

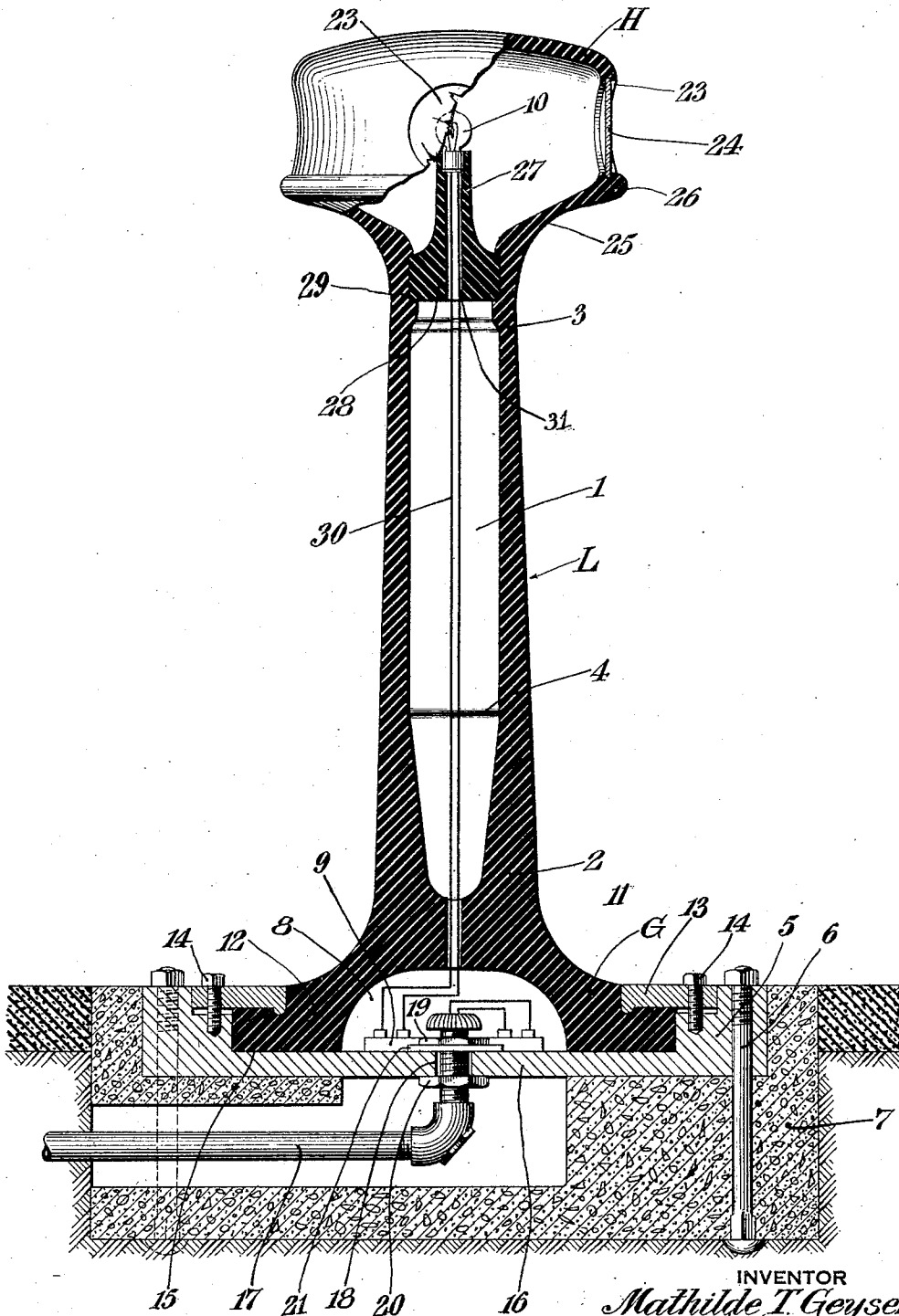
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SIGNAL LAMP

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SIGNAL LAMP

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This invention relates to a signal lamp and particularly to a lamp intended for use as a traffic signal.

An object of the present invention is to provide a signal lamp of the type referred to adapted to be placed in locations where it will possibly be collided with by passing vehicles, and to so construct the lamp that the collision will result in no injury either to the lamp of the vehicle.

A further object is to so construct the lamp that it will carry its light at an elevation considerably above the level of the roadway and so that it may be held against any unintentional displacement from its allotted position upon the roadway.

A more specific object is to provide a signal lamp consisting of a post-like structure adapted to be fixed by its lower end in the roadway and having illuminating or other signal means at its upper end, and to so construct the lamp that it will be resiliently yieldable in all directions without injury in the event of its being struck by a vehicle or the like, the character of the lamp being such that the portion thereof struck will yield and then return again to its normal position after the vehicle has passed.

A further specific object is to so construct the lamp that an electric bulb or other illuminating or signal device therein will be protected from injury.

A further object is to so construct the lamp and its supporting means as to provide for the easy attachment and removal of the lamp when occasion requires.

A further object is to so construct the lamp as to provide a water proof compartment in a guarded position at its lower end adapted to contain any instrument or regulating device as may be desired for controlling the illuminating or signal means at the upper end of the lamp.

A further and more detailed object is to provide a lamp of the character indicated

formed of soft rubber and so proportioned that it will bend and give in the most desirable localities when struck.

Other objects and aims of the invention, more or less specific than those referred to above, will be in part obvious and in part pointed out in the course of the following description of the elements, combinations, arrangements of parts and applications of principles constituting the invention; and the scope of protection contemplated will be indicated in the appended claims.

In the accompanying drawing which is to be taken as a part of this specification, and in which I have shown merely a preferred form of embodiment of the invention, there is shown a vertical central sectional view through a signal lamp constructed in accordance with this invention, including appropriate attaching or anchoring means by which the lamp is fixed in position within a roadway.

Referring to the drawing for describing in detail the structure illustrated therein, the reference character L indicates the main or body portion of the lamp. This body is hollow as at 1 throughout the major portion of its length and preferably is tapered from relatively larger dimensions at its lower end to relatively smaller dimensions at its upper end. The walls of the body taper from a thick portion at the lower end as at 2 to a relatively thin portion at the upper end as at 3. Adjacent the lower end the walls reduce abruptly in thickness to a point approximately as indicated by the reference character 4 and above this point the thickness of the wall reduces more gradually.

The lower end of the body L merges into a flaring base portion G by which the lamp is intended to be connected with an attaching plate 5 fixed in the roadway by any appropriate means as for instance by the bolts 6 which are carried in a block as 7 of suitable material such as concrete or the like.

The base portion G is hollowed out so as to provide a cavity as 8 in the bottom thereof adapted to contain any desired instrument or mechanism as 9 as may be necessary for regulating or controlling the bulb as 10 which is arranged at the upper end of the lamp. By hollowing out the base relatively thin wall portions as 11 are provided connecting the lower end of the body with a relatively heavy annular ring shaped portion as 12 of the base, said wall portions 11 gradually increasing in thickness upwardly to the body and downwardly to the ring 12 and thus constituting a yieldable connection between the body and the ring 12 capable of permitting a desired amount of movement of the lower end of the body with respect to the base whenever blows are struck the body. This will relieve the body of necessity for absorbing within itself the entire shock.

A clamp ring as 13 is provided overlying the outer annular margin of the ring portion 12 of the base and is provided with clamp screws as 14—14 by which it is removably connected with the attaching plate 5 and by which it may be firmly clamped down against the ring 12 serving not only to hold the base against displacement but also to seal the joint between the base and the attaching plate against access of water or dirt into the cavity 8.

It is here noted that the attaching plate 5 has an annular recess as 15 in its upper surface to receive the base G and that its central portion as 16 constitutes a closure for the cavity 8.

A conduit as 17 extends into the cavity 8 through an opening as 18 provided in the portion 16 of the attaching plate and is sealed in said opening 18 as by means of clamp nuts 19 and 20 and an interposed gasket 21 so that no moisture is admitted through said opening into the cavity.

The upper end of the body L merges into a flaring enlarged head or lantern portion H. This head or lantern portion is hollow and may be of any desired contour. It is provided with one or more openings or windows as 23—23 laterally therethrough, and the bulb 10 is arranged in its interior for projecting its rays outwardly through said windows. The openings are preferably closed by sheets as 24 of suitable transparent flexible material held in position by any appropriate means.

At the juncture between the body L and the head the walls are made relatively thin as at 25 said portion 25 increasing in thickness inwardly to the body and outwardly into a relatively heavy annular rib as 26 of the head, thus constituting a yieldable connection between the body and the head capable of permitting a desirable amount of movement of the head with respect to the body whenever blows are struck against either the

head or body. This will so distribute strains as between the head and the body that each will assist the other in absorbing blows.

The bulb 10 is carried by a flexible arm 27 within the head. This arm is preferably formed as an extension from a disc-like portion 28 fitted within the upper end of the body L, the disc and the arm being preferably constructed of rubber. As illustrated the body L is formed with an annular seat as 29 within which the disc 28 is sprung thereby holding the disc and the body assembled.

While only a single arm 27 and a single bulb 10 is illustrated it will be understood that there may be any number of such arms and bulbs, or any number of bulbs may be supported upon a single arm, the fundamental principle being that the bulb or bulbs, or other signal device, shall be independently yieldably supported by the lamp.

Suitable conductors as 30 lead upwardly from the cavity 8 through the hollow of the body, and through the hollow as 31 of the arm 27 to the bulb or bulbs.

The attaching plate 5 and the clamp ring 13 are preferably formed of metal, but the lamp proper, that is the body L, the base G, and the head H, are formed of rubber, being preferably an integrally moulded member.

In use this lamp is fastened in the roadway at a desired intersection or otherwise. When bulbs are used the light rays through the windows 23 will serve as appropriate signals, either permanently illuminated or otherwise as preferred. Or any other signal devices carried at the upper end of the body will be visible in the usual manner. If a moving vehicle should come into contact with the lamp the force of impact will simply bend the lamp over more or less and the lamp will return again as soon as the vehicle has moved away.

As many changes could be made in this construction without departing from the scope of the invention as defined in the following claims, it is intended that all matter contained in the above description or shown in the accompanying drawings, shall be interpreted as illustrative only and not in a limiting sense.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. A signal lamp comprising an elongated body portion, a base portion, and a head portion, the base portion being of a character adapted to be fixed rigidly to a suitable support and to hold the body portion as a standard projecting upwardly therefrom, the head portion being arranged at the upper end of the body portion, said body and said head portion being formed of resilient material of a character enabling both of said portions to yield when struck and to return to

their normal condition when the blow has passed, the body and head portions being hollow illuminating means arranged within the head, conductors extending through the hollow of the body to said illuminating means, means providing a resilient support within the head for the illuminating means, and the head having a window therethrough through which rays from the illuminating means may emanate.

2. A signal lamp comprising an elongated body having a base portion at its lower end and having a signal element at its upper end, the lamp being of a character to enable the upper end to yield and return when struck, and a supporting device by which the signal element is connected with the remainder of the lamp said supporting device comprising a resilient arm fixed to the lamp by one end and having the signal element carried at its opposite end.

3. A signal lamp comprising an elongated body having a base portion at its lower end and having a signal element at its upper end, the lamp being of a character to enable the upper end to yield and return when struck, and a resilient arm carried by the body having the signal element at its outer end to thereby resiliently support the signal element upon the body.

4. A signal lamp comprising an elongated body having a base portion at its lower end and a hollow head portion at its upper end, a signal element arranged within the head portion visible through an opening of the head portion, the body being of a character to enable the head portion to yield and return when struck, and a resilient arm projecting from the body into the hollow of the head having the signal element at its inner end to thereby resiliently support the signal element within the head.

5. A signal lamp comprising an elongated body having a base portion at its lower end and a hollow head portion at its upper end, a signal element arranged within the hollow of the head portion visible through an opening of said head portion, the body being of a character to enable the head portion to yield and return when struck, and a separately formed member made of resilient material frictionally engaging within an opening of the body providing a resilient arm projecting into the hollow of the head and having the signal element supported at its inner end to thereby resiliently support the signal element within said head.

6. A signal lamp comprising an elongated body portion, a base portion, and a head portion having a window therethrough, the base portion being of a character adapted to be fixed rigidly to a suitable support and to hold the body portion as a standard projecting upwardly therefrom, the head portion being arranged at the upper end of the body por-

tion said body and said head portions being hollow and being formed of resilient material of a character enabling both of said portions to collapsibly yield when struck and to return to their normal condition when the blow has passed, a bulb support interiorly of the device carried by and extending from the walls of one of said portions, said bulb support being also formed of resilient material of a character enabling it to yield when struck and to return to its normal position when the blow has passed, and a bulb supported by said bulb support.

In testimony whereof I affix my signature.

MATHILDE T. GEYSER.