March 16, 1943. W. A. BRUNO 2,314,122

INDICATING RELAY ASSEMBLY

Filed Nov. 14, 1941

Fig. 1.

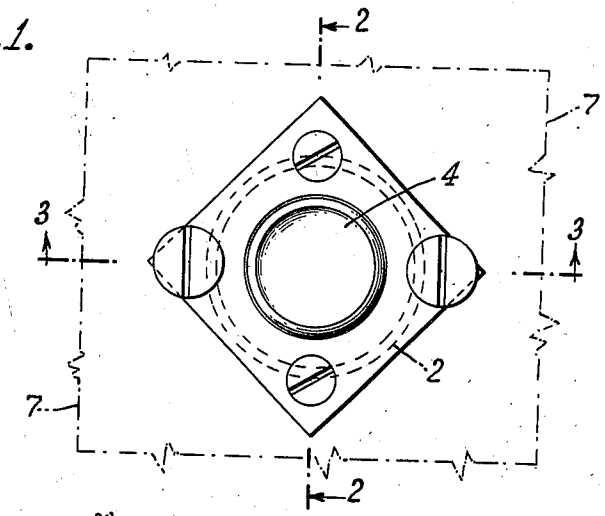


Fig. 2.

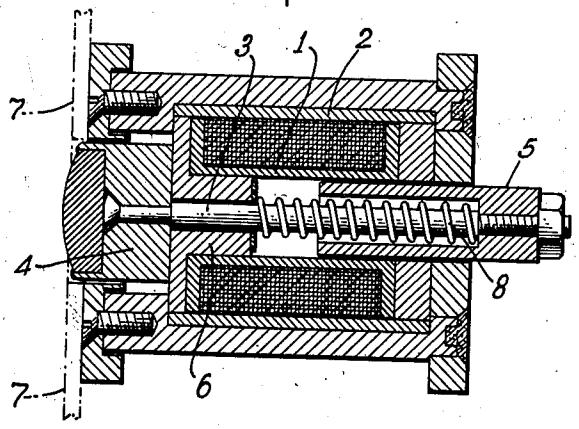
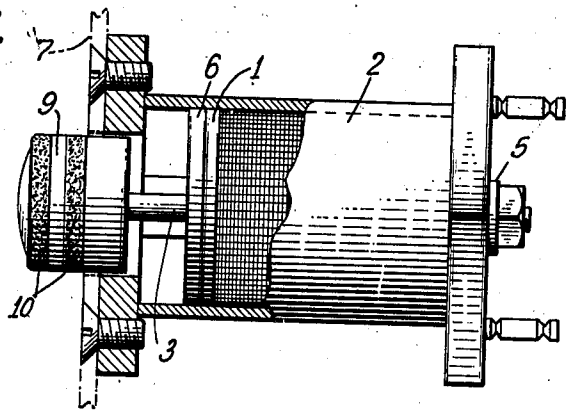


Fig. 3.



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INDICATING RELAY ASSEMBLY

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2 Claims. (Cl. 177—329)

This invention relates to an indicating relay assembly, and more particularly to an indicating electromagnetic relay assembly, in which a signaling element is automatically displayed and withdrawn.

It is one object of this invention to provide an indicating electromagnetic relay assembly, by which positive indications are automatically performed without the use of lamps or audible signals.

The main object of this invention is to provide an electromagnetic indicating relay assembly comprising one or several signal elements which, when displayed, are perceptible by touch, and are visible in the dark.

Other objects and advantages will be apparent from the following specification, and the appended drawing which shows, by way of example, one embodiment of the device according to this invention, and in which

Fig. 1 is a front view of a relay assembly according to my invention;

Fig. 2 is a sectional view along line 2—2 of Fig. 1, and

Fig. 3 is a sectional view along line 3—3 of Fig. 1.

The drawing shows an electromagnetic relay assembly which comprises a coil spool 1 and an armature plug 6 housed by a tube 2, and a signaling device comprising a rod 3 provided with a signal button 4, and an armature tube 5. Said signal assembly may be actuated by electromagnetic means and spring effect in a manner known per se. Button 4 is displayed by electromagnetic means which cause it to move through a suitable opening in panel 7, into a partially projecting position, and may be withdrawn into its original position by the action of a compression spring 8. In accordance with the present invention, the cylindrical surface 9 of the button 4 is provided with a luminous layer or with luminous signs visible in the dark, by coating one preferably annular portion or several spaced preferably annular segments 10, for example, of said cylindrical surface 9 with a luminous paint or coating. These luminous signs are visible in the dark when button 4 is displayed in its projecting position, and they are not visible when it is withdrawn, i. e. in the position shown in Fig. 2.

The cylindrical surface of button 4 may be provided with one or more annular grooves filled with a luminous mass. Instead of using annular signs, luminous signs of other shape, such as spaced strips arranged longitudinally on the cylindrical surface 9, may also be used. The signal button, instead of being cylindrical, may be of another suitable shape, it may have, for example, a substantially uniform, quadrangular cross-section. The terms "luminous" in this specification and the appended claims denotes products, particularly paints, pigments or the like, which are capable of emitting a certain amount of light and are, therefore, visible in the dark.

It is to be understood that the invention is not limited to the embodiment shown, but may be embodied in various equivalent forms, reference being had to the appended claims for a definition of the limits of the invention.

I claim:

1. In an indicating electromagnetic relay assembly, a front member provided with an opening, an indicating element having a uniform cross-section along its longitudinal axis and fitting snugly in said opening of the front member, means for displaying a portion of said indicating element in a projecting position through said opening, and means for withdrawing the same, an annular luminous sign being provided on the portion of the indicating member which is capable of being projected through said opening, and capable of being concealed by said means.

2. In an indicating electromagnetic relay assembly, a front member provided with a circular opening, an indicating element having a uniform cylindrical shape and fitting snugly in said opening of the front member, means for displaying a portion of said indicating element in a projecting position through said opening, and means for withdrawing the same, an annular luminous sign being provided on the portion of the cylindrical surface of the indicating element, which is capable of being projected through said opening and capable of being concealed by said means.

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