June 9, 1953 R. R. DUPLER 2,641,683

INDIRECTLY ILLUMINATED GLOBE ASSEMBLY

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FIG. 1.

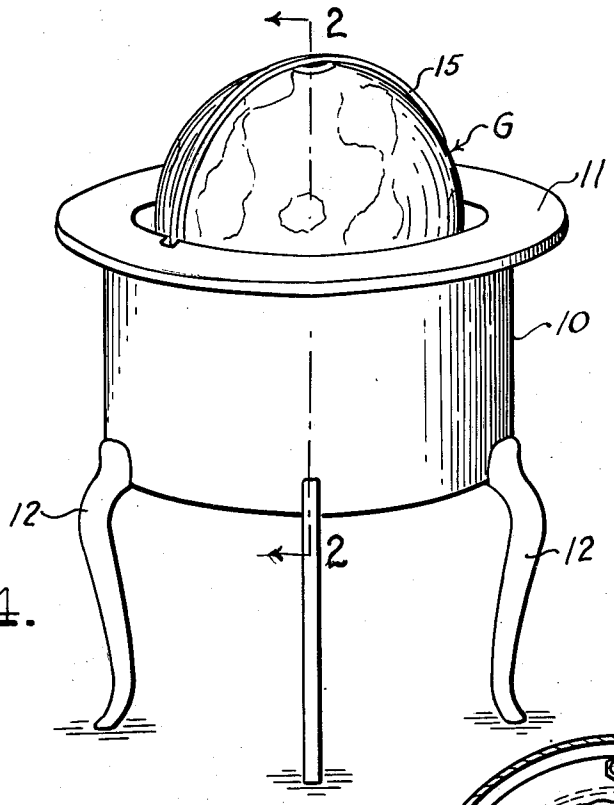


FIG. 4.

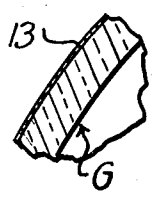
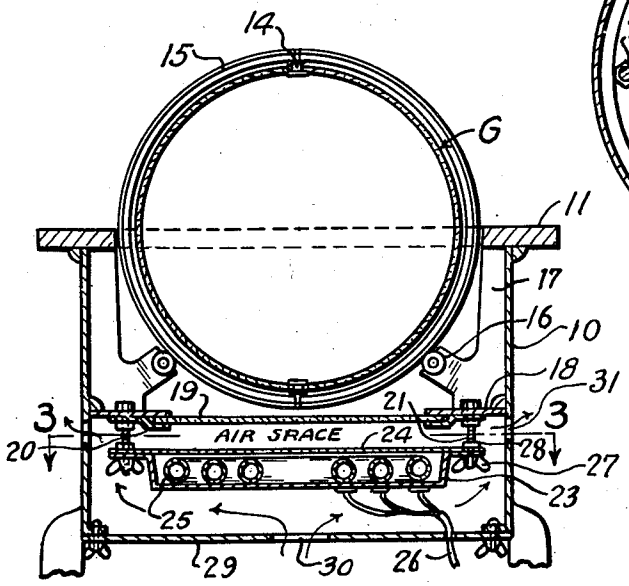


FIG. 2.



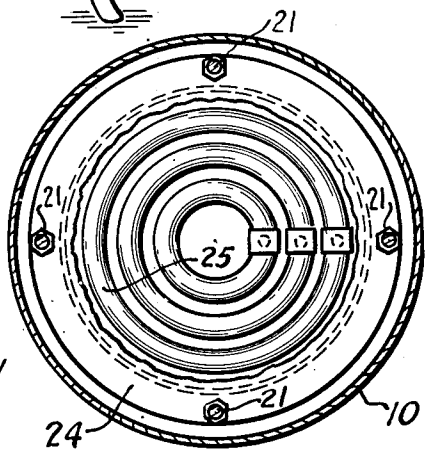


FIG. 3.

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INDIRECTLY ILLUMINATED GLOBE ASSEMBLY

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1 Claim. (Cl. 240—2)

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This invention relates to illuminated globes, but particularly to those of relatively large diameter and which contain suitable legends such as maps, and an object is to produce a new and improved mounting for an illuminated globe in which the source of light is outside of the globe and insulated from it so that the heat from the illuminating source or lamp does not affect the globe.

Another object is to produce an illuminated globe assembly having the novel features of construction, arrangement and operation hereinafter described.

By way of illustration but not of limitation, an embodiment of the invention is shown in the accompanying drawings, in which

Figure 1 is a perspective view of a terrestrial globe mounted in a supporting standard;

Figure 2 is a vertical sectional elevation substantially on the line 2—2 of Figure 1;

Figure 3 is a transverse section substantially on the line 3—3 of Figure 2; and

Figure 4 is an enlarged fragment of the globe and covering sheet.

The illustrated embodiment of the invention comprises a supporting standard for a globe G of glass or other suitable transparent or translucent material, the standard consisting of a cylindrical housing 10 which is open at its top and thereon is supported a substantially flat annular rim member 11 which projects laterally both inwardly and outwardly of the side walls of the housing 10. The housing 10 is supported by a series of depending legs 12 in order to elevate the housing from the floor or supporting surface. The globe G is covered by a sheet 13 of paper, parchment or the like, on which is depicted a terrestrial map or other desired legend, such sheet being glued or otherwise adhered to the outer surface of the globe.

The globe is supported at diametrically opposed points by suitable supports 14 to enable rotation of the globe, these supports being attached to a metal meridian ring 15 which in turn is supported by rollers 16 in suitable bracket arms 17 attached to the inner wall of the housing 10. Thus it will be manifest that the globe G may be rotated about the pin supports 14 and the entire globe may be turned by turning of the meridian ring 15.

It is desired to illuminate the globe to enable it to be inspected or examined more readily. In the case of relatively large globes, it is desired that the lamps or source of illumination be accessible without moving the globe. Thus advantageously the source of illumination is outside of the globe rather than have it project within the globe. Furthermore, globes of this character are often made of a plastic material which expands and contracts in response to temperature conditions and in such case, it is preferable that the heat from the lamp be kept from affecting the globe.

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As shown, a ring 18 is arranged in the inside of the housing 10 and is suitably secured to the inner walls thereof. Abutting the under side of the ring 18 and closing the opening thereof is a plate 19 of glass or other suitable transparent or translucent material, this plate being arranged directly beneath the globe G. For holding the plate 19 in place, a clamping ring 20 cooperates with the inner edge portion of the ring 18 to clamp the edge portion of the plate. The clamping ring 20 is held in place by a series of cap screws 21, the heads of which lie above the supporting ring 18 and depend through apertures in the rings 18 and 20, nuts 22 retaining the clamping ring 20 in position.

The screws 21 extend substantially below the ring 20 and at their lower portions support a lamp unit which consists of a flanged tray-like casing 23 which has a reflecting surface for directing the light rays through the plate 19 to the globe G. Covering the top or open end of the casing 23 is a plate 24 of glass or other suitable transparent or translucent sheet material. Arranged within the casing 23 is a plurality of fluorescent tubes 25 in coil form to which current is supplied through leads 26. Manifestly, the lamp unit is spaced a distance beneath the plate 19 sufficient to provide an air chamber or space and to militate against heat from the lamp hitting the plate 19 and thus transmitting it to the globe G. The lower ends of the cap screws 21 pass through openings in the plate 24 and the flange of the casing 23 and wing nuts 27 cooperate with nuts 28 to secure these parts in position. The arrangement is such that by loosening the nuts 28 and adjusting the wing nuts 27, the lamp unit can be adjusted closer to or farther away from the translucent plate 19, thus securing the desired degree of illumination.

The lower end of the housing 10 is closed by a plate 29 in which there is a central opening 30. Side walls of the housing 10 below the plate 19 have a plurality of apertures 31, thereby to vent the heated air from the inside of the chamber containing the lamp unit through the openings 31, and allowing the outside air to enter

through the opening 30 as indicated by the arrows.

From the above description, it will be manifest that I have produced a simple and practical mounting for a globe which although indirectly illuminated in an exceedingly satisfactory manner, nevertheless is shielded from the heat emanating from the illumination source. The chamber containing the lamp unit is vented so that the heat generated therein does not become excessive. The degree of illumination may be varied by a simple adjustment of the position of the lamp unit relative to the globe. In order to effect such adjustment, the plate 29 which is removably secured by a series of wing nuts, may be first removed to gain access to the adjusting means.

It is to be understood that numerous changes in details of construction, arrangement and operation may be effected without departing from the spirit of the invention especially as defined in the appended claim.

What I claim is:

An indirectly illuminated globe assembly comprising a housing having side walls, a ring extending inwardly from said side walls and separating the housing into upper and lower compartments, a translucent legend-bearing globe in the upper compartment, a translucent plate carried by the ring and covering the opening therein, threaded rod means depending from said ring, a second translucent plate below said first plate and carried by said rod means, a flanged trayline casing having a reflecting surface directly beneath said second plate and carried by said rod means, fluorescent tubes in coil form within said casing, and adjusting elements on the lower end of said rod means whereby to support said second plate and casing and to enable adjusting movement thereof toward and away from said first plate.

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