means of bolts 48.

The sleeve 26 is provided with a pair of recesses 50 and 52 therein and apertures 54 and 56 extend through the sleeve 26 in alignment with the recesses 50 and 52 are blocks 58 and 60 of an actuation member 62 which includes a spring 64 anchored in the blocks 58 and 60 and joining the blocks. The blocks 58 and 60 extend through slots 66 and 68 in the tubular member 40 and may be removed therefrom readily as can be seen at Figure 6 by the insertion of any suitable pointed instrument as indicated at 70 which is inserted through the apertures 54 and 56.

Secured to the spring 64 is a guide member 72 which extends upwardly through an opening 74 in the porcelain block 44. Attached to the guide 72 is an arm 76 having an engaging portion 78 which is adapted to engage the cam wheel 20. Hence, upon downward movement of the sleeve 26, the wheel 20 will be rotated by the arm 76.

Resiliently engaging the undersurfaces of the blocks 58 and 60 is a coil spring 80 which also yieldingly engages the base of the tubular member 40. Thus, the spring 80 acts to return the sleeve 26 into its raised position by urging the blocks 58 and 60 upwardly with respect to the tubular member 40, the blocks 58 and 60 thus carrying the sleeve 26.

Exhaust vents as at 82 and 84 are provided in the sleeve 26 and communicate with openings 86 in tubular member 40 to provide cooling for the switch mechanism.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claims.

What is claimed as new is as follows:

1. A switch actuation device for a rotary switch having a cam wheel for opening and closing contacts, a tubular support member, means mounting said rotary switch in said tubular support member, a standard carrying said support member, a sleeve slidably mounted on said standard and concentric with respect to a portion of said tubular support member, slots in said tubular support member, an actuation member carried by said sleeve extending through said slots into said tubular support member, and

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an arm attached to said actuation member engaging said cam wheel for rotating said cam wheel upon vertical movement of said sleeve, said sleeve having recesses therein, said actuation member being detachably received in said recesses, said actuation member including a pair of blocks receivable in said recesses, said blocks being interconnected by a spring.

2. A switch actuation device for a rotary switch having a cam wheel for opening and closing contacts, a tubular support member, means mounting said rotary switch in said tubular support member, a standard carrying said support member, a sleeve slidably mounted on said standard and concentric with respect to a portion of said tubular support member, slots in said tubular support member, an actuation member carried by said sleeve extending through said slots into said tubular support member, and

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an arm attached to said actuation member engaging said cam wheel for rotating said cam wheel upon vertical movement of said sleeve, and a coil spring in said tubular support member yieldingly engaging said tubular support member and said actuation member for returning said sleeve to an initial position, said sleeve having recesses therein, said actuation member being detachably received in said recesses, said actuation member including a pair of blocks receivable in said recesses, said blocks being interconnected by a spring.

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