Dec. 15, 1953 R. E. ZEDIKER 2,662,970

TROUBLE LIGHT

Filed Aug. 18, 1952 2 Sheets-Sheet 1

Fig. 1

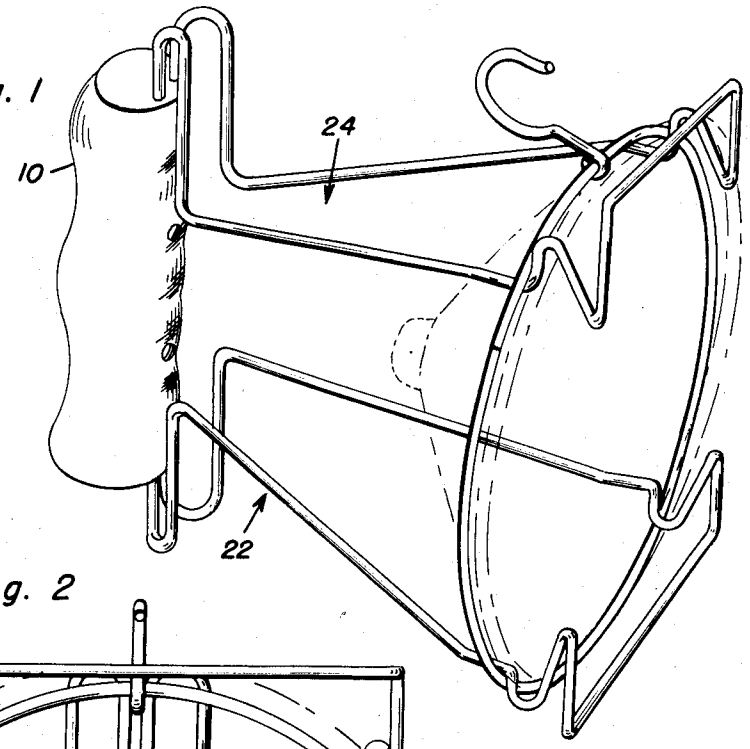
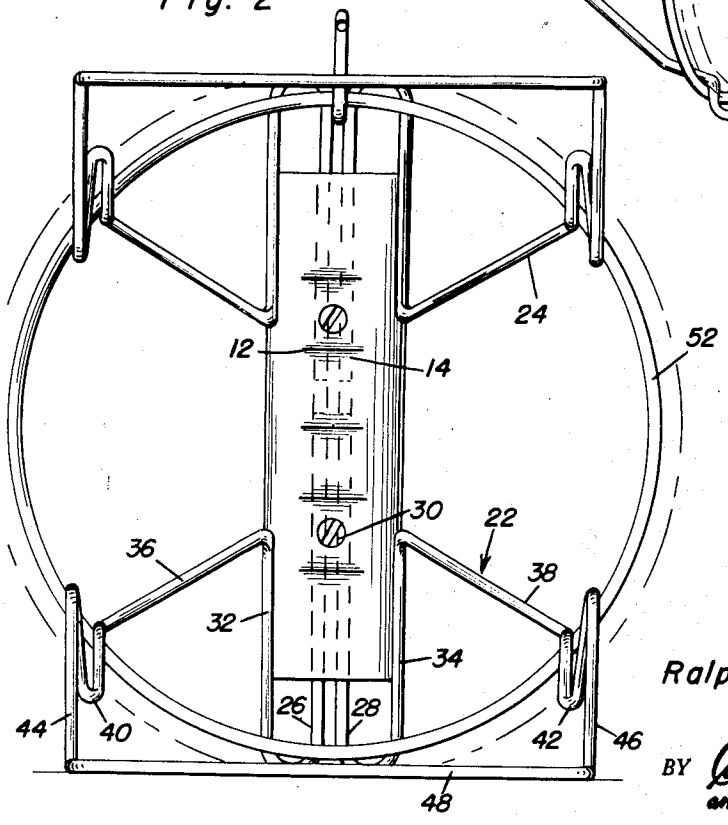



Fig. 2




Ralph E. Zediker
INVENTOR.

BY Clarence A. O'Brien and Harvey B. Jacobson
Attorneys

Dec. 15, 1953 R. E. ZEDIKER 2,662,970

TROUBLE LIGHT

Filed Aug. 18, 1952 2 Sheets-Sheet 2

Fig. 3

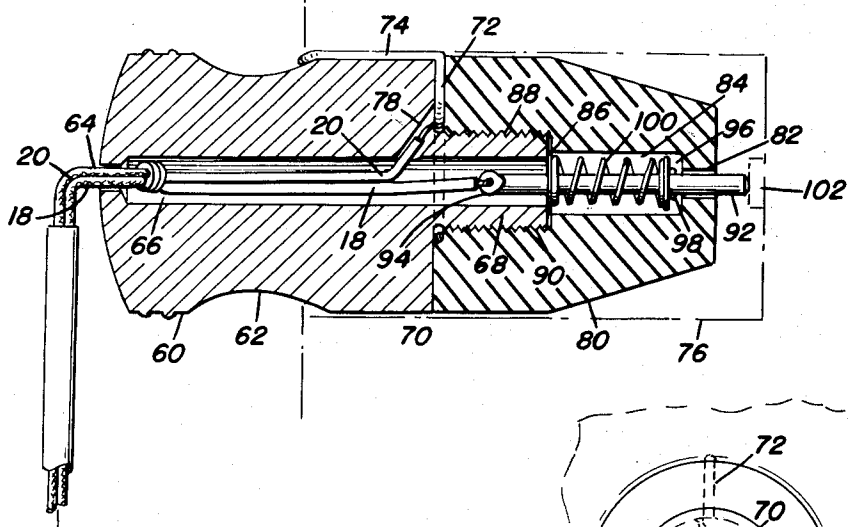



Fig. 4

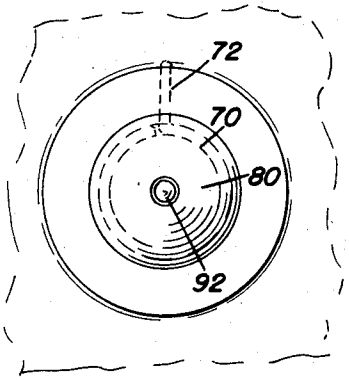



Fig. 5

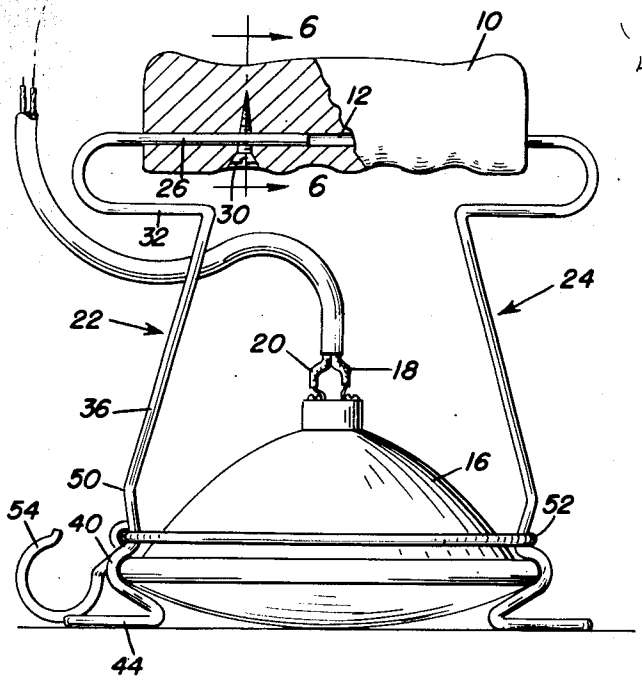
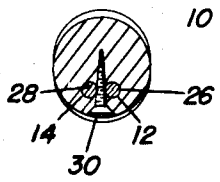



Fig. 6




Ralph E. Zediker.
INVENTOR.

BY Clarence A. O'Brien and Harvey B. Jacobson
Attorneys

Patented Dec. 15, 1953

2,662,970

# UNITED STATES PATENT OFFICE

2,662,970

## TROUBLE LIGHT

Ralph E. Zediker, Buffalo, N. Y.

Application August 18, 1952, Serial No. 305,031

4 Claims. (Cl. 240—54)

1

This invention relates to a trouble light and particularly to a holder for supporting a sealed beam type headlight lamp for operation as a trouble lamp and a conductor connecting the lamp to a source of supply in a motor vehicle.

In the operation of motor vehicles it is frequently desirable to have a high intensity trouble lamp while looking for sources of failure, when changing tires or for other purposes. It frequently happens that the sealed beam type headlights become unusable because of the destruction of one or the other of the beams therein. While such lamps are of no use for their intended purposes they still produce a good strong light on the available beam. By connecting the operative beam of such light into the automotive electrical system of a vehicle such as by connecting the same into a receptacle such as the cigarette lighter receptacle a convenient and usable trouble lamp can be produced at a low cost.

The present invention provides a suitable construction for supporting such a lamp and for supplying energy thereto.

The holder of the present invention comprises a handle having a pair of clamping members preferably constructed of material for holding the lamp while the cord is connected to a connector adapted to be inserted in the usual cigarette lighter receptacle.

It is accordingly an object of the invention to provide an improved trouble lamp.

It is a further object of the invention to provide a trouble lamp utilizing a sealed beam type headlamp.

It is a further object of the invention to provide a holder for conveniently supporting a sealed beam type headlamp.

It is a further object of the invention to provide an improved connector for connecting into a cigarette lighter socket.

Other objects and many of the attendant advantages of the invention will be apparent from the following detailed description taken in conjunction with the accompanying drawing in which:

Figure 1 is a perspective view of a holder for supporting a sealed beam type headlamp;

Figure 2 is a bottom plan view of the holder;

Figure 3 is a longitudinal section through a connector for supplying energy to the headlamp;

Figure 4 is an end view of the connector;

Figure 5 is a side elevation partially in section of the holder assembled with a headlamp bulb to constitute a trouble light; and

2

Figure 6 is a section taken substantially on the plane indicated by the line 6—6 of Figure 5 and showing the fastening of the clamp frames in the handle.

In the exemplary embodiment of the invention a handle member 10 is constructed of a longitudinal piece of insulating material preferably shaped to conveniently fit within the hand of an operator and is provided with a pair of longitudinally extending bores 12 and 14. A headlight bulb 16 of the sealed beam type has the well-known beam terminals connected together and connected to a supply conductor 18 while the ground terminal of the lamp 16 is connected to a ground conductor 20. A pair of clamping members 22 and 24 are identical in construction and are preferably constructed of substantially wire-like members which are preferably formed into a loop and have the inner ends or free ends 26 and 28 arranged in spaced parallel relation so that they extend into ends of the bores 12 and 14. The bores 12 and 14 are spaced apart sufficient distance to allow a fastening screw 30 to pass between the ends 26 and 28 and to rigidly connect the ends 26 and 28 in the bores 12 and 14.

The ends 26 and 28 are provided with U-shaped re-entrant bends to provide spider members 32 and 34 through which are angularly bent the legs 36 and 38. The legs 36 and 38 extend outwardly and diverge in both directions so as to provide substantial members in the surface of a truncated cone. The outer ends of the legs terminate in concave seat members 40 and 42 so that the seats 40 and 42 are substantially at quadrature with respect to the rim of the lamp 16. It will thus be seen that the two members 22 and 24 supply a support substantially at the four diametrical points of the rim of the lamp 16 so that it is securely mounted on the legs or clamping members 22 and 24.

The seat members 40 and 42 extend outwardly and are then reversely bent to provide laterally extending feet 44 and 46. The feet 44 and 46 are secured in spaced relation by means of the bight member 48 which constitute the mid-portion of the loop of wire forming the clamp elements 22 and 24. Each of the leg members is provided adjacent the seats 40 and 42 with a shoulder member 50 and a clamping ring is arranged over the clamping members 22 and 24 so that when the seats 40 and 42 are in engagement with the rim of the lamp 16 the clamping ring 52 will be pressed over the shoulder 50 to firmly hold the clamping members 22 and 24 in

clamping engagement with the rim of the lamp 16.

A hook member 54 may be journaled on the clamping ring 52 so that the trouble light may be conveniently hung up when desired.

The conductors 18 and 20 are connected to a suitable source of supply by a slip connector having a substantially cylindrical grasping member 60 having an annular groove-like depression 62 so that the member may be readily grasped by the thumb and finger of an operator. The grasping member 60 is provided with an axial bore 64 through which the conductors 18 and 20 are introduced into the member. The inner end of the member 60 is provided with a counter-bore 66 to provide an enlarged chamber in the grasping member 60. A reduced hub-like coupling member 68 extends from the end of the grasping member 60 and surrounds the counter-bore 66 to provide a continuation thereof. The terminal member includes a ring-like portion 70 surrounding the coupling 68 and has a radially extending portion 72 terminating in an annular bent portion extending longitudinally along the outer surface of the grasping portion 60. The portion 74 extending along the outer portion of the grasping member 60 being adapted to make contact with the ground terminal of a suitable receptacle such as the cigarette lighter receptacle usually found in an automotive vehicle. A divergent passage 78 is provided in the insulating member 60 and connects the counter-bore 66 with the surface of the member 60 outside of the coupling hub 68 so that the ground conductor 20 may be connected to the ring 70.

A tapering nose 80 also constructed of insulating material is provided with an axial bore 82 and a counter-bore 84 providing an enlarged chamber in the central portion of the nose 80. The inner portion of the nose 82 is provided with a tapering surface for readily engaging with an aperture into which the nose is to be inserted. A guide washer 86 is mounted on the end of the coupling 68 and an enlarged portion of the counter-bore 84 is provided with threads 88 for engaging the threads 90 on the hub 68 so that the nose 80 is in threaded engagement with the hub 68 to retain the nose thereon. The nose thus clamps the guide washer 86 and the terminal 70 between the nose and the grasping member 60 so that they are retained firmly in place therein. A contact pin 92 is mounted in the bore 82 and an aperture in the guide washer 86. The inner end 94 of the pin 92 being enlarged so that it does not readily pass through the washer 86 and engaged to the conductor 18. A retainer washer 96 is secured on the pin 92 intermediate the ends thereof by any suitable means such as an upset portion 98. Spring member 100 is mounted between the washers 86 and 96 and tends to urge the pin 92 outwardly of the nose 80 so that pin 92 will make contact with a suitable terminal 102 in the receptacle 76.

In the utilization of the trouble lamp according to the invention either a new or partially burned out head lamp 16 is clamped in the members 22 and 24 and secured by means of a clamping ring 52. The connector is then plugged into any suitable receptacle in the vehicle preferably the cigarette lighter receptacle so that energy is supplied to the headlamp 16. Feet 42 and 44 serve to support the lamp either in face down relation as shown in Figure 5 or in side position as shown in Figures 1 and 2. Obviously, if desired the trouble lamp may be hung on any suitable device by means of the hook 54 so that the lamp may be either set down or hung up and left unattended. It will thus be apparent that the present invention provides a convenient and cheap trouble lamp device for utilizing a discarded headlamp for producing a brilliant trouble light.

For purpose of exemplification a particular embodiment of the invention has been shown and described according to the best present understanding thereof. It will be apparent to those skilled in the art that changes and modifications can be made therein without departing from the true spirit of the invention.

Having described the invention, what is claimed as new is:

1. A lamp holder comprising an elongated handle member, a pair of longitudinally extending bores through said handle member, a pair of clamping members, each of said clamping members including a length of wire constituting a pair of leg portions joined by a bight portion, the ends of said legs being arranged in parallel relation for securing in said bores, said legs extending in transverse divergent relation to said handle, concave seat members adjacent the outer ends of said legs, the bight portion of said wire forming outwardly directed foot members, shoulders on said legs adjacent said seat members, a clamping ring engageable with said shoulders, fasteners securing the ends of said legs in said bores.

2. A holder for supporting a sealed beam type lamp comprising a longitudinal handle member having a pair of longitudinal bores therethrough, clamping members mounted in each end of said bores, each of said clamping members including a length of wire, the end of said wire being arranged in parallel relation and received in the ends of the bores, U-shaped bends in said wire adjacent the end of said handle, said bends carrying outwardly flaring legs, lamp engaging seats adjacent the outer ends of said legs, laterally directed feet members at the extremities of said legs, the bight of said wire constituting a spacing member for said feet, shoulders on said legs adjacent said seats, a clamping ring engageable with said shoulders for retaining said seat members in clamping engagement with a lamp.

3. A holder for supporting a sealed beam type lamp comprising a longitudinal handle member having a pair of longitudinal bores therethrough, clamping members mounted in each end of said bores, each of said clamping members including a length of wire constituting legs joined by a bight portion, the ends of said wire being arranged in parallel relation and received in the ends of the bores, U-shaped bends in said wire adjacent the end of said handle, lamp engaging seats in said length of wire in spaced relation to said U-shaped bends, the bight of said wire constituting a spacing member for said seats, shoulders on said legs adjacent said seats, a clamping ring engageable with said shoulders for retaining said seat members in clamping engagement with a lamp.

4. A holder for supporting a sealed beam type lamp comprising a longitudinal handle member having a pair of longitudinal bores therethrough, clamping members mounted in each end of said bores, each of said clamping members including a length of wire constituting converging leg portions joined by a bight portion, the free ends of said leg portions being arranged in parallel angular relation to said leg portions and received in the ends of the bores, lamp engaging seats ad-

jacent the outer ends of said legs, laterally directed feet members at the extremities of said legs, the bight of said wire constituting a spacing member for said feet, shoulders on said legs adjacent said seats, a clamping ring engageable with said shoulders for retaining said seat members in clamping engagement with a sealed beam type lamp.

RALPH E. ZEDIKER.



**References Cited** in the file of this patent

UNITED STATES PATENTS

| Number | Name | Date |
|---|---|---|
| 2,236,435 | Lockshin | Mar. 25, 1941 |
| 2,450,141 | Hobbs | Sept. 28, 1948 |
| 2,478,010 | Popp | Aug. 2, 1949 |
| 2,489,037 | Kailer | Nov. 22, 1949 |
| 2,571,295 | Sale | Oct. 16, 1951 |
| 2,591,131 | Brus | Apr. 1, 1952 |