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R. R. DUPLER

2,628,436

MOUNTING FOR LARGE GLOBE MADE UP OF HEMISPHERICAL SECTIONS

Filed Dec. 30, 1950

2 SHEETS—SHEET 1

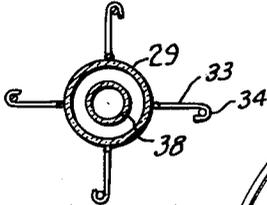


FIG. 4.

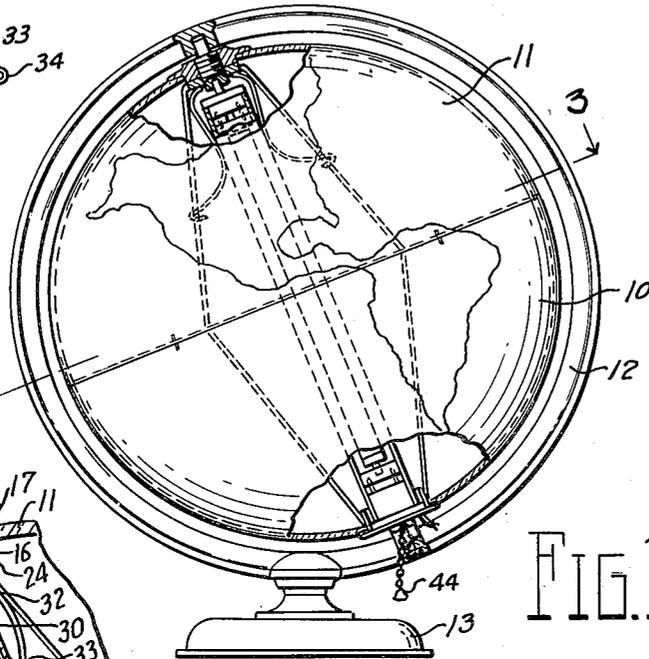


FIG. 1.

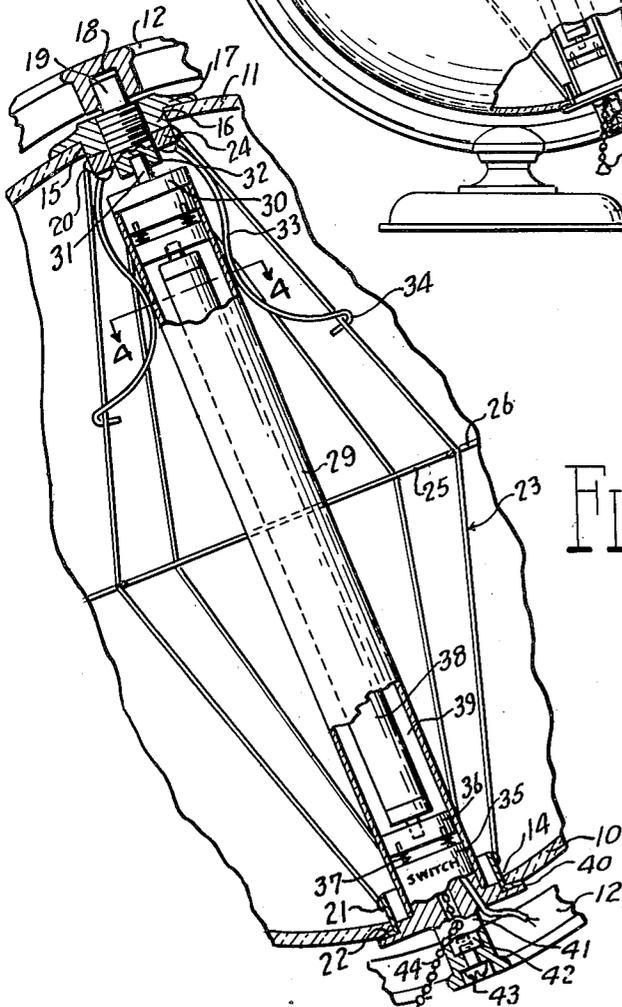


FIG. 2.

INVENTOR.
RAYMOND R. DUPLER
BY
Richard W. Prosser
ATTORNEY

Feb. 17, 1953

R. R. DUPLER

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FIG. 3

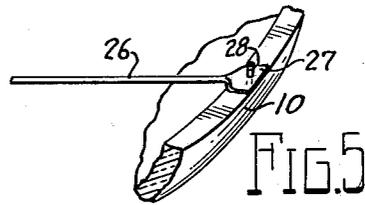
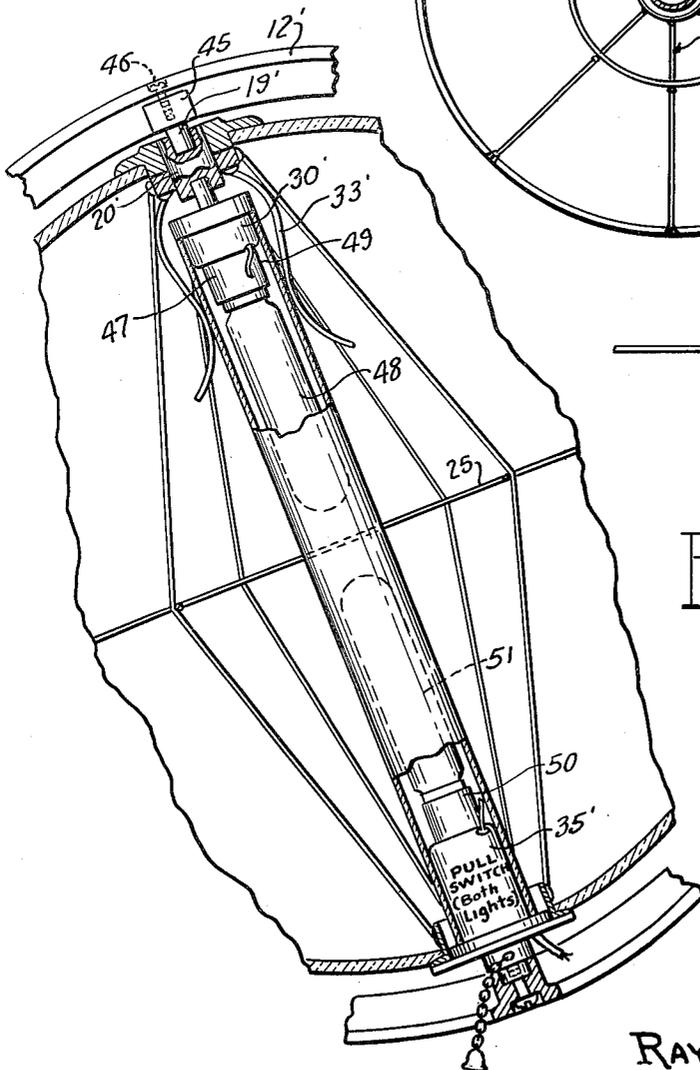
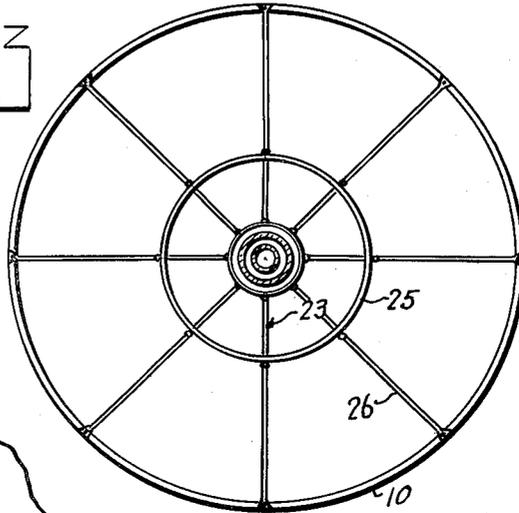


FIG. 5

FIG. 6.

INVENTOR.
RAYMOND R. DUPLER
BY
Robert W. Praser
ATTORNEY

UNITED STATES PATENT OFFICE

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MOUNTING FOR LARGE GLOBE MADE UP OF HEMISPHERICAL SECTIONS

Raymond R. Dupler, Toledo, Ohio

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4 Claims. (Cl. 35-46)

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This invention relates to the mounting of globes, such, for example, as terrestrial and celestial globes but more particularly to the mounting of relatively large globes which are made up of hemispherical sections.

An object is to produce a new and improved mounting for a large globe made up of hemispherical sections by which the sections are efficiently connected together in proper relation to each other, thereby to militate against the sections of the globe shifting laterally with respect to each other.

Another object is to produce a relatively large illuminated globe made up of hemispherical sections and to improve the means whereby the sections are connected together and by which the lamp is installed inside of the globe to effect the desired illumination.

Another object is to improve the structure and mounting of illuminated globes of the type made up of hemispherical sections which are relatively large and ordinarily difficult to maintain in proper relation to each other and to facilitate the mounting of the lamp or illuminating means inside the globe, a difficult problem where the globe is large and space for the illuminating means small and restricted.

Other objects and advantages of the invention will hereinafter appear, and for purposes of illustration but not of limitation, embodiments of the invention are shown in the accompanying drawings, in which

Figure 1 is a side elevation of an illuminated globe and its mounting, parts being broken away for purposes of clarity;

Figure 2 is an enlarged fragmentary vertical sectional view of the mounting and illuminating means for the globe shown in Figure 1;

Figure 3 is a transverse sectional view on the line 3-3 of Figure 1;

Figure 4 is a transverse sectional view on the line 4-4 of Figure 2;

Figure 5 is an enlarged fragmentary view showing the end portion of one of the radial arms and illustrating the pin and socket connection between the end of the arm and adjacent globe sections; and

Figure 6 is an enlarged vertical fragmentary section of a globe showing an alternate form of mounting and globe illuminating means.

The illustrated embodiment of the invention comprises a globe made up of a pair of hemispherical sections 10 and 11 of glass or other suitable translucent material. The globe is carried by a metallic ring 12 which is suitably secured

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to a pedestal or support 13. The diametrically opposed portions of the globe sections are apertures 14 and 15 in the globe sections 10 and 11 respectively. In the aperture 15 is a bushing 16 which has internal screw threads. The bushing has an external flange 17 which bears against the outer surface of the globe section 11 and is adhesively secured thereto.

Formed in the mounting ring 12 is a socket 18 to receive a pin 19 rigid with the outer end of an externally screw-threaded member 20 which is in threaded engagement with the bushing 16.

Fitting in the aperture 14 of the globe section 10 is a bushing 21, a portion of which extends inside the globe section and on the outer end is an annular flange 22 which is adhesively connected to the outer side of the globe section 10.

Connecting the bushings 16 and 21 is a wire cage 23 which consists of an annular series of equi-distantly spaced wires the lower ends of which are secured as by soldering to the outer side of that portion of the bushing 21 which projects inside the globe section 10. The opposite ends of the wires are secured as by soldering to a ring 24 which engages the screw-threaded member 20 and is adapted to abut against the inner face of the bushing 16 on the inside of the globe section 11. The central portion of the wires which make up the cage 23 are outwardly belled by an annular wire ring 25 to which the several arms are soldered. Radiating from the wire ring 25 is an annular series of wire arms 26 which are equi-distantly spaced from each other and are secured as by soldering at their inner ends to the ring 25. The outer ends of the arms 26 are flattened as indicated at 27 and extending through each flattened portion is a pin 28, portions of which project above and below the flattened end 27 to extend into sockets in the abutting edge walls of the globe sections 10 and 11. This provides a positive connection between the adjacent globe sections and militates against one section shifting out of proper register with each other. It will thus be seen that the globe sections even though of relatively large size, are secured together and relative axial and lateral movement is positively prevented.

Arranged within the wire cage 23 is an elongate tube 29 of glass or other suitable transparent material. Secured to the upper end of the tube 29 is a flanged plug 30 having an outwardly extending rigid pin 31 which fits into a socket 32 in the inner end of the threaded member 20. The tube 29 is inserted through the aperture 14 of the globe section 10 and to enable it to be

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inserted so that the pin 31 fits into the socket 32, an annular series of guide wires 33 are provided. The upper end of each wire 33 is soldered to the under face of the ring 24. The lower portions of the guide wires 33 bow inwardly and thence flare outwardly to the wire cage 23 to which the ends of the individual wires are hooked as indicated at 34. Thus the several wires 33 assist materially in guiding the upper end of the tube 29 and enabling the pin 31 to be inserted readily into the socket 32. It will be manifest that in absence of such guiding means and in view of the large size of the globe, considerable difficulty would be encountered in mounting the upper end of the tube in the desired manner.

Fitting the opposite end of the tube 29 is a flanged plug 35, the flange being on the outside of the tube and being disposed within the bushing 21. Arranged adjacent the inner end of each of the plugs 30 is a starter disc 36 which is urged axially of the tube by springs 37 thereby to retain a fluorescent tube or lamp 38 therebetween, a lead 39 supplying current to the upper starter disc.

The flange of the plug 35 rests against a disc-like head 40 of a post 41 which has a reduced lower end fitting a transverse recess 42 in the adjacent portion of the supporting ring 12. A screw 43 extends through a hole in the ring 12 and threadedly engages the reduced portion of the post 41 to retain the parts in position.

The plug 35 may constitute a switch of any suitable character, a pull chain 44 being operatively connected to the switch and extending through a passage formed in the plug and post 41.

In the form of the invention shown in Figure 6, the opposite ends of the screw-threaded member 20' are socketed and in the upper socket extends a pin 19' carried by a plug 45 which fits into a cavity in the supporting ring 12', a screw 46 retaining the plug 45 in place.

In this form of the invention, the bowed guide wires 33' have their lower ends outwardly flared but out of engagement with the wire cage. In this form the plug 30' has a lamp receiving socket 47 to receive an elongate electric lamp 48. The plug 30 is connected by a lead 49 to the lower plug 35' which is likewise provided with a lamp receiving socket 50 to receive the elongate lamp 51. Thus it will be apparent that upon actuating the switch (not shown), arranged within the plug 35' both the lamps 48 and 51 are lighted. The remaining structure is substantially as above described.

From the above description, it will be manifest that I have produced an exceedingly simple and inexpensive mounting for an illuminated globe of large size in which the globe is made up of two hemispherical sections. The wire cage 23 cooperating with the radial wire arms 26 and the positive pin and socket connection between these arms and the globe sections, serve to retain the sections securely together without liability of their shifting relative to each other. The tube in which the lamp or lamps are arranged can be easily placed in the desired position even though the socket which receives the pin or stud 31 is concealed from view. The inwardly bowed guide wires serve to guide the tube into the proper place. The globe as assembled and mounted in its supporting ring 12 can be rotated so as to bring different portions of the globe to view which is particularly to be desired where the globe is covered by a terrestrial or celestial map, for example.

It is to be understood that numerous changes

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in details of construction, arrangement and operation may be effected without departing from the spirit of the invention especially as defined in the appended claims.

What I claim is:

1. A globe mounting comprising an external support, a pair of semi-spherical translucent globe sections in abutting relation, each having an aperture diametrically opposed to each other when the sections are assembled, an internally threaded bushing in one aperture and connected to the respective globe section, a member in threaded engagement with said bushing and having a head at the outer end connected for turning movement with respect to said support, a socketed inner end portion on said member projecting inside of the respective globe section, a bushing fitting the aperture of the other globe section having a flange connected to said section on the outside and with a portion projecting inside said section, a ring threadedly engaging the outside of said socket end portion, a wire cage fixed at one end to said projecting bushing portion and at the opposite end to said ring, an elongate tube of translucent material arranged within said globe sections, a pin on the inner end of said tube fitting the socket of said end portion, the opposite end of said tube being within said second bushing, means carried by said cage for guiding said tube into engagement with the socketed end portion during the mounting of the tube, a fixture for an electric lamp within said tube, and detachable means for connecting said fixture to the adjacent portion of said support.

2. A globe mounting comprising an external support, a pair of semi-spherical translucent globe sections in abutting relation, each having an aperture diametrically opposed to each other when the sections are assembled, an internally threaded bushing in one aperture and connected to the respective globe section, a member in threaded engagement with said bushing and having a head at the outer end connected for turning movements with respect to said support, a socketed inner end portion on said member projecting inside of the respective globe section, a bushing fitting the aperture of the other globe section having a flange connected to said section on the outside and with a portion projecting inside said section, a ring threadedly engaging the outside of said socket end portion, a wire cage fixed at one end to said projecting bushing portion and at the opposite end to said ring, an elongate tube of translucent material arranged within said globe sections, a pin on the inner end of said tube fitting the socket of said end portion, the opposite end of said tube being within said second bushing, an annular series of arms fixed at one end to said ring for guidingly engaging the tube for assisting in the mounting of the tube, a fixture for an electric lamp within said tube, and detachable means for connecting said fixture to the adjacent portion of said support.

3. A globe mounting comprising an external support, a pair of semi-spherical translucent globe sections in abutting relation, each having an aperture diametrically opposed to each other when the sections are assembled, an internally threaded bushing in one aperture and connected to the respective globe section, a member in threaded engagement with said bushing and having a head at the outer end connected for turning movements with respect to said support, a socketed inner end portion on said member projecting inside of the respective globe section,

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a bushing fitting the aperture of the other globe section having a flange connected to said section on the outside and with a portion projecting inside said section, a ring threadedly engaging the outside of said socket end portion, a wire cage fixed at one end to said projecting bushing portion and at the opposite end to said ring, a series of spaced arms secured to and radiating from said wire cage, and means providing positive connections between the outer ends of said arms and the abutting edge portions of said globe sections respectively.

4. A globe mounting as claimed in claim 3, in which the connecting means comprises lateral

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pins in the outer ends of said arms, and sockets in the walls of the globe sections to receive the pins respectively.

RAYMOND R. DUPLER.

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The following references are of record in the file of this patent:

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