Feb. 28, 1939. T. R. SCHLITZ 2,148,965

COMPOSITE LIGHT

Filed Oct. 10, 1938

Fig. 1.

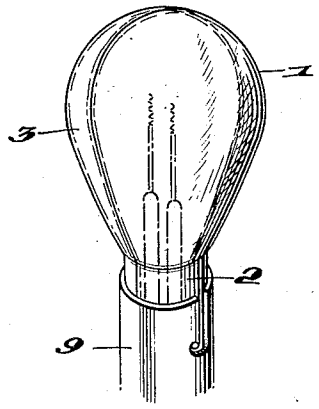


Fig. 2.

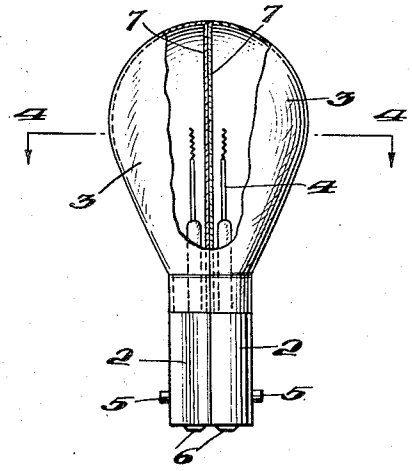


Fig. 3.

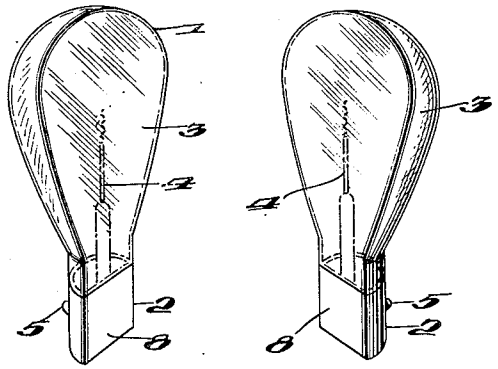


Fig. 4.

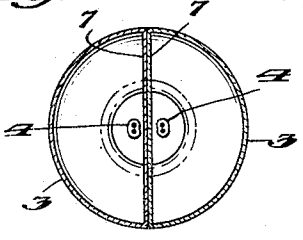
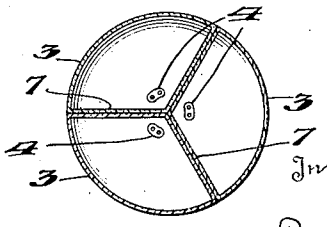


Fig. 5.



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COMPOSITE LIGHT

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Application October 10, 1938, Serial No. 234,273

2 Claims. (Cl. 176—16)

This invention relates to incandescent lamp bulbs, and particularly to types of bulbs for use in automobile headlights.

One of the important objects of the invention is to provide a composite light consisting of a plurality of bulbs of such a cross section that, when assembled, the assembly is circular in cross section, and may be readily inserted in the ordinary circular socket.

One advantage of such a construction is that each bulb of the composite group may be replaced when desired without discarding the remainder of the bulbs forming the composite group, as distinguished from the usual situation in the ordinary plural filament bulb, wherein when one filament is burned out, the entire bulb is discarded, with the other filament that is not burned out still being in useable condition. Thus, a waste in the present practice is experienced, as distinguished from what would take place in using the applicant's construction, wherein only the bulb containing the burned out filament need be discarded, whereas the other bulbs forming a part of the bulb group may still be used.

The present invention readily lends itself also to having one of the bulbs of the composite group colored differently from the other bulbs of the group, which may, if desired, be clear glass. The colored bulb may be amber, for example, and thus the need for having a separate lamp having either an amber bulb or an amber globe, is eliminated, due to the fact that the amber bulb of the applicant's group may be lighted independently of the other lamps of the group.

Applicant's construction may consist of three bulbs, each approximately 120° in cross section, so that when the group is assembled, they will cooperate to form a bulb substantially circular in cross section. When the composite light is thus assembled, one bulb may be colored amber, a second bulb may have a filament of low intensity, while the third bulb may have a filament of high intensity. By such a construction the amber light may be used while driving in a fog, the bulb of low intensity may be used when another car is approaching on the highway or while driving in city areas, whereas the bulb of high intensity may be used while driving in open country. This is made possible due to the fact that each one of the individual cooperating bulb units is separately and individually energized and operated from a suitable switch means which controls the source of power to a suitable socket in which the bulb assembly is supported.

These and other advantages will be obvious from a more detailed study of the applicant's invention described in the following specification and illustrated in the accompanying drawing, the latter being only illustrative of the preferred embodiments of the present invention, and in which:

Fig. 1 is a perspective view of the assembled lamp units in a suitable socket;

Fig. 2 is a side elevation, partly broken away, showing the assembled lamp units;

Fig. 3 is a perspective view showing the individual lamp units prior to assembly;

Fig. 4 is a sectional, plan view, taken on the line 4—4 of Fig. 2; and

Fig. 5 is a sectional, plan view of a further modification of the invention in which three lamp units are shown.

The applicant's composite light consists of a plurality of individual bulb units 1, which, in themselves, are complete incandescent electric lamps, comprising a base 2 of suitable material, such, for example, as metal, supporting a glass globe 3. Encased within the globe is a conventional filament 4 and cooperating conductors. The drawing shows a diagrammatic illustration of such filament means which include the filament 4 and terminal wires connected to each end of the filament, the wires continuing down through the filament supporting means and into the base, where they are connected to suitable terminals, one terminal 5 being connected to the side of the base in the conventional manner and the other terminal 6 being located on the bottom of the base.

As shown in the preferred embodiment of the invention as illustrated in the drawing, the bases and bulbs of the individual lamps are, in cross section, a sector of a circle. In Figs. 1 through 4, the lamps are semicircular in cross section, each lamp having a flat side 7 which is adapted to abut against the similar flat side of the adjacent bulb and when thus assembled they constitute a bulb substantially circular in cross section.

The abutting flat sides 7 are substantially in a plane, which plane continues the full length of the bulb. Each base has a flat face 8, which is substantially in the same plane as the sides 7, whereby when the complementary faces of the bulb are adjacent each other, the assembled bases will form a base, circular in cross section, which may be readily inserted into the conventional circular socket shown at 9, with the terminals 5 and 6 in electrical contact with the corresponding terminals in the socket. The conventional socket usually has two positive terminals, which

may be energized independently, and the terminals 6 contact therewith.

It is also within the purview of this invention that while bulbs of semi-circular cross section are illustrated, this is not the only form the individual bulbs may assume, but each light assembly may be divided into as many individual units as desired. For instance, the assembly may comprise three or four or more individual bulb units, of such shape as may be necessary to completely fit the individual units together to form a substantially circular light assembly in plan view or cross section. While the preferred units are in the shape of a sector of a circle, each with an arcuate outer edge, the units may be of other shapes, so that when the several units are assembled, they may be inserted in a socket in operative relation with the terminals of the socket to form an operative assembly with relation to the socket. If for any reason the socket is not circular, the several units would be so shaped that, when assembled, their combined cross-section would be substantially the same shape as the cross-section of the socket. The preferred shape for the socket and the assembly, is, however, circular in cross section. Where three or more lamp units are used, the socket would have a corresponding number of positive terminals, which will be energized, preferably independently, by suitable switch means.

By such construction as the applicant has described, one bulb unit may be of a certain filament intensity, whereas another bulb unit may be of a different filament intensity and in use when one filament becomes burned out, only the latter bulb unit need be discarded and replaced by a new one, rather than discarding the whole light assembly, as is now necessary with present unitary bulbs having a plurality of filaments mounted within the same globe. By the applicant's construction, therefore, a great economy is afforded the consumer.

At present, a large number of so-called "fog" lights are used on automobiles, wherein either the bulb or the lens of the lamp is of amber hue. It is common practice to have such a fog light as a separate light in addition to the normal headlights of the automobile. Considerable expense is involved thus to equip an automobile. With the applicant's construction, it is contemplated, if desired, to have one of the bulb units with an amber colored globe 3, whereas the other unit or units of the assembled light may have globes of clear glass and thus all the benefits of a "fog" light will be present without the necessity and expense of equipping the car with an additional fog lamp.

As shown in Fig. 5, wherein three individual, cooperating bulb units are assembled, one unit may have an amber or otherwise colored globe, the other units having clear glass globes but having filaments of different capacities for city or open country driving, all of the units being adapted to be independently operated from suitable switch means.

It is to be understood that for purposes of preventing confusion in inserting new replacement bulb units in the socket, rather than have the bases of regular sector shaped cross section of 120° arcs, as shown in Fig. 5, or of 180° arcs, as shown in Fig. 4, the units may be of unlike shapes with arcs of unsimilar number of degrees.

Furthermore, the sockets and base assemblies need not be circular but whatever the shape of the socket, it is contemplated to have the shape of the cross section of the assembled bases of the bulb sections correspond thereto.

In addition to this, while the abutting sides of the sectors shown in Figs. 4 and 5 are flat, this might readily be changed so that the abutting sides are irregular or curved in complementary manner, to assist in preventing confusion in inserting replacement units. Also, the sectors in Figs. 4 and 5 may be segments or any other suitable division or portion of a circle in cross section.

The construction of applicant's device is such as illustrated that the individual units, when assembled in operative position in the socket, mutually support each other in said socket. When in such assembled position each base assists to hold the bases of the other units in the socket as well as in electrical contact with the necessary contacts in the socket.

Each individual bulb unit is sturdily constructed and has no delicate protuberances or otherwise exposed portions which might readily be broken when assembling or disassembling the units to form the composite light.

The foregoing sets forth the preferred embodiments of the applicant's inventive concept; it is, however, to be understood that the invention is not to be limited to the specific constructions herein described, but may be carried out in other ways.

I claim:

1. A composite light comprising a plurality of complementary incandescent lamp bulbs having abutting portions on each bulb adapted to cooperate with similar portions on an adjacent bulb, each bulb comprising a complete operative unit including base, globe, filament, and a pair of terminals incorporated with each base, said pairs of terminals being connected to respective filaments, said terminals engaging independently with corresponding positive and negative terminals of a socket, whereby the filaments are independently lightable and whereby the failure of one filament will not affect the operation of any other filament, the bases of the several units, when assembled in a socket, serving to mutually support each other therein.

2. A composite light comprising a plurality of complementary incandescent lamp bulbs having abutting portions on each bulb adapted to cooperate with similar portions on an adjacent bulb, each bulb comprising a complete operative unit including base, globe, filament, and a pair of terminals incorporated with each base, said pairs of terminals being connected to respective filaments, said terminals engaging independently with corresponding positive and negative terminals of a socket, whereby the filaments are independently lightable and whereby the failure of one filament will not affect the operation of any other filament, the bases of the several units, when assembled in a socket, serving to mutually support each other therein, the globe of one of the units being colored.

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