

W. J. BOHAN.

LAMP.

APPLICATION FILED OCT. 5, 1917.

1,273,995.

Patented July 30, 1918.

Fig. 1.

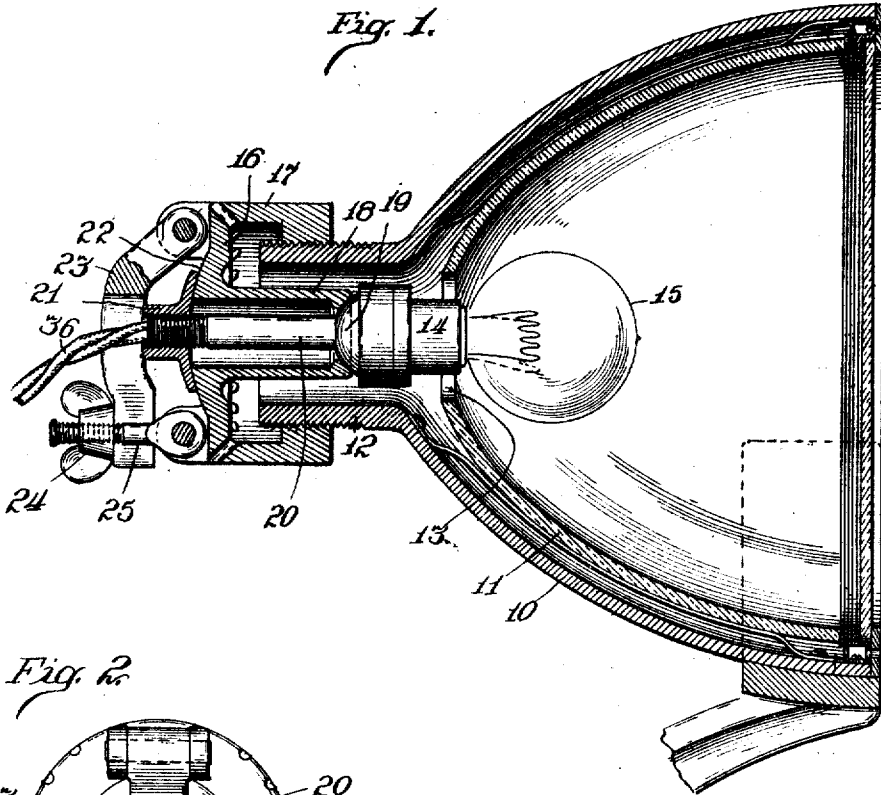


Fig. 2.

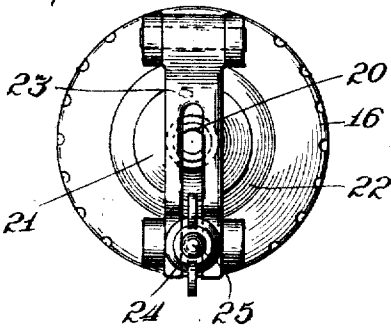
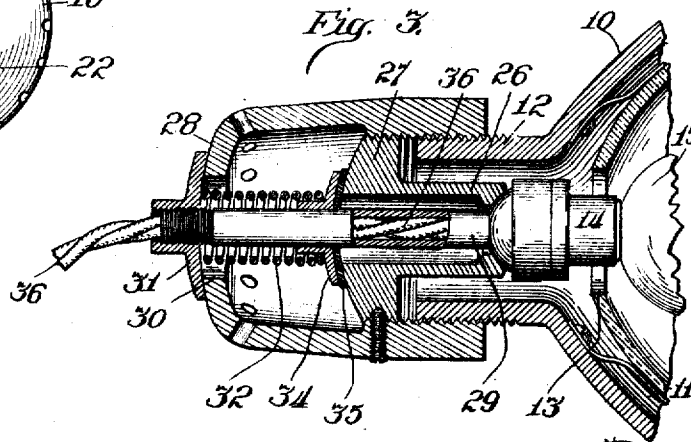


Fig. 3.



Inventor

William J. Bohan

By *Gilbert T. Tice*
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM J. BOHAN, OF ST. PAUL, MINNESOTA.

LAMP.

1,273,995.

Specification of Letters Patent.

Patented July 30, 1918.

Application filed October 5, 1917. Serial No. 194,926.

To all whom it may concern:

Be it known that I, WILLIAM J. BOHAN, a citizen of the United States, and resident of St. Paul, county of Ramsey, and State of Minnesota, have invented certain new and useful Improvements in Lamps, of which the following is a specification and which are illustrated in the accompanying drawings, forming a part thereof.

The invention relates to projecting lamps, such as headlights; its object being to provide improved means for focusing the illuminant with reference to the projecting lens.

An embodiment of the invention is hereinafter described, and is illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal central sectional view of the lamp;

Fig. 2 is an elevation of the rear end thereof; and

Fig. 3 is a detail central longitudinal section showing a modified form of construction.

The lamp comprises a shell 10 for inclosing a projecting reflector 11, the shell having a tubular stem 12 which is preferably externally threaded, and the reflector is provided with a central aperture 13, through which the base 14 of an incandescent bulb 15 projects. A cap 16 is applied to the rear end of the stem 12, and has an annular flange 17 engaging it and being axially adjustable thereon, preferably, as shown, being in threaded engagement therewith. The cap 16 is also provided with a central tubular stem 18, projecting into the aperture of the stem 12 and being of substantially less diameter than the bore of the latter stem.

The base of the incandescent bulb 14 is rounded, as shown at 19, taking the form of a section of a sphere, and is seated against the end of the stem 18, which is of corresponding curvature. A threaded rod 20, fixed centrally to the curved portion 19 of the base 14, extends through the stem 18 and has applied to its outer end a nut 21, the face of which is concave and concentric with the end of the bulb base and seats against a corresponding outer face 22 of the cap 16. The bore of the stem 18 is sufficiently large to permit lateral movement of the rod 20.

The bulb 15 is adjusted axially by advancing or retracting the cap 16 on the stem 12. This is accomplished in the construction shown by a turning movement. Where both axial and lateral shifting becomes necessary,

the latter adjustment is secured by shifting the nut 21 and the bulb is then moved axially as may be required. For the purpose of securing accuracy in focusing it sometimes becomes desirable, as when the filament sags under the influence of the heat, as indicated in dotted lines, Fig. 1, to move the bulb through an arc, and this is readily done by the shifting of the nut 21.

When properly focused the nut 21 is screwed down firmly and is locked securely against movement by any suitable means, such as the swinging arm 23 pivotally attached to the cap 16, and with which cooperates a wing nut 24, running on the threaded stem of a link 25 also pivoted to the cap, the arm 23 being slotted to receive the link.

In the construction shown in Fig. 3, the rounded base 14 of the bulb is seated against the inner concave end of a tubular member 26, which is provided at its outer end with a head 27 forming a partition across the interior of the cap 28 with which it is in threaded engagement, such cap being screwed upon the flange of a cap 28, which threaded portion also runs upon the threads of the stem 12. The rod 29 projecting backwardly from the base 14 extends through the member 26 and through an enlarged aperture 30 in the cap 28, its outer end being threaded for the engagement of a nut 31, the inner face of which is concave and concentric with the curved end of the bulb base, the outer face of the cap 28 being correspondingly curved. A spring 32, coiled about the rod 29, reacts between the nut 31 and an abutment block 34 slidably mounted upon the rod and bearing against the outer curved face of the head 27 of the member 26. Preferably a lead washer 35 is interposed between the abutment 34 and the head 27.

In assembling the parts the spring 32, abutment 34, and washer 35 are placed within the cap 28. The member 26 is then screwed into the cap and the assembled parts are fitted upon the rod 29, the cap 28 being screwed up upon the stem 12, whereupon the nut 31 is applied. In effecting the axial adjustment of the bulb the cap 28 is turned on the stem 12, and with it the member 26, shifting the bulb as may be required.

The leading-in wires 36 may enter the casing and bulb at any convenient place, preferably through the rod 20 or 29, which is made tubular for their accommodation. The adjusting movements are the same in

the construction shown in Fig. 3 as in that of Fig. 1.

Various changes of detail may be made without departing from the scope of the invention. For example, while the part 27 is shown as threaded into the cap 28, it may, of course, be made integral therewith.

I claim as my invention—

1. In a lamp, in combination, a shell having a threaded tubular stem, a reflector housed within the shell, an incandescent bulb located within the reflector and having a base extending into the stem of the shell, the rearward end of the base having the form of a section of a sphere, a cap in threaded engagement with the stem of the shell and having an inwardly projecting tubular stem against the end of which the base of the bulb is seated, a rod projecting backwardly from the bulb base, and a nut threaded upon the end of the rod and engaging the rear face of the cap, the face of the nut and the surface of the cap against which it bears being concentric with the rear end of the bulb base.

2. In a lamp, in combination, a shell having a tubular stem, an incandescent bulb within the shell, the base of the bulb projecting into the stem and being rounded at

its rearward end to the section of a sphere, a cap longitudinally adjustable on the stem and having an internal seat for the bulb base complementary in form to the rear end thereof, a threaded rod projecting backwardly from the bulb base through the cap and being capable of lateral movement with reference thereto, a nut on the outer end of the rod and adapted to bear upon the rearward face of the cap, a transverse apertured partition in the cap, a block slidable on the rod and engageable with the partition, and a spring encircling the rod and reacting between the nut and the block, the rearward face of the cap and the surface of the partition being concentric with the rear end of the bulb base.

3. In a lamp, in combination, a tubular support, a cap threaded upon the support and having concentric inner and outer curved seats, a lamp base complementary to and engaging the inner seat and having a stem extending laterally through both seats, a member fitting upon the stem and being complementary to and engaging the outer seat, and means for binding such member to said seat.

WILLIAM J. BOHAN.

It is hereby certified that in Letters Patent No. 1,273,995, granted July 30, 1918, upon the application of William J. Bohan, of St. Paul, Minnesota, for an improvement in "Lamps," an error appears in the printed specification requiring correction as follows: Page 1, lines 81-82, strike out the words "the flange of a cap 28, which threaded portion also runs upon the threads of"; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 27th day of August, A. D., 1918.

[SEAL.]

F. W. H. CLAY,
Acting Commissioner of Patents.

Cl. 240—44.