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[54] **SHOCK RESISTANT GAS LIGHT**


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[52] **U.S. Cl.**..... **240/90,** 240/82, 240/84

[51] **Int. Cl.**..... **F21v 15/04,** F21s 13/12

[58] **Field of Search**..... 240/90, 84, 82



[56] **References Cited**

UNITED STATES PATENTS

| | | | |
|---|---|---|---|
| 99,527 | 2/1870 | Bovey | 240/84 |
| 3,321,619 | 5/1967 | Dailey | 240/84 X |
| 1,086,346 | 2/1914 | Barrick | 240/84 X |
| 264,599 | 9/1882 | Allen | 240/84 |
| 1,776,682 | 9/1930 | King | 240/84 X |
| 1,802,589 | 4/1931 | Thompson | 240/90 |



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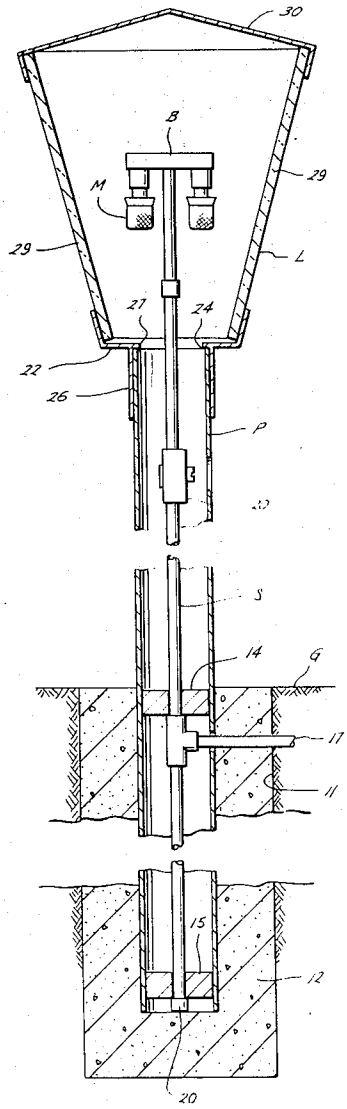
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[57] **ABSTRACT**

The present invention relates to a new and improved shock resistant pole mounted gas light for yard or patio use wherein the gas burner and mantle are supported independently of the supporting gas light pole to prevent accidental breakage of the mantle due to impact to the gas light support pole.


**2 Claims, 2 Drawing Figures**



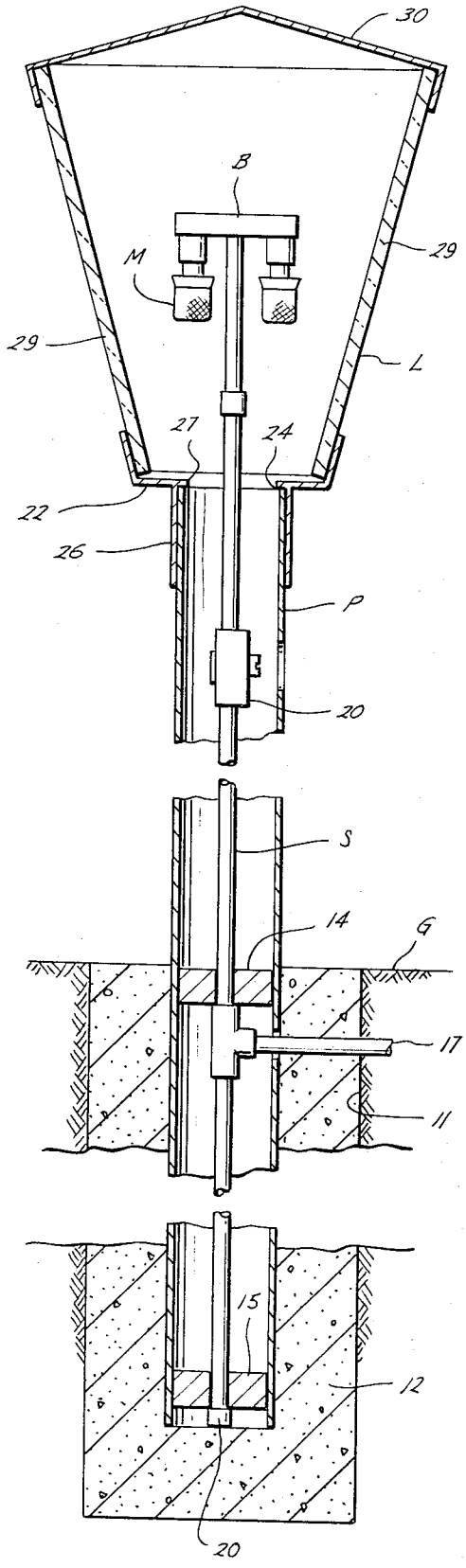
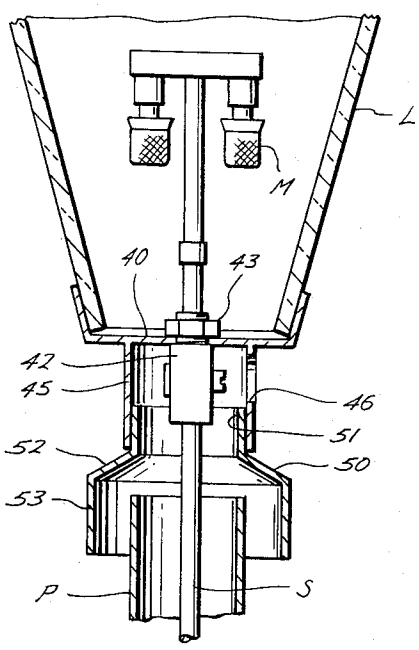



Fig. 1

Fig. 2




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# SHOCK RESISTANT GAS LIGHT

## BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention pertains to gas lights and particularly to a free standing gas light having a rigid support pole for supporting the gas mixer-burner and the mantle assembly separately from the supporting post or pole.

2. Description of the Prior Art

In the prior art gas lights normally employed for residential outdoor use, the gas mixer and burner assembly which supports the mantles is integrally connected to the surrounding gas light head or cage which is normally supported on a steel or aluminum post through which a gas supply conduit extends. By connecting the mantles directly to the gas light head which in turn is directly connected to the rigid support post, any shock applied to either the post or the head is directly transmitted to the mantles which are very sensitive to shock and fracture or shatter very easily.

As a result of the mantles being easily broken by even relatively minor blows or shock loads imposed on the support post or gas light head, the maintenance of gas lights is a continuing problem, particularly in residential neighborhoods with many children at play.

## SUMMARY OF THE INVENTION

The present invention pertains to an improved gas light construction wherein the fragile mantles are supported independently from the surrounding gas light head and the pole for supporting the gas light head at a desired elevation above the ground.

## BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a vertical view partly in section and partly in elevation showing the gas light burner and mantles supported independently of the gas light head and support pole; and

FIG. **2** is a vertical sectional view of an alternate embodiment of the gas light of the present invention showing the head and mantles supported independently of the support pole.

## DESCRIPTION OF THE PREFERRED EMBODIMENT

Briefly, the apparatus of the present invention comprises a hollow support post P for supporting a gas light head L at a vertical distance above the ground G. Mantles M are carried on a burner B that is connected to a supply conduit S which extends longitudinally through the hollow post P. With the apparatus of this invention, the mantles M are supported on the supply conduit S independently of the surrounding pole P so as to be free of any impact imparted to the surrounding pole P. Thus, in the event the pole P or gas light head L is accidentally struck or bumped, the impact and vibrations will not be imparted to the mantles M which are supported by the gas supply line S which extends axially of the hollow pipe P.

Considering now the apparatus of the present invention in more detail, the post preferably comprises a hollow tubular pipe P formed of steel, aluminum or other suitable material which is provided for supporting the gas light head L a desired distance above the ground G. As shown, the lower end of the pole P is anchored in a suitable opening **11** in the ground by means of cement



**12** for rigidly supporting the pole P in a substantially vertical upright position. As shown, the supply conduit S extends axially of the hollow pipe P and is spaced centrally thereof by means of the centralizing spacers **14** and **15** which are vertically spaced relative to one another. The upper centralizing spacer **14** is shown positioned on the ground level G with the lower spacer **15** positioned on the lower end of the hollow post P. Such spacers **14** and **15** extend radially between the axially disposed supply conduit or pipe S and the inner wall of the surrounding hollow pipe P. It will be appreciated that the lower end of the conduit S could be embedded in the concrete **12** or other arrangements could be employed to secure the supply pipe axially or within the hollow portion of the post P. A suitable branch or connecting tube **17** connects to the supply conduit S in the pipe P below the upper spacer **14** and extends laterally to a suitable source of gas for firing the burner B. A plug **20** is formed at the lower end of the supply conduit S for closing the lower end of such conduit. A suitable valve **20** is provided in the supply line S adjacent the upper end of the pipe P to control the gas flowing through such supply conduit to the burner B. Alternatively, the pipe S could be connected to the tube **17** by an elbow, if desired.

The gas light head L includes a circular or other shaped base **22** having a suitable opening **24** therein through which the supply conduit S extends. A tubular connector **26** depends downwardly from the base **22** adjacent the opening **24** for receiving the upper end of the hollow support post P. The tubular connector **26** is preferably slightly larger in diameter than the opening **24** to provide a shoulder **27** which rests on the upper end of the hollow post P. A plurality of suitable glass lites or sections **29** are supported by the base **22** and, as shown, extend upwardly and outwardly to the top or cover **30** to provide a housing surrounding the burner B and the mantles M. It will be appreciated that the configuration of the gas light head L may vary widely depending upon the particular type or style of gas light desired. However, in any event, the gas light head L in the FIG. **1** embodiment of the present invention will be supported by the post P with the supply conduit S extending through a suitable opening in the gas light head for supporting the mantles independently of the surrounding post P. Further, with respect to FIG. **1**, the burner B is an ordinary gas light burner and it will be appreciated that the burner can be any type of burner normally used with gas light mantles, whether upright or inverted.

It will further be appreciated that with the device of this invention in the event the surrounding post P should be struck accidentally or, intentionally, vibrations and impact thereto will not be imparted to the free standing gas supply conduit S which supports the mantles M. Further, in this regard, it will be appreciated that the opening **24** in the base **22** will be substantially as large as the hollow pipe P to provide the maximum clearance to separate the supply conduit S from the pipe P and the surrounding base **22.** Further, it will also be appreciated that the opening **24** is preferably circular in configuration so as to provide such clearance regardless of where the impact or blow may be imparted to the surrounding hollow pipe P. Also, it will be appreciated that the gas light L can be supported by some rigid supporting member, such as a tube or the like, positioned substantially concentrically in the sur-

rounding post P with the gas supply line disposed in the annular space between the light support and the post.

Considering now the alternate embodiment of the apparatus of the present invention shown in FIG. 2 of the drawings, the hollow support pole P is substantially identical to the support pole shown in the FIG. 1 embodiment and is similarly mounted in the ground. However, as shown in FIG. 2 the gas light head L is carried by the supply conduit S and is not mounted directly on the pole P. As shown, such supply conduit S extends axially of the hollow pipe P and extends through a suitable opening in the base **40** of the gas light head L. A suitable valve **42** is provided in the conduit S for controlling flow of gas to the mantles M. A suitable nut **43** is provided on the conduit S for securing the conduit to the base **40.** An annular skirt **45** depends downwardly from the lower side of the base **40** and surrounds the valve **42.** A suitable opening **46** is provided in such annular skirt for providing access to the valve **42.** As shown, an annular swedge member **50** extends downwardly from the skirt **45** and surrounds the upper end of the hollow pipe P. Such swedge member includes a neck **51** which is preferably press fitted into the lower end of the neck **45** with a downwardly and outwardly inclined shoulder **52** connecting a large diameter annular skirt **53** which surrounds the upper end of the hollow pipe P and is spaced radially outwardly therefrom to provide a means for substantially closing the upper end of the hollow pipe P without providing direct contact between the free standing pipe P and the supply conduit S positioned axially thereof. With this embodiment of the apparatus of the present invention, should a blow be struck to the hollow pipe P, it will not be directly imparted to the supply conduit S nor to the mantles M supported thereon so as to protect such mantles from vibration or impact which would cause them to be fractured or broken.

The foregoing disclosure and description of the invention are illustrative and explanatory thereof, and various changes in the size, shape and materials as well as in the details of the illustrated construction may be made without departing from the spirit of the invention.

What is claimed is:

1. A shock resistant gas pole light comprising:
a rigid gas supply conduit disposed in an upright position and connected to a gas supply near the lower end of the conduit;
a hollow pole surrounding said rigid gas supply conduit but spaced and separate therefrom;
anchor means for anchoring the lower end of said hollow pole;
means mounting the lower end of said rigid gas conduit in said hollow pole;
said rigid gas conduit being spaced from and completely detached and separated from the upper portion of said hollow pole;
a gas burner having mantles therewith and connected to the upper end of said rigid gas supply conduit above the upper end of said hollow pole for burning gas from said gas supply to provide illumination, whereby shocks and impacts imparted to the hollow pole are not transmitted to the mantles of the gas burner; and
a gas light head affixed to the upper end of said hollow pole and surrounding said gas burner, but separate and detached from said conduit and burner.

2. A shock resistant gas pole light comprising:
a rigid gas supply conduit disposed in an upright position and connected to a gas supply near the lower end of the conduit;
a hollow pole surrounding said rigid gas supply conduit but spaced and separate therefrom;
anchor means for anchoring the lower end of said hollow pole;
means mounting the lower end of said rigid gas conduit in said hollow pole;
said rigid gas conduit being spaced from and completely detached and separated from the upper portion of said hollow pole;
a gas burner having mantles therewith and connected to the upper end of said rigid gas supply conduit above the upper end of said hollow pole for burning gas from said gas supply to provide illumination, whereby shocks and impacts imparted to the hollow pole are not transmitted to the mantles of the gas burner; and
a gas light head affixed to the upper end of said rigid conduit and surrounding said gas burner, and spaced from said hollow pole.

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