July 4, 1950 R. POPP ET AL 2,514,164

PROTECTOR FOR VAPOR PROOF LAMPS

Filed March 30, 1946

FIG. 1

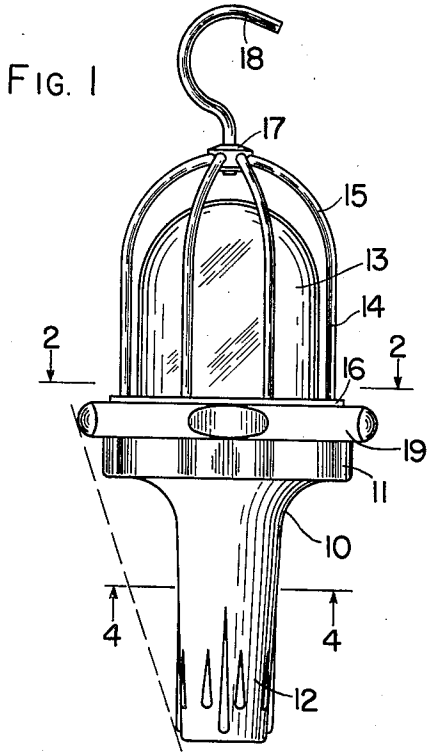
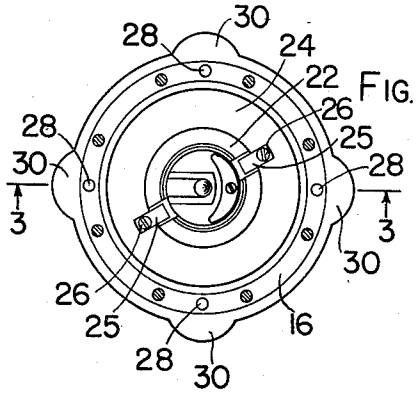


FIG. 2



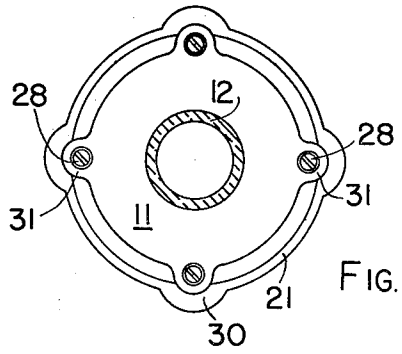
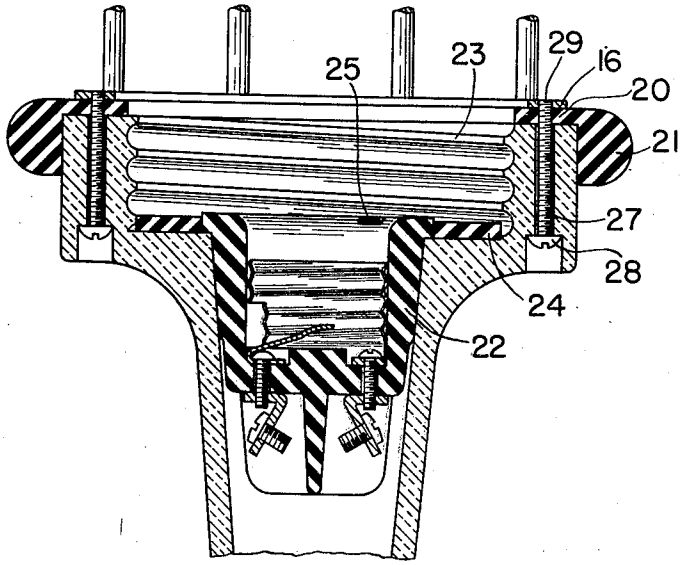


FIG. 4

FIG. 3



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PROTECTOR FOR VAPORPROOF LAMPS

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2 Claims. (Cl. 240—54)

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This invention relates generally to portable lamps and in particular to a guard structure for vapor proof portable lamps.

For use in shops and other places where there is vapor or particles in the air which would be ignited by a spark, vapor proof lamps having a globe cooperating with the base of the lamp to completely seal the contacts of the socket of the lamp have been used. In many cases these lamps are subject to rough usage and protecting guards are necessary to prevent breaking of the globe or other damage to the lamp. Such guards have in general been large and cumbersome structures which make the lamp hard to handle and have not been entirely satisfactory for protecting the lamp. Such a structure must protect both the globe and the base of the lamp and be effective to prevent transmission of vibration or shock received by any part of the lamp to the globe to thereby prevent damage thereto.

It is an object of this invention to provide an improved guard for a portable vapor proof lamp which will be effective to protect the lamp and in particular the vapor proof globe thereof from damage due to vibration and shock.

Another object of the present invention is to provide a simple and rugged guard assembly for protecting vapor proof lamps which is also effective to prevent undesired rolling of the lamp when it is placed on a flat surface.

A feature of this invention is the provision of a guard for a portable vapor proof lamp including a cage surrounding the vapor proof globe and a resilient member forming a shock proof mounting for the cage and also serving as a bumper for protecting the base of the lamp.

A further feature of this invention is the provision of a resilient bumper for protecting the base of a portable lamp which includes projections thereon to prevent said lamp from rolling when placed on a table or other flat surface.

Other objects, features and advantages of this invention will be apparent from a consideration of the following description taken in connection with the accompanying drawings in which:

Fig. 1 is a side view of the lamp and guard according to the invention;

Fig. 2 is a cross-sectional view along lines 2—2 of Fig. 1;

Fig. 3 is a cross-sectional view along the lines 3—3 of Fig. 2 showing the manner in which the guard is secured to the lamp base; and

Fig. 4 is a cross-sectional view along the lines 4—4 of Fig. 1 showing the bottom of the lamp base.

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In practicing our invention, we provide a wire cage of such configuration to surround the vapor proof globe of a portable lamp. A resilient member is provided having a portion serving as a resilient mounting for the cage and another portion surrounding the base of the lamp constituting a bumper for absorbing shocks normally received by the lamp base. The resilient bumper includes projections which will prevent the lamp from rolling when placed on a relatively flat surface.

Referring now more particularly to the drawings, in Fig. 1 is illustrated a portable lamp 10 having a base portion 11 and a handle portion 12. A vapor proof globe 13 is provided secured to the base portion 11 in a manner to be set forth later. A guard assembly is provided for the portable lamp including a cage 14 and a resilient bumper member 19. The cage 14 includes protecting members 15 made of wire and an annular member 16 to which the protecting members 15 are secured at one end. For the purpose of connecting the wires 15 at the other end a junction member 17 is provided to which the wires are secured and into which a hook 18 for supporting the lamp is also secured. The resilient member 19 is provided with a portion 20 (Fig. 3) which forms a resilient mounting for the cage 14 and a portion 21 which surrounds the base portion 11 of the lamp to form a bumper for this portion.

Referring now particularly to Fig. 3, the base portion of the lamp is shown including a socket 22 for a light bulb and threads 23 for receiving the globe 13. An annular resilient washer 24 is provided at the base of the threads to form a resilient seat for the globe. Retaining members 25 (Fig. 2) are provided for holding the socket 22 in the base, the retaining members being secured to the base by screws 26. For the purpose of securing the cage 14 to the base 11, recesses 27 are provided in the base for receiving screws 28 which extend through the resilient mounting 20 and into threaded openings 29 in the annular member 16 of the cage. As shown in Fig. 4, four projections 31 are provided on the base for the screws 28. Although four screws are shown in the drawings, any number may be used as are required depending upon the size and construction of the lamp. As shown in Fig. 2, the bumper portion 21 of the resilient member includes projections 30 which will pre-

vent the lamp from rolling when placed on a relatively flat surface.

As is apparent from the foregoing disclosure, the resilient member 19 serves the double function of acting as the resilient mounting for the cage and acting as a bumper for the base member 11. Vibrations and shocks received by the cage will be absorbed to a large extent by the resilient member and will, therefore, not be transmitted to the base portion and the globe. As the base portion is constructed of Bakelite or other material which is hard and relatively brittle, this member is subject to breakage and the globe is very easily broken as the result of vibration and shock transmitted thereto through the threaded support in the base portion. As shown by the dotted line in Fig. 1, the bumper 21 projects a sufficient distance from the base portion so that if the lamp is dropped on a flat surface only the handle and the resilient bumper can contact the surface as the base portion itself does not project into the plane defined by the handle and the bumper. Accordingly, by use of the bumper, a direct shock to the base portion is not likely and in most cases when the lamp falls the bumper will strike the floor and the most severe shock will be absorbed thereby preventing damage to the base of the lamp and the globe.

Accordingly, it is seen that we have provided a simple and effective guard assembly for a vapor proof lamp including a metal cage portion which is of simple construction and a one piece bumper and mounting which can be molded and lends itself to inexpensive construction. The guard structure can be applied to vapor proof lamps without modification thereof, the installation being very simple and easily performed.

Although we have described what we consider to be the preferred embodiment of our invention, it is apparent that various changes and modifications can be made therein without departing from the scope of the invention as defined in the appended claims.

We claim:

1. A portable vapor proof lamp having a rigid base with a socket therein for a light bulb and including means for receiving a vapor proof globe, fastening means, a guard assembly secured to said base by said fastening means for protecting said base and said globe including a wire cage structure and a resilient bumper member, said cage structure and said bumper member being so constituted and arranged that both are secured concurrently to said base by said fastening means, said bumper member being of generally annular configuration and including a portion positioned between said base and said cage structure to serve as a resilient mounting for said cage structure, and a second portion positioned about said base to serve as a bumper therefor, said second portion having projections thereon to prevent said lamp from rolling.

2. In a portable vapor proof lamp having a rigid base with a socket therein for a light bulb, a vapor proof globe secured to said base, fastening means, and a guard secured to said base by said fastening means for protecting said globe; an annular resilient member having provisions for being secured to said base by said fastening means concurrently with said guard and including a mounting portion and a bumper portion, with said mounting portion being positioned between said base and said guard to absorb vibration and shock received by said guard and prevent transmission thereof to said base and said globe, and said bumper portion extending around said base to absorb shocks normally received by said base thereby preventing damage to said base and said globe, said bumper portion including projections thereon which prevent the lamp from rolling.

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