

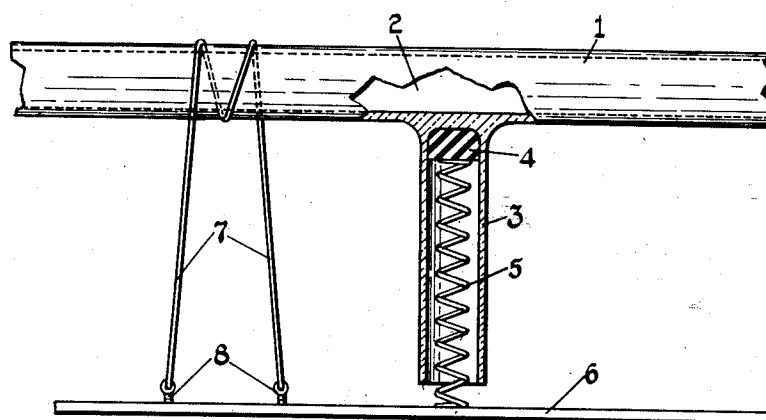
Aug. 25, 1931.

R. C. SMALLEY

1,820,202

VACUUM TUBE LAMP SUPPORT

Filed May 1, 1926



Inventor
ROBERT C. SMALLEY

By his Attorneys
Bohleber & Ledbetter

UNITED STATES PATENT OFFICE

ROBERT C. SMALLEY, OF ARLINGTON, NEW JERSEY, ASSIGNOR TO CLAUDE NEON LIGHTS, INC., OF NEW YORK, N. Y., A CORPORATION OF NEW YORK

VACUUM TUBE LAMP SUPPORT

Application filed May 1, 1926. Serial No. 105,895.

This invention relates to apparatus for supporting vacuum tube lamps of the type exemplified by the well known neon lights commonly used in advertising signs and the like. Such lamps as is well known usually consist of a relatively long section of glass tubing evacuated and supplied with gas at low pressure and sealed. The tubing is frequently bent into the shape of letters, and as a result the lamps are somewhat fragile.

Since they are used for outdoor advertising to a great extent, and are frequently mounted in inaccessible positions, and exposed to the weather, they must be supported in a manner which will hold them firmly in position, but at the same time cushion them against shocks and prevent them from being subjected to strain, as far as possible.

It is an object of this invention to provide apparatus for supporting lamps of the class described, yieldingly but firmly; in other words, to support a lamp firmly and permanently, but in such a manner that the lamp may move or shift slightly with reference to the frame or body from which it is supported.

It is still a further object of the invention to provide apparatus by which a lamp may be supported at a number of points, in a yielding and shock-absorbing manner.

It is still a further object of my invention to provide a new and improved support for lamps of the class described.

Still other objects will be apparent from the specification.

The features of novelty which I believe to be characteristic of my invention are pointed out with particularity in the appended claims. My invention itself, however, both as to its underlying principles and as to its particular embodiments, will best be understood by reference to the specification and accompanying drawing, in which the single figure is a view partly in section and partly broken away, of a lamp supported in accordance with my invention.

In accordance with my invention I provide a spacing member arranged to maintain the lamp out of contact with the base to which it is to be attached and for the purpose of cushioning the lamp against shocks I prefer

to make this spacing member resilient, such for example as a spring. The spring rides with one end against the tube and with its other end against the base to which the tube is to be fastened and a suitable means is provided to prevent the slipping of the end of the spring in contact with the tube.

Also I provide flexible means such as a wire which is passed one or more times around the tube and brought down and fastened to the base in such manner as to hold the tube within a predetermined distance from the base, the distance being so chosen that the spring is kept under the desired compression. This allows the lamp to move more or less after it has been secured in position, to place itself in a position of equilibrium under unusual conditions, thereby avoiding strains which might tend to fracture the lamp tube.

Referring now to the single figure of the drawing, 1 represents the lamp tube of transparent material such as glass having a space 2 therein which is occupied by gas under low pressure. The lamp tube 1 is provided with a sleeve 3 attached thereto. The sleeve 3 will preferably be of glass and will be formed upon the tube prior to the evacuation thereof in any suitable way as for example by welding. A spring 5 is provided adapted to maintain the lamp tube 1 out of contact with the base 6 and while the spring may be allowed to rest directly on the glass of the lamp tube 1 I prefer to interpose between the end of the spring and the glass 1 a plug of insulating material 4 of any suitable kind, to minimize the possibility of excessive dielectric strain being set up in the lamp envelope 1 at the point where the spring would otherwise make contact therewith. I also provide a flexible tension means such as tie wire 7 which may be taken one or more times around the tube 1 and anchored to the base in any suitable way as for example by passing through eye-lets 8.

It will be understood that the lamp may be supported at as many points as are found desirable and that the position of the tie wires 7 may be shifted if desired and that more or fewer tie wires may be used as desired. By mounting the lamp in the manner described,

it is resiliently and yieldingly held in a desired position and cushioned against shocks. It is able to shift its position more or less with reference to the base as a result of the sliding of the lower end of the spring 5 upon the base and the play which will in any event be present in the tie wires 7, whereby it will not be subjected to strains which would otherwise be set up by deformation of the base 6.

While I have shown and described certain preferred forms of my invention it will be understood that modifications and changes may be made as will be apparent to those skilled in the art without departing from the spirit and scope of my invention.

What I claim is:

1. A support for attaching lamps of the class described to a base comprising a sleeve forming part of said lamp, a spring retained in position by the sleeve for maintaining said lamp out of contact with said base, and means for securing said lamp against said spring.

2. A support for attaching lamps of the class described to a base, comprising a sleeve attached to said lamp, a resilient spacing member mounted in said sleeve and projecting beyond the sleeve end to engage the base for maintaining said lamp out of contact with said base and means engaging the lamp and secured to the base for securing said lamp against the pressure of said spacing element.

3. A support for attaching lamps of the class described to a base comprising a spring spacing element for receiving and maintaining said lamp out of contact with said base, and tending to force the lamp away from the base and a flexible wire engaging said lamp and secured to the base for securing said lamp against said spacing element.

4. A support for attaching lamps of the class described to a base comprising a metallic resilient spacing element having one end engaging said lamp and the other end being in contact with the base for maintaining said lamp out of contact with said base, and a wire engaging the lamp and secured to said base for securing said lamp against said spacing element.

5. A support for attaching lamps of the class described to a base comprising a spacing element including a coiled spring supported by and extending beyond the end of the spacing element for maintaining said lamp out of contact with said base, and flexible means engaging said lamp and secured to the base for securing said lamp against said spacing element.

6. A support for attaching lamps of the class described to a base, comprising a sleeve attached to said lamp, a resilient spacing member mounted in said sleeve and projecting beyond the sleeve and to engage the base for maintaining said lamp out of contact with said base, and flexible means engaging the

lamp and secured to the base for securing said lamp against the pressure of said spacing element.

7. A support for attaching lamps of the class described to a base, comprising a sleeve attached to said lamp, a spring positioned in said sleeve and having its ends free, one end of said spring projecting out of said sleeve for contact with the base and flexible means engaging said tube and secured to said base for maintaining said tube in contact with said spring to keep the same under compression.

8. A support for attaching lamps of the class described to a base, comprising a sleeve attached to said lamp, a plug of insulating material disposed within said sleeve, and a spring positioned within said sleeve and having its ends free, one end of said spring projecting out of said sleeve for contact with the base and flexible means engaging said tube and secured to said base for maintaining said tube in contact with said spring to keep the same under compression.

In testimony whereof, I have hereunto set my hand this 29th day of April, 1926.

ROBERT C. SMALLEY.