July 19, 1938. K. SCHNEIDER 2,124,009

COLUMN SWITCH FOR ELECTRIC LAMPS

Filed March 23, 1936

Fig. 1.

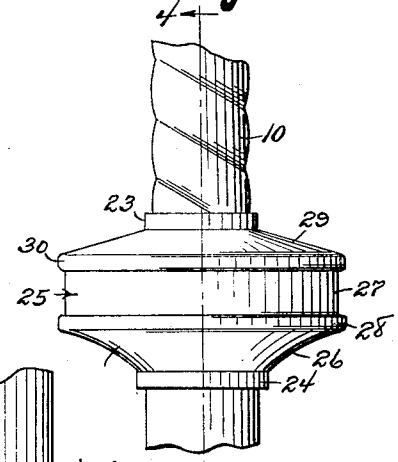
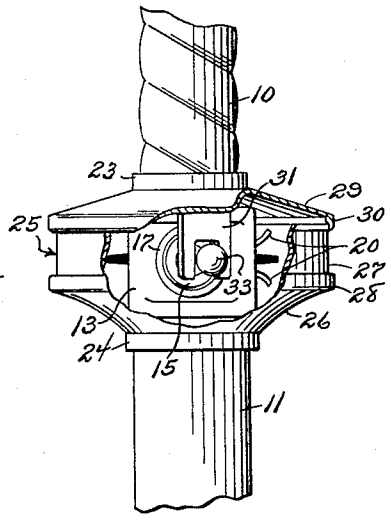


Fig. 2.



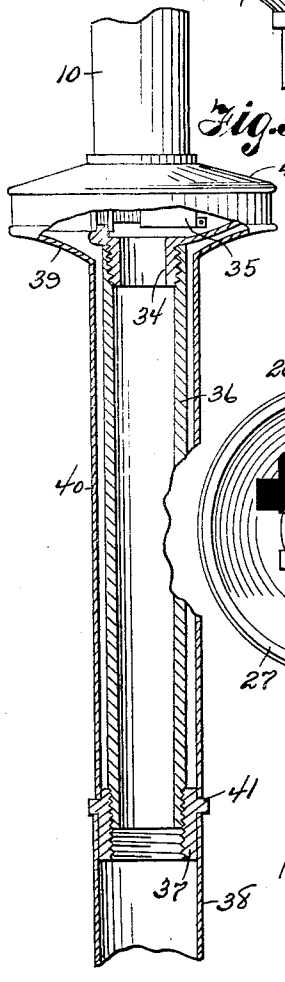


Fig. 3.

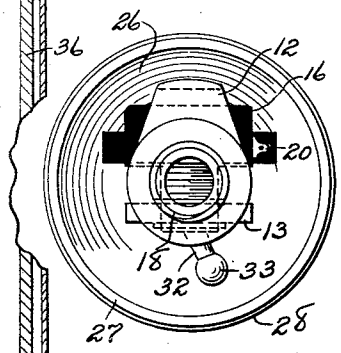
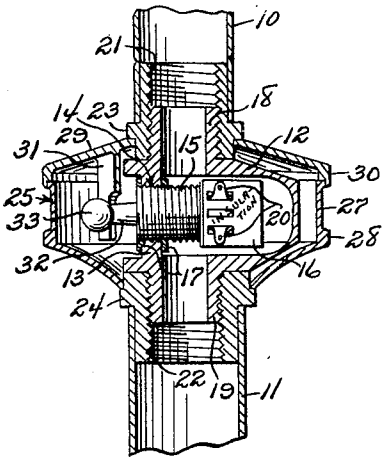


Fig. 4.



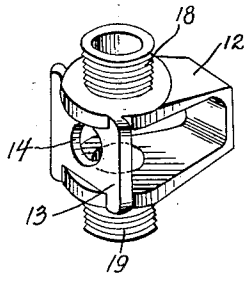


Fig. 6.

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WITNESS

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COLUMN SWITCH FOR ELECTRIC LAMPS

Karl Schaeider, Lexington, Ky.

Application March 23, 1936, Serial No. 70,499

1 Claim. (Cl. 200—168)

This invention relates to electric switches and has for an object to provide a switch which is concealed within and operated by a knob, somewhat similar to a door knob, which knob is incorporated in the ornamental structure of the lamp column where it may be in plain view at all times, within comfortable reach of the person sitting in a chair, and which because of its size will be easier to turn than the small button usually used.

A further object is to provide a device of this character in which a conventional single pole switch is assembled with a novel switch carrier and coupling, the coupling nipples of the carrier having bushings screwed thereon to be received into the upper and lower tubular sections of the lamp column.

The bushings are provided with collars which retain the actuating knob in position and rotatably mount the actuating knob. This construction is formed of a few strong simple and inexpensive parts which are easy to manufacture and which will not easily get out of order.

With the above and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter fully described and claimed, it being understood that various modifications may be resorted to within the scope of the appended claim without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawing forming part of this specification,

Figure 1 is a front elevation of a portion of a lamp column equipped with a switch constructed in accordance with the invention.

Figure 2 is a view similar to Figure 1 but showing the operating knob broken away to expose the fork which couples the lever of the switch to the knob.

Figure 3 is a plan view of the switch with the cap removed from the body of the knob to expose the combined switch carrier and coupling.

Figure 4 is a longitudinal sectional view taken on the line 4—4 of Figure 1.

Figure 5 is a longitudinal sectional view of a modified form of the invention with parts in elevation.

Figure 6 is a perspective view of the switch carrier.

Referring now to the drawing in which like characters of reference designate similar parts in the various views, 10 and 11 designate upper and lower tubular sections of a conventional lamp column. In carrying out the invention these sections are spaced apart to permit application of the switch structure between them.

The switch structure comprises a substantially U-shaped carrier 12 having a plate 13 connecting its upper and lower legs at the free ends thereof. The plate is provided with an opening 14 to receive the threaded nipple 15 of a conventional single pole switch 16 of the snap type. A pair of ring nuts 17 are threaded upon the nipple and tightened against the front and rear faces of the plate to rigidly assemble the switch with the carrier.

The carrier is provided on the upper leg with an exteriorly threaded coupling nipple 18 and also on the lower leg is provided with an exteriorly threaded integral coupling nipple 19. These nipples are disposed in axial alignment with each other and open into the enclosure within the carrier for the purpose of conducting the circuit wires from the upper and lower sections of the column for connection to the switch in the usual manner, such as for instance, one of the wires being severed and the ends soldered to terminal tabs 20 of the switch.

An interiorly threaded bushing 21 is screwed onto the upper coupling nipple 18 and an interiorly threaded bushing 22 is screwed onto the lower coupling nipple 19. The upper bushing is provided near the bottom with a circumferential collar 23 and the lower bushing is provided near the top with a circumferential collar 24. These collars form stops to limit, respectively, the insertion of the upper bushing into the upper section 10 of the column, and insertion of the lower bushing into the lower section 11 of the column. Both collars in addition form seats for rotatably mounting the actuating knob 25.

The actuating knob is in form a hollow cylindrical shell somewhat similar to a door knob and comprises a body section having a downwardly inclined bottom wall 26 which rotates upon the collar 24 of the lower bushing 22, and having a cylindrical wall 27 which rises from the bottom wall and at its juncture with the latter is provided with a circumferential bead 28. An upwardly inclined top wall or cap 29 closes the open top of the knob body and rotatably engages the collar 23 of the upper coupling 18. The edge of the cap forms a bead 30 which coacts with the bead 28 to form a comfortable grip or hand hold for turning the knob on the bushings as an axis.

The cap is provided with an integral depending fork 31 which straddles the switch lever 32 behind the ball 33 thereof. When the knob 25

is rotated in one direction the fork will throw the switch lever in a corresponding direction and when the knob is rotated in the opposite direction the fork will throw the switch lever in a retrograde direction. Thus it may be seen that the operator may easily and conveniently grasp the knob for turning the switch on or off, since the knob is within plain view at all times and may be located on the column so as to be comfortably reached from the operator's chair. Because it is of large diameter, the knob may be more readily turned than small buttons and the like usually employed.

In Figure 5 there is shown a modified form of the invention in which not only the knob but a portion of the lamp column itself may be turned to operate the switch. In the modified form of the invention the nipple 34 of the switch carrier 35 is threaded into the upper end of a tubular spacer 36. The lower end of the tubular spacer is threaded into a bushing 37 similar to the above described bushing 22. The bushing is fixed in any preferred manner in the upper end of a portion of the lamp column 38. The downwardly inclined bottom wall 39 of the knob is formed integral with a tube 40 which is rotatably supported upon the circumferential bead 41 of the bushing 37. The extension 40 of the knob forms a continuation of the lamp column and may if desired be so far extended as to include the whole column of the lamp below the actuating knob. One may turn on or off the switch by grasping the knob 42 or the tubular extension 40 below it.

From the above description it is thought that the construction and operation of the invention will be fully understood without further explanation.

What is claimed is:

Switch mechanism for electric lamps and appliances comprising the combination with a tubular housing for circuit wires, of a switch carrier of substantially U-shape in cross section and having upper and lower legs connected by a flat plate opposite the bight of the carrier, aligned nipples extending from the upper and lower legs for securing the carrier in said housing, a snap action switch housed within the enclosure of the U-shaped carrier and having a securing nipple, said plate being provided with a perforation receiving said nipple, a pair of ring nuts threaded on the nipple and tightened against opposite faces of the plate to rigidly assemble the switch with the carrier, said switch being provided with an operating lever projecting through said opening, and a hollow grip rotatably mounted on said tubular housing and having an interiorly disposed fork depending from the top thereof and straddling said lever for manipulating the switch.

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