Jan. 15, 1957 R. F. LESTER 2,777,942

LIGHTING UNIT

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Fig-1-

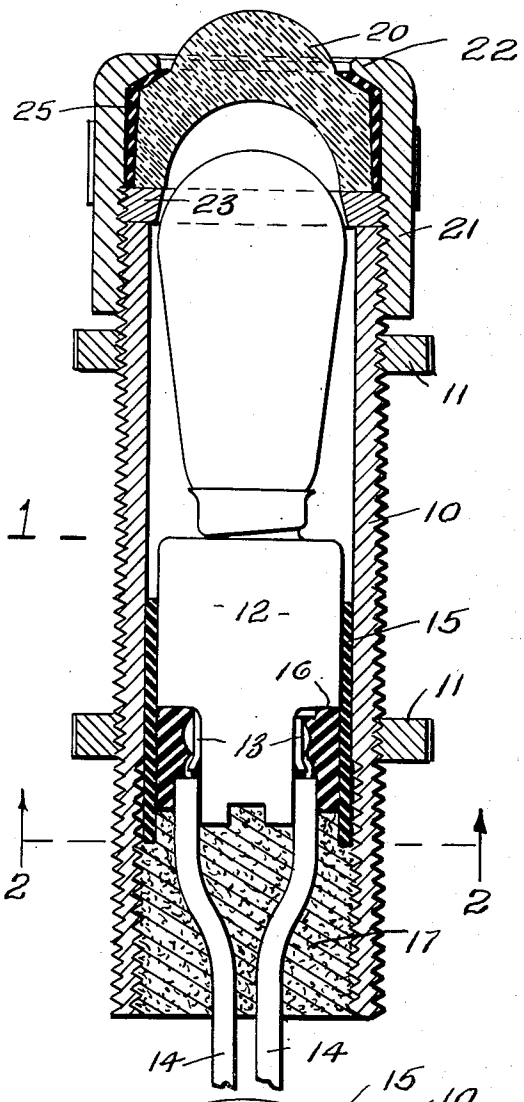
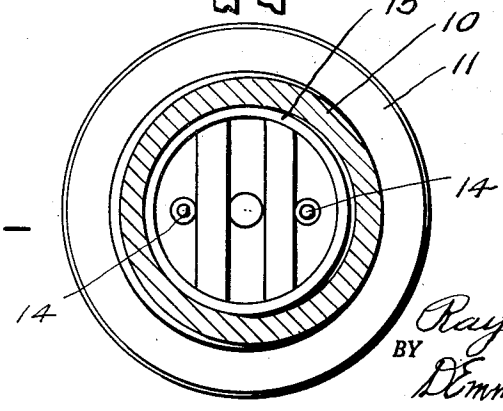


Fig-2-



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LIGHTING UNIT

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2 Claims. (Cl. 240—11.2)

This invention relates to lighting units, and more particularly to a pilot light construction of the explosion proof type for use in hazardous locations.

The invention has as an object an explosion proof lighting unit embodying a structural arrangement for mounting the lens of the unit in flame tight relation.

The invention consists in the novel features and in the combinations and constructions hereinafter set forth and claimed.

In describing this invention, reference is had to the accompanying drawings in which like characters designate corresponding parts in all the views.

In the drawings—

Figure 1 is a vertical sectional view of a lighting unit embodying my invention.

Figure 2 is a transverse sectional view taken on line 2—2, Figure 1.

The unit consists of a tubular body **10** internally threaded at one end portion. The lighting unit is intended particularly as a pilot light and preferably, the body **10** is threaded externally throughout its entire length to receive jam nuts **11** for mounting the unit in a panel board. A lamp receptacle **12** is mounted in the body **10** intermediate the ends thereof. The lower end portion of the receptacle is recessed at opposite sides to receive terminals **13** for the attachment of lead wires **14**. The recesses are filled with cementitious material **16** and the receptacle is enclosed in a sleeve **15** of insulating material. The receptacle is sealed within the body in flame tight relation thereto by a sealing compound **17** positioned in the internally threaded end portion of the body **10**.

The lens **20** is fixedly mounted in a sleeve **21** provided at one end portion with internal threads to permit the sleeve to be threaded on the end of the body **10**. At the opposite end, the sleeve is formed with an internal bead **22**. The outer end portion of the lens **20** is substantially dome shaped, and the inner portion of the lens is formed with a cylindrical surface of substantial axial length. The lens is mounted upon an annular member **23** threaded into the sleeve and positioned to provide a space between the marginal portion of the outer end of the lens and the bead **22**. The cylindrical surface of the lens extends concentrically in spaced relation to the inner wall of the sleeve, and the spacing between the ends and the sleeve is filled with a cementitious material **25**.

In assembling the lens mount, the annular member **23** is threaded into the sleeve **21** so as to position the marginal portion of the top surface of the lens downwardly, or inwardly, from the bead **22**. This spacing provides for

a uniform space between the lens and the sleeve for the reception of cementitious material which serves not only to seal the lens in the sleeve, but to also seal the annular member **23** against subsequent movement.

With this arrangement, the sealed annular member **23** forms a rigid abutment for the end of the body, whereby the lens mount may be assembled tightly on the body without exerting any pressure against the glass lens.

What I claim is:

1. A lighting unit comprising a tubular body threaded externally throughout its entire length, a sleeve threaded on one end of the body and being formed with an internal bead spaced outwardly from the end of the body, an annular member threaded in the sleeve and abutting against the end of the body, a lens mounted in the sleeve and being positioned upon said annular member, said lens being formed with a cylindrical portion extending in concentrically spaced relation from the outer end portion of the sleeve, the marginal surface of the outer end portion of said lens being spaced inwardly from said bead, the annular space between said lens and sleeve being filled with a cementitious material sealing the lens in the sleeve in flame tight relation thereto, the opposite end of said body being threaded internally, a lamp receptacle mounted in the body intermediate the ends thereof and being sealed thereto in flame tight relation, with sealing compound filling the internally threaded portion of said body between said receptacle and the extremity of the body.

2. An explosion proof pilot lighting unit comprising a tubular body threaded externally throughout its entire length, a sleeve threaded on one end of the body and being formed with an internal bead spaced outwardly from the end of the body, an annular member threaded in the sleeve and abutting again the end of the body, a lens mounted in the sleeve and being positioned upon said annular member, said lens being formed with a cylindrical portion extending in concentrically spaced relation from the outer end portion of the sleeve, the marginal surface of the outer end portion of said lens being spaced inwardly from said bead, the annular space between said lens and sleeve being filled with a cementitious material sealing the lens in the sleeve in flame tight relation thereto, the end of said body opposite said sleeve and lens having an internally threaded portion therein, a lamp receptacle mounted in said body with one end thereof positioned adjacent said internally threaded portion, lead wires connected to said receptacle and extending outwardly through the internally threaded end of said body, and sealing compound surrounding said lead wires and filling the internally threaded portion of said body between said receptacle and the extremity of the body.

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