United States Patent

Corvetti

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[54] WORK AND SAFETY LAMP

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[51] **Int. Cl.** **F21v 21/14**, G08b 5/00, F21l 15/14

[58] **Field of Search**.....240/6.4 W, 10 F; 46/228; 2/171; 340/321

[56] **References Cited**

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[57] **ABSTRACT**

A work and safety lamp to be worn on the head of the user consisting of an adjustable perforated headband which is suitable for mounting on the head of the user and including a forward projecting lamp mounted on the front portion of the headband and a flashing dome lamp extending above the headband. The batteries which power the dome lamp and the head lamp are also contained in the headband, which is designed to be lightweight and compact.

2 Claims, 2 Drawing Figures

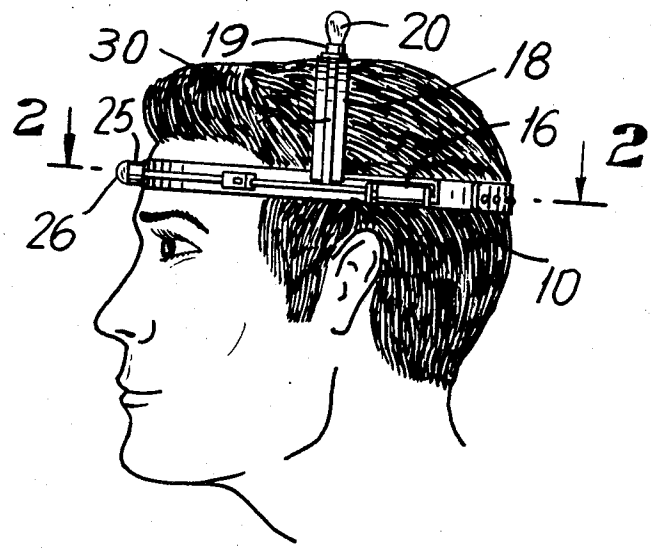


FIG. 1

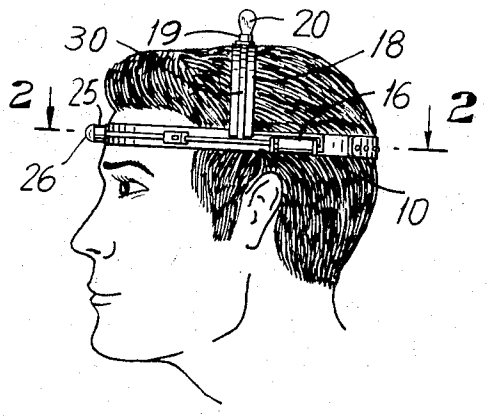
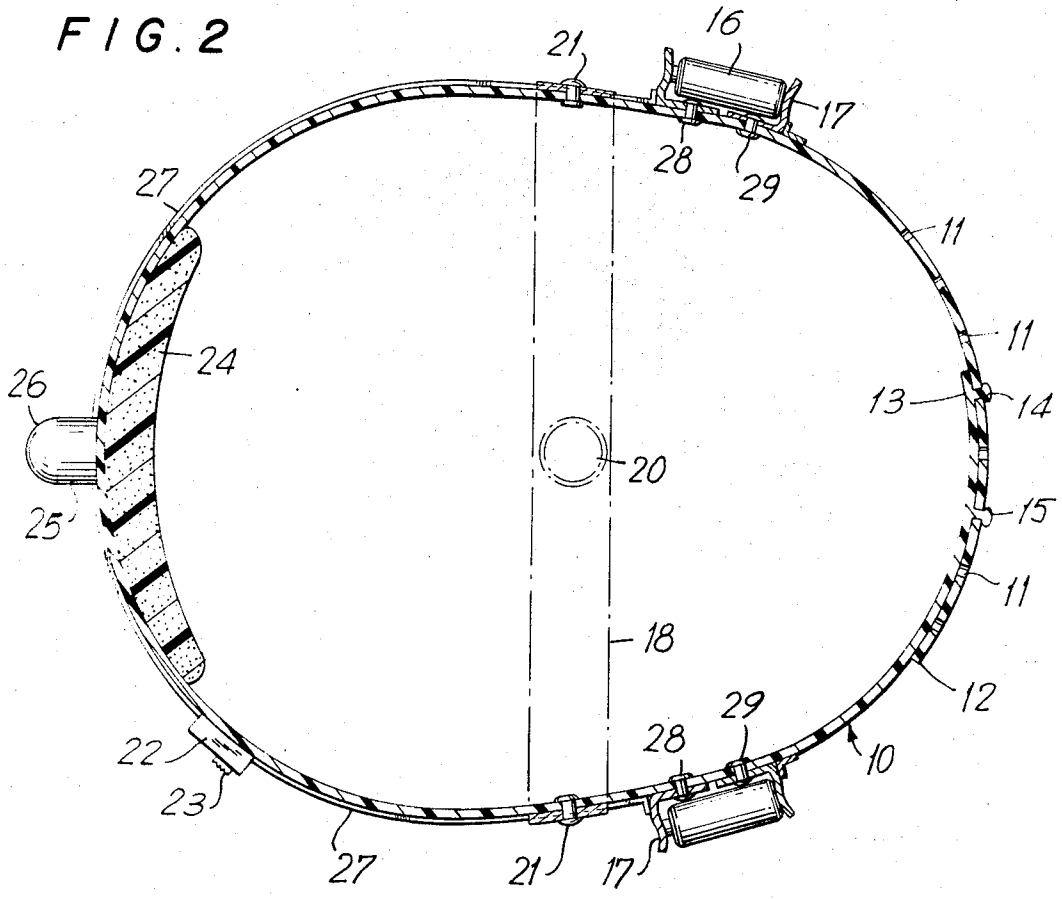


FIG. 2



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WORK AND SAFETY LAMP

This invention relates to a safety lamp for mounting on to the head of a user.

More specifically, this invention relates to a safety lamp which is mounted on to the head of a user by means of an adjustable headband and is particularly suitable for use in a working environment, such as by a mechanic repairing vehicles.

Conventional lamps, which are adapted for mounting on to the head of the user, are well known in the prior art for use by pedestrians, miners and surgeons while performing routine tasks. Many of these conventional lamps suffer from the disadvantage in that they require a separate power source, such as a battery pack, to be worn by the user and connected by means of a cable to the headband. Other types of conventional utility lamps worn by the user are bulky and not particularly suitable for use by persons such as mechanics who are required to work in confined areas, such as underneath the dashboard of an automobile.

Accordingly, the present invention provides an improved work and safety light particularly suitable for mechanics who are not only required to work in confined areas, but are also required to service vehicles as they travel in and out of a service area. The work and safety light of the present invention is particularly advantageous for use at night, since it also includes a flashing dome light which is readily visible in all directions to protect service personnel from accidental injury by vehicles moving in and out of a busy service area. The work and safety light of the present invention are mounted on an adjustable headband which includes an absorbent material to absorb perspiration, and a plurality of perforations in order to permit ventilation while being worn on the head of the user. Suitable switches permit the operation of the safety lamp and the head lamp of the invention.

It is therefore an object according to the present invention to provide a work and safety lamp mounted on an adjustable headband to be worn by the user.

It is another object according to the present invention to provide a work and safety light which can be utilized by maintenance personnel for work in confined areas.

It is still a further object according to the present invention to provide a work and safety light which is simple in design, efficient in operation, and inexpensive in cost.

Other objects and features of the present invention will become apparent from the following detailed description considered in connection with the accompanying drawing which discloses the embodiments of the invention. It is to be understood, however, that the drawing is designed for the purpose of illustration only and not as a definition of the limits of the invention.

In the drawing, wherein similar reference characters denote similar elements throughout the several views:

FIG. 1 is a perspective view of the work and safety lamp according to the invention being worn by the user, and

FIG. 2 is a cross-sectional view taken along section 2—2 of FIG. 1.

Referring to the Figures, there is shown the work and safety lamp mounted on a headband generally designated as **10** which is constructed from a flexible ribbon-type material such as leather, plastic, metal or the like, and which overlaps at its rear portion to form a strap-type fastener. One of fastener straps **12** includes a plurality of spaced-apart holes **11** which are adapted to receive one or more spaced-apart pins **14** and **15** which are secured near the end of strap **13**. The plurality of spaced-apart holes **11** permit headband **10** to be adjusted in size by relocation of pins **14** and **15**.

Mounted along the sides of headband **10** are batteries **16**. Batteries **16** are held in place by means of battery holders **17** which are pinned to headband **10** by means of fasteners **28** and **29**. Batteries **16** are electrically connected by means of

conductors **27** secured along the sides of headband **10** to headlamp **25** mounted on the front of the band. Headlamp **25** also includes a lens **26** for focusing the light beam in front of the user.

The work and safety light of the invention also includes a dome light **20** mounted on the top of a strap **18**. Each end of strap **18** is secured to the sides of headband **10** by means of fasteners **21** approximately halfway between the front and the rear. Band **18** may also be pivoted on fasteners **21** for adjustment by the user. Band **18** also serves to prevent headband **10** from slipping in place on the head of the user and thus permits the user to more loosely and comfortably couple the adjustment of headband **10** at its rear portion. Dome light **20** is preferably a flashing dome light having a red lens in order to give a visual warning of the presence of the user, particularly to moving vehicles.

Headband **10** also includes a sweatband **24** preferably constructed from a porous material such as foam rubber and mounted on the front portion of the band behind the headlamp so as to provide a comfortable supporting surface to the forehead of the user. A switch housing **22** is also mounted along one side of the headband and is coupled to conductors **27** and **30** in order to electrically activate headlamp **25** and domelamp **20**. Housing **22** includes a manual switch **23** which may preferably be a three-position switch in order to activate headlamp **25** alone, or in a second position, the headlamp and the dome-lamp together. The third position of the switch would be the off position. Batteries **16** may be electrically connected in parallel or series with lamps **20** and **25** through conductors **27** and **30**.

The work and safety lamp of the present invention is of lightweight construction and preferably utilizes long life, compact batteries which may be easily interchanged for replacement or recharging. Flashing domelight **20** provides a 360° visual indication of the user. Switch housing **22** may also be provided with a fourth position to operate only the domelamp. Lamps **20** and **25** are preferably miniature high-intensity lights which are lightweight. The protrusion of the headlamp housing on the front portion of headband **10** is kept to a minimum in order to prevent interference while the user is working in close and cramped service areas, such as underneath the dashboard of an automobile.

While only a few embodiments of the present invention have been shown and described, it will be understood that many changes and modifications may be made thereunto without departing from the spirit and scope of the invention.

What is claimed is:

1. A work and safety lamp to be worn on the head of the user, comprising:

a first headband for surrounding the head of the user;

a first strap integrally formed on one side of said first headband, a second strap integrally formed on the other side of said first headband, at least one externally projecting pin mounted on said first strap and a plurality of spaced-apart holes disposed in said second strap to receive and engage said pin for fastening said first strap to said second strap, for adjusting said first headband;

a head lamp, mounted on the front portion of said first headband;

at least one battery, mounted along the side of said first headband;

a second headband, pivotably secured at its ends to the sides of said first headband;

a dome lamp, mounted in the center of said second headband; and

a three-position switch, electrically coupled to said head lamp, dome lamp and said battery for selectively operating said dome lamp and said head lamp.

2. The work and safety lamp as recited in claim **1** wherein said headband additionally comprises a sweatband secured on the internal forward portion thereof.

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