Nov. 12, 1940. R. G. FORDYCE 2,221,375

SELF-LUMINOUS LOCATOR

Filed Jan. 26, 1939

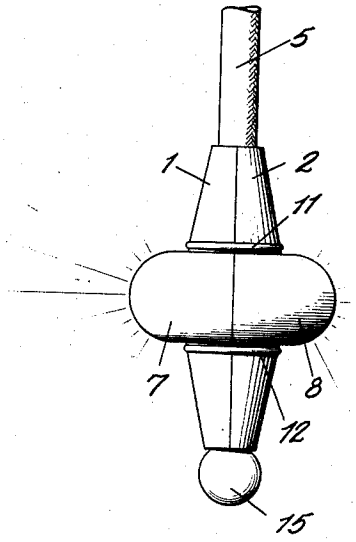


Fig. 1.

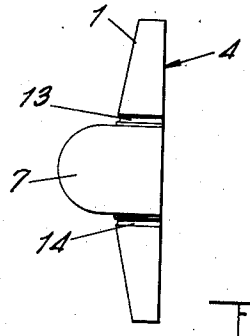


Fig. 2.

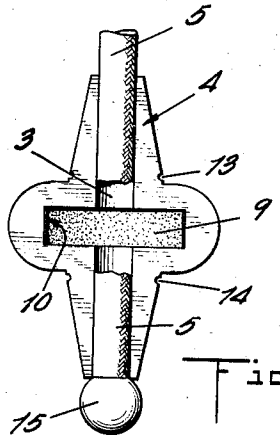


Fig. 3.

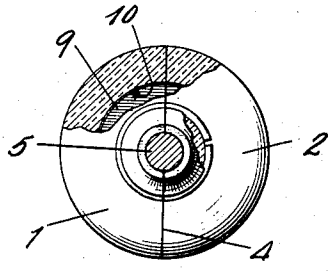


Fig. 4.

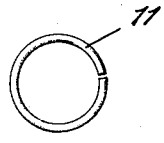


Fig. 5.

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SELF-LUMINOUS LOCATOR

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Application January 26, 1939, Serial No. 252,887

1 Claim. (Cl. 250—73)

This invention relates to self-luminous locators and more especially to such locators as are used on pull wires or cords.

A principal object is to provide an improved form of self-luminous locator for the pull cord or wire of such devices as hospital call bells, paging systems and the like.

Another object is to provide a more efficient self-luminous locator which is readily attached to, and removable from, pull cords, wires and the like.

A feature of the invention relates to a bi-part self-luminous locator which is made from a special transparent plastic which is less liable to chip, crack or shatter. Thus, where the device is used in hospitals, a patient can locate the pull cord or string readily in darkness or semi-darkness and even if the device should collide with a hard object, there is little chance of it cracking or chipping, thus removing the possibility of scratching or cutting the patient as might be the case where the locator is of glass.

A further feature relates to the novel organization, arrangement and relative location of parts which constitute an improved self-luminous locator.

Other features and advantages not specifically enumerated will be apparent after a consideration of the following detailed description and the appended claim.

While the invention will be described herein as embodied in a signalling cord for hospitals, it will be understood that in certain of its aspects, it is capable of application to other uses where an efficient and readily grasped locator for use in darkness or semi-darkness is desired. Referring to the drawing which by way of explanation shows one preferred embodiment of the invention,

Fig. 1 is an assembly view of the locator attached to a signalling cord or the like.

Fig. 2 is a view of one of the halves of the bi-part member of Fig. 1.

Fig. 3 is a side view of Fig. 2 showing the member in position on a signal cord.

Fig. 4 is a top plan view of Fig. 1, partly sectional, to show the manner of assembly more clearly.

Fig. 5 is a detailed view of one of the resilient locking rings shown in Figs. 1 and 4.

The self-luminous marker consists of two similar members 1, 2, each having a longitudinal groove or channel 3 and a flat face 4, so that when the members as assembled against each other as shown in Fig. 1, they define a through passage-way to receive the signal cord 5. Preferably, members 1 and 2, have their end portions tapered so as to facilitate grasping between the fingers. Each member is also formed centrally with a semidarkness lens portion 7, 8, and in alignment with each lens on the inner face of each member is a semi-circular groove 9, in which is deposited a quantity of self-luminous material 10 as indicated by the stippling. In order to fasten the members together as a unit on the cord 5, a pair of split-ring springs 11, 12, are slipped over the tapered ends of the members. Preferably, the inner diameter of the springs 11, is slightly larger than the larger end of the tapered portions, so that the springs 11, 12, can be expanded during assembly over the tapered portions, and when they reach the grooves 13, 14, they automatically contract to lock the members 1 and 2 against each other.

The assembly may be prevented from falling off the word 5 by a knot or ball 15 attached to the free end of the cord. However, if desired, the channels 3 and members 1 and 2 may be designed so that they are slightly smaller than the outside diameter of the cord 5, so that when the springs 11 and 12 are sprung into position, the members 1 and 2 are firmly clamped against the cord 5.

Since the luminous material 10 is contained in the groove 9, it is out of contact with the cord 5, thus preventing rubbing and consequent removal of the luminous material.

I have found that the best results are obtained so far as self-luminous efficiency is concerned, when the members 1 and 2 or at least the lens portions 7 and 8, are formed from a specially chosen plastic, for example that sold under the trade name "Lucite" and consisting for the most part of methyl methylcrylate and the self-luminous material 10 contains a salt or salts of radium or mesothorium. The combination of these two elements and the fact that the luminous material is in optical alignment with the lens portions 7 and 8, which act as magnifying lenses, causes the luminous efficiency to be markedly increased over ordinary self-luminous markers. While I am not prepared to state definitely the theory for this increased efficiency, it may be due to the fact that the radium or mesothorium luminous salts in bombarding the "Lucite" lenses 7 and 8 render, to a certain extent, the latter self-luminous. However, apart from the increase in self-luminous efficiency, is the fact that the device is readily assembled and removable for cleaning or sterilizing and is less liable to crack or chip. Fur-

thermore, the tapered end sections facilitate grasping and the device by reason of employing the circular lens is visible in darkness and semi-darkness at substantially any angle. Preferably the members 1, 2, are molded in a suitable mold so as to form the lenses 7, 8, with the proper magnifying characteristics.

While certain materials and parts have been mentioned, it will be understood that the invention in certain aspects is not necessarily limited thereto but is suceptible of change and modification without departing from the spirit and scope of the invention.

What I claim is:

A self-luminous locator for pull cords and the like, comprising a pair of separable similar members of non-vitreous plastic, each having a longitudinal channel through which the cord passes, spring means to hold said members together on said cord, each of said members having an internal annular groove the bottom of which is radially spaced from said cord, a quantity of self-luminous material on the bottom of each groove, and a peripheral annular magnifying lens formed integrally on each member in alignment with said groove for magnifying said luminous material.

RUFUS G. FORDYCE.