H. H. MORETON.

ELECTRICAL HEATER.

APPLICATION FILED JULY 30, 1920.

1,416,965. Patented May 23, 1922.

2 SHEETS—SHEET 1.

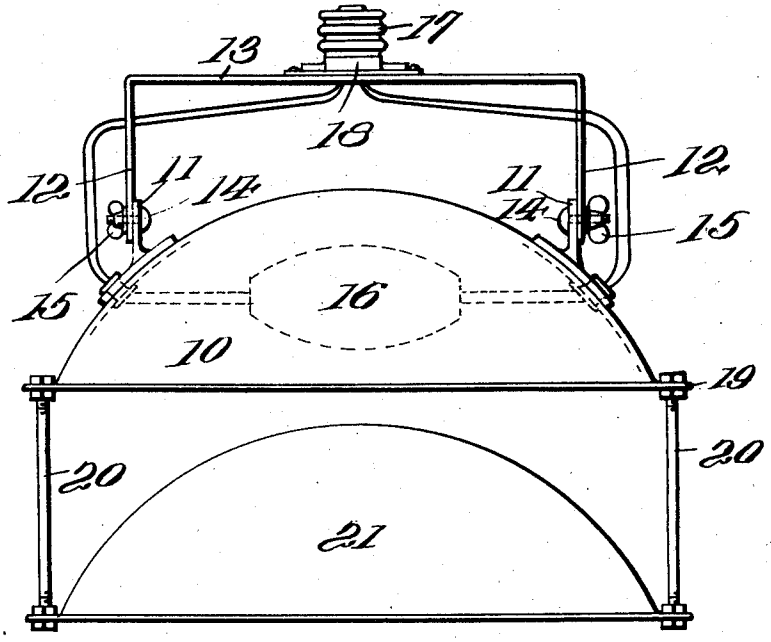


FIG. 1.

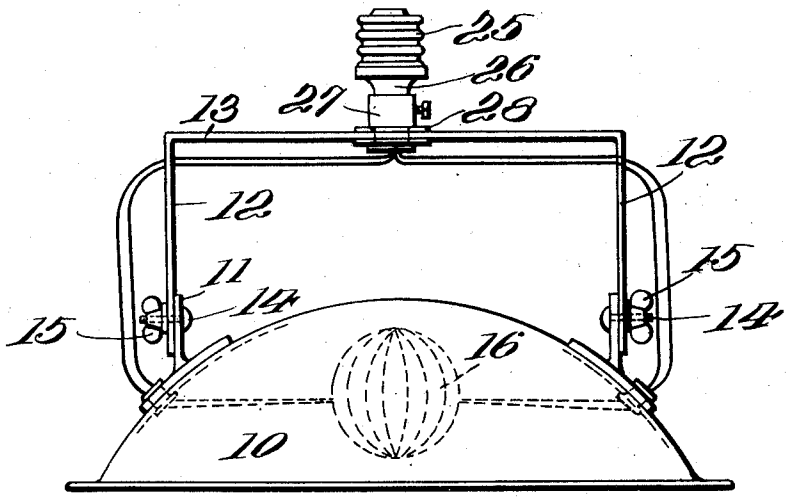


FIG. 2.

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2 SHEETS—SHEET 2.

FIG. 4.

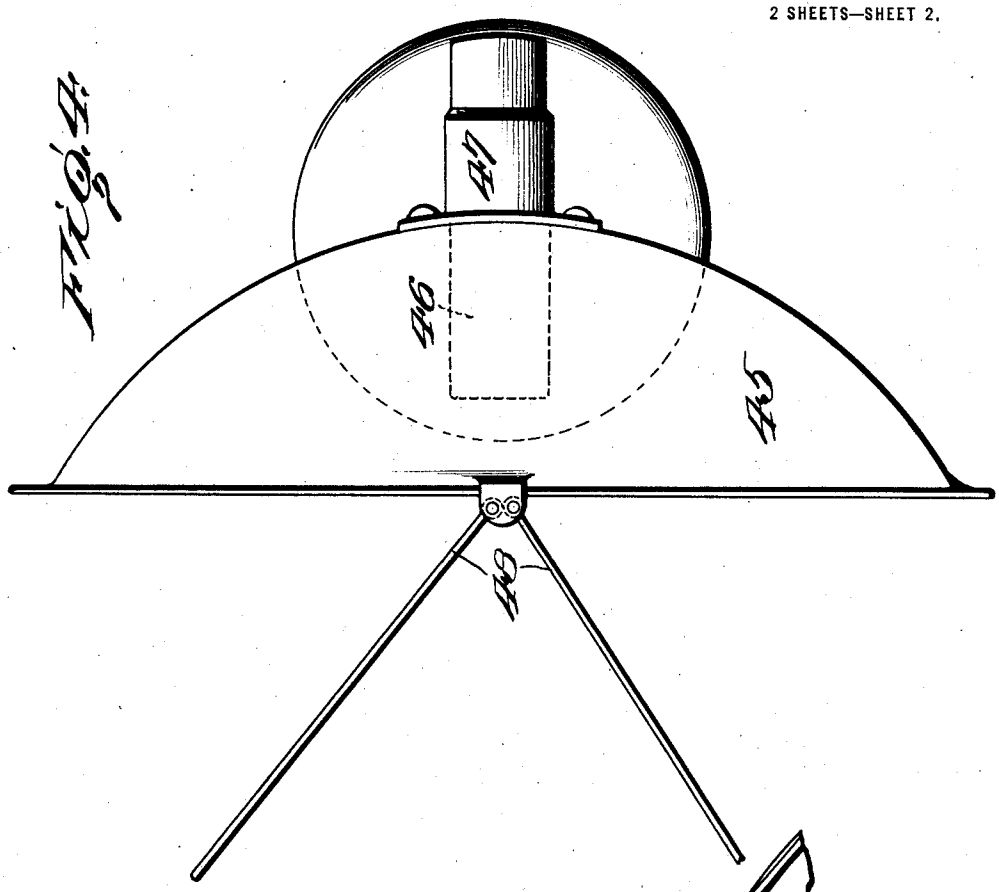
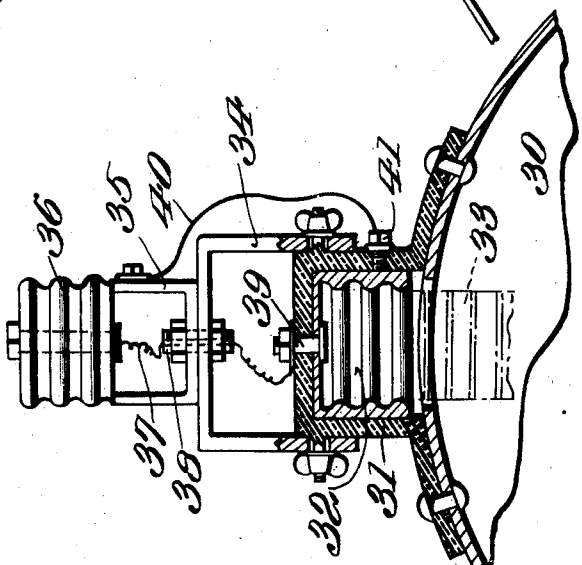


FIG. 3.



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UNITED STATES PATENT OFFICE.

HENRY H. MORETON, OF VENICE, CALIFORNIA.

ELECTRICAL HEATER.

1,416,965. Specification of Letters Patent. Patented May 23, 1922.

Application filed July 30, 1920. Serial No. 399,983.

To all whom it may concern:

Be it known that I, HENRY H. MORETON, a citizen of the United States, residing at Venice, in the county of Los Angeles and State of California, have invented a new and useful Electrical Heater, of which the following is a specification.

This invention is a heater of the type in which a parabolic reflector is employed, to direct the heat rays into the space to be heated.

One of the objects of the invention is to provide a heater of the parabolic type, having means whereby it may be detachably connected with a standard electric lamp socket. A further object is to provide supporting means for the reflector unit, so constructed that the heat rays may be discharged in any direction, into the space to be heated. A further object is to provide means for intercepting the reflected heat rays, and capable of controlling the distribution thereof.

The invention will be hereinafter fully set forth and particularly pointed out in the claims.

In the accompanying drawing:—

Figure 1 is a side elevation of a heater of parabolic type, constructed in accordance with the invention. Figure 2 is a similar view illustrating a slight modification. Figure 3 is a detail sectional view illustrating a second modification. Figure 4 is a top plan view of a modified form provided with deflecting shutters.

Referring to Figure 1 of the drawing, 10 designates a concavo-convex parabolic reflector, provided with ears 11, to which are pivotally connected the arms 12, of a supporting member 13. The pivots 14 of the pivotal connections are provided with wing-nuts 15, whereby the reflector body and the handle may be adjustably held at any desired angle. The heating unit 16, which may be of any well-known or desired construction, is provided with terminal wires extended through suitable openings in the body of the reflector and similar openings in the arm 12, and are connected with a screw plug 17, of standard form, to which is rotatably connected a collar 18, having a flange rigidly secured to the supporting member 13. Said plug 17 is adapted for connection with any standard lamp socket. It will be noted that by means of the collar 18 and the pivots 14, the reflector 10 is susceptible of approximate universal adjustment, and that the wires are so supported that they will not interfere with the adjustments of the heater or become entangled.

Secured to a lip 19 on the edge of the reflector 10, is a plurality of rods 20, to the outer ends of which is secured a deflector or radiator member 21, which is preferably of the same shape as the reflector 10. The member 21 is mounted in juxtaposition with the reflector 10, the convexed surface of the unit 21 being opposite the concave surface of the reflector. Said convexed surface is preferably polished.

In practice, the heater is rotated to the desired position and then adjusted to the preferred angle, to direct the heat rays into the space to be heated. The heat rays thrown out by the heating unit, are collected by the concave surface of the reflector, and directed in approximately straight parallel lines against the convexed surface of the unit 21, from which they are reflected in radial lines in all directions. From time to time, the relative angle of the reflector 10 and the supporting member 13, may be varied as desired, and the reflector rotated to direct the heat rays into a new field.

In the form illustrated in Figure 2, the deflecting or radiator unit 21 is dispensed with, the rest of the construction being substantially the same as that illustrated in Figure 1. The plug 25, however, is provided with a reduced neck 26, over which fits a sleeve 27, held in place in any desired manner, said sleeve having means for rotatably engaging a collar 28, secured to the carrier member 13.

In Figure 3, the reflector 30 is provided with a central opening, and a sleeve 31 of insulating material is secured to the reflector in register with said opening. Located within said sleeve, is a screw shell 32, in which is removably mounted the plug-like end of a heating unit 33. Pivotally connected with said sleeve 31 is a support member 34, which is rotatably connected with a suspension member 35, by means of a tubular swivel 38. Said suspension member is carried by a plug 36, constructed to engage a standard socket. One of the wires 37 of the electric circuit, passes longitudinally through the plug 36 and the swivel member 38, to a center contact 39. The other wire 40 leads

from the side of the plug 36 through the side of the sleeve 31 to a shell contact 41.

A modification of the deflector unit is illustrated in Figure 4. As shown in said figure, the reflector unit 45 is mounted upon a suitable base or standard and provided with a heating unit 46 of any desired construction. Pivotally mounted in suitable bearings 47, attached to the edge of the reflector, are deflector wings 48, two being shown, which may be independently adjusted to any desired angle, thereby providing means whereby more or less of the heat rays may be intercepted, when the maximum heat is not desired. The inner faces of the wings 48 also serve as reflectors acting to direct the heat rays laterally.

Having thus explained the nature of the invention and described an operative manner of constructing and using the same, although without attempting to set forth all of the forms in which it may be made, or all of the forms of its use, what is claimed is:—

1. A heater of the character described comprising a reflector unit, a heating unit co-operating therewith, means for connecting said heating unit with a source of electrical energy, and means for providing rotative and angular adjustments of the reflector unit relative to said connecting means.

2. A heater of the character described comprising a plug having means for connection with a standard lamp socket, and a heater supported by said plug.

3. A heater of the character described comprising a plug having means for connection with a standard lamp socket, and means connecting said heater and said plug, said means providing for rotative and angular adjustments of said heater with respect to said plug.

4. A heater of the character described comprising a plug, a heater, a support member having a rotatable connection with said plug, and means connecting said heater and said support member.

5. A heater of the character described comprising a plug, a heater, a support member having a rotatable connection with said plug, and means pivotally connecting said heater to said support member.

6. A heater of the character described comprising a plug, a support member having a collar rotatably connected with said plug, and a heater pivotally connected with said support member.

7. A heater of the character described comprising a plug, a support member rotatably connected with said plug and provided with depending arms, and a heater pivotally connected with said arms.

8. A heater of the character described comprising a plug, a support member rotatably connected with said plug, a parabolic reflector pivotally connected with said support member, and a heating unit supported by said reflector and in circuit with said plug.

9. A heater of the character described comprising a plug, a heater supported by said plug and mounted for rotative and angular adjustments, and a deflecting unit supported by said heater and provided with a reflecting surface.

10. A heater of the character described comprising a plug, a heater of parabolic type supported by said plug and mounted for rotative and angular adjustments, and a deflecting unit supported by said heater in a position to receive the reflected heat rays, said deflecting unit having a parabolic reflecting face.

11. A heater of the character described comprising a parabolic reflector, supporting means therefor, a heating unit co-operating therewith, and deflector means positioned to intercept the reflected heat rays discharged by said reflector.

12. A heater of the character described comprising a parabolic reflector, supporting means therefor, a heating unit co-operating therewith, and deflector means supported by the edge of the reflector and positioned to intercept the reflected heat rays discharged by said reflector.

In testimony whereof I have hereunto set my hand.

HENRY H. MORETON.