Oct. 9, 1951 M. S. DUNKELBERGER 2,570,329

TROUBLE LIGHT WITH TRIPOD-FORMING SUPPORT

Filed May 30, 1945 3 Sheets-Sheet 1

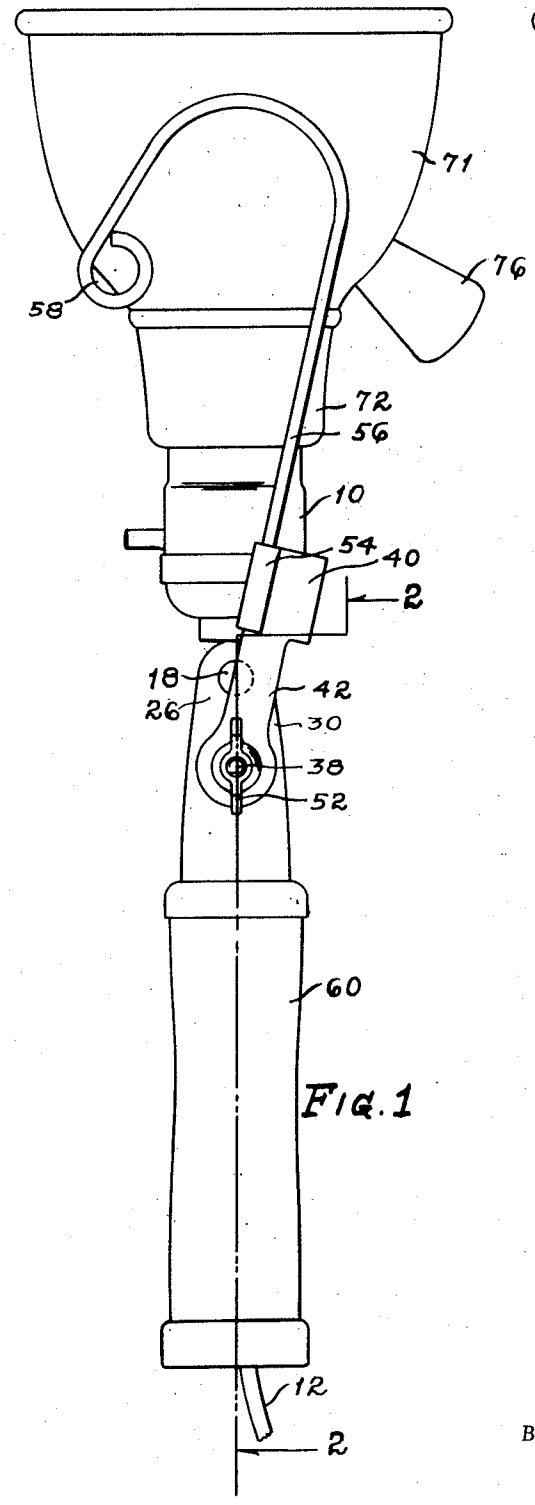


FIG. 1

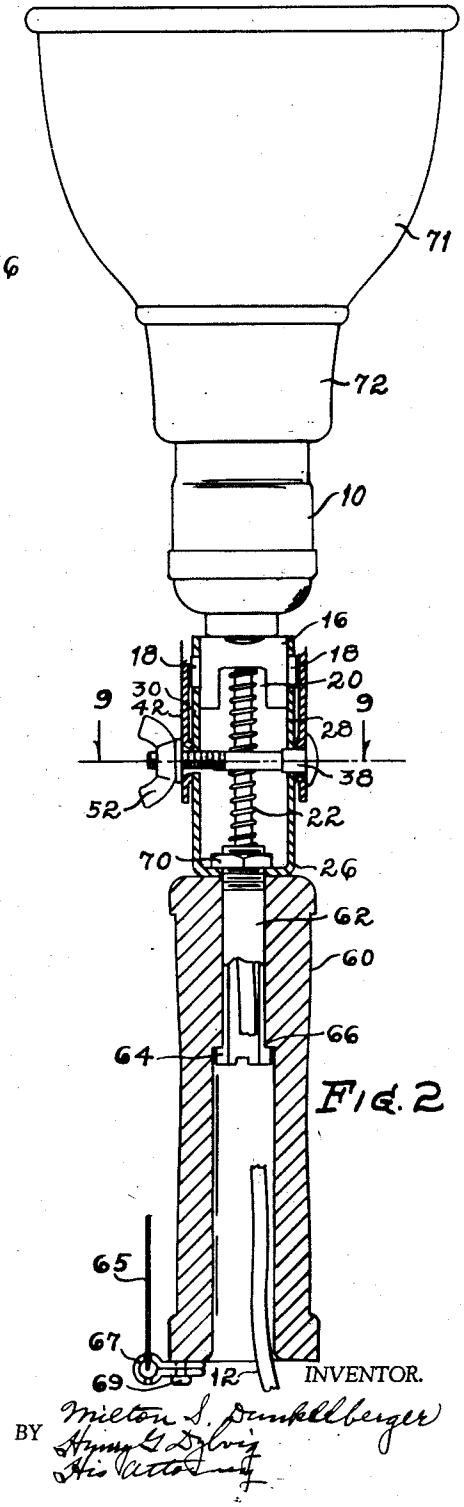


FIG. 2

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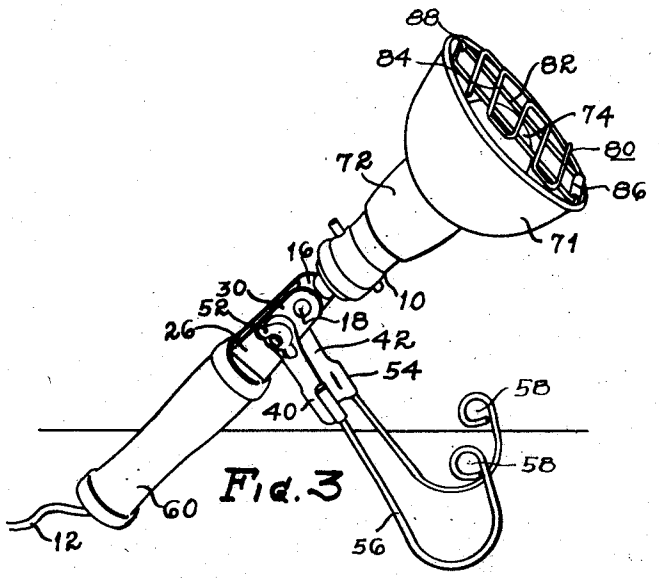


Fig. 3

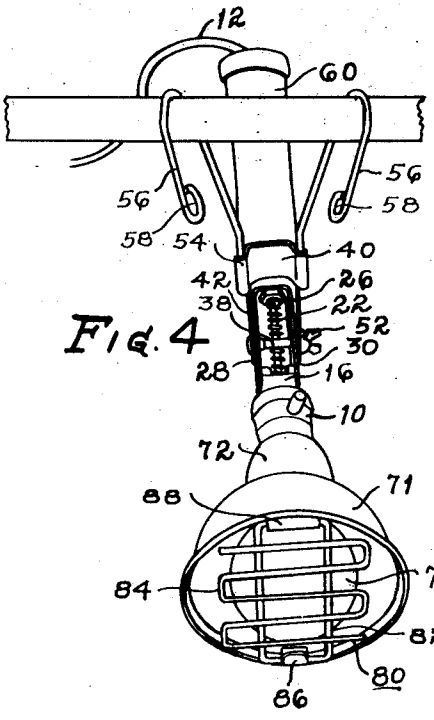


Fig. 4

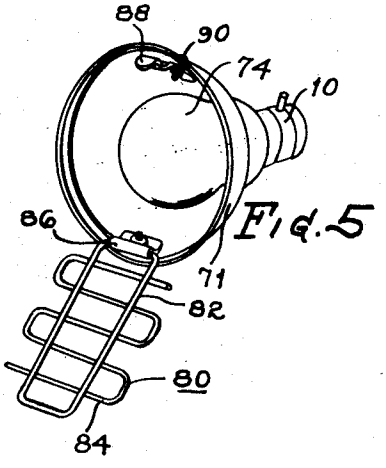


Fig. 5

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TROUBLE LIGHT WITH TRIPOD-FORMING SUPPORT

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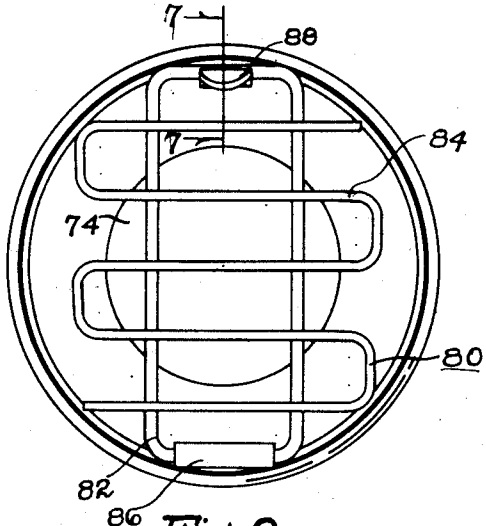


Fig. 6

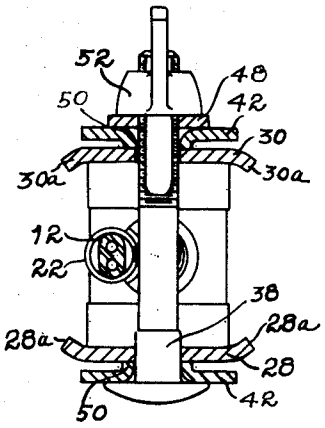


Fig. 9

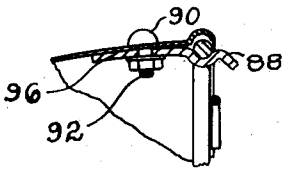


Fig. 7

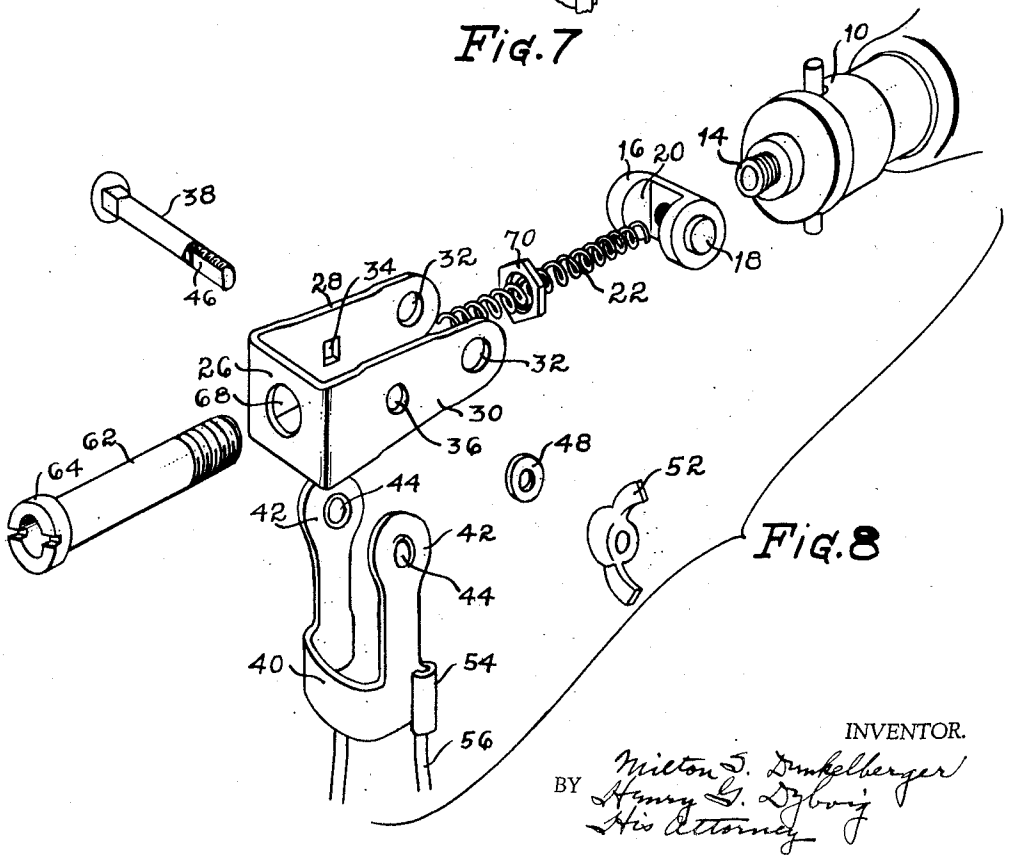


Fig. 8

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2,570,329

UNITED STATES PATENT OFFICE

2,570,329

TROUBLE LIGHT WITH TRIPOD-FORMING SUPPORT

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Application May 30, 1945, Serial No. 596,615

2 Claims. (Cl. 240—53)

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This invention relates to an extension light and more particularly to an extension light that may be adjusted into a plurality of adjustments to accommodate various usages.

Mechanics, repairmen, service men and many others use an extension light to illuminate a piece of work or object where it is desirable to supply a light from a source that may be moved into proper position. Various types of extension lights are in use, as for example, lights with a shield or cage surrounding the light bulb; but most of these lights are objectionable, in that the light shines in the eyes of the user.

An object of this invention is to provide an extension light that may be adjusted into position to direct the light upon the surface or object to be illuminated without shining in the eyes of the workman.

Another object of this invention is to provide an extension light provided with a handle, the handle being adjustably mounted so as to permit adjustment of the angular position of the light bulb with respect to the handle, to thereby direct the light in the proper direction.

Another object of this invention is to provide a support for an extension light which support includes a handle portion and legs that may cooperate to hold the light in the proper angular relation with respect to the surface or object to be illuminated.

Another object of this invention is to provide an extension light that is universally used, in that it may be supported on the ground, suspended or hung from a suitable support in any adjusted position.

Another object of this invention is to provide a reflector that surrounds the bulb, which reflector is provided with a guard for protecting the bulb in the direction in which the light shines.

Other objects and advantages reside in the construction of parts, the combination thereof and the mode of operation, as will become more apparent from the following description.

Referring to the drawings,

Figure 1 is a side elevational view of the extension light.

Figure 2 is another side elevational view, showing the handle portion in section, taken substantially along the section line 2—2 of Figure 1.

Figure 3 is another side elevational view showing the extension light supported upon a tripod-like structure.

Figure 4 is a perspective view showing the light suspended from a suitable support.

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Figure 5 is a perspective view of the reflector and the guard.

Figure 6 is an end view of the reflector and the guard for the light bulb.

Figure 7 is a fragmentary, cross sectional view taken substantially on the line 7—7 of Figure 6.

Figure 8 is an exploded view of the parts used in forming the mounting interconnecting the light socket to the handle.

Figure 9 is a fragmentary cross sectional view taken substantially on the line 9—9 of Figure 2.

In the drawings, the extension light assembly includes any conventional electric light socket 10 connected to an extension cord 12. The socket 10 has threaded into the end thereof a nipple 14 threadedly engaging a pivotal member 16. This pivotal member 16 is provided with a pair of oppositely disposed journals or pivots 18. Member 16 is also provided with a notched or cut-way portion 20 against which a light cord-encloing spring 22 is seated.

A U-shaped bracket member 26 is provided with a pair of legs 28 and 30. Each of said legs is provided with an aperture 32 into which projects the pivotal extension or journals 18 of member 16. The leg 28 is provided with a square opening 34 and the leg 30 is provided with a round hole 36, adapted to receive a bolt 38. As may best be seen by referring to Figure 9, the mid portions of the legs 28 and 30 are provided with the deflected portions 28a and 30a respectively, reenforcing the mid portions of the legs.

A bolt 38 clamps a bifurcated member 40 to the U-shaped bracket 26. Each of the furcations 42 of the bifurcated member 40 is provided with an aperture 44, through which the bolt 38 extends. The bolt 38 is provided with a flattened surface 46 receiving a washer 48, provided with a surface engaging the flattened surface 46, so that the washer 48 will not rotate in spite of the fact that the bifurcated member 40 may be rotated about the bolt 38, which bolt functions as a pivot.

As may best be seen by referring to Figure 9, the furcations 42 are provided with an annular flange-like portion 50 surrounding the opening or hole 44. The annular flange-like portion 50 abuts the side of the legs 28 and 30, so that as a wing nut 52 is tightened, the flanges 50 are pressed against the sides of legs 28 and 30. As may best be seen by referring to Figure 9, the extension cord 12 and the spring-like member 22 surrounding the extension cord pass to one side of the pin or bolt 38.

The bifurcated member 40 is provided with

a pair of ears **54**, each curved so as to surround the ends of wire-like supporting members **56**. The supporting members **56** are hook-shaped and terminate in eyes **58**.

A hollow handle **60** abuts the bight of the U-shaped member **26** and is held in position by a tubular member 62 provided with a collar-like head portion **64** engaging a shoulder **66** of the handle **60** and passes through a suitable aperture **68** in the bight of the U-shaped member **26** and is held in position by a suitable nut **70**. The handle 60 and the U-shaped bracket **26** may be adjusted about the pivot **18** into various positions, so that the socket may extend in any suitable adjusted direction. Likewise, the bifurcated member **40** may be adjusted about the bolt or pivot **38** into a plurality of adjusted positions, as for example, the position shown in Figure 1, the position shown in Figure 3 or the position shown in Figure 4.

In Figure 1, the hook-like members **56** are located on the side of the socket and are, so to speak, in the inoperative position. In Figure 3, the hook-like members **56** are adjusted into position so that members **56**, together with the handle **60**, form a tripod support for the light. In Figure 4, the hook-like members **56** have been used for supporting the light upon a beam, rod or the like. If necessary, the light may be suspended from a hook or nail passing through the eye of one of the hook-like members **56**.

A small bail-like member **65**, having its ends positioned in a suitably constructed strap member **67** held in position by a screw **69**, may be used in suspending the light. The bail-like member **65** may be rotated through an angle of 180° from the position shown in Figure 2 to provide a hanger for the light. The sides of the loop formed by the strap member **67** are preferably notched, so as to hold the bail-like member in either adjusted position.

In order to prevent the light from shining in the eyes of the user, the socket preferably supports a reflector **71** that is provided with a tubular socket-engaging extension **72**. The reflector may be adjusted longitudinally upon the socket, so as to accommodate various sizes of light bulbs **74**, so as to properly focus the light upon the work. The mechanism for adjustably supporting the reflector upon the socket has been more fully disclosed in my copending application Serial No. 596,617, filed May 30, 1945, for Adjustable Reflector, Now U. S. Patent No. 2,421,057. A suitable handle **76** may be attached to the reflector, so as to permit adjustment of the socket with respect to the handle **60**.

In order to protect the light bulb, a guard **80** consisting of a loop portion **82** and a cross bar **84**, welded or otherwise secured together, may be pivotally mounted at **86** and held in position by a hasp **88** secured to the side of the reflector **71**. The hasp **88** may be held in position by a suitable screw **90**, cooperating with a nut **92** and a lock washer **96** to hold the parts together. The hasp **88** permits the removal of the guard, which may swing about the pivot **83**, as shown in Figure 5, into an open position, permitting the removal of a light bulb or the insertion of a light bulb, as the case may be. This guard protects the light bulb from objects hitting the light bulb from the direction of the surface to be illuminated.

The reflector and the light bulb may be so positioned that the light is reflected upon the work surface or the object to be illuminated without the light glaring in the eyes of the operator. The reflector assembly completely shields the light bulb from the eyes of the operator. Thus, the work surface may be illuminated.

Although the preferred embodiment of the device has been described, it will be understood that within the purview of this invention various changes may be made in the form, details, proportion and arrangement of parts, the combination thereof and mode of operation, which generally stated consist in a device capable of carrying out the objects set forth, as disclosed and defined in the appended claims.

Having thus described my invention, I claim:

1. An extension light assembly, the combination including a socket for the light bulb, a bracket attached to the socket, said bracket having a pair of oppositely disposed pintles, a U-shaped member having its legs provided with apertures through which the pintles project, a handle attached to said U-shaped member, and means pivotally attached to the U-shaped member adjacent the pintles, said means terminating in a pair of hook-like wire members cooperating with the handle to form a tripod support for the light assembly, the socket extending from the vertex of the tripod.

2. An extension light assembly, the combination including a socket for the light bulb, a bracket attached to the socket, said bracket having a pair of oppositely disposed pintles, a U-shaped member having its legs provided with apertures through which the pintles project, a handle attached to said U-shaped member, means pivotally attached to the U-shaped member adjacent the pintles, said means terminating in a pair of hook-like wire members cooperating with the handle to form a tripod support for the light assembly, said socket extending from the apex of the tripod support, and a reflector surrounding the light bulb for reflecting the light away from the handle and upon the object to be illuminated.

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