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VEHICLE DIRECTION INDICATING LUMINOUS INDICATOR

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FIG. 1

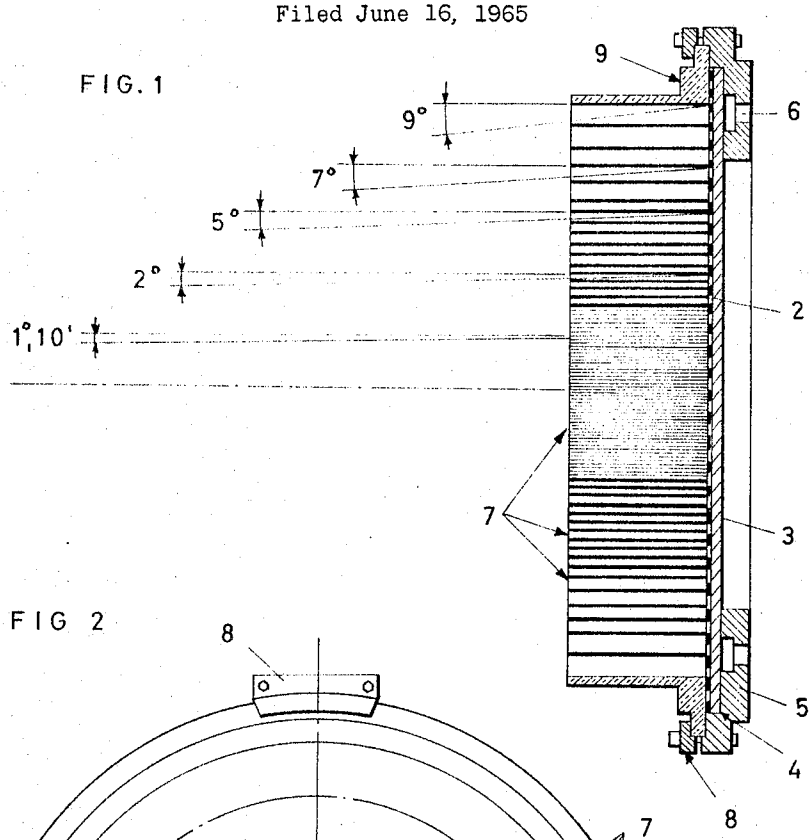
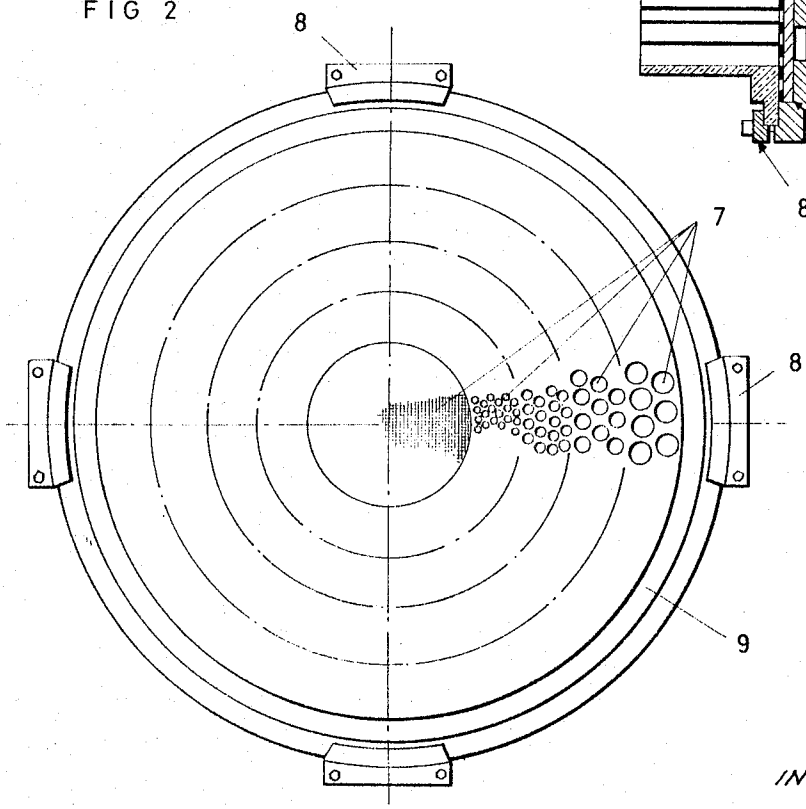


FIG 2



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VEHICLE DIRECTION INDICATING LUMINOUS INDICATOR

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ABSTRACT OF THE DISCLOSURE

A direction indicating luminuous panel provided with an adjacent opaque screen having a plurality of bores of decreasing diameter as measured from points adjacent the periphery of the screen progressively toward the center of the screen.

The present invention refers to a differentiated-visibility indicator device, particularly suitable for providing the right landing direction in heliports located on dry land or on board of ships.

The object of the invention is to provide a device of the mentioned kind, suitable for providing with immediacy the helicopter's pilot, during night-time hours and under conditions of poor visibility, with a luminous display indicative of the axis of the landing zone. In other words, the divice according to the invention has a variable visibility, which appears as complete only in a predetermined direction, coinciding with the landing direction.

According to the invention, it is provided a device comprising, in combination, an electroluminescent panel arranged perpendicularly to the predetermined direction, and an opaque screen, having a corresponding shape and a predetermined thickness, superimposed on said panel and containing a plurality of axial bores, parallel to said direction, and of a diameter decreasing from the periphery toward the center of the screen, so that the complete visibility of said panel is obtained only when the observer is aligned with said direction, with an approximation which is given by the ratio of the diameter of the central bores to their length.

The invention will now be described with reference to the attached drawings, showing by way of illustration and not of limitation a preferred embodiment of the invention.

In the drawings:

FIGURE 1 is a cross-sectional view of the device;

FIGURE 2 is a front elevation.

With reference to the drawings, the numeral 2 designates an electroluminescent panel, applied on a protective bottom 3 housed within a recess 4 of an annular support 5 provided with holes 6 for fastening the assembly on a wall or a pivotable support not illustarated because already known.

Above the electroluminescent panel 2 is mounted a cylindrical screen of an opaque material having a predetermined thickness, and provided with a plurality of axial bores designated by the numerical 7, extending throughout the thickness of the screen. As shown in FIGURE 2, the screen is ideally divided into concentric annular zones, in which the bores 7 have a diameter of a decreasing value from the periphery toward the center, where the bores are closer and have the smallest value. About the perforated screen is provided a transparent rim 9 covering an outer annular zone of the panel 2 so that said zone is visible from any direction substantially in front of the device. The transparent rim 9 is fastened

by jaws 8 provided with bolts to the support 5. In the front surface of the screen, a protective transparent covering may be provided, the purpose of which is to prevent the entrance of dust or other foreign materials into the bores 7.

As shown in FIGURE 1, the zone of the electroluminescent panel 2 in which the larger bores are provided, is visible within a range having an angular amplitude of about 9°, while the concentric zones have a progressively smaller range of visibility up to the bores of the central zone which is visible through an angular amplitude of about 1°.

The use of the device is as follows:

The device is mounted in proximity to the landing strip, with the central axis oriented according to the desired direction. When the pilot is approaching the landing strip, if the flight direction exceeds 9° of incidence to the landing direction, the pilot sees only the outer annular band of the electroluminescent panel, that is the zone covered by the transparent rim 9. If the sight forms an angle smaller than 9°, the pilot perceives the annular zone in which the larger bores are provided. Then he shall so maneuver as to discern the whole electroluminescent panel, insofar only under these conditions one has virtually the coincidence of the flight direction with the landing direction.

Obviously, it is understood that the device disclosed is suitable for use also in other fields having the same requirements. In the drawings the system is shaped as a disk, being however, obvious that it may take any shape and size, in connection to the specific modes of use, the luminous panel may be also illuminated as well, by means of a conventional luminous source.

The present invention has been described in a preferred embodiment thereof, it being however understood that changes and modifications may be made therein without departing from the scope and the spirit of the invention.

What is claimed is:

1. A differentiated-visibility luminous indicator device, comprising, in combination, an electroluminescent panel arranged perpendicularly to a predetermined direction, and an opaque screen, having a corresponding shape and a predetermined thickness, superimposed on said panel and provided with a plurality of axial bores, parallel to said direction, and of a diameter decreasing from the periphery toward the center of the screen, so that the complete visibility of said panel is obtained only when the observer is aligned with said direction, with an approximation which is given by the ratio of the diameter of the central bores to their length.

2. A device according to claim 1 wherein a circumferential band of said panel is positioned outwardly to the screen and is protected by a transparent element, so that said circumferential band is visible from substantially any position in front of the device.

3. A device according to claim 1, wherein said panel is shaped as a disk, and said screen is ideally divided into concentric annular zones, every one of which has a plurality of bores of a constant diameter.

4. A device according to claim 1, wherein said electroluminescent panel is mounted on a support, and said screen is protected in the fore part by a protective transparent layer.

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