

July 24, 1934.

G. W. BRADY

1,967,702

STREET LIGHT UNIT OR HEAD

Filed April 1, 1932

2 Sheets-Sheet 1

Fig. 1.

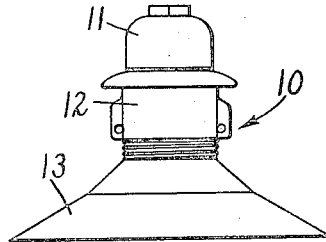
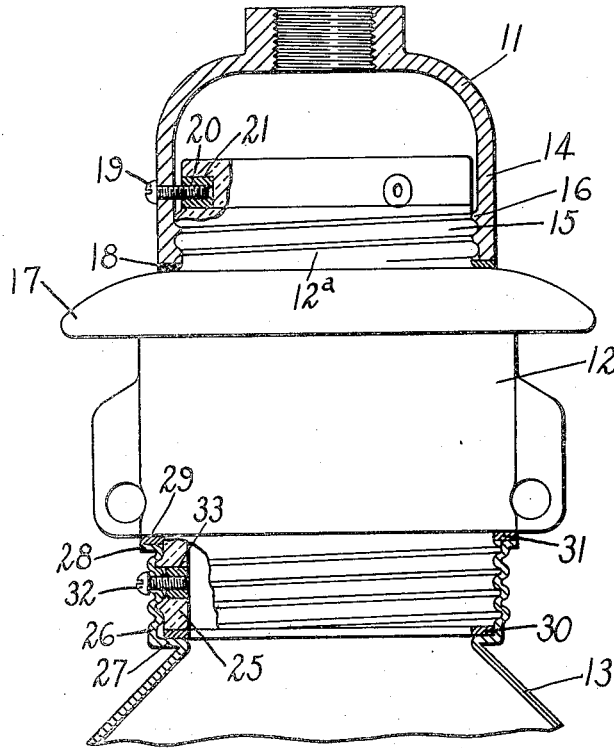


Fig. 2.



Inventor

George W. Brady

By Rockwell & Barthlow
Attorneys

July 24, 1934.

G. W. BRADY

1,967,702

STREET LIGHT UNIT OR HEAD

Filed April 1, 1932

2 Sheets-Sheet 2

Fig. 3.

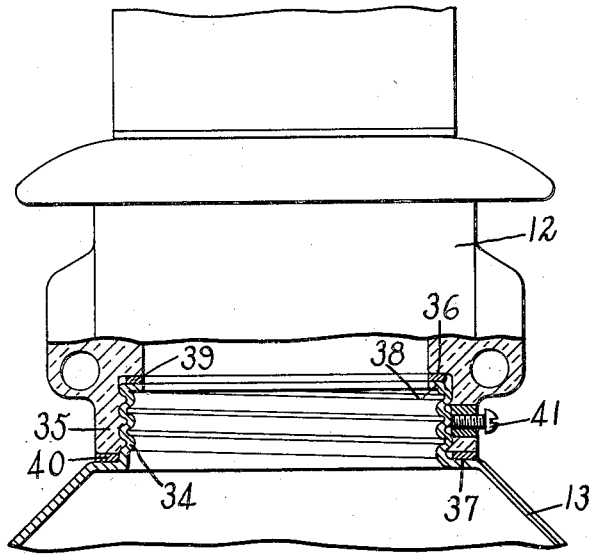


Fig. 4.

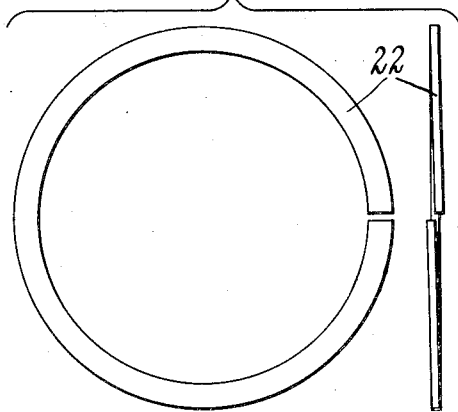
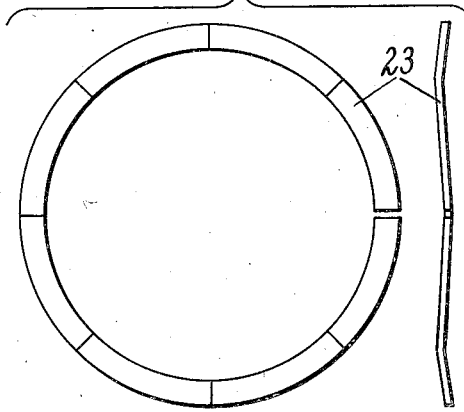


Fig. 5.



Inventor

George W. Brady

By *Rockwell Bartholomew*
Attorney

UNITED STATES PATENT OFFICE

1,967,702

STREET LIGHT UNIT OR HEAD

George W. Brady, New Britain, Conn., assignor to
The Brady Electric and Manufacturing Com-
pany, New Britain, Conn., a corporation of
Connecticut

Application April 1, 1932, Serial No. 602,498

5 Claims. (Cl. 240—142)

This invention relates to street light units and more particularly to a unit which ordinarily consists of a canopy, a head secured to the canopy, and a reflector secured to the lower end of the head, the bulb furnishing the light being carried by a socket secured within the head. As will be hereinafter explained, in some instances the so-called head is omitted, and the reflector and bulb socket are secured directly to the canopy, and it will be understood that my invention also relates to improvements in this type of unit.

The street light unit to which the present invention relates is, as the name implies, used in connection with street lighting and is, therefore, often used with relatively high voltages and is, of course, exposed to the weather. As a result, the parts must be strongly constructed, well insulated, and firmly secured together, so that there will be no danger of the parts of the unit becoming loose and either rattling, as a result of wind vibration, or, as may happen, becoming completely detached and dropping from place.

One object of the present invention is to provide new and improved means for securing together the various parts of a street light unit such as described.

A further object of the invention is the provision of novel means for securing the reflector to the head of the unit.

Still another feature of the invention relates to a novel method of securing the head of the unit to the canopy so as to prevent any likelihood of separation of these parts.

Other objects of the invention reside in providing additional securing means for firmly securing the parts of the unit together so as to withstand the most severe weather conditions without becoming loosened or detached.

To these and other ends, the invention consists in the novel features and combinations of parts to be hereinafter described and claimed.

In the accompanying drawings:

Fig. 1 is a side elevational view of a street light unit embodying my invention;

Fig. 2 is an enlarged view of the same, partly in section;

Fig. 3 is a view similar to Fig. 2, showing a modification;

Fig. 4 shows in plan and side views a modified form of washer used between the parts of the unit; and

Fig. 5 is a view similar to Fig. 4, showing a spring which may be employed between the parts.

To illustrate a preferred embodiment of my invention I have shown a street light unit or

head, designated generally by the numeral 10, which comprises a canopy 11, a head 12, and a reflector 13. The canopy is usually made of metal, as is the reflector, while the head or body portion 12 is formed of an insulating material such as porcelain or glass, for example. The present invention has to do with the connection of the metal canopy and reflector to the porcelain head, in such a manner that there will be no likelihood of the parts becoming loose or detached, regardless of the fact that the unit is used in a position where it is not only exposed to the weather, but is subject to the action of the wind. If the parts become loose, vibration due to the action of the wind would soon result in breakage or complete detachment of the parts.

As shown in Fig. 2 of the drawing, the head 12 is provided with an upper neck portion 12a, which is received within the lower skirt portion 14 of the canopy 11, which is of inverted cup-shaped form. The upper portion 12a of the head which fits within the canopy has screw threads 15 formed directly upon the exterior surface thereof, these threads cooperating with internally formed screw threads 16 upon the inner lower surface of the skirt portion of the canopy. Below the neck portion 12a, the head is provided with a flange 17, and a washer 18 is disposed between the upper surface of this flange and the lower surface of the skirt 14 of the canopy. It will be apparent that the canopy 11 may be screwed upon the head 12 after the washer 18 has been placed upon the shoulder 17. The canopy may be screwed down tightly so that the washer, which is preferably of some pliable material, such as rubber, felt or fiber, will be compressed between the two adjacent parts. The compression of this washer will tend to bind the threads of the canopy against those of the head so that there will be no looseness or play between them, and, as a consequence, vibration caused by the action of wind, for example, will not tend to unscrew or loosen the parts, or even cause them to rattle.

If desired, further and additional means may be provided to secure the parts tightly together, such, for instance, as the placing of a quantity of cement in the grooves between the threads before the canopy is screwed into place, so that when the cement hardens, the parts will adhere firmly together. Also, if desired, screws 19 may be passed through the canopy into lead collars, or the like, 20, set in recesses 21 formed in the lateral surface of the neck 12a above the threads 15. It will not ordinarily be necessary to use the screws 19, or even to use the cement between the

screw threads of the parts, for if the canopy is screwed down tightly against the compressible washer 18, the binding action which will result will hold the parts securely together.

5 Instead of employing the washer 18 of compressible material such as felt or fiber, I may, for instance, employ a lock washer 22 shown in Fig. 4, which may be of metal or fiber, as desired, but shaped to effect a spring action and lock the parts
10 against unscrewing. Also, if desired, a washer in the form of a spring 23, shown in Fig. 5, may be employed and will effect the same result. As a matter of fact, any type of spring may be used between the parts.

15 I also provide novel means for securing the reflector 13 to the head 12. In the form of my invention shown in Fig. 2, the head 12 is provided with a lower neck portion 25 provided with exterior screw threads, and the reflector 13 is provided
20 with a collar 26 having interior screw threads to be received upon the threads of the neck 25. The reflector is provided with an annular shoulder 27 between the collar 26 and the body of the reflector proper, and the collar 26 at
25 its upper end is provided with an upwardly facing annular flange 28 which lies below and adjacent to a shoulder 29 on the head above the lower neck portion 25.

Between the shoulder 27 and the lower edge of
30 the neck portion 25 is placed a washer 30, and, likewise, a washer 31 is placed between the annular flange 28 and the reflector collar and the shoulder 29 on the head. These washers may, like the washer 18, be formed of compressible
35 material, such as rubber, fiber, felt, or the like, or they may be like the washers 22 and 23, shown in Figs. 4 and 5 and previously described. In any event, they will serve to lock the parts together by causing the threads of one part to bind
40 against the threads of the other to prevent any likelihood of the reflector becoming unscrewed from the head.

Also, in this case, cement may be used between the threads of the parts as an additional securing means, and, if desired, screws 32 may be passed
45 through the reflector into the collars 33 of lead, or the like, secured in openings in the neck portion 25 of the head.

In Fig. 3 of the drawings, I have shown a somewhat modified form of structure, wherein the reflector 13 is provided with a collar portion 34
50 which is designed to lie within the neck 35 of the head 12. In this instance, the head 12 is provided with an internal shoulder 36 above the neck portion 35, and the latter is provided with internal threads to be engaged by external threads upon
55 the collar 34 of the reflector.

The reflector is provided with a shoulder 37 below the collar 34, and with an inwardly extending flange portion 38 at the upper end of the collar, so that washers 39 and 40 may be positioned between the shoulder 36 and the flange 38

and between the lower end of the neck 35 and the upper surface of the shoulder 37. These washers will be formed like the washers 30 and 31 already described and will, of course, function
80 in the same manner.

In this form, also, the collar of the reflector may be additionally secured in place by the set screw 41 and by the use of cement between the screw threads on the collar 34 and the neck 35.

While I have shown some preferred embodiments of my invention, it will be understood that it is not to be limited to all the details shown, but is capable of modification and variation within the spirit of the invention and the scope of the
85 appended claims.

What I claim is:

1. In a street lighting unit, a head portion having a recess opening outwardly, and a neck portion about the recess, said neck portion being provided with screw threads and having a shoulder
95 above said threads; a reflector provided with a screw-threaded collar at its upper portion, a shoulder below said collar, and an annular flange at the upper end of the collar, the threads of the collar being engaged with those of the neck of
100 the head, and compressible members disposed between the flange of the collar and the shoulder of the head, and between the shoulder of the reflector and the lower end of the skirt portion of the head.

2. A street lighting unit as set forth in claim 1 characterized by the fact that the skirt portion of the head is provided with internal screw threads, and the collar on the reflector provided with external screw threads.

3. A street light unit as set forth in claim 1 characterized by the fact that the neck of the head is provided with external screw threads, and the collar on the reflector provided with internal screw threads.

4. A street light unit as set forth in claim 1 and characterized by having means in addition to the screw-threaded neck and collar to hold the parts together.

5. A street light unit comprising a head portion
120 of insulating material, said head portion having an upper exteriorly threaded neck portion and a shoulder below said threads, and also having a threaded neck portion at the lower end with a shoulder above said threads, a canopy comprising a metallic cup-shaped member having internal threads engaged with the threads of the upper neck of the head, a reflector member having a threaded portion engaged with the threads of the lower neck portion, and washers of compressible material between the contiguous portions of said head and said canopy and reflector, respectively, to effect a binding action between the parts.

GEORGE W. BRADY.

65

70

75

80

85

90

95

100

105

110

115

120

125

130

135

140

145

150