Jan. 18, 1955 P. HAAS 2,699,659

PHOTOFLASH LAMP

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Fig. 1

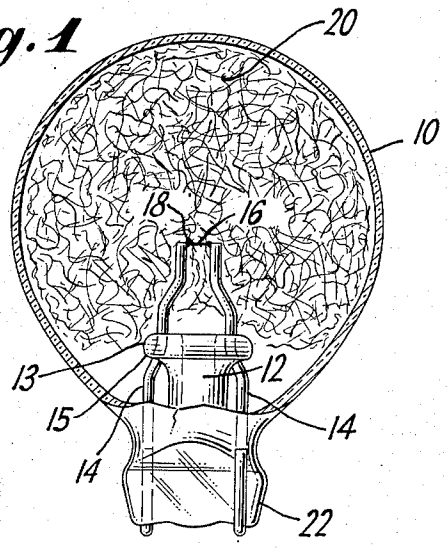
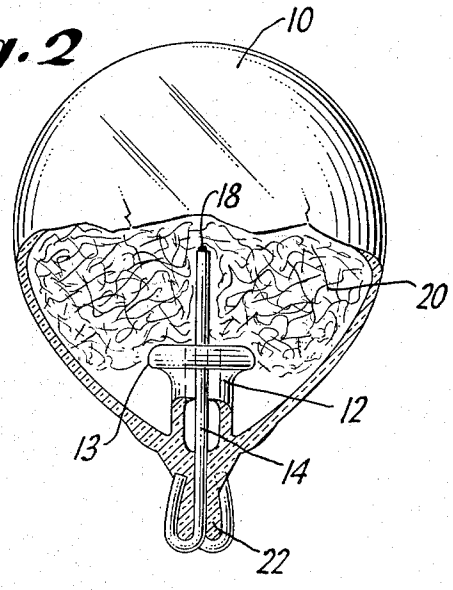


Fig. 2



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PHOTOFLASH LAMP

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2 Claims. (Cl. 67—31)

This invention relates to a light giving lamp. More particularly, it relates to a photoflash lamp.

Since photoflash lamps of the type which are presently used are necessarily discarded after the initial flash it is but natural that many attempts have been made to eliminate as many of its component parts as is possible while still retaining all its functional components and without reducing the quality of the lamp. In following along this theory the screw type bases have been replaced in some part with lamps of the bayonet type thereby reducing the amount of brass in the base portion as well as in the socket itself.

It is an object of this invention to further reduce the essential components which go into the making of these photoflash lamps.

It is a further object of this invention to devise a baseless type lamp in which no brass is used.

It has been found that these objects and other advantages can be attained by forming a solid knobular glass member at the bottom of the flashlamp during the sealing operation with the metal leads projecting therethrough and arranged on said knob in a manner which permits of their use in making electrical contact with a source of power through a socket adapted for this purpose.

In the drawings illustrating an embodiment of this invention Figure 1 is a front elevation partly in section of a baseless lamp;

Figure 2 is a side elevation of the same lamp showing the relative position of the envelope, the glass knob and the metal contacts.

The flashlamp of this invention consists essentially of the same components with the exception of the brass base as the lamps of the prior art. It has a glass envelope **10**, a glass exhaust tube **12**, electrical conducting wires **14**, a filament **16**, an ignition paste **18**, a filamentous material **20** serving as the source of actinic light and a glass knob **22**.

In the embodiment illustrated in the drawing the lead in wires **14** through which the current is carried into the interior of the flashlamp to the filament **16** is supported in the outer rim **13** of the exhaust tube which is slightly beaded at the end **15** to form a ring. The wires **14** extend from the inside of the envelop **10** out through the bottom of the lamp through a knobular section of glass which is formed during the normal sealing operation by flattening out a section of the glass envelope and exhaust tubulation just below the spherical portion of the envelope. The wire leads **14** of the illustrated embodiment are then bent back on either side of the flattened glass member in such manner as to cause the wire to lie snugly adjacent to the flattened glass but yet protrude therefrom to a sufficient extent to permit the making of a good electrical contact between the wire and any spring like metal member which contacts both sides of the flattened glass knobular member. It is, of course, readily apparent that these contact leads might be positioned somewhat differently to obtain the same result particularly if the socket were to be modified accordingly.

The other remaining component parts of the flashlamp are for the most part the same as those normally used in the prior art. The two wire conductors **14** lead to the filament **16** which is electrically connected to each of the wires **14** at their inner end and with a blob of an ignition paste **18** usually a zirconium type igniter positioned sufficiently close to the filament so that any current passing through the filament and heating it would serve to ignite the paste and thereby ignite the material which is to serve as the source of actinic light. In the drawings shown the source is a filamentous material **20** which may be either drawn or cut metal strips of metal such as aluminum in a thickness which is readily ignitable upon ignition of the paste. Lamps which depend upon paste like compositions instead of metal strips for their source of actinic light are, of course, as easily adapted for conversion to the baseless type lamp of this invention.

The flashlamp of this invention as is shown in the drawings has two distinctive features, the one being that it has entirely eliminated the brass base. This is important both from a cost position as well as from a conservation position particularly in these times of stress when the government is calling on all industries to conserve on their use of copper and brass. The structure shown in the drawing has further eliminated the glass flared portion of the lamp which in prior art lamps was attached at one end by a reentrant seal to the exhaust tube and at the other to the glass envelope. This not only eliminates another component part of the prior art lamp but also saves a step in the processing thereof.

While it is true that this lamp as shown will probably be used for some time in a so-called adapter socket which will also most probably be made out of brass the adapter socket will be useable for firing a great many lamps and need not be thrown away with each used lamp bulb as would normally be the case with the old type of lamps.

While the above description and the drawings submitted herewith disclose a preferred and practical embodiment of the baseless flashlamp of this invention it will be understood by those skilled in the art that the specific details of construction and arrangement of parts as shown and described are by way of illustration and are not to be construed as limiting the scope of the invention.

What I claim is:

1. A baseless type photoflash lamp consisting of a glass envelope, an actinic light source enclosed in said envelope, a pair of electrical lead wires, a tubular preformed stem mount projecting into said envelope adapted to support the lead wires, a filamentous conductor connecting the ends of the lead wires within the envelope and a knobular projecting glass portion formed at the fused junction of said glass tubular stem and said envelope, the ends of said electrical lead wires projecting from said glass envelope through said knobular glass portion and formed to present exposed contact surfaces on either side of said knobular portion.

2. A baseless type photoflash lamp consisting of a glass envelope, an actinic light source enclosed in said envelope, a pair of electrical lead wires, a tubular preformed stem mount projecting into said envelope adapted to support the lead wires, a filamentous conductor connecting the ends of the lead wires within the envelope and a knobular projecting glass portion formed at the fused junction of said glass tubular stem and said envelope, the ends of said electrical lead wires projecting from said glass envelope through said knobular glass portion, said ends being folded back so as to lie snugly against the side walls of said knobular glass portion.

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