J. C. STEARNS.

DASH AND TROUBLE LAMP FOR AUTOMOBILES.

APPLICATION FILED MAR. 18, 1914.

1,158,578. Patented Nov. 2, 1915.

Fig. 1.

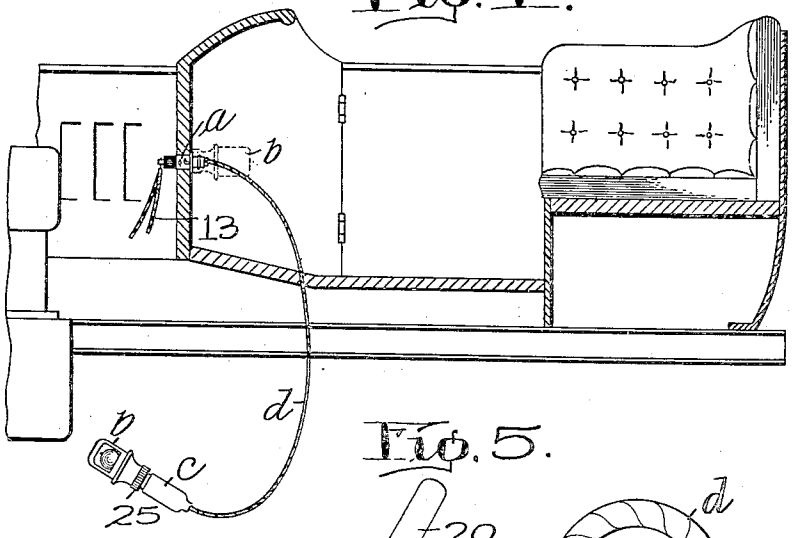


Fig. 5.

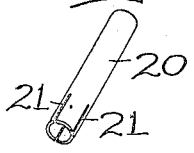
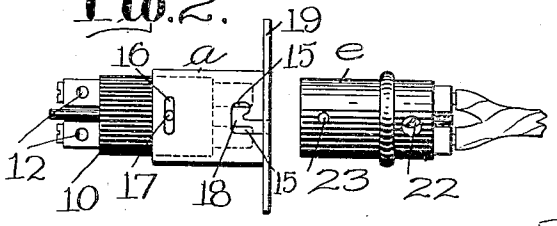
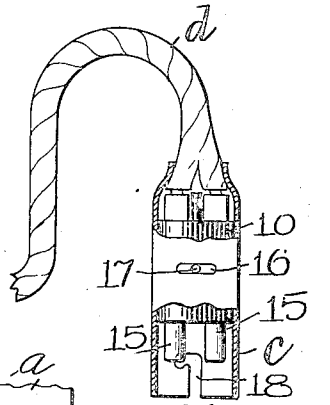


Fig. 2.





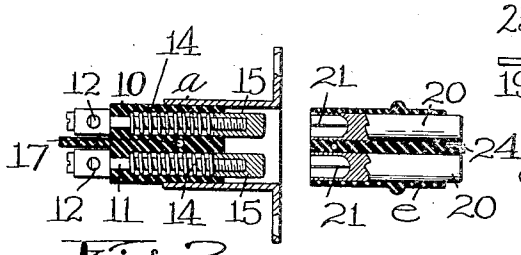


Fig. 3.

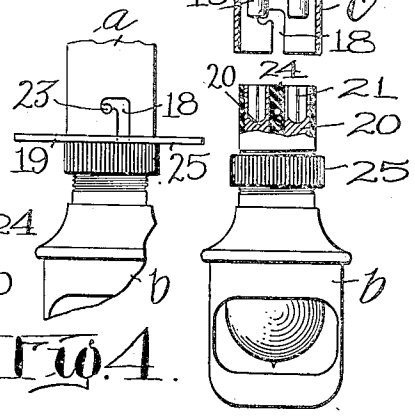


Fig. 4.

Witnesses:
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UNITED STATES PATENT OFFICE.

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DASH AND TROUBLE LAMP FOR AUTOMOBILES.

1,158,578. Specification of Letters Patent. Patented Nov. 2, 1915.

Application filed March 18, 1914. Serial No. 825,710.

To all whom it may concern:

Be it known that I, JASON C. STEARNS, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Dash and Trouble Lamp for Automobiles, of which the following is a specification.

The principal object of this invention is to provide a construction of dash lamp which can be removed readily and connected up in such a way as to be used as a convenient and efficient trouble lamp and yet to so arrange it that it cannot easily be displaced or readily stolen from the dash.

The invention also involves improvements in the connections whereby a perfect rubbing contact can be secured for this lamp using the two-wire system.

The invention also involves improvements in details of construction as will appear hereinafter.

Reference is to be had to the accompanying drawings in which—

Figure 1 is a longitudinal central sectional view of a body of an automobile showing the preferred embodiment of this invention applied thereto; Fig. 2 is an elevation of the connections on enlarged scale, with parts in central section to show interior construction; Fig. 3 is a sectional view through the center of the dash socket and the connection plug; Fig. 4 is a side elevation of a portion of the lamp in place in the dash socket; and Fig. 5 is a perspective view of one of the metallic contacts of the fitting.

The dash of the machine is shown as provided with a socket *a* in which the lamp *b*, shown in dotted lines in Fig. 1, can be fixed by its plug for the usual purposes of a dash lamp. When a trouble lamp is desired, however, the dash lamp plug is removed and put into a fitting *c* on the end of a double cable *d*, the other end of which is provided with a plug *e* adapted to enter the socket *a*. The socket on the dash is shown as fitted up for a two wire system and for this purpose it has an insulating bushing 10 of hard rubber or other suitable material for that purpose provided with a pair of reciprocable rods 11 each having a perforation 12 on the inner end for receiving a cable or main 13 from the battery. The passages inside the bushing 10 through which the rods 11 pass are enlarged and provided with springs 14 coming under the ends of metallic heads or terminals 15 which constitute the terminals of the main. The rods 11 are screw threaded into these heads and it will be understood that the heads will yield when pushed from the front, for the purpose of holding the locking pin 23 in locked position in the L-shaped slot 18 when the plug *e* is inserted in dash socket *a*. They are located in the socket itself into which the end of the lamp connection *b* or the plug *e* is to be inserted. In addition to the features just described this socket has another important feature the purpose of which will be stated later. Instead of having the insulating bushing 10 fixed in the socket as is usually the case, this is made capable of turning in the socket a slight distance and for this purpose the socket member *a* is provided with a short circumferential slot 16 on one or both sides and the insulating cylinder 10 is provided with a pin 17 for each of these slots. It will be understood, of course, that the socket *a* is provided as usual with a pair of L-shaped slots 18. The fitting *c* is made just like the socket *a* except that the flange 19 is omitted.

The plug *e* and the contacting end of the lamp *b* are made just alike so that both of them can enter the socket *a* and coöperate with it in exactly the same way. Each is provided with a pair of longitudinal metallic conductors 20. These are embedded in the hard rubber center 24 of the plug. Each is provided on its outer end with a perforation or other means by which a wire can be connected with it. In case of the plug, the two wires of the cable *d* are connected with the two members 20 thereof, while in the case of the lamp the two wires going to the filament are connected with the corresponding members 20. On the outer ends these solid conductors 20 are bored out so as to fit with a frictional fit the terminals 15. In addition to being bored out a considerable distance so as to allow these terminals to enter them, they are slit longitudinally at 21 to permit of an amount of resiliency sufficient to cause the terminals 15 to enter them with sufficient resistance to insure a perfect electrical connection. These conductors 20 are fixed in position by screws 22 in the usual way and both the plug *d* and the end of the lamp *b* are provided with pins 23 for entering the L-shaped slots 18 in the way that is preferred in this art.

In addition to the above mentioned features the lamp *b* is provided with a safety

device in a form of a ring 25 screw-threaded on the lamp in such a way that when the lamp is in position in the socket *a* this ring can be screwed up against the end plate 19 of the socket. This will prevent the lamp being pushed in sufficiently to disengage the pins 23 from the off-set in the slot 18. The function of the slot 16 will now be understood, as it will be readily observed that when the plug or lamp enters the socket *a* or *c* the plug or lamp has to be turned to bring the pin 23 into the offset portion of the slot 18, consequently the conductors 15 which enter the sockets in the ends of the conductors 20 will also have to turn.

It will be understood, of course, that by having the end of the conductor 20 bored out and slit longitudinally it is divided into three sections between which are the slits 21 that form a yielding connection. Consequently, when the ends 15 of the conductors 11 are pushed into this slit bushing a slight yielding is permitted so as to produce an intimate rubbing contact and insure the proper conduction of electricity even if the contacts are dirty.

Although I have illustrated and described only a single form of the invention I am aware of the fact that modifications can be made therein by any person skilled in the art without departing from the scope of the invention as expressed in the claim. Therefore, I do not wish to be limited in these respects, but

What I do claim is:—

The combination with a dash socket for an automobile having a slot in the edge thereof provided with an offset undercut end, of a lamp therefor having a connecting end adapted to enter the socket and provided with a pin for entering said slot, of a nut mounted on the lamp member and adapted to be screwed down to engage the end of said socket member to prevent the displacement or vibration of the lamp.

In testimony whereof I have hereunto set my hand, in the presence of two subscribing witnesses.

JASON C. STEARNS.

Witnesses:
ALBERT E. FAY,
MARY E. REGAN.