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(54) Title:
A DEVICE FOR THE TIMED LIGHTENING OF SIGNAL TRIANGLES ON VEHICLES AND OF TRIANGLES FOR EMERGENCY STOPS

(57) Abstract

The device according to the present invention allows the timed lightening in following phases of the structure and of the signals provided on two kinds of emergency triangles, a first one (2) provided on the vehicle, and a second one (3) that may be seen at distance, when the vehicle is forced to stop due to a damage.

* See back of page
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"A DEVICE FOR THE TIMED LIGHTENING OF SIGNAL TRIANGLES ON VEHICLES AND OF TRIANGLES FOR EMERGENCY STOPS"

The present invention concerns a device for the timed lightening of signal triangles provided on vehicles and of triangles indicating an emergency stop of a vehicle.

It is already well known that the triangles indicating an emergency stop are not visible in the dark, and that therefore they are often run over by arriving vehicles, with a consequent danger for the safety of people on vehicles having suffered a damage.

On the other side, also the conventional rear signals of moving vehicles, like the stops, the lights and the number-plate are not so much evident in conditions of low visibility, at night, with fog and during storms.

It is therefore the aim of the present invention to realize a device for obtaining a timed lightening, in following phases, of the structure and of the signals present on two kinds of emergency triangles, the first one provided on the vehicle and the second one that may be seen at distance when the vehicle has to stop for a damage.

The device according to the present invention will be described more in detail hereinbelow according to the enclosed drawings, in which a preferred embodiment is shown.
Figure 1 shows a perspective view of the device for the timed distribution of the electric feeding of the various portions of the triangles.

Figures 2 and 3 respectively show the triangle placed on the vehicle and the one in emergency stop.

Relating now to the details of the figures, the device according to the present invention comprises:

- an electromechanical distributor 1, for the timed connection between the accumulator battery of the vehicle and those parts of the triangle that may be lighted;
- a signal triangle 2 provided on the vehicle, comprising a bright background 4, a danger signal 5, a signal for overtaking on the left 6, a signal of forbidden direction 7 on the right, and a frame 8 with luminous points;
- a triangle for emergency stop 3 with internal signals 9.

In an embodiment of the device according to the present invention, the electromechanical distributor consists of:

- a turning disc 10, placed into rotation by a small electric motor with a reducer 11;
- three kinds of electric contacts 12, 13, 14, out of one piece with the upper plate of said disc 10, placed on offset planes for determining the contacts in successive phases with the terminals offset in height 15, 16, 17, that have the task of leading the electric feeding to the various parts of the triangles 2, 3;
- a central contact 18 for the electric connection between the battery of the vehicle and the disc 10, so as to make the current arrive, by means of wires 19, to said contacts 12, 13, 14 which, following to the rotation, arrive in succession under the terminals 15, 16, 17 and from these the current arrives to the small lamps for lightening the elements 2, 4, 5, 6, 7 and 8 and, in alternative, to the elements 9 of the emergency stop triangle 3.

A main feature of the device according to the present invention consists in that contact 12 consists in three separate elements that are able to determine the connection, in succession, with said terminal 15 so as to light the respective signal of triangles 2 and 3 in an intermittent way, thus obtaining major signalling results.
CLAIMS

1. A device for the timed lightening of signal triangles on vehicles and of triangles indicating an emergency stop, characterized in:
   - an electromechanical distributor (1), for the timed connection between the accumulator battery of the vehicle and those parts of the triangle that may be lighted;
   - a signal triangle (2) provided on the vehicle comprised a bright background (4), a danger singla (5), a signal for overtaking on the left (6), a signal of forbidden direction (7) on the right, and a frame (8) with luminous points;
   - a triangle for emergency stop (3) with internal signals (9).

2. A device according to claim 1, characterized in that said electromechanical distributor consists of:
   - a turning disc (10), placed into rotation by a small electric motor with a reducer (11);
   - three kinds of electric contacts (12, 13, 14) out of one piece with the upper plate of said disc (10), placed on offset planes for determining the contacts in successive phases with the terminals offset in height (15, 16, 17), that have the task of leading the electric feeding to the various parts of the triang-
les (2, 3);
- a central contact (18) for the electric connection
between the battery of the vehicle and the disc (10),
so as to make the current arrive, by means of wires
(19), to said contacts (12, 13, 14) which, following
to the rotation, arrive in succession under the term-
inals (15,16,17) and from these the current arrives
to the small lamps for lightening the elements (2, 4,
5, 6, 7, 8) and, in alternative, to the elements 9
of the emergency stop triangle (3).

3. A device according to claim 1, characterized in that
the contact (12) consists of three separate elements
that will determine the connection, in successive sta-
ges, with said terminal (15) so as to lighten the re-
spective signal of the triangles (2) and (3) in an
intermittent manner with a major signalling result.
# INTERNATIONAL SEARCH REPORT

International Application No  PCT/IT 90/00070

I. CLASSIFICATION OF SUBJECT MATTER

According to International Patent Classification (IPC) or to both National Classification and IPC

| Int.Cl. 5 | B60Q7/00 ; H01H3/00 |

II. FIELDS SEARCHED

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<td>Y</td>
<td>GB,A,1604662 (TOPLEY) 16 December 1981 see figures 1, 2</td>
<td>1-3</td>
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<td>Y</td>
<td>US,A,2767390 (FREE) 16 October 1956 see figures 2, 4-6</td>
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IV. CERTIFICATION

Date of the Actual Completion of the International Search 24 SEPTEMBER 1990

Date of Mailing of this International Search Report 9. 10. 90

International Searching Authority

EUROPEAN PATENT OFFICE

Signature of Authorized Officer

ONILLON C.G.A.
ANNEX TO THE INTERNATIONAL SEARCH REPORT
ON INTERNATIONAL PATENT APPLICATION NO.
IT 9000070
SA 38476

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For more details about this annex: see Official Journal of the European Patent Office, No. 12/82