Nov. 18, 1952 T. FLEISHMAN 2,618,739

STAND LAMP WITH SWINGABLE FLUORESCENT LAMP STRUCTURE THEREON

Filed May 15, 1948 2 SHEETS—SHEET 1

Fig. 1

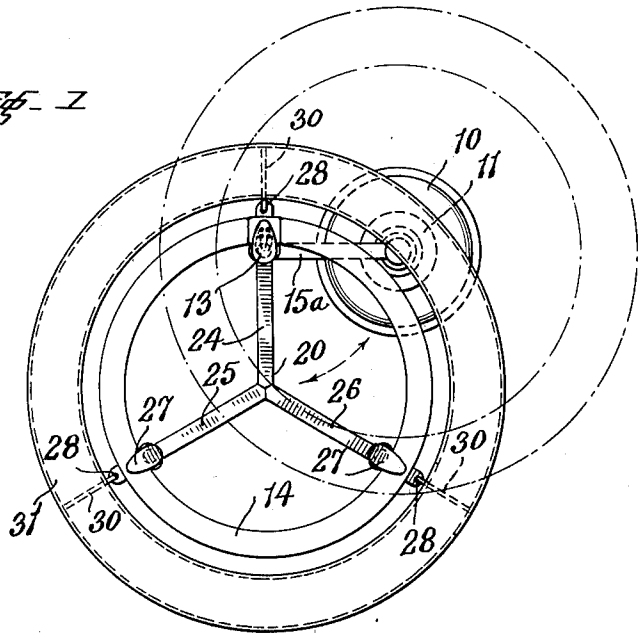
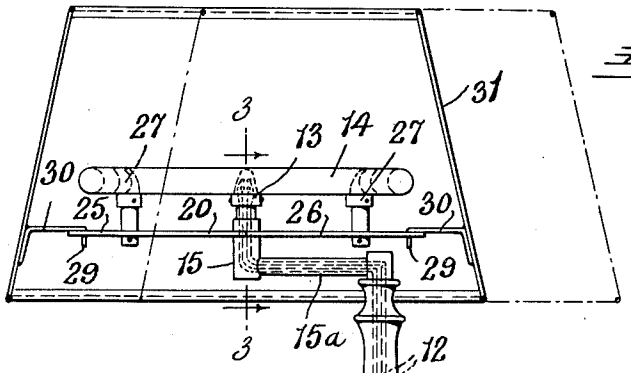


Fig. 2



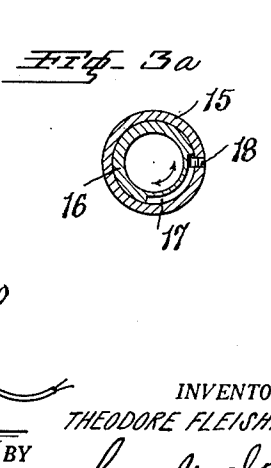


Fig. 3a

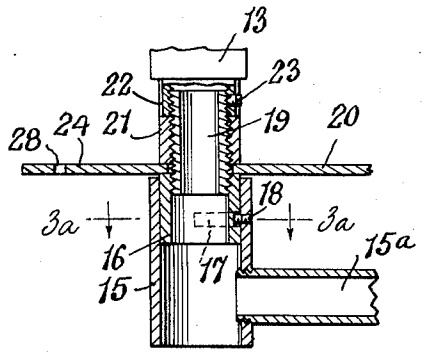


Fig. 3

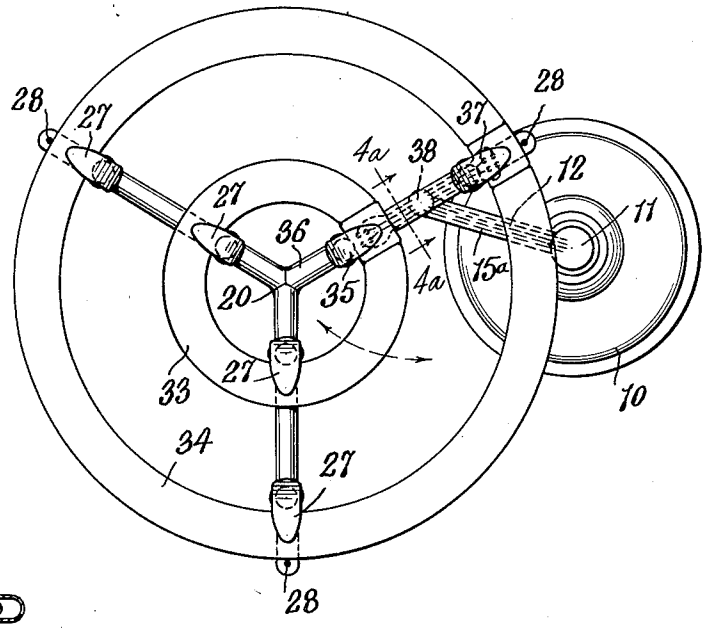
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Fig. 4



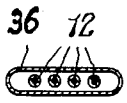


Fig. 4a

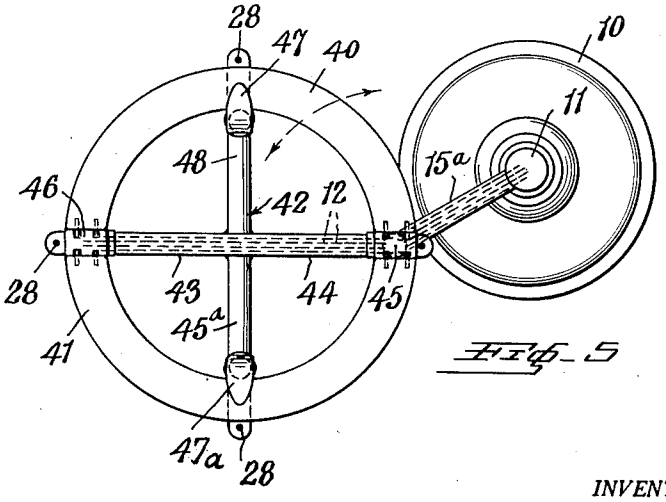


Fig. 5

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STAND LAMP WITH SWINGABLE FLUORESCENT LAMP STRUCTURE THEREON

Theodore Fleishman, Montclair, N. J.

Application May 15, 1948, Serial No. 27,246

5 Claims. (Cl. 240—51.12)

1

This invention relates to lamps, and especially to the type intended for the accommodation of fluorescent tubes, and one of the objects of the invention is to provide a lamp structure of simple, sturdy construction in which the lighting tube and the lamp shade are firmly but adjustably supported.

Another object of the invention is to provide a supporting frame or bracket for the mounting of one or more fluorescent tubes as well as for the lamp shade, in which the bracket as well as the tube and lamp shade carried thereby are for pivotal swinging movement mounted in such a manner as to enable it to be swung to various desirable positions while the lamp is in use.

Another object of the invention is to provide, in a lamp of this character, tube-supporting frame means in the form of a spider mounted eccentrically and pivotally with respect to the axis of the lamp pedestal, said spider being carried on an arm extending radially from the pedestal and being pivotal about the same, the spider also having means for supporting a lamp shade and being by means of the above-described pivotal mounting, adjustable to various positions.

The invention also contemplates the provision of novel means for supporting one or more of the fluorescent electric tubes; of novel means for seating and positioning the lamp shade, and of means by which the current-conveying wires will be conducted from the electrical components to the tube-accommodating sockets.

These and other objects are attained by the invention, a more particular description of which will be hereinafter set forth and more particularly pointed out in the claims appended hereto.

In the accompanying drawings, wherein two illustrative embodiments of the invention are disclosed:

Fig. 1 is a top plan view of a lamp constructed in accordance with the invention;

Fig. 2 is a side elevation of the same, with the lamp shade shown in section;

Fig. 3 is a vertical sectional view through the outer end of the supporting arm showing the mounting of the fluorescent electric tube socket; the view being taken on the line 3—3 of Fig. 2, looking in the direction of the arrows;

Fig. 3a is a sectional view, taken on the line 3a—3a, of Fig. 3, looking in the direction of the arrows;

Fig. 4 is a top plan view of a modified construction in which a pair of concentrically arranged fluorescent tubes are employed;

Fig. 4a is a sectional view on the line 4a—4a

2

of Fig. 4, looking in the direction of the arrows, and

Fig. 5 is a top plan view of a lamp, with the lamp shade removed, and in which a pair of semi-annular fluorescent tubes is used.

Referring to the structure shown in Figs. 1 to 3a inclusive, 10 indicates the base of the lamp, the same being hollow so that it constitutes a chamber or receptacle for the accommodation of the electrical apparatus generally utilized for the ignition of fluorescent electric lamps, such as a transformer, choke, line switch, starter switch and the connections between the same. Secured to and arising from the base is a hollow pedestal or standard 11 having a substantially longitudinal or vertical axis and constituting a conduit for the wiring 12 leading from the electrical components just referred to and located in the base 11, to the socket 13 which accommodates the annular fluorescent tube 14. The pedestal or standard 11 may be of any suitable height, its height being dependent upon whether the lamp is intended to rest upon a table or upon the floor.

At its upper end, the pedestal or standard 11 is provided with a radially extending hollow arm 15a which also serves as a conduit for the wiring 12. At the outer end of the hollow arm 15a is positioned a pivot connection which is threadably attached to said arm and forms a vertically disposed tubular post 15 in which a sleeve 16 is rotatively fitted. Said sleeve 16 is provided in its outer face with a groove 17 in which a stop-pin 18, projecting through the wall of the post 15 extends, said stop-pin 18 serving to define the limits of the rotative movement of the sleeve 16 within the post 15 by the abutment of the pin 18 against one or the other of the opposite ends of the groove 17. An externally threaded bushing 19 is threadably received on the interior of the sleeve 16 and said bushing 19 arises above the sleeve 16 and projects through an aperture in a supporting frame or spider 20, as clearly noted in Fig. 3.

Threaded on the outside of the bushing 19 is an internally threaded sleeve 21, so that said sleeve 21 and the sleeve 16 serve to clampingly maintain the supporting frame or spider 20 between them and pivotally support said frame or spider above the tubular post 15. The tube receiving socket 13 has a base portion 22 threadably received on the upper portion of the bushing 19 above the sleeve 21, said base portion 22 being maintained against inadvertent dis-

placement after having been fitted in position as described, by means of the set screw 23.

In the embodiment of the invention as shown in Figs. 1 and 2, the supporting frame or spider 20 is provided with a center from which three radially extending bars or arms are directed which are designated, respectively, by numerals 24, 25 and 26. The arm indicated at 24 is that which is mounted upon the bushing 19 and above which is disposed a tube-receiving holder with socket 13. The wiring 12 extends upwardly through pedestal 11, through the hollow arm 15*a*; through post 15 and through the aligned sleeve 16 and bushing 19 to become connected into the four-receptacle socket 13 in the known manner. The two radial arms 25 and 26 of the spider 20 are provided near their outer ends with supporting holders 27 upon which the tube 14 rests, said holders being not electrically connected to the tube, but serving to securely and firmly support it in elevated position and substantially in the same plane as the holder with socket 13 above the spider 20 as shown in Fig. 2. The holders 27 may be made similar in shape and appearance to the holder with socket member 13 to thereby provide a symmetrical and attractive appearance to the structure.

At the outer end of each of the arms 24, 25 and 26 of the spider 20, is provided a hole 28 or other means serving to engage the down-turned ends or tips 29 on three wire brackets 30 extending inwardly from the frame of the lamp shade 31. It will be obvious that when the brackets 30 have their tips or extremities 29 entered into the holes 28 at the ends of the arms of the spider 20, the frame of the lamp shade will be firmly supported on the spider, and any rotative movement of the spider will cause the lamp shade to be moved along with it.

Since the sleeve 16 is rotative within the hollow post 15 at the end of the arm 15*a*, and the spider 20 is supported by said sleeve 16, it will be apparent that the spider 20, the tube 14 and the lamp shade carried by the spider, can be swung rotatively about the post 15 to an extent as determined by the limitations of slot or groove 17 and the contact of its end walls with the stop pin 18. The manner in which the lamp shade, tube and spider can be swung is indicated in Fig. 1, wherein the dot-and-dash lines indicate the normal position of the lamp at which time the center of the lamp shade is positioned concentrically or is coinciding with respect to the longitudinal axis of pedestal 11. The full lines show one of the positions to which the center common to the spider, lamp and shade can be moved with respect to the longitudinal axis of the pedestal when desired to best position the lamp to thereby meet the requirements of the user. Since the rotative movement of the spider and the parts which it supports and carries, is limited by the ends of the groove 17, the shade is thus prevented from forcibly contacting the upper end portion of the pedestal 11 and being possibly damaged.

In the embodiment of the invention as disclosed in Fig. 4, a pair of concentrically-arranged fluorescent tubes is employed, the inner or smaller-diameter tube being indicated at 33, while the outer or larger-diameter tube is shown at 34. In this embodiment of the invention, the spider 20 is composed of relatively flat, hollow tubing, as seen in the cross-sectional view of Fig. 4*a* so that one of the arms of the spider, or that designated at 36 will thus constitute a conduit for the wiring 12. The socket for the reception of the fluorescent tube 33 is indicated at 35, and said socket is mounted on the arm 36 and is located relatively close to the inner end of said arm and adjacent to the center of the spider. Mounted near the outer end of said arm 36 is a socket 37 which receives the prongs of the fluorescent tube 34. Located between the two sockets 35 and 37 is the pivot 38 for the spider 20, said pivot being similar to that described with respect to the structure of Figs. 1 to 3*a* and shown in Fig. 3. The wiring 12 extends through the hollow arm 36 of the spider and connects to the two sockets 35 and 37 thereon to supply the current thereto to illuminate the two tubes 33 and 34. The two remaining arms of the spider carry the holders 27 for the support of the two tubes 33 and 34 and the outer ends of the three arms of the spider are formed with the holes 28 for the reception of the ends of the lamp shade brackets 30 in the manner previously explained.

In the embodiment shown in Fig. 5, a pair of semi-annular fluorescent tubes 40 and 41 is shown supported by a four-armed spider 42. The two arms 43 and 44 of the spider constitute a continuous hollow conduit through which the wiring 12 extends to connect to the two double sockets 45 and 46 mounted at the ends of these arms. The tube 40 has the contact pins at its opposite ends entering the receptacles on one side of each of the sockets 45 and 46, while tube 41 has its contact pins entering the receptacles in the opposite sides of the sockets. Tube 41 is centrally supported by a holder 47*a* rising from the arm 45*a* of spider 42, while tube 40 is similarly supported by holder 47 arising from arm 43 of the spider. The pivotal connection for the spider 42 is located below socket 45. Each of the arms 43, 44, 45*a* and 48 is provided at its end with the aperture 28 for the reception of the lamp shade wire brackets 30 as previously described.

By means of the eccentric pivoting of the lamp-supporting spider, an arrangement is provided by which the lamp and shade therefor may be swung to position it to best suit the requirements of the individual user. The mounting and supporting means for the fluorescent lamp or lamps is such that these elements are firmly supported and protected, and a sturdy and useful structure results.

Having described several embodiments of the invention, it is obvious that the same is not to be restricted thereto, but is broad enough to cover all structures coming within the scope of the annexed claims.

What I claim is:

1. A lamp structure comprising a pedestal having a substantially vertical axis, an arm extending radially from said pedestal and including a pivot connection, a frame having a center axis, said pivot connection being mounted on said frame near the periphery of the latter and spaced from the frame center axis, said connection pivotally connecting the frame to the arm so that the frame may be swung to a position where its axis will coincide with the vertical axis of the pedestal, a holder including a socket for connection with a fluorescent electric tube, said holder with said socket being positioned on said frame and adjacent said pivot connection and spaced a sufficient distance from said vertical axis of said pedestal so that said pivot connection is located below said tube when connected to said socket, and further spaced apart holders arranged on said frame in substantially the same

plane as said holder with said socket for supporting said tube.

2. A lamp structure comprising a pedestal having a substantially vertical axis, an arm extending radially from said pedestal and including a pivot connection arranged adjacent the free end of said arm, a spider including a plurality of bars having a center axis and joined to said pivot connection to pivotally connect the spider to said arm, said pivot connection being positioned at the end of said arm and between said center axis and one of said spider bars in proximity to the end of same, said center axis of said spider normally coinciding with said vertical axis of said pedestal, a holder including a socket for connection with a fluorescent electric tube, said holder with said socket being positioned on said one spider bar and in proximity of said pivot connection and spaced a predetermined distance from said center axis of said spider, and further spaced apart holders arranged on the remaining bars, respectively, and in substantially the same plane as said holder with said socket for supporting said tube.

3. A lamp structure comprising a pedestal having a substantially vertical axis and an upper end, an arm connected to the upper end of said pedestal and extending from the latter in radial direction to terminate in a free end, the free end of said arm being provided with a pivot connection, a spider including at least three bars intersecting each other and forming a center axis at the location of intersection, one of the bars of said spider being joined in the proximity of its end and remote from said center axis to said pivot connection, whereby said spider is swingably supported on said arm, a holder including a socket for a fluorescent electric tube positioned on said one bar and adjacent its end, and further spaced apart holders for supporting said tube arranged on the remaining bars, respectively, and in substantially the same plane and spaced from said center axis as said holder with said socket, whereby said spider may be moved about said pivot connection relatively to said vertical axis of said pedestal.

4. A lamp structure comprising a pedestal having a substantially vertical axis, an arm extending from said pedestal in radial direction to the latter, the extended end of said arm being provided with a pivot connection, a spider including at least three bars intersecting each other and forming a center axis at the location of intersection, one of the bars of said spider being provided with an outer end and being joined by means of the latter to said pivot connection, whereby said spider is swingably supported on said arm, a holder including a socket for connection with a fluorescent electric tube positioned on said one bar and directly above said pivot connection, and further spaced apart holders arranged on the remaining bars, respectively, and in substantially the same plane and spaced from said center axis as said holder with said socket for supporting said tube.

5. A lamp structure according to claim 4, wherein all said holders extend a sufficient distance above said spider bars so that said pivot connection is located below said tube when supported by said holders.

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