Nov. 28, 1939. J. WERTZHEISER 2,181,646

LAMP STRUCTURE

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Fig. 1.

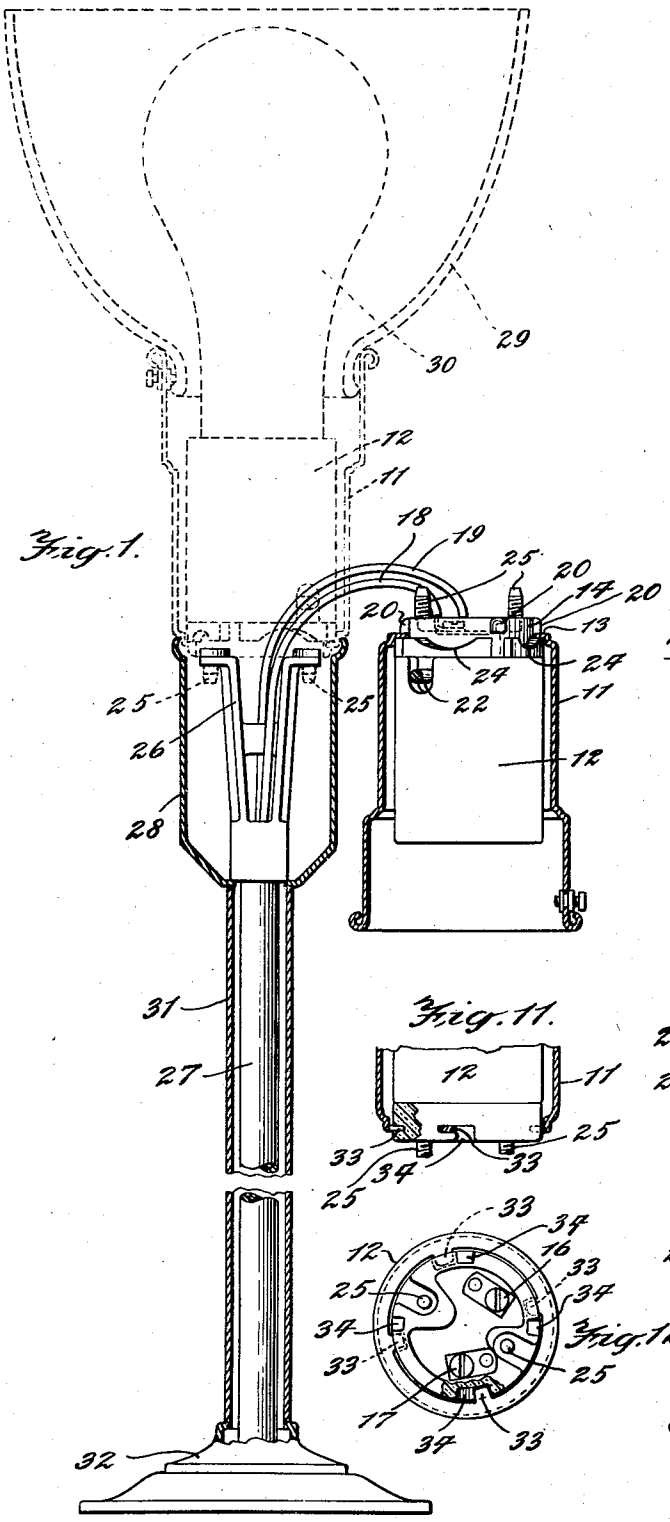


Fig. 2.

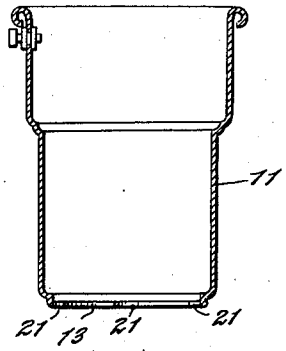


Fig. 3.

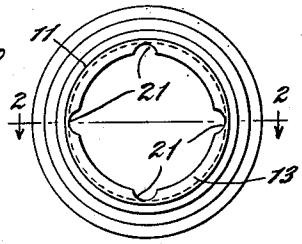


Fig. 4.

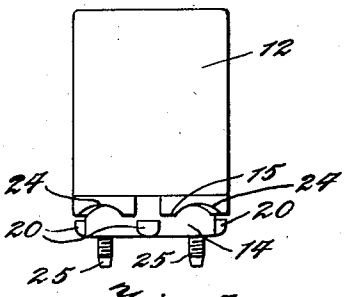
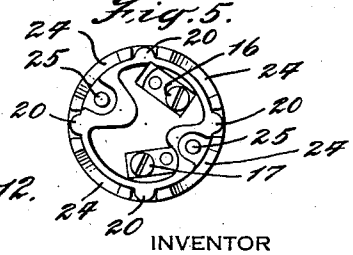


Fig. 11.

Fig. 12.

Fig. 5.



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Fig. 8.

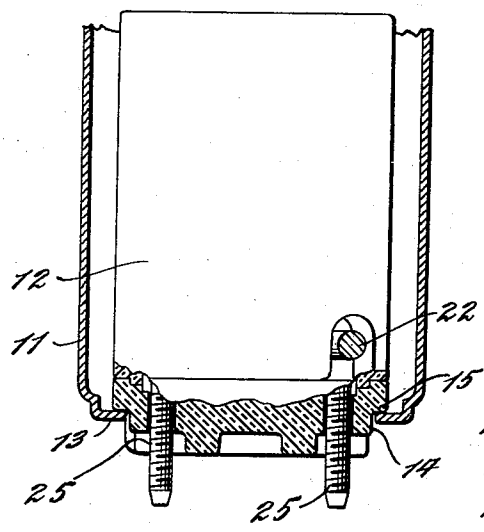


Fig. 6.

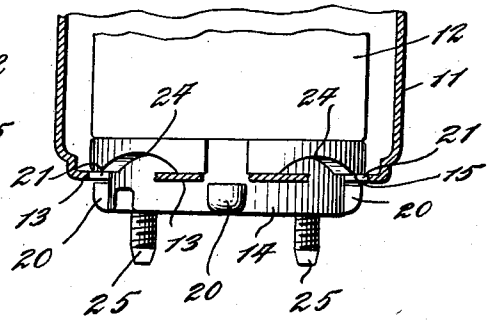


Fig. 9.

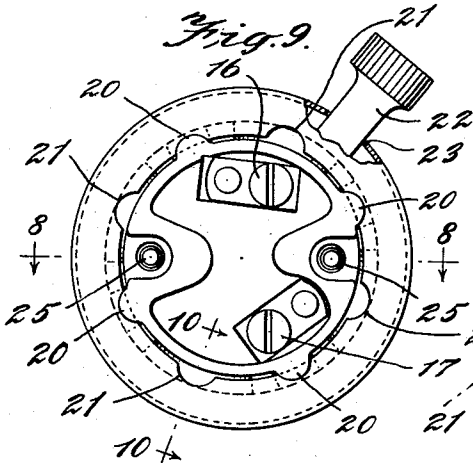
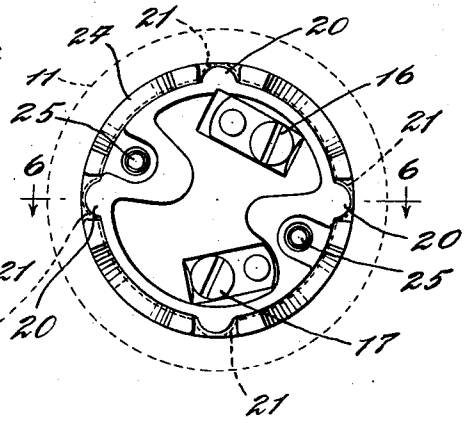


Fig. 7.



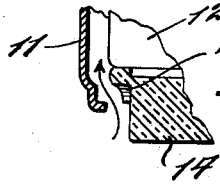


Fig. 10.

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UNITED STATES PATENT OFFICE

2,181,646

LAMP STRUCTURE

Joseph Wertzheiser, New York, N. Y., assignor to Leviton Manufacturing Company, Brooklyn, N. Y., a corporation of New York

Application April 5, 1938, Serial No. 200,117

4 Claims. (Cl. 240—81)

My present invention relates to an improved electric lamp structure and will be best understood from the following description of an illustrative embodiment thereof.

In the accompanying drawings:

Fig. 1 is a side view of an illustrative embodiment in partial section, the final assembly being shown partially in dotted lines.

Fig. 2 is a side view and Fig. 3 an end view of the lamp husk of Fig. 1; Fig. 2 being sectioned along line 2—2 of Fig. 3.

Fig. 4 is a side view and Fig. 5 an end view of the lamp socket shown in Fig. 1.

Fig. 6 is a side view in partial section along the line 6—6 of Fig. 7 showing the relative positions of the husk and socket as they are being assembled.

Fig. 7 is an end view of Fig. 6.

Fig. 8 is a view similar to Fig. 6, partially sectioned along the line 8—8 of Fig. 9 showing the relative positions of the husk and socket in the completed assembly.

Fig. 9 is an end view of Fig. 8.

Fig. 10 is a fragmentary section taken along the line 10—10 of Fig. 9.

Fig. 11 is a side view and Fig. 12 an end view of a modified form.

In the illustrative embodiment, there is a husk 11 inside of which a lamp socket 12 is placed. The husk 11 has at its lower end a relatively narrow inwardly extending flange 13, the opening thus formed at the bottom of the husk being somewhat smaller than the main diameter of the body portion of the lamp socket 12. At the bottom of said lamp socket 12, there is a base portion 14 of a diameter small enough to pass through the opening in the bottom of the husk 11, this base portion 14 forming a shoulder 15 where said base portion and the body of the lamp socket 12 join. The shoulder 15 will bear against the inside surface of the flange 13 when the socket 12 is placed inside the husk 11.

Carried on the bottom of the base portion 14 are the electric wiring terminals 16 and 17 of the lamp socket 12. Thus, when the lamp socket 12 is placed inside the husk 11, said terminals are exposed externally of said husk. This permits the attachment of the line wires 18 and 19 to said terminals after the socket 12 has been placed inside the husk 11, so that only a small amount of slack in the line wires need be provided. This avoids any necessity for pulling the line wires back through the entire lamp structure, such structure, as shown in Fig. 1, usually having sufficient space inside it to accommodate the small amount of slack wire required by my invention.

It is desirable to secure the lamp socket 12 to the husk 11 and for this, I have provided a plurality of vertical projections 20 spaced about and extending partway up the reduced base portion 14, leaving a space between the top of said projections and the shoulder 15 of the socket of sufficient width to receive the flange 13. The flange 13 has openings 21 arranged to permit the passage of said projections when the socket 12 is being assembled in the husk 11. The lamp socket 12 may then be rotated relative to the husk 11 so that the projections 20 are at points intermediate the flange openings 11. Thus socket 12 will be held inside the husk 11 by the engagement of the projections 20 on one side of the flange 13, and the shoulder 15 on the other side of the flange 13.

To lock said socket and husk against relative rotation after they are assembled, a key 22 extending through an opening 23 in the side wall of the husk 11 and engaging a threaded shaft of a switch mechanism located in the socket 12 may be provided, it being understood that the key will be inserted after the husk and socket have been assembled. The key 22 will act as a control handle or knob for the socket 12 and will also prevent relative rotation of the socket and husk when it is in place.

To cool the space proximate to the socket 12 which is enclosed by the husk 11 when the socket and husk have been assembled, the shoulder 15 has a plurality of cutout portions 24 spaced about it so as to register with the openings 21 in the flange 13 when the socket 12 and the husk 11 have been placed in their assembled relationship. Thus the passage of air is permitted through said openings to the space about said socket where a high degree of heat is concentrated. The upper portion of the socket 12 will extend above the openings 21 to prevent the direct reflection of light through said openings.

The lamp socket has screws 25 passing through it which are adapted to engage with threaded holes in a hickey or supporting bracket 26 which is carried on the end of a lamp support 27.

Surrounding said hickey, there is a body portion 28 also carried by the lamp support 27.

When the socket 12 and the husk 11 have been assembled and the line wires 18 and 19 connected to the socket terminals 16 and 17 as previously described, these portions are then placed in upright position as shown by the dotted lines of Fig. 1, so that the screws 25 will engage with the threaded holes in the hickey 26. The upper

edges of the body 28 contact the lower edges of the husk 11 so that the husk rests on the body portion and the exterior of said husk forms continuation of said body. When the screws 25 are screwed into the threaded holes in the hickey 26, the socket 12 is drawn downward which, in turn, carries the husk 11 down with it due to their interrelation. This brings the husk 11 forcibly against the body 28 and rigidly clamps the husk in place forming a solid and permanent lamp structure.

Normally a translucent reflector bowl 29 carried by said husk 11 surrounds a lamp bulb 30 placed in the socket 12 as is shown in dotted lines in Fig. 1. An ornamental tubing 31 and an ornamental base 32 surround the lamp support 27.

In Figs. 11 and 12, I have shown a modification of my device in which the husk 11 has a plurality of inwardly extending projections 33 which engage with slots 34 in the socket 12. The slots 34 have laterally elongated portions at their upper ends to permit relative rotation of the socket 12 and the husk 11 to secure said socket to said husk in a manner commonly referred to as a bayonet joint.

I claim:

1. A lamp structure having a hollow body portion, a socket supporting bracket within said body portion, a husk adapted to have its lower part rest on the top of said body portion to form a continuation thereof, said husk having an inwardly extending annular flange at one end to form an opening through the bottom of the husk, a lamp socket adapted to be inserted in said husk and having a reduced portion at its base to form a shoulder with the body portion of the socket, said reduced portion having a diameter adapting it to pass through the opening at the bottom of the husk, whereby the shoulder on said socket will rest on the flange of the husk when the socket is in the husk, line wire connections on the bottom of the reduced portion of the socket and external of the husk when the socket is in the husk, means for securing the socket to the husk, and means for fastening said socket to the supporting bracket adapted to draw the adjacent ends of the husk and hollow body together.

2. A lamp structure having a hollow body portion, a socket supporting bracket within said body portion, a husk adapted to have its lower part rest on the top of said body portion to form a continuation thereof, said husk having an inwardly extending annular flange at one end to form an opening through the bottom of the husk, a lamp socket adapted to be inserted in said husk and having a reduced portion at its base to form a shoulder with the body portion of the socket, said reduced portion having a diameter adapting it to pass through the opening at the bottom of the husk, whereby the shoulder on said socket will rest on the flange of the husk when the socket is in the husk, line wire connections on the bottom of the reduced portion of the socket and external of the husk when the socket is in the husk, means for securing the socket to the husk comprising a plurality of projections spaced about the reduced base portion of the socket with their upper ends spaced from said shoulder a distance greater than the thickness of the husk flange, said flange having spaced openings therein adapted to permit said projections to pass the flange when the socket is inserted in the husk, and means for fastening said socket to the supporting bracket adapted to draw the adjacent ends of the husk and hollow body together.

3. A lamp structure having a hollow body portion, a socket supporting bracket within said body portion, a husk adapted to have its lower part rest on the top of said body portion to form a continuation thereof, said husk having an inwardly extending annular flange at one end to form an opening through the bottom of the husk, a lamp socket adapted to be inserted in said husk and having a reduced portion at its base to form a shoulder with the body portion of the socket, said reduced portion having a diameter adapting it to pass through the opening at the bottom of the husk, whereby the shoulder on said socket will rest on the flange of the husk when the socket is in the husk, line wire connections on the bottom of the reduced portion of the socket and external of the husk when the socket is in the husk, means for securing the socket to the husk comprising a plurality of projections spaced about the reduced base portion of the socket with their upper ends spaced from said shoulder a distance greater than the thickness of the husk flange, said flange having spaced openings therein adapted to permit said projections to pass the flange when the socket is inserted in the husk, means to prevent relative rotation of the husk and the socket after they have been rotated to bring said projections and said flange openings out of alignment when the socket has been inserted in the husk, and means for fastening said socket to the supporting bracket adapted to draw the adjacent ends of the husk and hollow body together.

4. In combination, a husk, a lamp socket in the husk with the base of the socket extending through an opening at the bottom of said husk, line wire connections on the base of the socket outside the husk, means to lock the husk to the socket, said locking means comprising a relatively narrow inwardly extending flange surrounding the opening in the bottom of the husk, a shoulder on the socket adapted to rest on said flange, a plurality of projections on the side of the socket and adjacent the base thereof having their upper ends spaced from the shoulder a distance greater than the thickness of the flange, said flange having a plurality of openings to permit the passage of said projections past the flange when the socket is inserted into the husk, the husk and socket being adapted for relative rotation when the shoulder is resting on the flange to bring said projections out of register with the flange openings and said shoulder having cutaway portions adapted to come into alignment with said flange openings when said openings are out of alignment with the projections on the socket.

JOSEPH WERTZHEISER.