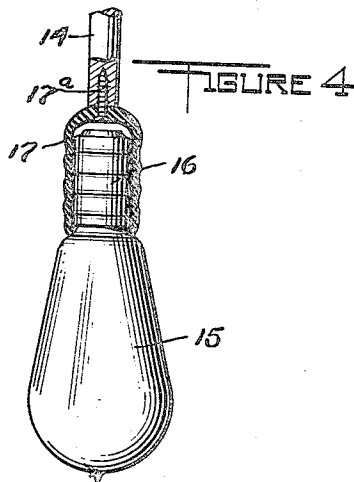
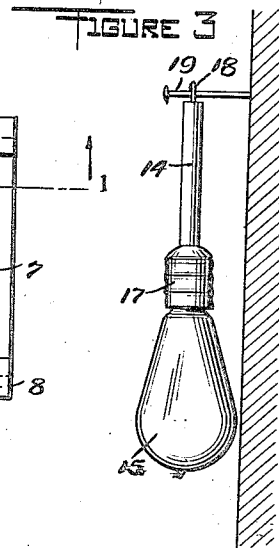
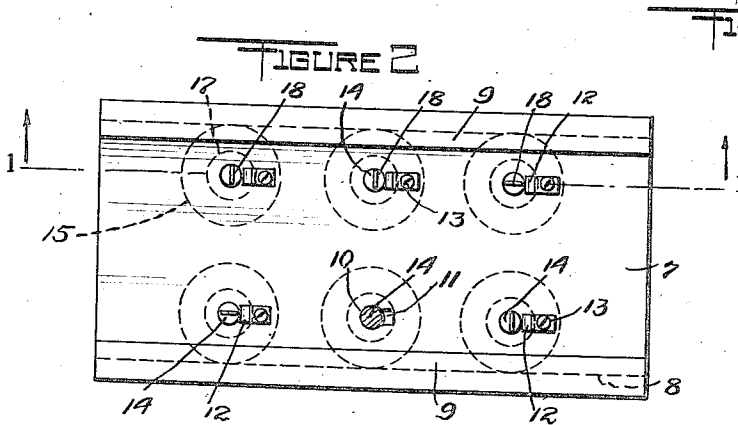
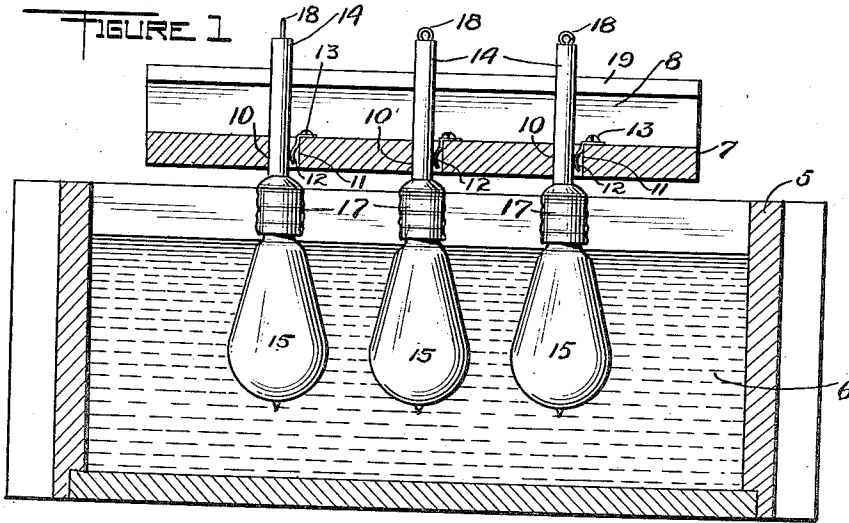


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 DEVICE FOR USE IN COLORING BULBS.
 APPLICATION FILED AUG. 25, 1921.

1,422,964.

Patented July 18, 1922.



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DEVICE FOR USE IN COLORING BULBS.

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Specification of Letters Patent.

Patented July 18, 1922.

Application filed August 25, 1921. Serial No. 495,374.

To all whom it may concern:

Be it known that I, HARRY L. GREENBAUM, a citizen of the United States, residing in New York, county of New York, and State of New York, have invented certain new and useful Improvements in Devices for Use in Coloring Bulbs, of which the following is a full, clear, and concise description.

My invention relates to devices for use in coloring the bulbs of incandescent lamps, and other bulbs or analogous members made of glass and adapted to receive coloring matter applied thereto externally.

More particularly stated, my invention comprehends a device for detachably supporting the bulb or analogous member while the bulb is being colored, preferably by dipping it into a body of liquid coloring matter for the purpose, and for preventing contact between the metallic parts carried by the bulb and the body of liquid coloring matter.

In this connection it may be noted that incandescent lamp bulbs as ordinarily constructed are provided with metallic terminal members, made usually of brass, and which must be kept scrupulously clean; and my invention contemplates, among other things, provision for preventing the liquid coloring matter from coming into direct contact with the said metallic terminal members.

Reference is made to the accompanying drawing forming a part of this specification, and in which like reference characters indicate like parts throughout the several figures.

Figure 1 is a section through my device, and is taken upon the line 1-1 of Figure 2, looking in the direction indicated by the arrows.

Figure 2 is a plan view of the dipping plate used for supporting and dipping the bulbs.

Figure 3 is partly a vertical section and partly a side elevation, of one of the dipping units, carrying a bulb detachably connected therewith, and adapted to be used individually and independently of the dipping plate.

Figure 4 is a view partly in side elevation and partly in section, showing the improved supporting cup and parts immediately associated therewith, constituting a feature of my invention.

A tank is shown at 5, and contains a

quantity of coloring liquid 6, of a kind suitable for coloring incandescent lamp bulbs.

A dipping plate 7, having generally the form of a flat board, is provided with a pair of upwardly extending side walls 8, each provided with an overhanging rail 9. The side walls 8 and overhanging rails 9 may be used for supporting the dipping plate upon a suitable supporting member in the usual or any desired manner. The dipping plate 7 is provided with a number of holes 10, and with an equal number of slots 11, merging into said holes respectively. The dipping plate 7 carries a number of leaf springs 12, held in position by screws 13, each leaf spring being bent downwardly as indicated in Figure 1, each leaf spring thus occupying a slot 11, and normally extending slightly into the hole 10 into which the slot merges.

I provide a number of stems 14, which in this particular instance are made of wood but which may be made of any other appropriate material. These stems are severally employed for supporting the bulbs 15, which are to be colored by aid of the liquid 6. Each bulb 15 carries a contact terminal 16, having the form of a sleeve made of metal, usually brass, and one purpose of my invention is to prevent this sleeve from coming into direct contact with the coloring liquid 6.

Upon the lower end of each stem 13 is mounted a supporting cup 17, made of soft rubber and held in position by a screw 18 or other appropriate fastening member, as may be understood from Figure 4.

Each stem 14 is at its upper end provided with an eye 18, whereby it may be suspended, as from a nail 19 as indicated in Figure 3.

My invention may be used in two different ways, exemplified, respectively, in Figures 1 and 3. That is to say, a number of the stems 14 and parts immediately associated therewith may be grouped together and mounted upon the dipping plates 7, thus enabling a number of bulbs to be dipped or submerged simultaneously in the coloring liquid 6, as may be understood from Figure 1, or a single bulb may be dipped by aid of a single stem 14, the latter being used as a handle and grasped directly by the hand of the operator; the stem when not in active use being suspended from a nail 19 or the like, as indicated in Figure 3. The nail

19 may also be used for supporting a stem 14 and a bulb 15 carried thereby, for the purpose of allowing the coloring matter to dry upon the bulb, as may be understood 5 from Figure 3.

My invention is peculiarly adapted for frosting bulbs, and for coloring them under conditions where the coloring matter is to have the form of an external coating carried 10 by the bulb, rather than a change in the character of the glass constituting the body portion of the bulb.

In order to mount the several stems upon the dipping board, they are simply thrust 15 one at a time through the holes 10, where they are held detachably in position by pressure of the leaf springs 12.

The purpose of the supporting cup 17 is two fold, to serve somewhat after the manner of a socket for supporting the bulb and 20 as a dam or shield to prevent the coloring liquid from reaching the brass member 16 carried by the bulb.

The supporting cup 17, being made of 25 soft rubber, is stretched slightly by the insertion of the brass sleeve 16, and thus has a so-called clinging fit relative to the brass sleeve. The brass sleeve fits liquid tight into the supporting cup, the lower edge of 30 the supporting cup curving slightly inward at the base of the brass sleeve as indicated in Figure 4 so as to prevent ingress of the coloring liquid at the junction between the brass sleeve and the glass portion of the 35 bulb. Essentially, therefore, the brass sleeve is scrupulously protected from the coloring liquid, either as regards the dipping of the bulbs in the liquid, the accidental splashing of the liquid from time to time, 40 or the insinuating creepage of the liquid by capillary action.

I do not limit myself to the precise construction shown, as variations may be made

therein without departing from my invention, the scope of which is commensurate 45 with my claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is as follows:

1. A device for use in coloring bulbs, 50 comprising a stem, a supporting cup carried by said stem and provided with a portion for fitting upon an incandescent bulb terminal, said portion being made of soft rubber. 55

2. A device for use in coloring bulbs, comprising a stem and a member carried thereby for supporting an incandescent bulb to be colored, said portion being made of soft rubber and so formed as to fit liquid tight 60 upon the terminal portion of an incandescent bulb.

3. A device for use in coloring bulbs, comprising a stem, a member of soft rubber mounted upon said stem and formed to fit 65 upon a metallic terminal member of an incandescent bulb, and an eye mounted upon said stem for the purpose of supporting said stem.

4. A device of the character described, 70 comprising a supporting plate, a plurality of stems each detachably connected with said supporting plate, each stem carrying a supporting cup made of soft rubber.

5. A device of the character described, 75 comprising a supporting plate, a plurality of stems each detachably connected therewith and a rubber supporting cup mounted upon each of said stems, said supporting cup being so formed as to fit detachably 80 upon the metallic terminal of an incandescent bulb, for the double purpose of supporting said bulb and temporarily rendering liquid proof said metallic terminal thereof.

HARRY L. GREENBAUM.