July 23, 1946. E. SIEMERS 2,404,753

EMERGENCY LAMP

Filed March 6, 1944

Fig. 1.

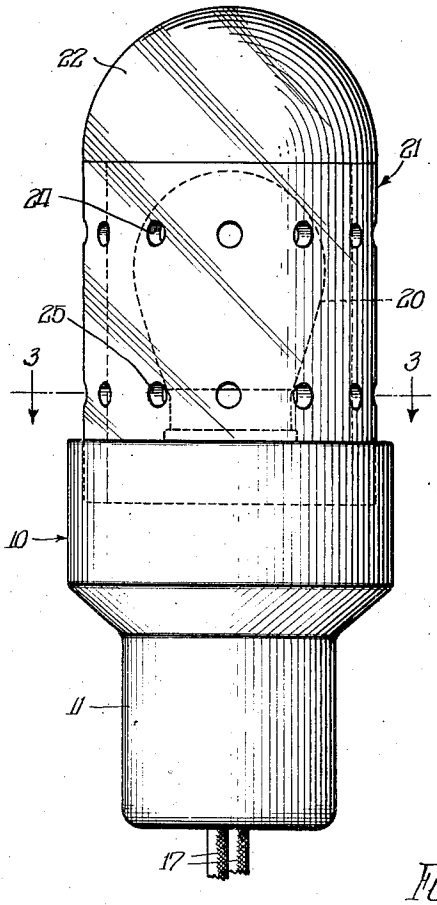


Fig. 2.

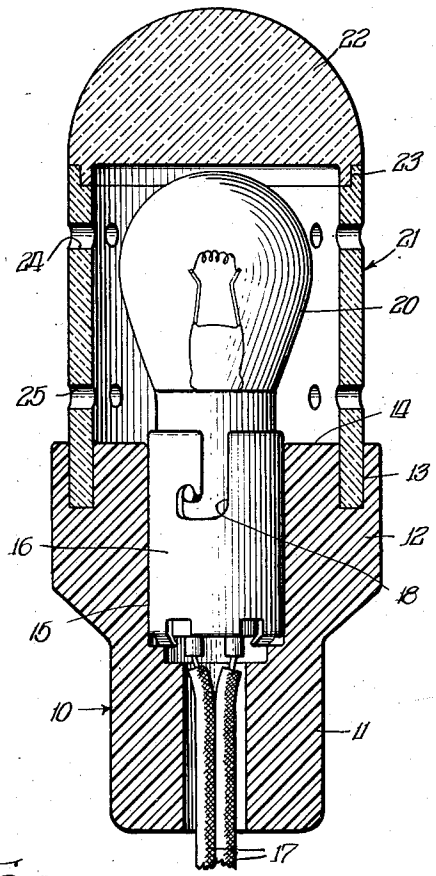
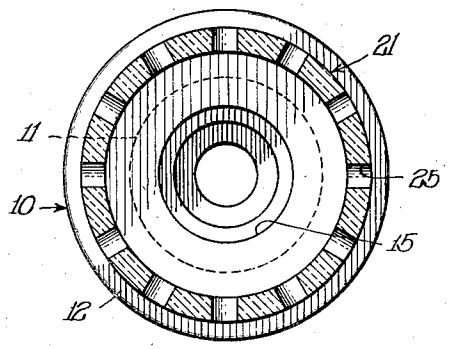


Fig. 3.



INVENTOR.
Eric Siemers,

BY

Wilkinson Huxley Byron & Knight
attys

Patented July 23, 1946

2,404,753

UNITED STATES PATENT OFFICE

2,404,753

EMERGENCY LAMP

Eric Siemers, Kalamazoo, Mich., assignor, by mesne assignments, to Lacey-Webber Co., Kalamazoo, Mich., a corporation of Michigan

Application March 6, 1944, Serial No. 525,171

1 Claim. (Cl. 240—54)

1

The invention relates to the art of illumination and has reference in particular to an improved electric lamp constructed of molded plastic parts and which will have general utility as a trouble lamp, reading lamp, flashlight or the like, on automobiles, tractors, motor boats and other means of transportation equipped to produce a current of six to eight volts.

An object of the invention is to provide a compact, light weight lamp constructed entirely of plactic as regards the casing for the lamp, and which will be economical to manufacture.

A further object of the invention is to provide an emergency lamp of the character described which will incorporate a plastic lens for concentrating the light rays emitted at the end of the lamp so that the same may be used as a reading light or for similar purposes where a small concentrated beam of light is desired.

Another object is to provide a small compact lamp which may be carried in the glove compartment of an automobile, for example, having electrical connection with an suitable outlet or connecting directly with the storage battery of the automobile. The general utility of the present lamp is materially increased as a result of its plastic construction, which renders the lamp practically unbreakable and in addition deterioration by corrosion is completely eliminated.

With these and various other objects in view, the invention may consist of certain novel features of construction and operation as will be more fully described and particularly pointed out in the specification, drawing and claim appended hereto.

In the drawing which illustrates an embodiment of the invention and wherein like reference characters are used to designate like parts—

Figure 1 is an elevational view of the emergency lamp with magnifying lens constructed in accordance with the invention;

Figure 2 is a vertical sectional view of the lamp shown in Figure 1; and

Figure 3 is a transverse sectional view taken substantially along line 3—3 of Figure 1.

In the drawing the emergency lamp of the invention includes base portion 10 constructed of plastic such as polystyrene or any other suitable synthetic resin. The base portion 10 is cylindrical in shape, having a lower part 11 of reduced diameter and an upper part 12 of somewhat greater diameter, and which is provided with a circular recess 13 in the top surface 14 for receiving the shield of the lamp. Said base portion 10 has a central bore 15 extending from end

2

to end of the same. The upper portion of the bore is adapted to receive the lamp socket 16. The wires 17 electrically connect with the base of said lamp socket and said wires extend through the lower portion of the bore.

The lamp socket 16 is of the type having bayonet slots 18 for reeciving the electric light bulb 20. The shield for the bulb 20 essentially consists of a cylindrical perforated member 21. Said member is releasably secured to base portion 10 by inserting the same in the recess 13. The parts therefore have interfitting relation and the shield is securely held to the base portion although it is relatively easy to remove the same should it be necessary to clean the light bulb or to replace a burned out bulb with a new one.

In accordance with the invention the plastic magnifying lens 22 is provided as a cap for the cylindrical member 21, the same having interfitting relation therewith as at 23. It is preferred that the lens 22 be fixedly secured to the member 21 so as to eliminate any possibility of losing the lens and further, it is advantageous to have an integral one-piece shield for the lamp. The magnifying lens can be fitted to member 21, as shown in Figure 2, and then adhesively secured, or the lens may be molded integral with the cylindrical member. For visibility purposes the member 21 is formed of a transparent synthetic resin such as cellulose acetate and the lens 22 is preferably constructed of the same material. However, other plastics in addition to cellulose acetate may be used for the shield. The material comprising the lens 22 should be transparent but the member 21 may be either transparent or translucent. To permit the escape of heat from the bulb 20 member 21 is provided with a plurality of openings 24 arranged in an upper horizontal row and similar openings 25 forming a lower horizontal row.

The emergency lamp of the invention is economical to manufacture since the structure has been simplified to include only three parts, namely, the base portion 10, the electric socket 16, and bulb supported thereby, and the shield 21. Although the device has been described as an emergency lamp, this does not necessarily restrict its use since it will have general utility in connection with the operation of automobiles, tractors, motor boats or other means of transportation equipped to produce a current of six to eight volts required for the bulb 20. The lamp may be used to assist motorists at night in case of a tire change, or an accident, or for reading maps at night. The lamp should also prove of great

benefit to campers and hunters since the concentrated beam produced by the lens **22** is strong enough for reading, shaving and the like. The all-plastic construction renders the lamp practically unbreakable and deterioration by corrosion is substantially eliminated.

The cylindrical member **21**, although formed of cellulose acetate, is just as clear as glass. Therefore the illumination produced by the bulb **20** is maximum for the size of the bulb and the same is distributed equally around the member **21**. On the other hand, the light rays passing through the lens **22** are concentrated to produce a beam of light at the end of the lamp. This dual function of the shield is largely responsible for the many and varied uses for the present lamp.

The invention is not to be limited to or by details of construction of the particular embodiment thereof illustrated by the drawing as various other forms of the device will of course be apparent to those skilled in the art without de-

parting from the spirit of the invention or the scope of the claim.

What is claimed is:

In an electric lamp of the portable type, in combination, a substantially cylindrical base portion of synthetic resin providing a handle and having a bore extending axially from end to end, an electric lamp socket releasably positioned within said bore at the end opposite the handle, an electric bulb releasably supported by the socket so as to project from this end of the base portion, a shield for said bulb including a cylindrical member of light-emitting material, said base portion having a cylindrical groove in the socket end thereof concentric with said bore for receiving one end of said cylindrical member, whereby the shield encloses the bulb and forms a protective housing therefor, and a cap for said cylindrical member in the form of a magnifying lens fixed to the open end of said member and closing said end.

ERIC SIEMERS.