Dec. 28, 1948. W. H. VON SCHEVEN 2,457,789

LAMP BASE

Filed Jan. 30, 1947

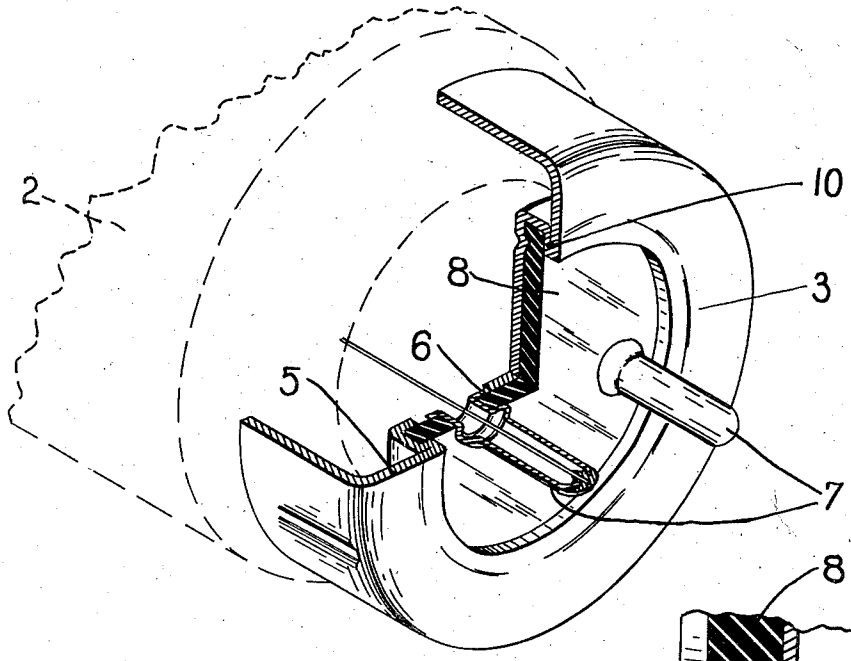



Fig. 1

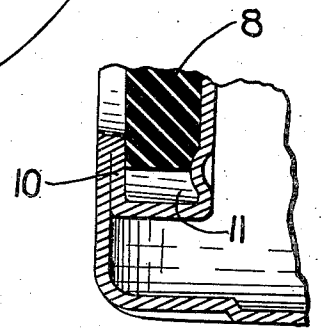



Fig. 2




Fig. 3

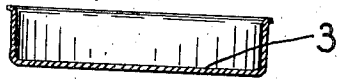



Fig. 4

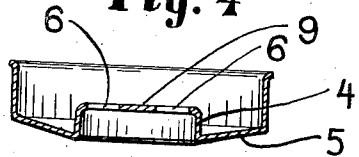



Fig. 5

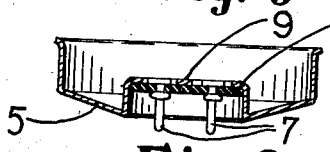



Fig. 6

INVENTOR.
Waldemar H. von Scheven
BY
Lawrence Burns,
ATTORNEY

Patented Dec. 28, 1948

2,457,789

# UNITED STATES PATENT OFFICE

2,457,789

## LAMP BASE

Waldemar H. von Scheven, Andover, Mass., assignor to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts

Application January 30, 1947, Serial No. 725,198

2 Claims. (Cl. 176—32)

1

This invention relates to bases for lamps and particularly to bases for tubular lamps such as the fluorescent type.

Bases for such lamps are desirably made of metal for durability and economy. However, with types of construction heretofore developed metallic bases have not been suitable electrically because of inefficient arrangement of insulation and lack of rigid mechanical interlock between insulation and metal.

The present invention has for its object to provide a lamp base of high electrical and mechanical efficiency.

A further object of the invention is to provide a lamp base which may be manufactured in quantity at low cost.

Other objects and features of the invention will appear more fully from the following description in connection with the accompanying drawings in which:

Figure 1 is a perspective view of a preferred embodiment of the invention partly in section;

Figure 2 is a detail sectional view showing an interlocking means between insulation and the body of the base; and

Figures 3, 4, 5, and 6 are diagrammatic sectional views illustrating the steps in the formation of the base.

To provide a full and complete understanding of the invention a particular embodiment thereof is shown and described herein. Sheet metal objects having the shape required for a lamp base are universally produced by forming and drawing operations performed by properly designed dies. They may however be formed by other means.

It is believed that showing at least some of the required steps in the manufacture of the base will serve to correctly convey the advancement in the art achieved by the present invention. A disc of metal 1 of the required thickness is first blanked out. The disc is then drawn to cup-shaped form shown in Figure 1 the side walls of which extend over the ends of the lamp 2. The central area of the bottom 3 of the cup is then drawn to present a reentrant boss 4 and also the remaining area 5 of the cup bottom is given a generally frusto-conical form with its minor diameter at the central boss 4.

At this point a pair of holes 6 may be punched in the bottom of boss 4 through which electrical connections to the lamp extend. One or more lamp pins 7 are anchored in required spaced relation in a disc 8 of rigid insulating material. The means for securing the pins in the disc is or may be conventional. The disc desirably is

2

round and fits inside the boss 4 as shown in Figure 6.

In the final forming step the bottom 9 of the boss 4 and the bottom 3 of the cup are forced together which causes an annular pleat or fold 10 to form in the wall of the boss 4. This fold constitutes a locking ring which is pressed hard against the disc 8 acting to lock it firmly against the bottom 9 of the boss 4.

The disc 8 is placed in position with the pins projecting outward in operating position and centrally located within the holes 4.

In the final forming operation the bottom of the cup is brought into a substantially flat plane parallel to the disc 8. The conical form of the cup bottom prior to the final forming operation, aids in forming the locking ring or fold 10. The fold is more readily started because the wall of the boss 2 and the bottom 3 of the cup, before the folding operation starts, form an acute angle. A forming die engaging these areas will readily start a fold inward in the required manner.

The dies for performing the fabricating operations are or may be of conventional construction and do not constitute a part of the invention. Consequently the dies are not described or shown.

The formation of the fold and its very firm engagement with the disc constitutes a very efficient lock between the disc and the cup itself. However it may be desirable to provide additional locking means for the disc which may be provided by notching the periphery of the disc as shown at 11 into which the adjacent metal of the base is forced by peening or punching. Any other interlock may be provided such as punching the metal with a sharp punch to indent it into the disc preferably along its outer margin.

A lamp base thus constructed is extremely rugged much of its strength being derived from the reinforcing which results by the formation of the fold 8. The fold 8 reinforces and stiffens the bottom wall of the base and greatly reinforces the disc 6 by reason of the firm clamping action of the fold acting continuously around the rim of the disc.

What I claim is:

1. A base for tubular lamps comprising a drawn metal cup shaped body having its skirt portion extending over the end of the lamp and presenting a substantially flat bottom said bottom having an offset portion connected to the bottom by a cylindrical side wall to form a chamber, a flat rigid disc of insulating material received in said chamber, a plait in said side wall extending over the peripheral portion of the outer

face of said disc, at least one lamp pin fixed in said disc, said offset portion having apertures therein in line with said pins to provide an insulated path for the lamp lead wires through the metal of the cup.

2. A base for tubular lamps comprising a drawn metal body having its skirt portion fitting over the end of the lamp and presenting a bottom wall the outer portion of which is substantially flat, the central portion thereof being offset inward toward the lamp and being connected to the bottom wall by a continuous side wall to present a chamber, a flat rigid disc of insulating material received in said chamber, a continuous plait in said side wall overlying the peripheral portion of the outer face of said disc acting to



clamp said disc against said offset portion and a plurality of lamp pins rigidly fixed in said disc, said offset portion having apertures therein in line with said pins to provide a path for the lead wires insulated from the base.

WALDEMAR H. VON SCHEVEN.


REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

| Number | Name | Date |
|---|---|---|
| 2,307,043 | Hothersall | June 5, 1943 |
| 2,401,228 | Noel | May 29, 1946 |