

Nov. 15, 1938.

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2,136,369

LAMP FIXTURE

Filed July 9, 1937

3 Sheets-Sheet 1

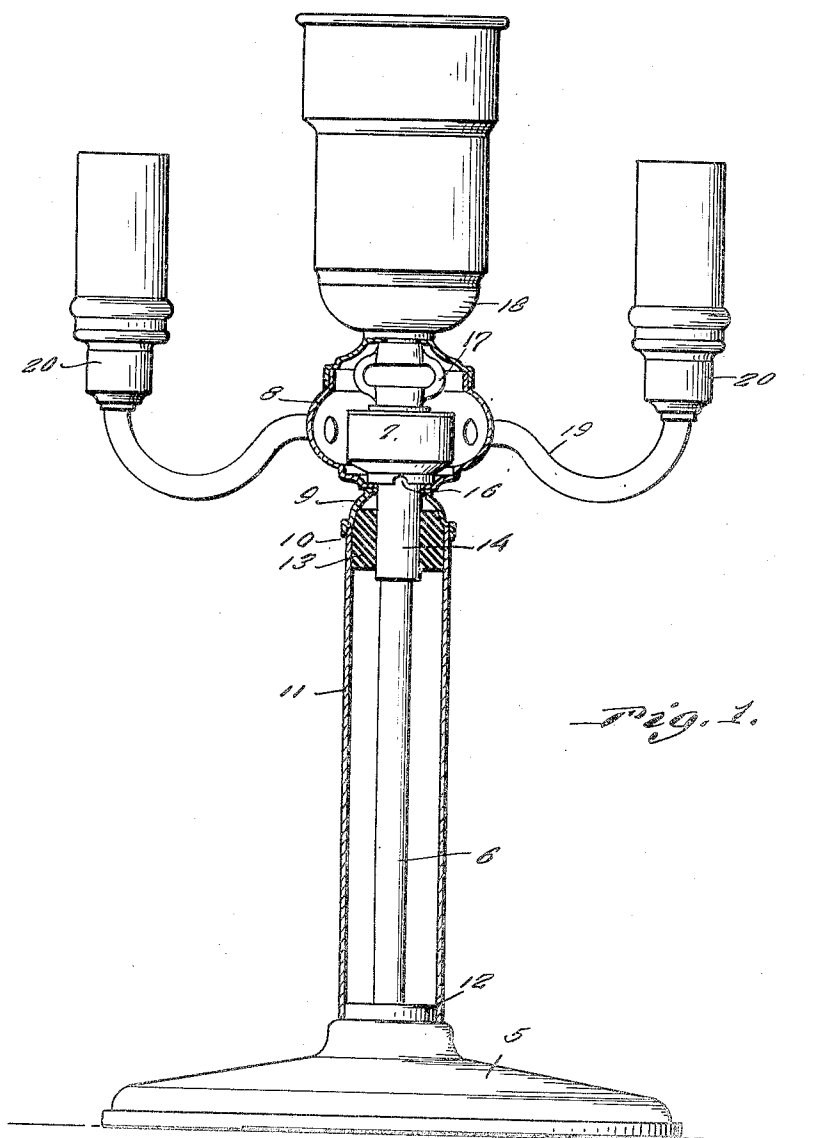


Fig. 1.

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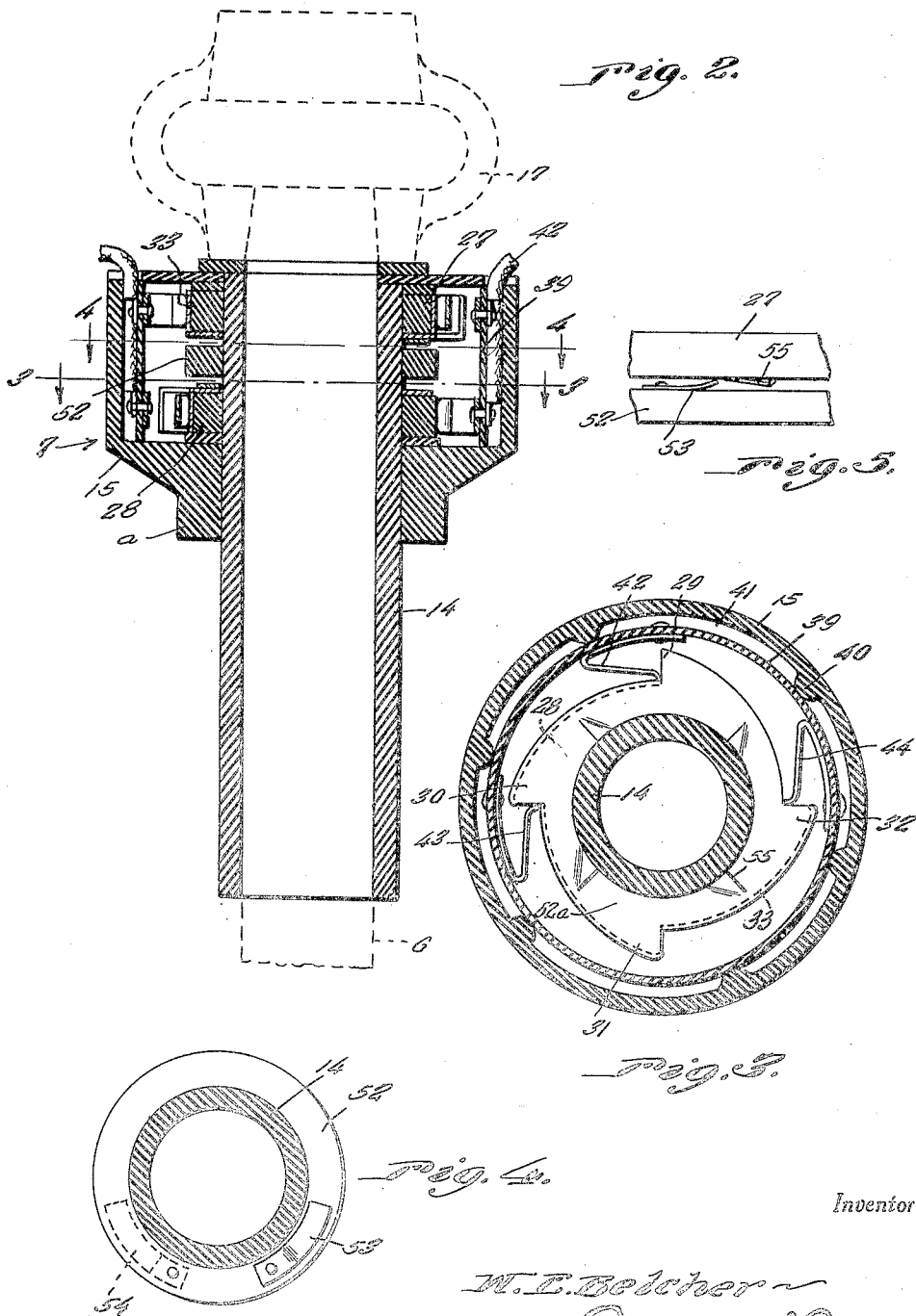
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3 Sheets-Sheet 2



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Fig. 6.

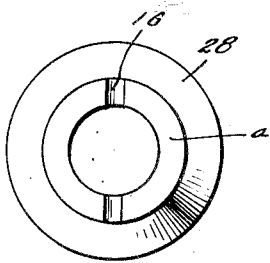
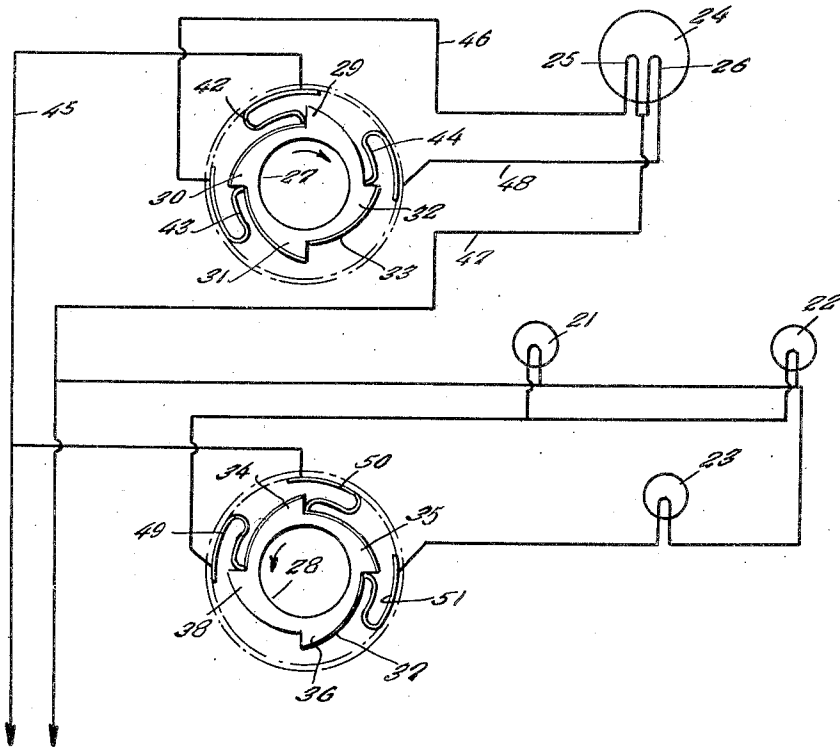


Fig. 7.

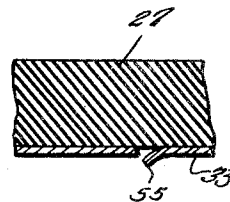


Fig. 8.

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LAMP FIXTURE

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Application July 9, 1937, Serial No. 152,813

1 Claim. (Cl. 240—81)

This invention relates to new and useful improvements in lamp fixtures.

The principal object of the present invention is to provide a lamp fixture wherein a switch is operated by moving a standard portion of the fixture with which the switch is connected.

Another important object of the invention is to provide a switch for lamps of the stand type, such as floor lamps, table lamps and the like wherein the standard or post portion thereof can be conveniently rotated for the purpose of operating the switch for the lamps.

Other important objects and advantages of the invention will become apparent to the reader of the following specification.

In the drawings—

Figure 1 represents a side elevational view of a table lamp with the standard thereof shown in section.

Figure 2 is an enlarged vertical sectional view through the switch mechanism of the lamp fixture shown in Figure 1.

Figure 3 is a horizontal sectional view on the line 3—3 of Figure 2.

Figure 4 is a horizontal sectional view on the line 4—4 of Figure 2.

Figure 5 is a fragmentary side elevational view showing a relationship of the rotatable annulus with one of the ratchet collars.

Figure 6 is a diagrammatic view disclosing the electrical connection between the electrical devices involved.

Figure 7 is a bottom plan view of the shell of the switch.

Figure 8 is a fragmentary detailed sectional view.

Referring to the drawings wherein like numerals designate like parts, it can be seen that numeral 5 represents the lamp base from which rises the conductor conduit 6 extending upwardly through the switch mechanism generally referred to by numeral 7 located in the fixture shell 8 of the lamp fixture. The shell 8 is provided with the depending cap portion 9 having a skirt 10 for disposition over the upper end of the rotatable sleeve 11, which sleeve may be of any ornated design on its outer surface, the lower portion of which fits over the boss 12 on the base 5. A rubber bushing 13 is snugly disposed within the upper portion of the sleeve 11 and snugly hugs the barrel 14 of insulation which extends upwardly into the shell 15 of the switch structure 7. The lower reduced portion α of the shell 15 rests upon the bottom of the fixture shell 8 and is notched as at 16 to receive a suit-

able boss formation (not shown) on the bottom of the shell 8 so as to prevent rotation of the shell 15.

A fitting 17 is provided at the top of the conduit 6 through which conductors extend to the lamp socket 18 mounted above the shell 8. Three outwardly extending and curved arms 19 are provided on the shell 8 and each is equipped with a socket 20 at its outer end for receiving a bulb.

The lamp shown in the drawings consists of three small power bulbs 21, 22 and 23 for the sockets 20 and the bulb 24 for the socket 18 which has the two filaments 25 and 26 therein. (See Figure 6.)

At this point, it can be seen that by rotating the sleeve 11, motion is transmitted by way of the resilient bushing 13 to the barrel 14 and from there to the switch mechanism inside of the shell 15. (See Figure 2.)

Freely rotatable on the upper portion of the barrel 14, that is, the portion within the shell 15 are the ratchet collars 27—28. The ratchet collar 27 is provided with the cam-like ratchet formations 29, 30, 31 and 32. The formations 30, 31 and 32 each has a conductor strip 33 thereon, while the formation 29 does not have a conductor strip.

The cam-like ratchet formations on the lower ratchet collar 28 are disposed in the opposite direction from the formations on the collar 27, the formations 34, 35 and 36 being provided with conductor strips 37, while the formation 38 is free of any conductor.

Obviously, the ratchet collar 27 takes care of the lamp 24, while the ratchet collar 28 takes care of the lamps 21, 22 and 23.

As can be seen in Figure 2, an annular wall 39 is disposed into the shell 15, and vertically extending ribs 40 on the inside of the shell 15 serve to space the wall 39 from the shell proper so as to afford a space 41 through which the various conductors 42 can be disposed.

As is shown in Figure 6, spring contact fingers 42, 43 and 44 are provided for wiping engagement with the conductor strips 33. The positive side of the current supply 45 connects to the contact finger 42, while a jumper 46 extends from the contact member 43 to the filament 25. The return wire is denoted by numeral 47 while a jumper 48 extends from the contact finger 44 to the filament 26.

Figure 6 also shows the ratchet collar 28 provided with the spring contact fingers 49, 50 and 51 secured to the wall 39 and these are connected

to the lamps 21—22 and 23 as disclosed in Figure 6.

An annulus 52 is secured to the upper end portion of the barrel 14 (see Figure 2) between the collars 27—28 and this is provided with an upwardly curved lug 53 secured to its top side and a downwardly curved lug 54 secured to its underside.

It will be observed in Figures 2 and 8, that the conductor strips 33 and 37 on the collars 27 and 28, respectively, are bent inwardly against their sides opposed to the annulus 52 as denoted by reference character 52a where they are provided with lugs 55 with which the corresponding lugs 53 or 54 can engage depending upon the direction in which the annulus 52 is rotated.

Thus it can be seen, that by rotating the barrel 14 in one direction, the upper collar 27 will be caught by the lug 53 and rotated against the contact fingers 42, 43 and 44 for turning one or both of the filaments 25—26 on or entirely shutting off the lamp 24.

By reversing the motion of the barrel 14, the collar 28 is rotated by turning off the lamps 21—22—23 or turning the same on.

When the sleeve is rotated in one direction, the barrel 14 is rotated as the bushing 13 fits sufficiently snug between the sleeve 11 and the barrel 14 to make suitable connection causing the barrel to rotate with the sleeve 11. The barrel 14 in rotating carries with it the annulus 52 which has the finger 53 on its upper side and the finger 54 on its underside. The bottom side of the collar 27 and the top side of the collar 28 has the portions 52a of its contact strips formed with lugs 55 each lug having a beveled side and a shoulder-like side. When the barrel 14 is rotated in one direction the fingers 53, which are of spring material will ride under the lugs 55, of one of the collars 27 while the other spring finger will move against the shoulder sides of the lugs 55 and thus, while one of the collars remains sta-

tionary, the other is rotated acting as a switch for the corresponding group of lamps. Obviously, rotation of the barrel 14 by the shell 11, in the opposite direction will cause rotation of the annulus 52 in the opposite direction, resulting in the engagement of the other finger 53 or 54 with the shoulder sides of the lugs 55 of the other collar 27 and in this manner a second group of lamps can be controlled.

While the foregoing specification sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size and materials may be resorted to without departing from the spirit and scope of the invention as claimed hereinafter.

Having described the invention what is claimed as new is:

A lamp fixture comprising a base, a conductor containing conduit rising from the base, a fixture shell, lamps supported by the shell, a switch structure in the shell for controlling a source of current to the lamps, said switch structure including a contactor, a barrel extending from the contactor and having the conduit extending therethrough, a rotatable sleeve through which the conduit extends and into which the barrel depends, and a plug in the rotatable sleeve adapted to retain the rotatable sleeve and barrel to rotate together, said rotatable sleeve being adapted to be rotated to operate the barrel and the contactor by way of the said plug, said switch including two groups of stationary contacts and two groups of contacts carried by the barrel, and means associated with the contacts constructed and arranged to connect a source of current with one group of lamps when the rotatable sleeve is rotated in one direction and to connect a source of current with other of the lamps when the rotatable sleeve is rotated in the opposite direction.

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