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ELECTRIC HEATER OR RADIATOR

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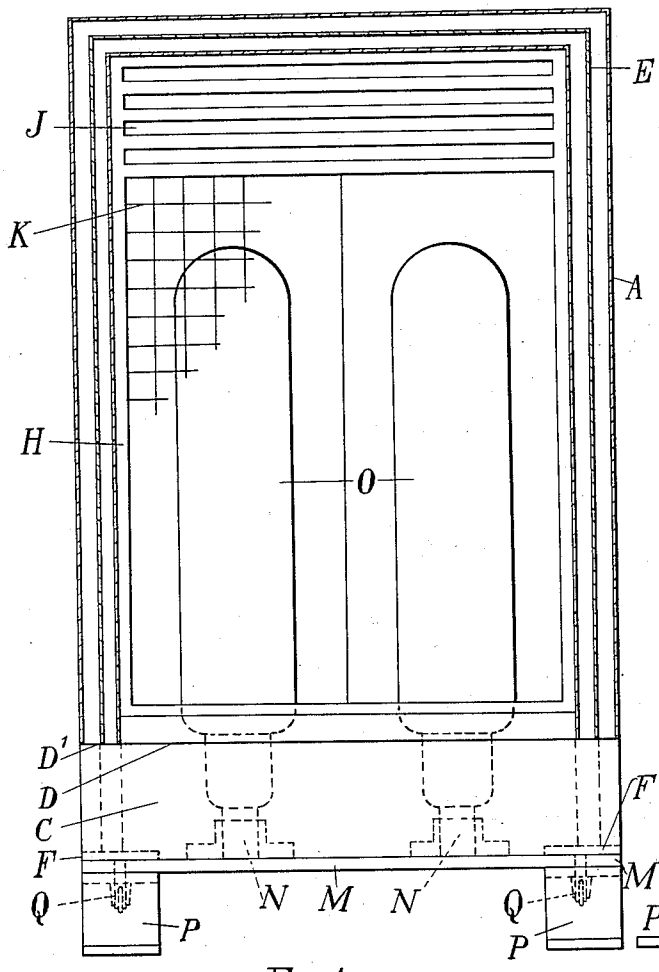


Fig. 1.

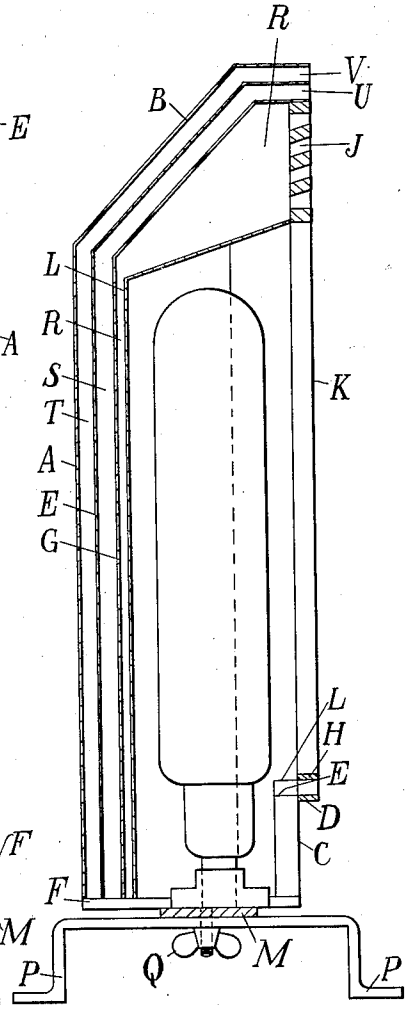


Fig. 3.

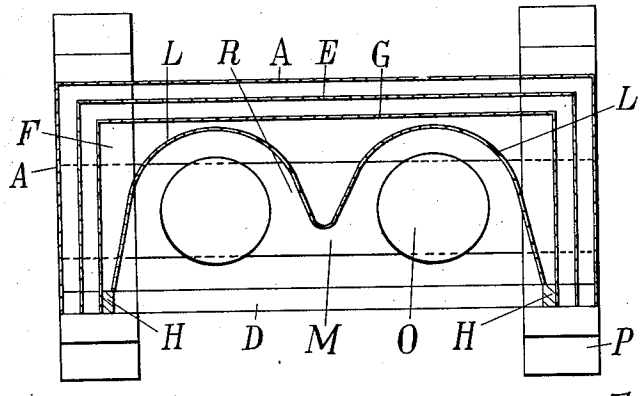


Fig. 2.

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ELECTRIC HEATER OR RADIATOR

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In Great Britain June 16, 1934

1 Claim. (Cl. 219—34)

This invention relates to electric heaters or radiators of the type in which the heating elements give out heat by direct and/or reflected radiation, and in which a single passage for air is provided between the reflector and the outer casing of the heater or radiator and is arranged around three sides of said source of heat.

The object of the invention is to produce an electric heater which will give the maximum heating effect by radiation and at the same time will give a large amount of heat by convection.

The invention will now be described, by way of example, with reference to the accompanying drawing, in which:—

Figure 1 is a front elevation of the heater;
Figure 2 is a sectional plan of Figure 1, and
Figure 3 is a sectional side view of Figure 1.

A casing A is provided having three sides and a sloping top B and a front which is open except for the small vertical portion C which is provided with a horizontal projecting flange D. This is provided so that it may rest on the edge of the panel or the like, when the heater is mounted flush on a wall or panelling. When, however, the heater is made portable, all the front is flush. Within the casing A is situated a shield E which is secured to a common base F, F composed of two metal strips or the like to which the casing A is also secured, the lower part of the rim of the shield E being also secured to the flange D of the casing A at the point D^1 while the bottom part is cut away, so that it is spaced away from the vertical portion C between D and the base F, F. The bottom of the casing is thus open except where the strips F, F are situated. Within the shield E is an inner shield G which is also secured to the common base F, F and at the front to a framework H, the upper portion of this frame-work being provided with a louvre J and the lower portion with a woven wire guard or the like K. The guard K may be made detachable by clips or other means. Within the shield G is provided a double curved reflector L which is secured at the front to the frame H and at the bottom to the common base F, F, the vertical portion below the frame H being also cut away so as to be spaced away from the vertical portion C of the casing.

Running along the bottom of the device between the two strips F from one side to the other, is a strip of metal M, on which are mounted two lamp sockets N, N into which are placed sources of heat or incandescent lamps O. Any other kind of heating elements may be used, and they may be arranged horizontally or vertically. Any number of heating elements may be used, and the reflector may have one or more curves to suit. A pair of legs or feet P are placed at each end of the heater or radiator and secured to the strip M by means of wing nuts, thumb-screws or the like Q. The feet may be made of any suitable shape.

The space R between the reflector and the innermost shield G will heat the air and this will rise up and enter the room or apartment being heated through the louvre J. Further, the passages S and T will also be heated, but to a lesser degree, and therefore the air in these will also rise and be delivered through the exits U and V so as to cause a circulation of air in the room.

Instead of making the portion B flat, it may be curved and the top of the heater may be curved in end view as well as front view and the louvres J may be curved or not as desired.

It will be observed that the bottom of the heater or radiator is open so that plenty of air can be drawn into the passages.

It will also be noted that the shield E is not connected to the inner shield G at any point but is only connected in common to the base F, F. Further, it is not connected to the casing except to the horizontal flange D and the base F, F in common with the casing A.

A suitable handle or the like may be placed in any convenient position, so that the heater or radiator may be carried about from place to place.

It is also to be noted that the tops of the shields E and G also slope upwards as does the top of the reflector L, L so as to give an easy flow for the air when rising.

If desired, the shield E may be omitted, and only one shield and the reflector used, thus providing the passage R and the passage U for the escape of the heated air. Also the wire guard may be omitted and one or two bars put in its place, or the opening may be left plain.

By the provision of these shields and air passages, the outside of the radiator is maintained quite cool and substantially at the temperature of the room, all the heating of the air taking place within the passages and no heat being transmitted to the outside casing.

We claim:

An electric radiator comprising in combination a casing, a reflector situated within said casing, at least one shield situated between said reflector and said casing forming at least two

hollow unobstructed passages, said passages terminating in openings at the front of said radiator for deliverance of heated air, two transverse strips of metal one at each end of the radiator and secured to said shields, reflector and casing, a longitudinal strip of less width than that of the casing and secured to said transverse strips, a plurality of heating elements supported on said longitudinal strip and situated in front of said reflector, feet secured to said longitudinal strip, the entrance to said passages being open at the bottom throughout the major portion of the length of the radiator except where the transverse strips are located.

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