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(54) **Emergency luminaire**

(57) The invention relates to emergency luminaires, and has its objective to provide a secure and simple access to the fastening components and connection of the luminaire, hence facilitating the routine maintenance jobs. This objective is met with a connection between

the fluorescent tube and the printed circuit carried out by means of two bands which are mechanically and electrically connected to the printed circuit by means of contact devices which consists of small plates protruding perpendicular to said bands and which at their end are bent and narrow shaping tapered components.

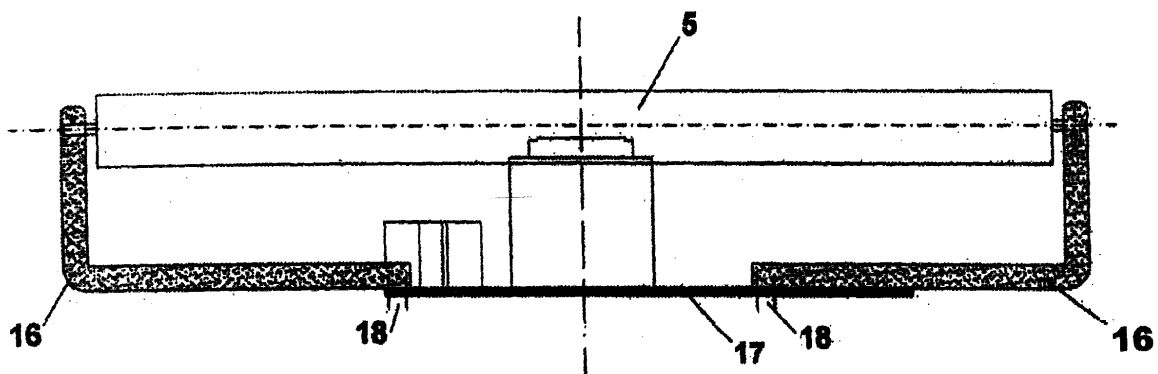


FIG. 12

Description

FIELD OF THE INVENTION

[0001] The present invention refers to an emergency luminaire used in electric installations and having some improvements compared with those normally used.

BACKGROUND

[0002] Emergency luminaires currently on the market have many shapes, sizes, technical features, etc. As their name indicates, they are used to provide light when the electric installation fails. These luminaires are connected to an independent emergency circuit, permitting the battery contained in them to be charged. When the protections of the electric installation jump, said battery starts to operate discharging itself and supplying the fluorescent tube or incandescent lamp, hence illuminating the emergency luminaire.

[0003] The emergency luminaires normally used are usually provided with conventional components, such as the main cover or diffuser, generally transparent, covering the tube or lamp, lampholders for their housing, several signaling LEDs or the reflector-covers.

[0004] In spite of the importance of the maintenance and repair jobs of said luminaires, not all of them allow easy access for their handling, since they need a total dismantling to facilitate said operations, it being also necessary on many occasions to remove the tube or lamp.

SUMMARY OF THE INVENTION

[0005] The present invention has a reflector-cover incorporating two parts: a fixed reflector-cover and a mobile reflector-cover. The latter is provided with a means of manual opening making it easy to dismantle, allowing a secure and simple access to the fastening components and connection of the luminaire, hence facilitating the routine maintenance jobs.

[0006] On the other hand, the present invention is also provided with a flat band which significantly simplifies the connection between the printed circuit inside the luminaire and the fluorescent tube pins, avoiding the use of somewhat complicated tube or lampholders with special wiring.

[0007] A practical embodiment is described below, in no way limiting the object of the invention, referring to the attached drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] Figure 1 shows a perspective view of the emergency luminaire without the main cover or diffuser.

[0009] Figure 2 shows a lower view of the main cover or diffuser.

[0010] Figure 3 shows a side view of the main cover

or diffuser.

[0011] Figure 4 shows a front view of the main cover or diffuser.

[0012] Figure 5 shows a perspective view of the emergency luminaire without the main cover or diffuser, with the mobile reflector-cover partially open.

[0013] Figure 6 shows a front view of the mobile reflector-cover.

[0014] Figure 7 shows a rear view of the mobile reflector-cover.

[0015] Figure 8 shows a front view of the fixed reflector-cover for the fluorescent tube.

[0016] Figure 9 shows a side view of the fixed reflector-cover for the fluorescent tube.

[0017] Figure 10 shows a front view of the fixed reflector-cover for incandescent lamps.

[0018] Figure 11 shows a side view of the fixed reflector-cover for incandescent lamps.

[0019] Figure 12 shows an elevation view of the connection between the fluorescent tube and the emergency luminaire printed circuit.

[0020] Figure 13 shows a perspective view of the connection band between the fluorescent tube and the printed circuit.

[0021] Figure 14 shows a front view of the connection band between the fluorescent tube and the printed circuit.

[0022] Figure 15 shows the upper end of the union with the fluorescent tube pins of the connection band between the fluorescent tube and the printed circuit.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

[0023] According to figure 1, it is seen that the preferred embodiment of the emergency luminaire of the present invention consists of a base part 1, over which a fixed reflector-cover 2 and a mobile reflector-cover 3 are fitted. From the fixed reflector-cover 2 protrude, near to the ends, two supports 4 which serve as a housing for the end pins of the fluorescent tube 5.

[0024] Figures 3, 4 and 5 show different views of a possible main cover 6 of the luminaire which in its normal condition is located over the assembly of figure 1 remaining hooked to it by means of some taps 7.

[0025] In figure 5, the mobile reflector-cover 3 may be seen in a partially open position, once the opening means 8 has been pressed and which is located on the outside edge. Figures 6 and 7 also show said mobile reflector-cover 3 and an embodiment of the opening means 8 in greater detail. Specifically, it is seen that it consists of a flexible plate 9 and several hook protrusions 10 located at its end. Also the lugs 11 located on the inside edge are seen, which are hooked on to the fixed reflector-cover 2.

[0026] Following figures 8 and 9, it may be seen that the fixed reflector-cover 2 for the luminaire provided with a fluorescent tube 5 is provided with a lug 12 for hooking

with the base, a pair of end housings 13 for both hooking lugs located on the base, a pair of complementary grooves 14 for the fixed reflector-cover 3 lugs 11 and several openings 15 for access to the entrance to the electrical connections. Likewise, figure 10 shows a fixed reflector-cover 2 corresponding to the luminaire with an incandescent lamp.

[0027] Figure 12 shows an elevation view of the connection system between the fluorescent tube 5 and the printed circuit 17 of the emergency luminaire. This connection is carried out by means of two flattened bands 16 which are mechanically and electrically connected with the printed circuit 17 by means of contact devices 18. These bands 16 are seen in greater detail in figures 13, 14 and 15 where their end contacts 19 are seen, whose function is to be in connection with the end pins of the fluorescent tube 5 and the contact means 18 joining them to the printed circuit 17. An embodiment of these contact means is shown in figures 13 and 14 where the small plates 20 perpendicular to the band are seen, which are bent by narrowing them in the sharpened ends 21.

[0028] When pressing the opening means 8 with a finger, the former is unhooked from the base 1 and the mobile reflector-cover 3 rotates over its inside edge, permitting opening. In this way, there is a safe and reliable access to the connection wiring entrance with the mains, whose terminals are found beneath the openings 15. This system also makes it unnecessary to dismantle the tube or lamp when carrying out routine maintenance and repair operations. During these operations the fixed reflector-cover 2 is not dismantled; this component will only be opened on exceptional occasions, since the components it contains do not require routine access.

[0029] The connection between the printed circuit 17 housed below the fixed reflector-cover 2 and the fluorescent tube 5 is made by means of the basically flattened bands 16 which may have different length and height configurations permitting their adjustment to different practical applications.

[0030] Although an embodiment of the invention has been described and shown, modifications may be introduced included within its scope and not being limited to this embodiment but only to the following claims.

Claims

1. An emergency luminaire consisting of a base (1) with a printed circuit (17), a reflector-cover (2,3) over whose fixed part (2) a fluorescent tube (5) is fitted characterized in that the connection between the fluorescent tube (5) and the printed circuit (17) is carried out by means of two bands (16) which are mechanically and electrically connected to the printed circuit (17) by means of contact devices (18).

2. Emergency luminaire according to claim 1 charac-

terized in that the contact devices (18) of the fluorescent tube (5) connection bands (16) with the printed circuit (17) consists of small plates (20) protruding perpendicular to said bands (16) and which at their end are bent and narrow shaping tapered components (21).

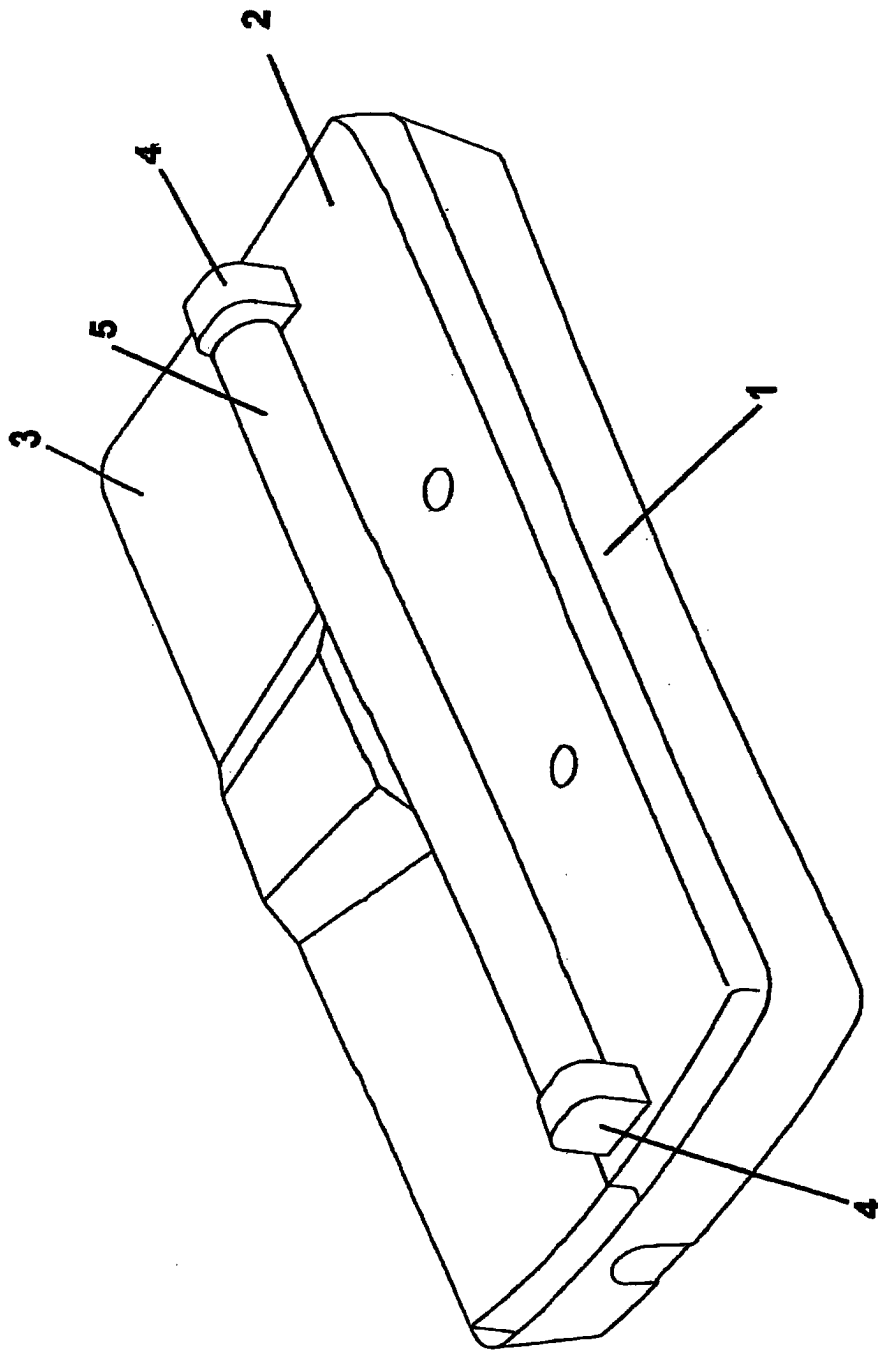
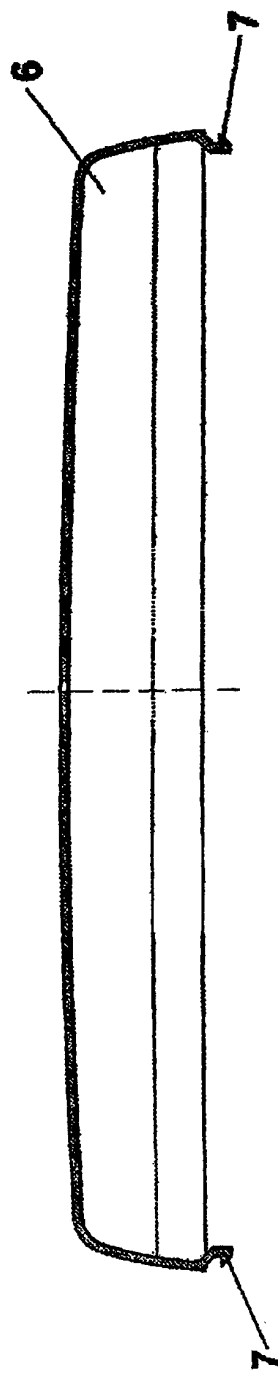
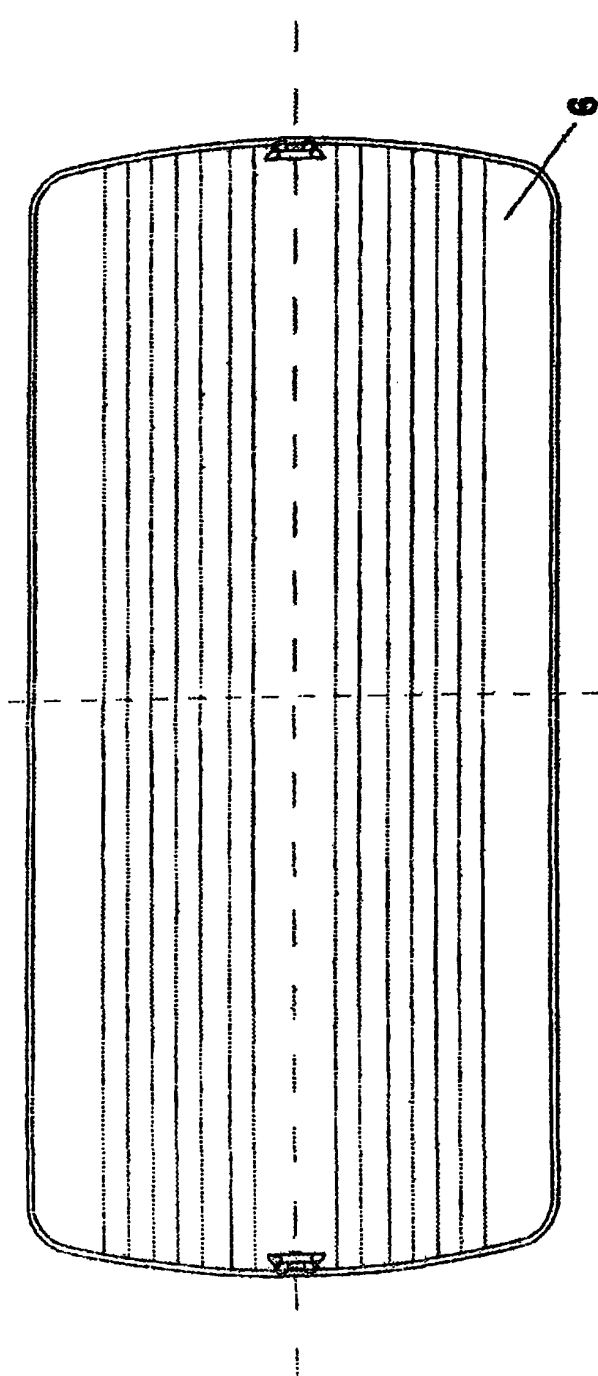
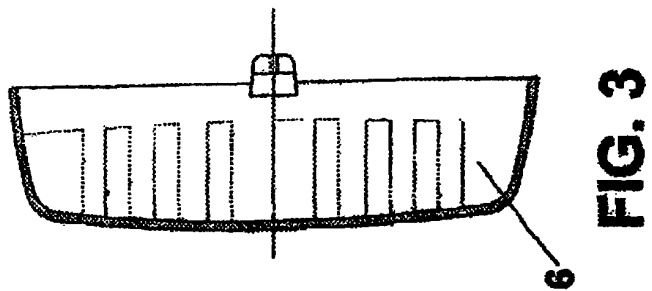


FIG. 1



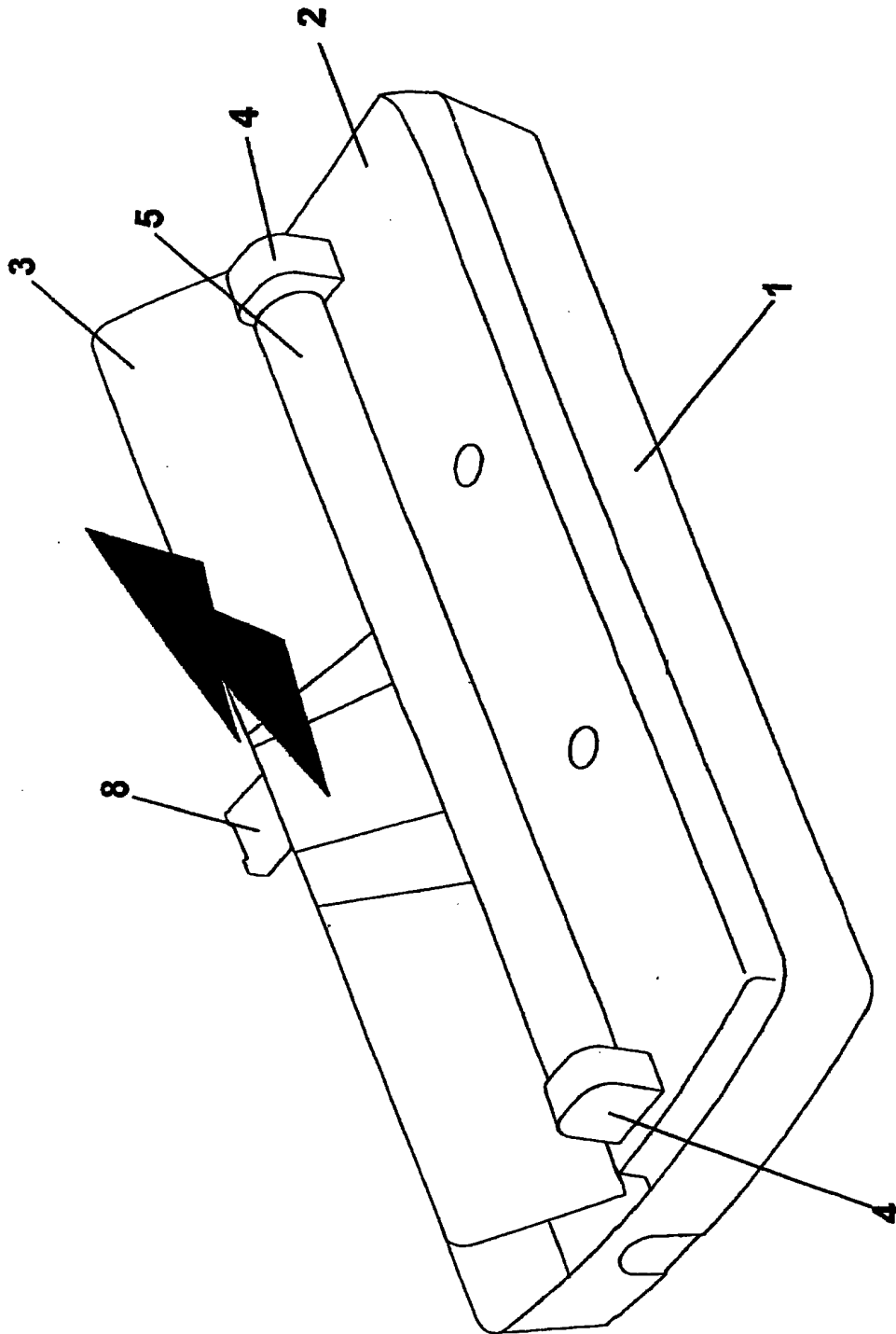


FIG. 5

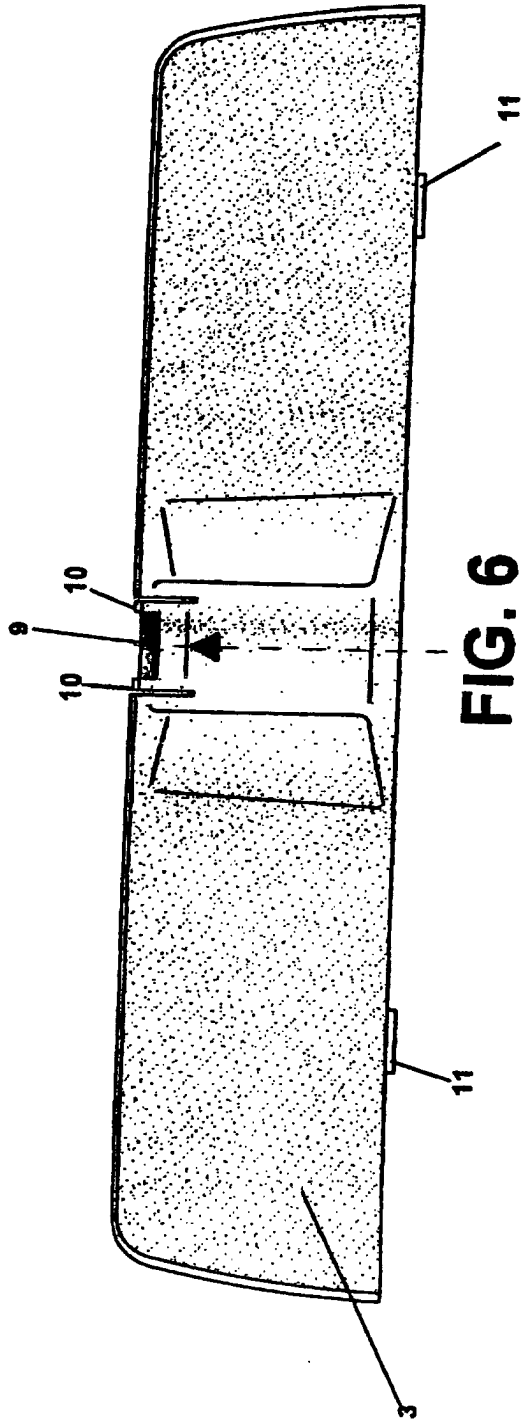


FIG. 6

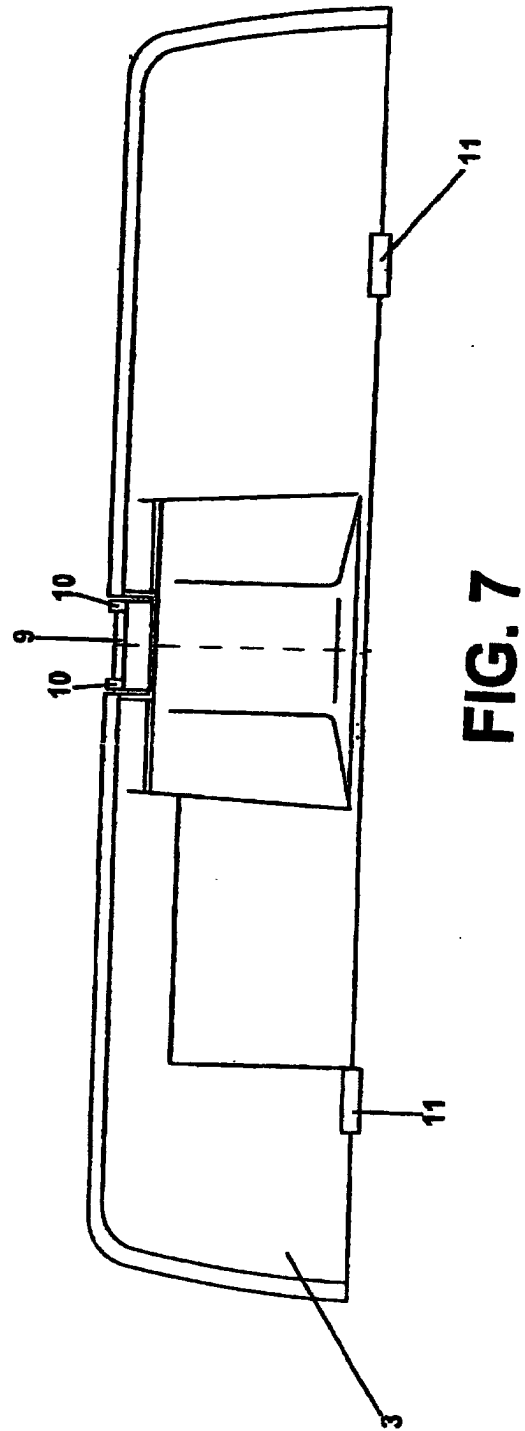


FIG. 7

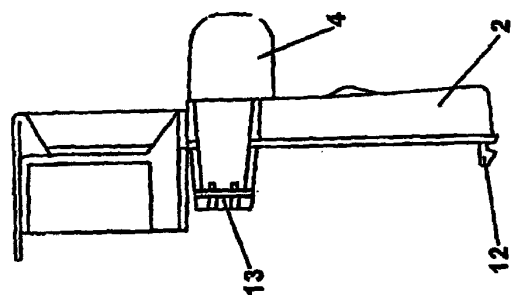


FIG. 9

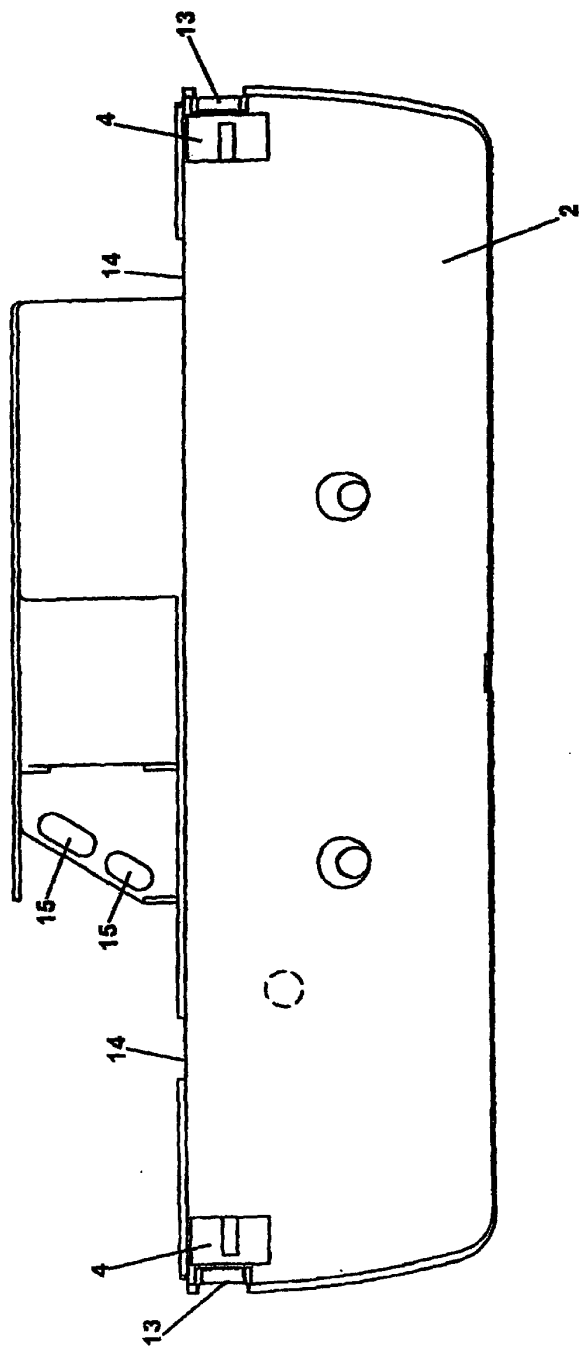


FIG. 8

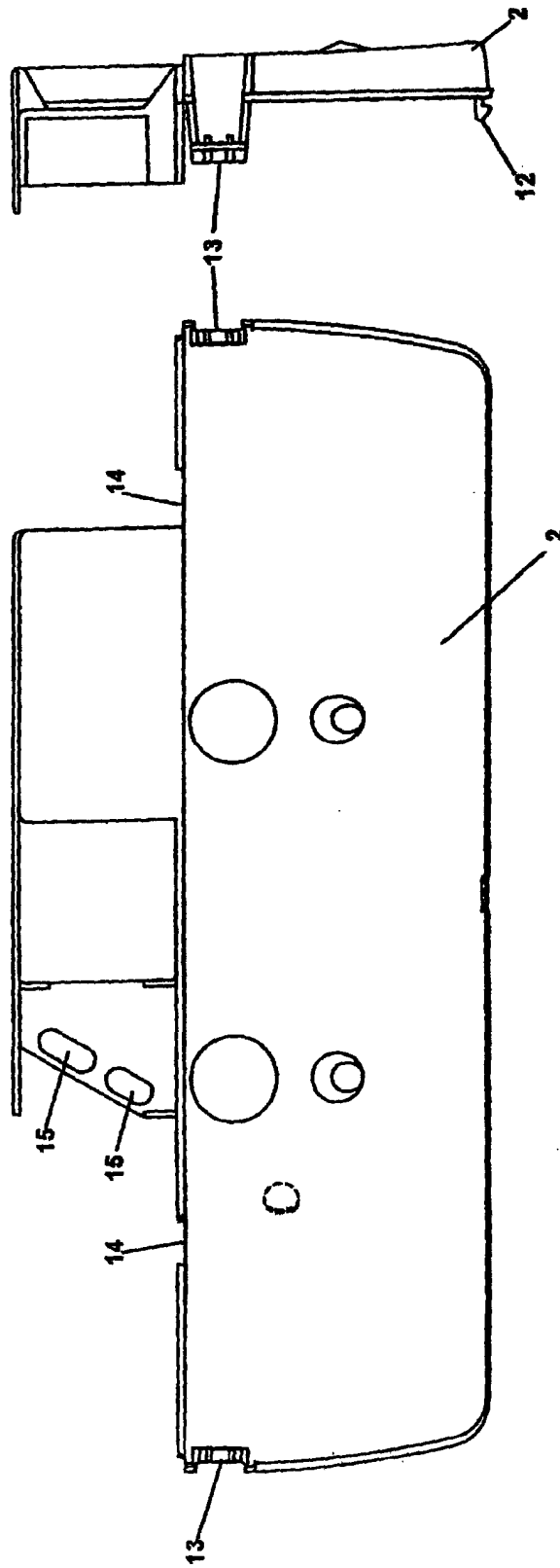


FIG. 11

FIG. 10

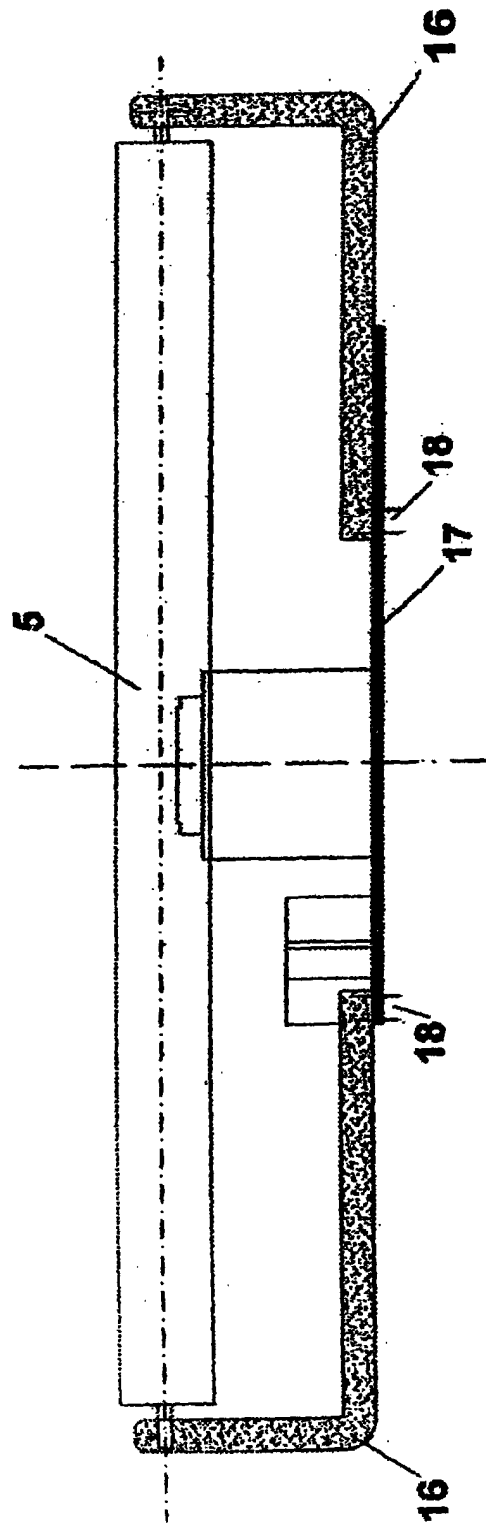


FIG. 12

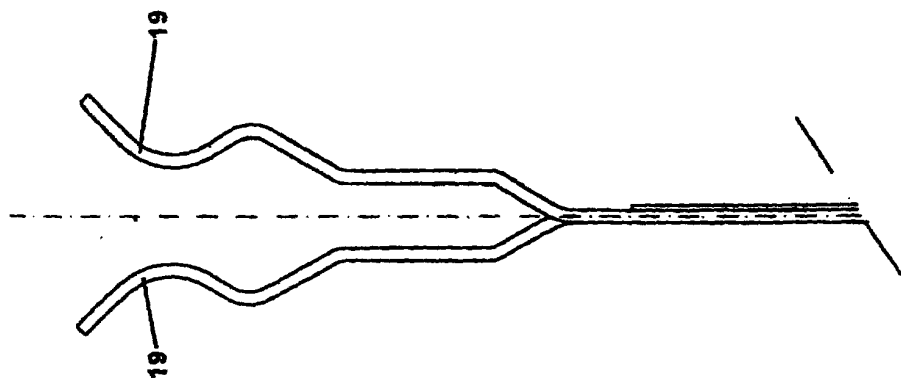


FIG. 15

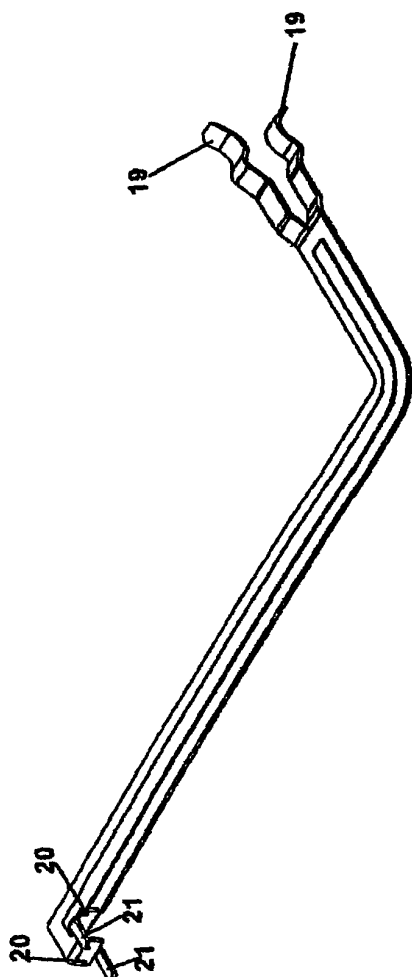


FIG. 13

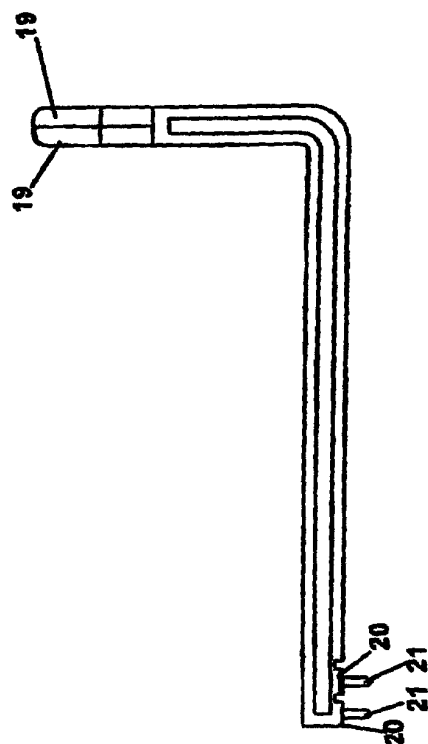


FIG. 14