

March 26, 1940.

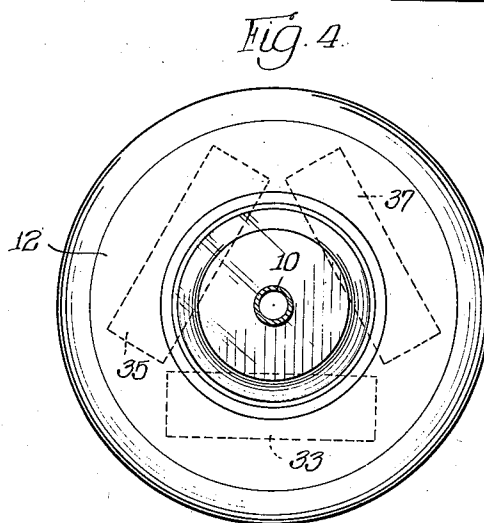
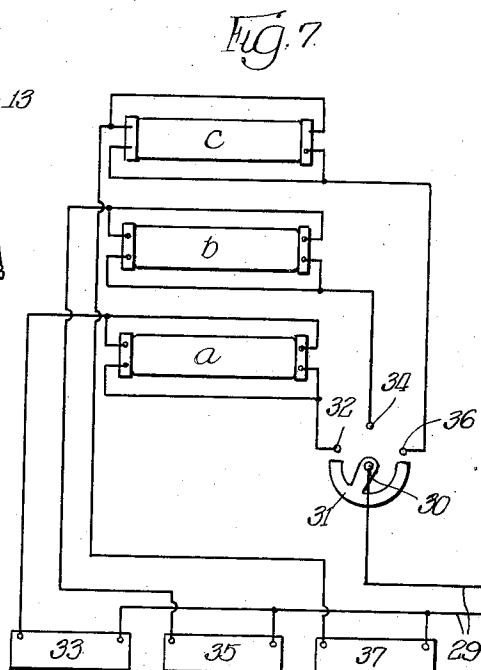
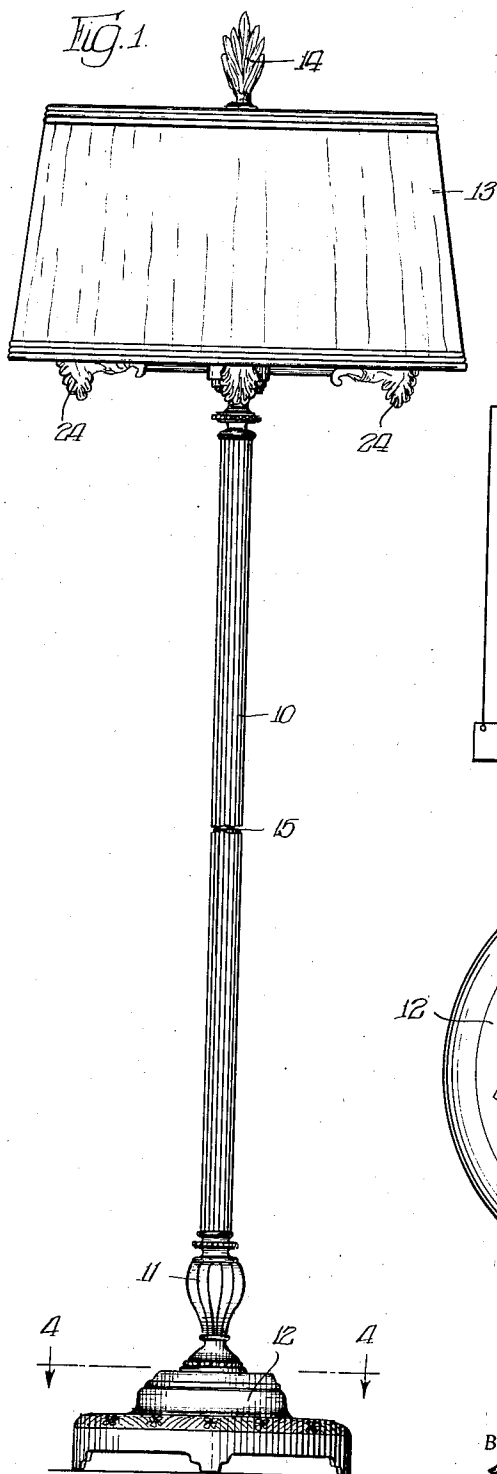
J. KERNES

2,195,250

LAMP

Filed May 8, 1939

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

Fig. 3.

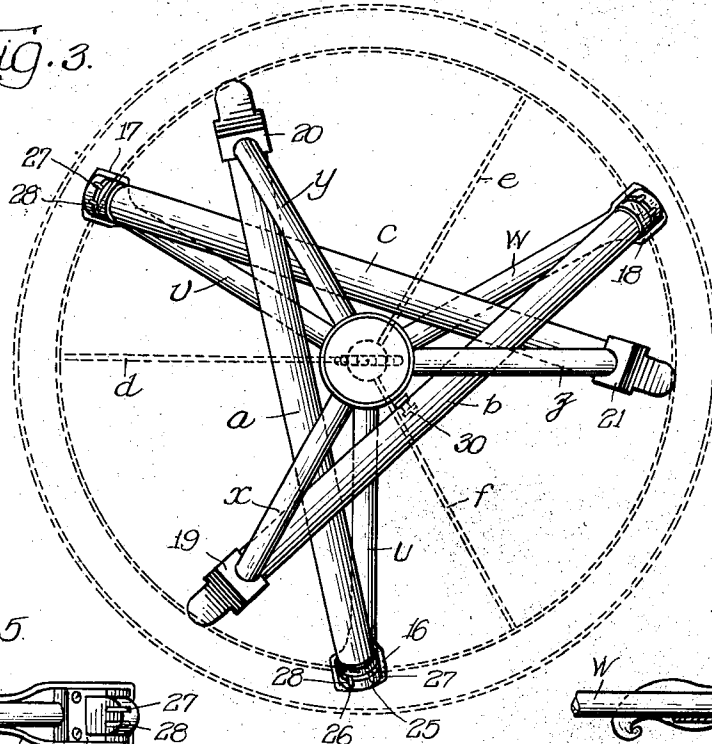


Fig. 5.

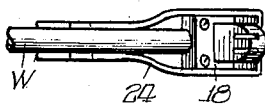


Fig. 6.

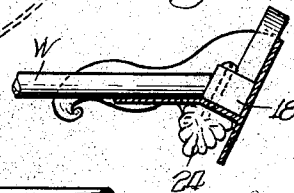
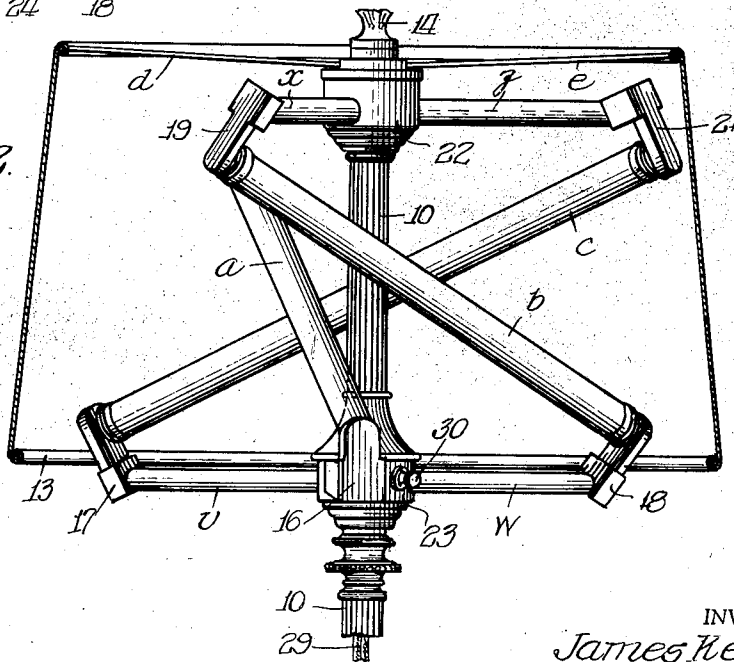


Fig. 2.



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UNITED STATES PATENT OFFICE

2,195,250

LAMP

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5 Claims. (Cl. 240—81)

The invention relates to lamps and particularly stand lamps employing shades. The shades preferably used are those which are round and circular, having open tops and bottoms and made of silk, rayon, or other suitable materials.

The invention is directed particularly to the use of a system of illumination employing fluorescent tubular lamps.

10 The modern type of fluorescent lighting tubes are so great in length, usually coming in 18 inch, 24 inch, 36 inch, and greater lengths, that they obviously cannot be handled like ordinary electric light bulbs. It is substantially impossible to secure sufficient illumination with the stand lamps now in common use and considered in the present application unless at least three of the fluorescent lighting tubes are placed under the shade.

In order to utilize the ordinary standard size of lamp shade and secure sufficient illumination, and to use the fluorescent light tubes of the present standard market construction, it is necessary to place the fluorescent lighting tubes at certain angles within the shade and to arrange the supporting rods or brackets with the lamp sockets or lamp holders in certain positions of angularity. Because of use of the fluorescent tubular lamps, objectionable glare is gotten rid of and excellent lighting and decorative results are obtained. The light from the fixture employing fluorescent lighting tubes is enabled to tone in with the illuminated ceiling and the surrounding walls in a most satisfactory manner.

The fluorescent lamp tubes used in connection with the present invention are necessarily made in straight relatively long lengths and never like the ordinary incandescent electric bulbs. They are made in relatively long straight tubes and it is because they must necessarily have relatively long length that they present some difficulty in mounting in the ordinary shade used in the common form of lamp stand. Many prominent manufacturers in the United States make these fluorescent tubes in lengths of 18, 24, and 36 inches and over.

50 Further objects and advantages of the invention will be readily understood and more fully described in connection with the following description taken with the accompanying drawings showing one embodiment of the invention which has been referred to, but it will be understood that changes may be made in the parts and details of the construction and arrangement thereof without departing from the spirit of the invention, and I therefore do not limit myself to the

exact construction and arrangement shown and described, but in the claims hereinafter set forth, I intend to cover all modifications and variations of the invention.

In the drawings:

Figure 1 is a front elevational view of the lamp standard showing the lamp shade, a portion of the bottom fluorescent tube support and the base.

Figure 2 is a front elevational view of the fluorescent tubes, and several of the supports within the lamp shade, the shade being shown in section.

Figure 3 is a top plan view of the angularly disposed fluorescent tubes and supports within the lamp shade.

Figure 4 is a top plan view on the line 4—4 of Figure 1 showing by dotted lines the three transformers which are located within the base of the lamp standard.

Figure 5 is a top plan view showing the connection 20 between the ends of the fluorescent tube and the supporting tube showing the method of electrical contact.

Figure 6 is a side elevational view of the fluorescent tube socket and the tube support and shows an ornamental member used to conceal the joint between the socket and the tube, thus improving the appearance of the lamp standard.

Figure 7 is an electrical wiring diagram showing the connections between the fluorescent tubes, the transformers, and the switch mechanism.

The invention which relates to the arrangement of fluorescent lamp tubes and the system of their being connected in a certain manner with the connecting and supporting tubes is used generally with electrical lamp standards which may be of the floor type or the table or desk type.

In Figure 1 there is shown a lamp standard, having the member 10 connected with an ornamental member 11, which in turn is fastened to the base portion 12. The lamp shade 13 is secured at the opposite end of the lamp standard and is held in place by the ornamental fastener 14. The member 10 is shown as being broken at 15 to indicate that the lamp standard may be either long or short or of the floor or table type.

As has been pointed out, the lamp shade which 50 is used with the invention is the ordinary, normal, usual type of round or circular shade such as is in use and in existence at the present time in this country in very large numbers, and which may readily be utilized with the invention of the

relatively long fluorescent lamp tubes. These fluorescent lamp tubes being generally of great length, as for instance 18, 24 and 36 inches, and being supplied and fitted with permanent end contacts may be utilized in the ordinary lamp shades if angularly disposed within the shades as shown in the drawings and described herein. If properly installed within the shade at the proper angles, the ends of the fluorescent tubes at the bottom portion of the shades should not be seen, thus causing the lamp stand to present a good and desirable appearance.

As shown in the drawings, there is a set of three fluorescent lamp tubes *a*, *b* and *c*. Each of the lower ends of these fluorescent lamp tubes *a*, *b* and *c* are mechanically and electrically connected with two sets of arms or supports *u*, *v* and *w*, respectively and *x*, *y* and *z*, respectively. The outer ends of the supporting arms *u*, *v* and *w* are connected to the lower ends of the fluorescent lamp tubes *a*, *c* and *b*, respectively, as best shown in Figure 3 of the drawings, through the medium of the lamp sockets and connectors 16, 17 and 18, respectively. The shade supporting arms are shown at *d*, *e* and *f*.

As also shown in the drawings, the upper ends of the fluorescent lamp tubes *b*, *c* and *a* are mechanically and electrically connected with the second or upper set of supporting arms *x*, *y* and *z*, respectively through the medium of the lamp sockets and connectors 19, 20 and 21, respectively.

The fluorescent lamp tubes, the arms or supports, and the lamp sockets and connectors are all formed carefully and properly so that each of the members of the arrangement will fit together and be connected in the enlarged portions 22 and 23 of the lamp standard.

In Figure 5 of the drawings the ornamental casing for one of the lamp sockets and connectors is shown at 24. Within this casing the connection of an end of one of the fluorescent lamp tubes and an arm or support is made. Two electrodes 25 and 26 extend from the end of the fluorescent light tube, and these electrodes extend into sockets 27 and 28 respectively into a corresponding connector. Each end of each fluorescent light tube is supplied with a pair of electrodes to fit into a corresponding pair of sockets embodied in its corresponding connector.

It will be noted, particularly from an inspection of Figures 2 and 3 of the drawings, that the lamp sockets and connectors are in inverted positions. The lamp sockets and connectors for the upper ends of the fluorescent tubular lamps extend downwardly from the top supporting arms, and the lamp sockets and connectors for the lower ends of the fluorescent tubular lamps extend upwardly from the lower supporting arms. This placement and adjustment of the lamp sockets and connectors in the inverted positions shown, together with the angular arrangement of the relatively long fluorescent lamp tubes, and with the double set of extending supporting arms with their angular arrangement constitute important features of the present invention.

No claim is made in the present case to the identical construction of the fluorescent tubular lamps nor the lamp sockets or connectors as they are the products of another manufacturer and are merely utilized in applicant's construction in connection with a modern form of lighting to aid in the use and disposition of the familiar type of lamp shade.

In view of the fact that the fluorescent light

tubes and the sockets as to their specific construction are not claimed, it is not believed that any specific disclosure beyond what has been made in the drawings or the specification is necessary.

The lamp of the invention is wired completely for electrical operation and has current flowing through the wiring 29 and is controlled by the switch 30. The wiring diagram is shown in Figure 7 of the drawings. It is not believed to be necessary to describe the switch, the fluorescent lamp tubes and the transformers in detail, but it will be seen from the diagram that when the switch arm 31 is moved to make contact with the contact point 32 current flows through the transformer 33 and illuminates the fluorescent lamp tube *a*. When by means of the switch operating arm 31 contact is made with the contact point 34, current continues to flow through the fluorescent lamp tube *a* and its transformer 33, and also through the transformer 35 and illuminates the fluorescent tubular lamp *b*. When the switch arm 31 is moved further and contacts with the contact point 36, current continues to flow through the fluorescent tubular lamps *a* and *b* and their respective transformers 33 and 35, and also through the transformer 37 and illuminates the fluorescent tubular lamp *c*. At this time it will be seen that each of the fluorescent tubular lamps *a*, *b* and *c* are illuminated.

In order to cause the current to cease flowing through the fluorescent tubular lamps, the switch arm 31 is moved out of contact with the contact points 32, 34 and 36.

Having shown and described my invention what I claim and desire to secure by Letters Patent of the United States is:

1. A lamp construction including a lamp standard, a lamp shade, elongated lighting tubes having a length materially longer than the height of the shade, means for mounting said tubes on the upper end of the standard, said means comprising an upper and lower series of arms mounted on the standard within the confines of the shade for supporting the ends of the lighting tubes, the supporting ends of the arms for each tube being out of vertical alinement with each other, said lighting tubes being angularly supported within the limits defined by the dimensions of the shade and each tube crossing the standard within the confines of the shade.

2. A lamp construction including a lamp standard for use with a lamp shade and comprising an upper and a lower series of outwardly extending arms carried by said standard, a socket carried on each arm for supporting an elongated lighting tube between the two series of arms, said lighting tubes being materially longer than the height of the lamp shade, the upper series of arms being out of vertical alinement with the arms of the lower series whereby the lighting tubes are angularly supported within the limits defined by the dimensions of the shade and each tube crossing the standard within the confines of the shade.

3. A lamp construction including a lamp standard for use with a lamp shade and comprising an upper and a lower series of outwardly extending arms carried by said standard, a socket carried on each arm for supporting an elongated lighting tube between the two series of arms, said lighting tubes being materially longer than the height of the lamp shade, the upper series of arms being out of vertical alinement with the arms of the lower series, the sockets of the upper series of arms supporting the tubes being out of vertical

alinement with the sockets of the lower series of arms supporting the same tubes whereby the lighting tubes are angularly supported within the limits defined by the dimensions of the shade.

5 4. A lamp construction including a lamp standard for use with a lamp shade and comprising an upper and a lower series of outwardly extending arms carried by said standard, a socket connector carried on each arm for supporting an elongated
10 lighting tube between the two series of arms, said lighting tubes being materially longer than the height of the lamp shade, the upper series of arms being out of vertical alinement with the arms of the lower series, the sockets of the upper
15 series of arms being out of vertical alinement with the sockets of the lower series of arms, said socket connectors being angularly positioned with respect to the arms and at right angles to the elongated lighting tubes whereby the lighting
20 tubes are angularly supported within the limits defined by the dimensions of the shade.

5. In a lamp standard, the combination of an upright member, the upper portion of said upright member having two series of outwardly extending

arms attached thereto, said arms supporting a series of fluorescent tubular lamps, the ends of the individual fluorescent lamp tubes being connected to the ends of the two series of lamp tube supports, said fluorescent tubular lamps being angularly disposed and arranged about the top portion of said upright member, one series of lamp supporting arms being offset from the other series and not in direct alignment with it, said fluorescent tubular lamps and said supporting arms being mechanically and electrically connected at their terminals, plugs secured to the ends of said fluorescent tubular lamps for making the connections and sockets secured to the ends of the two series of supporting arms extending from said upright member, said series of plugs and socket connectors being in inverted relationship, the connectors at the top portions of the fluorescent tubes extending upwardly from the ends of said tubes and the connectors at the bottoms of said fluorescent illuminating tubes extending downwardly from the bottom ends of said fluorescent illuminating tubes.

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