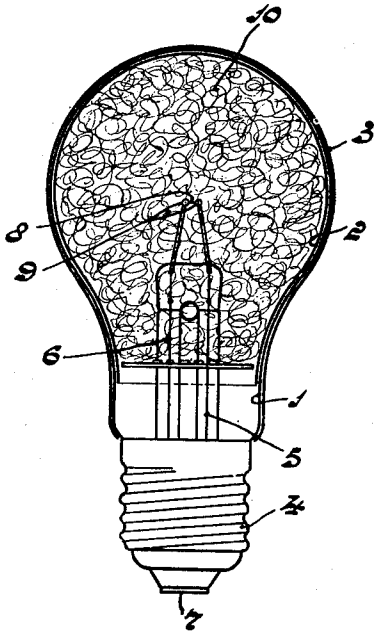
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FLASH LAMP

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FLASH LAMP

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3 Claims. (Cl. 67—31)

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This invention relates to electric lamps of the photographic flash-light type the bulb of which contains substances having an actinic reaction on each other upon ignition and is coated with a lacquer layer on the inside as well as on the outside. Such lacquer layers are known to be used to avoid the risk of the bulb bursting upon ignition of the flash-light lamp and to hold the splinters as far as possible in the event of breakage of the bulb.

The invention permits of ascertaining in a simple manner whether the two lacquer layers are present on the bulb wall, so as to prevent delivery of insufficiently lacquered flash-light lamps to the user.

According to the invention, for this purpose, the two lacquer layers are coloured with substantially complementary colours, so that the bulb of the flash-light lamp is substantially colourless, so far it is coated with the two lacquer layers. If one of the two lacquer layers is missing, the colour of the remaining lacquer layer becomes perceptible, so that any local absence or complete absence of the lacquer layer can readily be ascertained.

In order to avoid as far as possible undue increase in light absorption by the colours of the lacquer layers, the colour intensity should be low.

For colouring the lacquer, use may be made of colouring substances which dissolve in the solution of the lacquer with which the bulb of the flash-light lamp is coated, or else, finely ground pigment colouring substances may be suspended in the lacquer solutions.

The invention will be described more fully with reference to the following example.

Example

The bulb of the flash-light lamp is sprayed on the inner side with a solution of polyvinylacetate, such as that sold under the trade name "Vinapaslak," in which 0.03 percent by weight, calculated on the basis of the dry lacquer, of Paris blue is suspended, so that after spraying a layer of thickness 15μ is left. "Paris blue" is a good quality iron blue pigment.

The outside surface is coated with a lacquer layer of 60μ, by dipping the bulb in a suitable solution of nitro-cellulose, so that the lacquer layer contains 0.01 percent by weight of an orange colouring substance such as is obtained by mixing equal parts of "Orasolrot 2B" and "Grasolechtgelb RN." "Orasolrot 2B" and "Grasolechtgelb RN" are names well known in commerce for a colouring substance supplied by "Gesellschaft für

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chemische Industrie" or by "J. R. Geigy" respectively, both having their seat at Basel.

The internal lacquer layer is blue and the external lacquer layer is orange-coloured. A flash-light lamp, the bulb of which is coated with these two layers is colourless.

The single figure of the accompanying drawing shows, by way of example, a flash-light lamp, the bulb of which is provided with an internal and an external lacquer layer, which are coloured in accordance with the invention.

Reference numeral 1 designates a glass bulb coated internally with a lacquer layer 2 and externally with a lacquer layer 3. Reference numeral 4 designates the lamp cap of the flashlight lamp, which is connected to a supply wire 5. A supply wire 6 is connected to the central contact of the lamp base 7. The supply wires are connected at 8 by a filament by which an ignition paste 9 is supported. The actinically reacting material 10 is constituted by a wire of an aluminium-magnesium alloy which contains 7 percent by weight of magnesium and is housed in the bulb, which is filled with oxygen to a pressure of 50 cms. of mercury.

What we claim is:

1. A flash-light lamp comprising a bulb, an actinically reacting material therein, complementary colored lacquer layers on the external and internal surfaces of said bulb to make said bulb appear substantially colorless.

2. A flash-light lamp comprising a bulb, an actinically reacting material therein, a colored lacquer layer on the outer surface of said bulb and a colored lacquer layer on the inner surface of said bulb, the colors of said layers being complementary so that the bulb appears colorless.

3. A flash-light lamp comprising a bulb, an actinically reacting material therein, a blue-colored lacquer layer on the one surface of said bulb and an orange-colored lacquer layer on the other surface of said bulb to make said bulb appear substantially colorless.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
2,013,371	Van Liempt et al.	Sept. 3, 1935
2,258,708	Langkammerer	Oct. 14, 1941
2,269,984	Munder	Jan. 13, 1942
2,345,777	Somers	Apr. 4, 1944