Oct. 3, 1939. E. A. PETERSON 2,175,091

ILLUMINATED GLOBE

Filed May 18, 1936 2 Sheets-Sheet 1

Fig. 1.

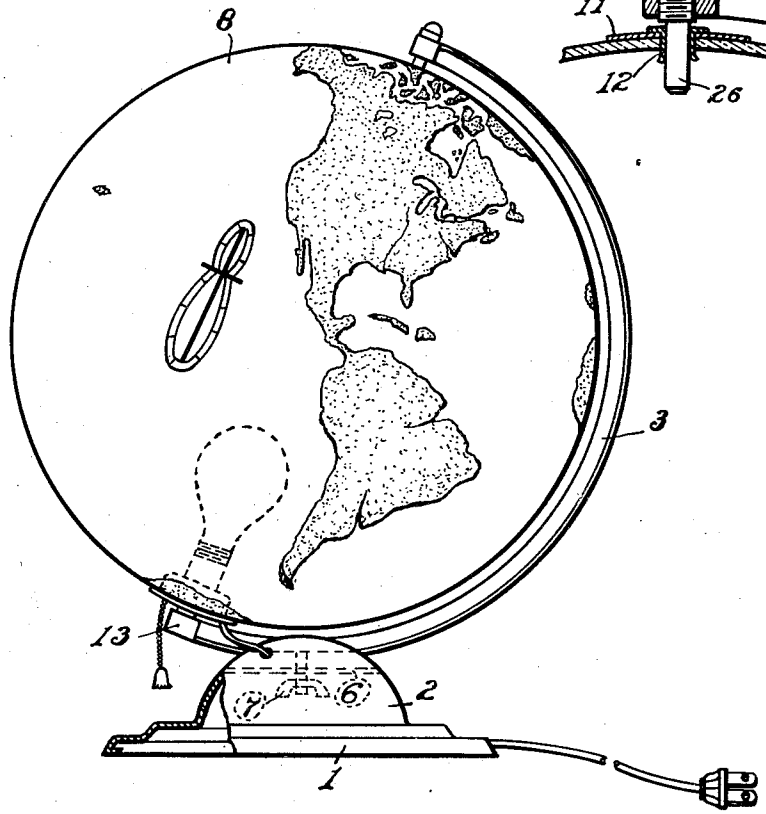


Fig. 2.

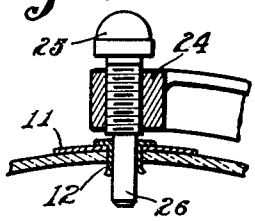
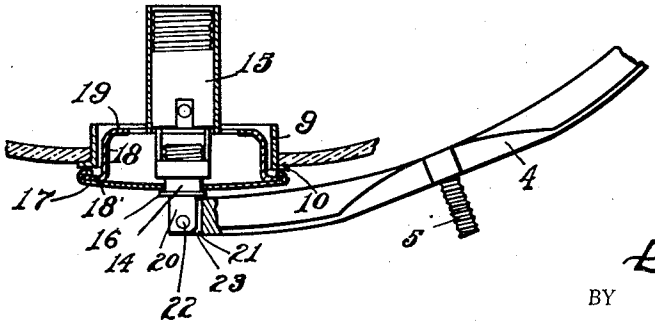


Fig. 3.



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Filed May 18, 1936 2 Sheets-Sheet 2

Fig. 4.

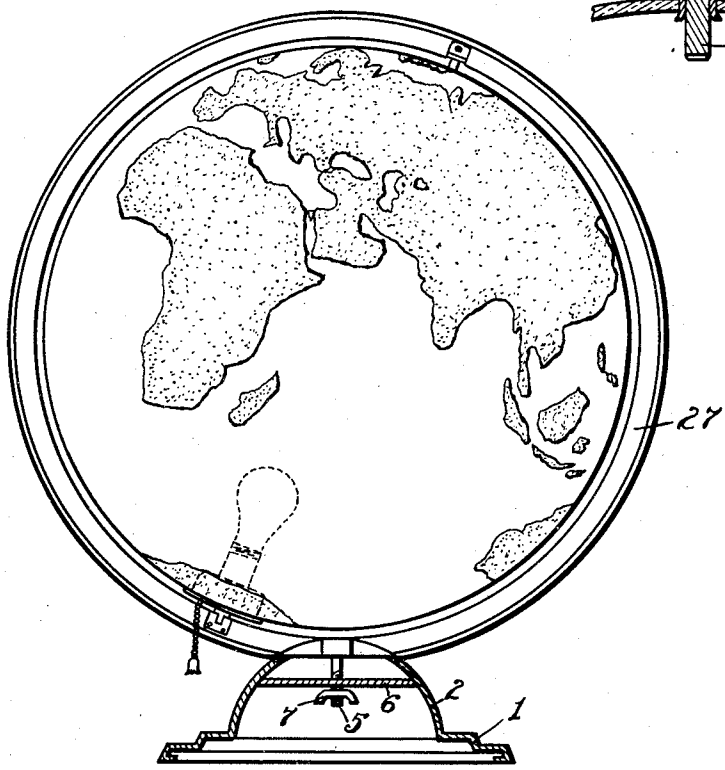


Fig. 5.

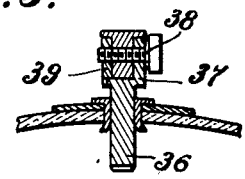


Fig. 6.

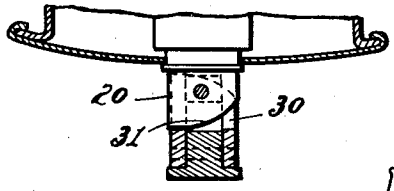


Fig. 7.

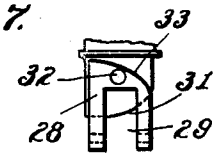
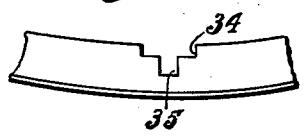


Fig. 8.



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Patented Oct. 3, 1939

2,175,091

UNITED STATES PATENT OFFICE

2,175,091

ILLUMINATED GLOBE

Edward A. Peterson, Indianapolis, Ind., assignor to The Geo. F. Cram Company, Indianapolis, Ind., a corporation of Illinois

Application May 18, 1936, Serial No. 80,291

4 Claims. (Cl. 240—2)

My invention relates to improvements to terrestrial globes and more particularly to a mounting therefor.

It is one of the objects of my invention to provide a terrestrial globe, and mounting therefor, which may be illuminated by means of an illuminating lamp which is inserted in the globe.

A further object of my invention is to provide a mounting for an illuminated globe which will permit the ready removal of the globe from its mounting in order that the lamp may be inserted originally and in order that the same may be renewed from time to time.

Another object of my invention is to provide a support for the meridian ring of the globe.

For the purpose of disclosing my invention, I have illustrated certain embodiments thereof in the accompanying drawings in which:

Fig. 1 is a side elevation, partly in section, of a globe embodying my invention;

Fig. 2 is a detail section of the top pivot for the globe;

Fig. 3 is an enlarged view, partly in section, of the bottom support for the globe;

Fig. 4 is a side elevation of a modification of my invention, in which a full meridian ring is provided;

Fig. 5 is a detail section of a top pivot for the globe;

Fig. 6 is an enlarged detail section of the bottom support for the globe;

Fig. 7 is a detail section of the pivot mounting of the globe support; and

Fig. 8 is a side elevation of a portion of the meridian ring at the point where the pivot mounting is made.

In the embodiment illustrated, in Figs. 1 to 3 inclusive, I provide a base 1 which may be formed of stamped sheet metal, if desired, and is provided with a semi-cylindrical dome 2. Transversely extending through this dome is a slot adapted to receive the meridian ring 3 which at the point it enters the slot is provided with an enlarged boss-like portion 4 provided with a screw-threaded stem 5 extending radially of the ring. In mounting the ring on the base, the ring is inserted in the slot in the dome and rests on the end walls of the slot. The stem 5 projects through a clamping plate 6 which clamps within the dome and is held in its clamped position by means of a thumb nut 7. This arrangement provides for an extremely simple mounting easily assembled and disassembled, and maintains the meridian ring rigid in its upright position.

The globe 8 in the structure illustrated is preferably formed of glass having the map formed thereon by printing the map on suitably constructed paper segments which are cemented to the glass globe. The paper of the segments is sufficiently thin to be translucent. At the bottom pole of the globe, I provide a suitable opening, sufficiently large to accommodate an ordinary sized electric lamp. The walls of this opening are protected by a ring 9 which is inserted through the opening and is provided with an annular flange 10 overlying the surface of the globe and cemented in position to maintain the ring in place.

At the top of the globe I provide the usual time disc 11 and at the pole the globe is provided with an opening through which is adapted to extend a hollow rivet 12 which not only clamps the time disc in position at the top of the globe but also provides a bearing opening for the globe at the top.

At the bottom of the meridian ring 3 I provide an enlarged boss 13 on which is supported the bottom globe mount and the lamp and lamp socket. To this end I provide a supporting stud 14 screw threaded at its upper end and adapted to receive an ordinary lamp socket 15, preferably of the so called candelabrum type. At the lower end of this stud I provide an annular flange 16. Mounted on this stud 14 and resting on the flange 16 is a supporting disc 17 carrying a guide sleeve 18 adapted to enter the opening at the bottom pole of the globe. This sleeve 18 is provided with an annular shoulder 18' over which the edge of the disc 17 is turned to form the disc and sleeve practically into a single unit and the upper edge of the sleeve 18 is rounded and inturned as at 19. The stud 14 is provided with a flat extension 20 which is fitted into a slot 21 in the boss 13 and is mounted on a pivot pin 22 extending through the boss. This extension 20 at one edge is formed with a flattened abutment portion 23 which when the support as a whole is swung out on the pivot pin 22 will strike against the inner wall of the slot 21 and act as a stop to prevent the swinging of the mounting beyond a predetermined point.

At the top, the meridian ring 3 is provided with an enlarged boss 24 through which is threaded a pivot pin 25 which enters the hollow pivot 12 and provides a top pivot support for the globe. In assembly, a suitable lamp is inserted in the lamp socket 15 which may be swung outwardly on the pivot pin 22 a sufficient distance away from the meridian ring 3 to permit the slipping of the globe over the lamp and on

to the supporting disc 17. After the globe has been mounted on the supporting disc 17, it may be swung back into position within the meridian ring 3 to the point where the top pivot pin 25 may be screwed down through its boss 24 until its unthreaded end 26 passes through the hollow rivet 12. This construction provides a pivot support for the globe whereby the globe is pivotally supported at both poles and provides a ready means for providing an illuminating lamp on the interior of the globe. It is quite apparent that the lamp socket 15 may be provided with the usual pull-chain switch so that the light in the globe may be turned on and off and likewise with the usual conduit wires which, in this instance, are lead through the bottom of the base 1 and out through the top of the dome 2 to be carried through a suitable opening in the disc 17 and connected to the lamp socket in the usual manner.

In the structure illustrated in Figs. 4 to 8 inclusive, I have disclosed a structure wherein the globe may be mounted in a full meridian ring. In this structure, the full meridian ring 27, for the globe, is mounted in the base 1 in the same manner as is the half meridian ring 3 illustrated in Fig. 1. On this full meridian ring at the bottom of the polar axis of the globe, I provide a support quite similar to the support illustrated in Fig. 3, but so mounted as to permit the lamp socket and support to be swung transversely of the meridian ring 27. To this end, I provide a supporting block 28, slotted as at 29 to embrace the meridian ring 27. At its top edge this block 28 is transversely slotted as at 30 to receive the flattened stem 20 of the support similar to that support illustrated in Fig. 3. This flattened stem is curved as at 31 on its underface to allow for clearance when the stem is swung on a pivot pin 32 extending through the block and the top edge of the block is curved as at 33 for clearance purposes. The slotted portion 29 of the block fits over the meridian ring and in order to make a nice fit, the meridian ring is cut out as at 34 to accommodate the block and when the block is placed in position, the end walls of this cutout portion hide the pivot pin 32. The block is held in position on the meridian ring by means of rivets passing through the block and the meridian ring. In addition to the cutout portion 34 I provide a reduced cutout portion 35 which accommodates the flat stem on the bottom of the supporting stud 14.

If desired, I may use the same top pivot stud construction as is illustrated in Fig. 2, or I may use the modified structure illustrated in Fig. 5. In this structure, the pivot pin 36 has formed at the top thereof a clamping plate 37 which is adapted to abut against the meridian ring 27 and is provided with a screw 38 adapted to pass through both the plate 37 and the meridian ring, and receive a nut 39 on the opposite side.

In assembly, the support is swung laterally or transversely of the meridian ring 27 a sufficient distance to allow a globe to be mounted on the bottom support. The support and globe may then be swung to a position where the globe is within the ring 27. While the globe is in its outward position, the top pivot pin 36 is inserted in its pivot hole and when the globe is swung into its normal position, the plate 37 abuts against the meridian ring and the screw 38 is inserted in position to provide a stationary top pivot.

I claim as my invention:

1. The combination with a meridian ring, of a supporting block embracing said ring, and secured thereto, a support pivotally mounted on said block, a globe supporting member mounted on said support, a lamp socket mounted on said support, a translucent globe having an opening therein to receive said lamp socket and adapted to be rotatably supported on said support and a pivot member in axial alignment with said support, mounted on said meridian ring and adapted to releasably engage said globe.

2. The combination with a base, of a meridian ring mounted thereon, a recess formed in the inner periphery of said meridian ring, a block fitting within said recess and secured to said ring, a supporting member pivoted to said block, a globe support mounted on said supporting member, a lamp socket mounted on said supporting member, a translucent globe having an opening therein to receive said lamp socket and supported on said globe support, and a pivot member in axial alignment with said supporting member and adapted to releasably engage said globe.

3. The combination with a base having a substantially semi-cylindrical dome and provided with a transversely extending slot through said dome, of a meridian ring fitting within said slot, a stem formed on said meridian ring, a clamping plate within said dome through which said stem is adapted to pass, and a threaded nut engaging said stem and bearing on said clamping plate.

4. The combination with a base having a hollow dome-like projection provided with a transversely extending slot, a meridian ring mounted in said slot and having its sides embraced by the side walls thereof, a stud on said meridian ring, a clamping plate mounted within said hollow dome and through which said stud is adapted to project, and a threaded nut engaging the end of said stud and drawing said clamping plate in position.

EDWARD A. PETERSON.