

Aug. 2, 1932.

P. O. CARTUN

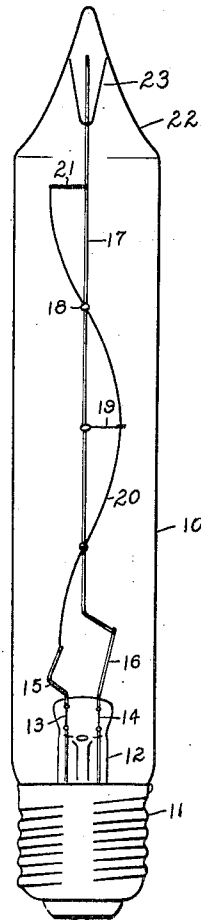
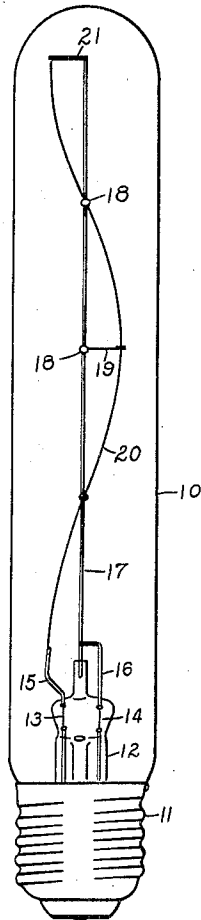
1,869,998

INCANDESCENT LAMP

Filed Dec. 31, 1929

Fig. 1

Fig. 2



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INCANDESCENT LAMP

Application filed December 31, 1929. Serial No. 417,758.

My invention relates to electric incandescent lamps and more particularly to elongated lamps such as the tubular lamps used where an extended distribution of illumination is desired for utilitarian or decorative purposes. My invention from a more specific standpoint relates to single base as distinguished from double base lamps. The object of my invention is to provide a lamp rugged in construction, convenient of manufacture and one which will furnish illumination substantially free from shadows. Other features and advantages will appear from the description which follows and from the accompanying drawing.

In the drawing, Figs. 1 and 2 are elevations of incandenscent lamps embodying my invention.

Referring to the drawing, the lamp shown in Fig. 1 comprises the tubular bulb 10, which may be clear or frosted, and the base 11. The usual stem 12, as shown of the type disclosed in Mitchell and White Patent 1,423,956, carries the leads 13—14, the inner leads 15—16 being preferably of metal such as copper or nickel which will stand considerable heat without softening. An arbor 17, preferably of the same kind of metal, is embedded at one end in the glass stem and extends longitudinally and axially of the tubular bulb 10, preferably substantially the length of the bulb. One of the inner leads, 16, is connected electrically to the said arbor. The arbor carries a series of insulating beads 18, preferably glass and fused thereto. Each bead has embedded therein a support wire 19, preferably of tungsten or molybdenum, which is of very small diameter so as to be very flexible. The free ends of the support wires engage the filament 20 which is preferably of tungsten. The support wires extend transversely of the tube, the angles with the arbor of succeeding support wires being, for example, 90° apart progressively, as shown in a counter clockwise direction, so that the filament is disposed in a spiral around the arbor as an axis. The end support for the filament may be more rigid and comprise a transverse extension 21 of the arbor.

The form shown in Fig. 2 comprises a

tubular bulb having a tapered end 22 so that the lamp resembles a candle. In this form a spring member 23 is carried by the arbor at its end and frictionally engages the inner surface of the said tapered end 22.

In both forms the arbor is included in the electric circuit, either as a return or supply conductor.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. An electric incandescent lamp comprising a tubular bulb, an electrically conductive arbor extending axially of said bulb, a filament having one end thereof electrically connected to said arbor, a pair of leads one connected to said filament and the other to the opposite end of said arbor, support wires carried by said arbor and engaging said filament and a spring member carried by said arbor and engaging the inner surface of said bulb end.

2. An electric incandescent lamp comprising a tubular bulb having a tapered end, an electrically conductive arbor extending axially of said bulb, a filament having one end thereof electrically connected to said arbor, a pair of leads one connected to said filament and the other to the opposite end of said arbor, support wires carried by said arbor and engaging said filament and a spring member carried by said arbor and engaging the inner surface of said tapered bulb end.

In witness whereof, I have hereunto set my hand this 27th day of December, 1929.

PAUL O. CARTUN.