Oct. 3, 1933. L. C. DOANE 1,929,018

TRANSFORMER ASSEMBLY FOR FLOOR LAMPS AND THE LIKE

Filed Oct. 23, 1931

FIG. 2.

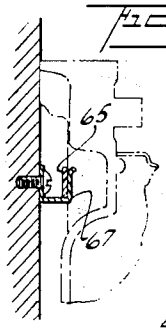


FIG. 1.

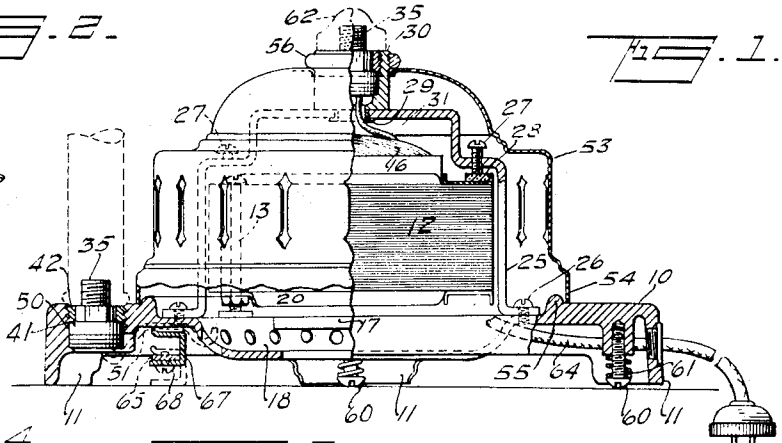


FIG. 4.

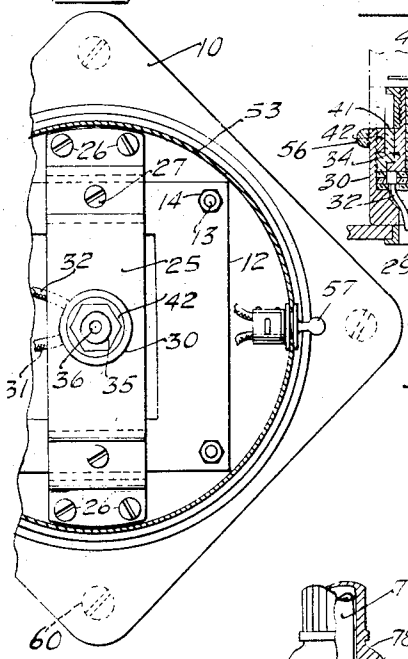


FIG. 3.

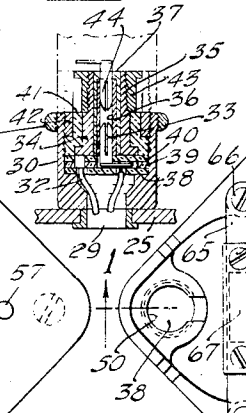
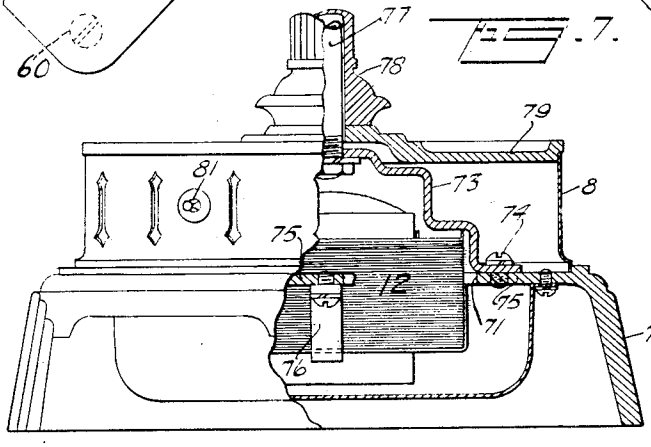


FIG. 5.

FIG. 7.



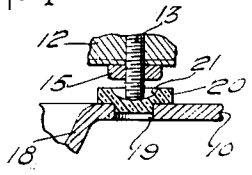


FIG. 6.

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Patented Oct. 3, 1933 1,929,018

UNITED STATES PATENT OFFICE

1,929,018

TRANSFORMER ASSEMBLY FOR FLOOR LAMPS AND THE LIKE

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Application October 23, 1931. Serial No. 570,535

15 Claims. (Cl. 175—356)

This invention relates to transformer assemblies for floor lamps and the like and is more particularly directed toward providing a base for combined lighting appliances and ultra-violet applicators designed to be used as floor lamps.

The glow lamps now available for ultra-violet lighting require the use of a transformer to step down the current to the low voltage applied to the terminals of these lamps. Where the portable applicators, such as floor lamps, are contemplated, it is preferable to place the transformer in a lamp base and the present invention is directed toward the provision of a suitable construction for this purpose.

An object of the present invention is to provide a lamp base for the purpose above described wherein the transformer is secured to a base or body member adapted to rest on the floor and securely clamped in place. This base or body member also supports the standard for the lamp.

A further object of the invention is to provide a device for this purpose wherein the lamp standard may be connected either at the center of the base or to one side of the base so that the standard for the lamp may be moved nearer the corner of a room. To this end the lamp base is preferably made square so as to fit into the corner.

A further object of the invention is to design the lamp base so that the transformer is completely insulated from the metal parts.

Other and further objects of the invention will appear as the description proceeds.

The accompanying drawing shows, for purposes of illustrating the present invention, two of the many embodiments in which the invention may take form, it being understood that the drawing is illustrative of the invention rather than limiting the same. In the drawing:

Fig. 1 is a vertical sectional view on the broken line 1—1 of Fig. 5;

Fig. 2 is a fragmentary view illustrating the use of the device of Fig. 1 as a wall bracket;

Fig. 3 is a vertical sectional view on an enlarged scale showing certain of the electrical connections;

Fig. 4 is a top plan view, parts being in section on the line 4—4 of Fig. 1;

Fig. 5 is an inverted plan view of the structure shown in Fig. 1;

Fig. 6 is a fragmentary section on the line 6—6 of Fig. 5; and

Fig. 7 is a vertical sectional view through a modified form of construction.

The base for ultra-violet applicators and the like shown herein has a body member 10 adapted to rest on the floor. This body member is of generally square shape with rounded corners, as indicated in Figs. 4 and 5 and at the corners has downwardly extending feet 11 adapted to reach the floor.

The transformer of usual construction is shown at 12. This transformer is generally rectangular in shape and is placed with its diagonals parallel with the sides of the base. The punchings of the transformer 12 are held together by corner bolts indicated at 13, these bolts having clamping nuts 14 and 15 at their ends as shown. The coils of the transformer are indicated at 16 and 17 extending above and below the stamping.

The base 10 has a depressed central portion 18 to accommodate the windings on the lower side of the transformer and, as shown more clearly in Fig. 6, it is provided with openings 19 adapted to receive insulating buttons 20 spaced the same as the bolts 13 of the transformer. These insulating buttons have recesses 21 to receive the lower ends of the bolts 13 and thereby support the transformer in place and insulate it from the base or body member.

A yoke 25 in the form of a bent sheet metal strap is shaped to receive the transformer 12 and is secured at its ends to the body member 10 by screws indicated at 26. This strap is of heavy material so as to be substantial and rigid. The transformer is clamped in place by screws 27 carried by this yoke and in order to insulate the transformer from the yoke, the insulators 28 are interposed between screws 27 and the transformer 12. Where the insulation feature is not desired, the insulators may be omitted and the transformer clamped directly to the body member. The bridging member or yoke 25 is apertured in the center as indicated at 29 and receives a tubular member 30 which is adapted to receive the wires 31 and 32 and to support the lamp standard.

Where the lamp standard employs a simple length of pipe, as a conduit for wires, this tubular member 30 may be threaded to fit the pipe, or the pipe may be fastened in as indicated in Fig. 7. Where the lamp base is designed, however, for use with interchangeable, self wiring lamp parts, such as shown in my application for patent on Lighting appliances, Serial No. 483,814, filed September 23, 1930, the yoke is provided with one of these fittings or outlets as indicated in Fig. 3. The secondary wires 31 and 32 from the transformer are connected to an axially disposed pin 33 and a concentric tubular contact member 34 externally threaded as indicated at

35. The pin 33 fits into a metal tube 36 carried within the tubular member 34 and insulated from it by insulator 37. Washers 38, 39, and 40, and an insulating fitting 41, suitably insulate these parts and they are all clamped and secured in place by a threaded locking ring 42 received within the member 30. This fitting is the same as that shown in the application above referred to and is adapted to receive lamp standards or other parts having cooperative contacts, such, for example, as the threaded tubular conductor 43 and concentric pin 44 carried by such lamp part.

One corner of the body member 10 is provided with an opening as indicated at 50, this opening having the same interior dimensions as the tubular member 30 and being adapted to receive a fitting the same as shown in Fig. 3. This fitting is connected to the secondary of the transformer by wires indicated in dotted lines at 51, these wires being carried down from the secondary of the transformer through a suitably located opening in the body member as indicated.

In order to provide a finished appearance to the lamp base and protect and conceal the transformer, a cover member 53 is placed about the transformer. Its lower edge 54 fits outside a bead 55 carried by the base 10 and it is clamped in place by a locking ring 56 threaded on to the tubular member 30. It carries a switch indicated at 57 preferably placed above the corner of the body member 10 which is opposite the outlet or fitting placed in the socket 50.

In order that the base may be adjusted so that the lamp standard may be vertical, it is provided with three adjusting screws 60 threaded into the corners as indicated and provided with springs 61 which make it unlikely that the screws will change adjustments once they have been placed.

When the device is in use a lamp standard may be threaded on to either of the outlets so that one can either have the lamp standard extend up from the center or from the rear corner. The unused outlet may be covered by a cap indicated at 62. The arrangement of parts makes it very convenient to place the lamp base in the corner of the room, as for example, in the bath room, and to have the standard extend up very close to the corner of the room. It can be adjusted closer to the corner if desired by means of the levelling screws. The switch 57 is above one of the corners of the base and is thereby protected against accidental injury.

As occasions frequently arise where it is desirable to secure these bases to the wall instead of having them rest on the floor, the present lamp base is provided with a cross strap indicated at 65 and secured to the base by screws 66. This cross strap carries a hook member 67 secured to it by screws indicated at 68 and normally carried in the position indicated in Fig. 1. Should one desire, however, to mount the base on the wall or other vertical support, it is only necessary to remove the screws 68 and secure the hook member 67 to the wall, as indicated in Fig. 2, whereupon it will be in a position to receive the strap 65 and support the base.

In the form of construction shown in Fig. 7, the body member 70 is made round and is provided with a central opening 71 adapted to receive the transformer 72. A yoke 73 is secured to the upper side of the base 70 by screws 74 threaded into the flange 75 and the transformer is clamped in place by Z-shaped straps 76 secured to the underside of the flange 75. A pipe 77 extends upwardly as indicated and is surrounded by an ornamental column 78. This column rests on plate 79 which is supported by a band 80 carrying a switch 81 as indicated. The parts are clamped together in the usual manner by a nut threaded on to the upper end of the stem 77 as customary.

It is obvious that the invention may be embodied in many forms and constructions, and I wish it to be understood that the particular forms shown are but two of the many forms. Various modifications and changes being possible, I do not otherwise limit myself in any way with respect thereto.

What is claimed is:

1. A base for ultra-violet applicators and the like, comprising a body member adapted to rest on the floor, a yoke member having its ends secured to the body member, a transformer interposed between the yoke and body member, and means to clamp it in place.

2. A base for ultra-violet applicators and the like comprising a body member adapted to rest on the floor, a yoke member having its ends secured to the body member, a transformer interposed between the yoke and body member, insulation between the transformer field and the body member, means carried by the yoke for clamping the transformer in place, and insulation between the clamping means and transformer field.

3. A base for ultra-violet applicators and the like comprising a body member adapted to rest on the floor, a yoke member having its ends secured to the body member, a transformer interposed between the yoke and body member, a cover member about the yoke and transformer and bearing on the body member, and yoke carried means for securing the cover member in place.

4. A base for ultra-violet applicators or the like comprising a body member adapted to rest on the floor, a transformer carried by the body member, a strap secured at its ends to the body member and extending across and above the transformer, and a lamp standard secured to the central part of the strap.

5. A base for ultra-violet applicators and the like comprising a body member adapted to rest on the floor, a transformer above the body member, a yoke secured at its ends to the body member and extending above and across the transformer, transformer securing means whereby the transformer is fixedly held in place, a canopy covering the yoke and transformer, canopy securing means, and a central outlet carried by the yoke and extending above the canopy.

6. A base for ultra-violet applicators and the like comprising a body member adapted to rest on the floor, a transformer above the body member, a yoke secured at its ends to the body member and extending above and across the transformer, transformer securing means whereby the transformer is fixedly held in place, a canopy covering the yoke and transformer, canopy securing means, a central outlet carried by the yoke and extending above the canopy, and a second outlet carried by the base outside the canopy.

7. A base for ultra-violet applicators and the like comprising a body member adapted to rest on the floor, a transformer above the body member, the body member being dished to accommodate the windings of the transformer, a yoke secured at its ends to the body member and extending above and across the transformer, transformer securing means whereby the transformer is fixedly held in place, a canopy covering the

yoke and transformer, canopy securing means, and a central outlet carried by the yoke and extending above the canopy.

8. A base for ultra-violet applicators and the like comprising a body member adapted to rest on the floor, a transformer above the body member, a yoke secured at its ends to the body member and extending above and across the transformer, transformer securing and insulating means whereby the transformer is fixedly held in place and insulated from the yoke and body member, a canopy covering the yoke and transformer, canopy securing means, and a central outlet carried by the yoke and extending above the canopy.

9. A base for ultra-violet applicators and the like, comprising a generally square body member adapted to rest on the floor, a square transformer on top of the body member with its diagonals parallel with the sides of the body member, a transformer securing yoke arranged diagonally of the body member, and a cover member concealing the yoke and transformer.

10. A base for ultra-violet applicators and the like comprising a generally square body member adapted to rest on the floor, a square transformer on top of the body member with its diagonals parallel with the sides of the body member, a transformer securing yoke arranged diagonally of the body member, a cover member concealing the yoke and transformer, a tubular member secured to the yoke and extending above the cover member, the tubular member being adapted to carry wiring and being externally threaded, and a cover member clamping ring on the tubular member.

11. A base for ultra-violet applicators and the like comprising a generally square body member adapted to rest on the floor, a square transformer on top of the body member with its diagonals parallel with the sides of the body member, a transformer securing yoke arranged diagonally of the body member, a cover member concealing the yoke and transformer, and an outlet carried by one of the exposed corners of the body member outside the cover member.

12. A lamp base of generally rectangular shape whereby it may fit into the corner of a room, a central outlet carried thereby for the securement thereto of a central lamp standard, and a similar outlet carried thereby adjacent one corner whereby the lamp standard may be mounted closer to the corner of the room.

13. A lamp base of generally rectangular shape whereby it may fit into the corner of a room, a yoke carried by the base, a central outlet carried by the yoke for the securement thereto of a central lamp standard, and a similar outlet carried thereby adjacent one corner whereby the lamp standard may be mounted closer to the corner of the room.

14. A lamp base of generally rectangular shape whereby it may fit into the corner of a room, a central outlet carried thereby for the securement thereto of a central lamp standard, and a similar outlet carried thereby adjacent one corner whereby the lamp standard may be mounted closer to the corner of the room, each of said outlets including a threaded contact member and a concentric tubular contact member to cooperate with the lamp standard having a cooperative threaded contact member and concentric pin to enter the tubular member.

15. A lamp base adapted to rest on the floor, a cross strap carried by the under side of the lamp base and spaced above the floor, and a hook member removably carried by the cross strap and normally housed within the base, the hook member when detached from the strap being attachable to a wall and capable of receiving the strap so that the base is suspended therefrom against the wall.

LEROY C. DOANE.