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(54) OPTICAL AND ACOUSTIC SIGNALING DEVICE THAT CAN BE USED IN ACCESSES TO GARAGES, PARKING LOTS AND THE LIKE

(57) An optical and acoustic signaling arrangement applicable to accesses to garages, parking lots and similar facilities consisting of a vertical signal (1) and three horizontal signals (8), (8') and (9), the horizontal signal having an acoustic warning device on the upper part of a horizontal arm, incorporating two intermittent optical warning devices (7), and having transversal bands (8) and (8'), the intermittent lights (7) being located on the bands (8) and (8') or on bollards (9).

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Description

OBJECT OF THE INVENTION

[0001] The present specification refers to an optical and acoustic signaling arrangement applicable to accesses to garages, parking lots and similar facilities, whose evident purpose rests on being configured as the pertinent optical and acoustic signaling means warning people moving around an access to a parking lot, garage or similar facility that a moving vehicle is going to enter or exit, consequently avoiding an accident caused by the pedestrians' distraction in the access area of these types of places or industrial establishments.

FIELD OF THE INVENTION

[0002] This invention is applicable within the industry dedicated to manufacturing signaling and safety elements.

BACKGROUND OF THE INVENTION

[0003] The applicant is aware of the current use of colored bands installed above accesses to parking lots, garages or similar facilities, generally alternating red and white bands or continuous yellow lines located on the horizontal surface, intending to indicate to others the existence of a zone where a vehicle is or may be circulating.

[0004] In short, the object of these colored bands constituting horizontal signaling is to warn pedestrians in the area of the existence of an access to a garage or similar facility.

[0005] Apart from the previously cited, the applicant is not aware of the existence of pedestrian signaling arrangements, however knowing the existence of a plurality of indicating points configured as different types of traffic lights warning the vehicle drivers circulating in the area that, for example, a fire truck is going to exit the fire station where it is parked until receiving an urgent warning, the traffic light stops the vehicles, and the actuation of a high resonance alarm provides the acoustic signaling also warning drivers in the area of the special vehicle's exit.

[0006] The applicant is also aware of traffic lights being installed on access ramps to parking lots or garages with red and green lights alternately lighting when a probe detects the presence of a vehicle beginning to go down or up the access ramps, alerting the potential user who still has not accessed the ramp, with the object of preventing both vehicles being on a point of said ramp and neither being able to pass.

[0007] By US patent of invention number 5755051, a noise-making and light apparatus is known, warning about a possible danger, configured as a vertical post acting as a support having an octagonal body on its upper part, where the indicative sign "STOP" appears, having intermittent or continuous light and sound generating elements on the upper and lower part of the incorporated word.

[0008] This invention corresponds to a type of optical and acoustic warning for a possible driver approaching the point where the signal is installed, being provided with sound and acoustic elements functioning when a probe detects the vehicle.

[0009] By French patent of invention published with number 2665914, a signaling device is known for roads or highways and specially for pedestrian crosswalks, incorporating vertical pieces on its ends, provided with light elements provided with anti-vandalism means signaling a pedestrian crosswalk incorporated on the road.

[0010] In short, apart from the previously cited, the applicant is not aware of the existence of an optical and acoustic signaling arrangement applicable to accesses to garages, parking lots and similar facilities, specially for pedestrians and vehicles trying to enter.

DESCRIPTION OF THE INVENTION

[0011] The optical and acoustic signaling arrangement applicable to accesses to garages, parking lots and similar facilities that the invention proposes is configured as an evident novelty within the specific application field by bringing together a plurality of benefits in its context, intended to prevent the occurrence of an accident due to a lack of indications in the access areas to garages or similar facilities indicating the presence of a vehicle entering or exiting the place.

[0012] More specifically, the optical and acoustic signaling arrangement object of the invention applicable to accesses to garages, parking lots and similar facilities is constituted by signaling plates where acoustic and optical signaling elements are assembled, and which are actuated when an electric probe detects a vehicle exiting or entering the parking lot, in cooperation with several transversal bands located on the sidewalk and provided with intermittent light elements located on the ground, or on vertical protective pieces such as bollards or the like.

[0013] According to this arrangement, a plurality of indicating elements are obtained, enabling or at least trying to enable passing pedestrians to be aware of the presence of a moving vehicle by means of its steady or intermittent illumination and acoustic signaling.

[0014] The assembly may be actuated by either a probe or by the door or barrier opening or even by photocells.

DESCRIPTION OF THE DRAWINGS

[0015] To complement the description being made and with the object of helping to better understand the features of the invention, two sheets of drawings accompany the present specification as a constituent part with an illustrative and non-limiting character, the following

being shown:

Figure number 1.- Shows a front elevation view of the warning signal located on a wall or wall surface, incorporating acoustic and optical signals.

Figure number 2.- Shows a plan view of an access to a parking lot or similar facility in which two transversal bands having intermittent lights are incorporated, that together with the object shown in figure number 1 provide the object of the invention relative to an optical and acoustic signaling arrangement applicable to accesses to garages, parking lots and similar facilities.

Figure number 3.- Shows a view of the object shown in figure number 2 incorporated on the upper part of bollards protecting the access and entrance area to a garage or preventing the entering or exiting vehicles from driving on the sidewalk protected by the bollards, incorporating the light elements in the upper part and likewise acting in an intermittent manner.

PREFERRED EMBODIMENT OF THE INVENTION

[0016] In view of these drawings, it can be observed how the optical and acoustic signaling arrangement applicable to accesses to garages, parking lots and similar facilities is constituted by a signal fitted on a wall or wall surface (1), having a vertical fitted piece (2) from which a horizontal span (3) originates, supporting a triangular body (4) on which the indication of a vehicle (5) in the central part has been foreseen, and an acoustic warning device (6) and optical warning device (7) on the upper and lower angular parts, respectively, which are also incorporated on transversally located bands (8) and (8'), delimiting an access (10) to a parking lot or similar facility, incorporating the intermittent light elements (7') or located on the upper part of the bollards (9) referenced with (7''), which function according to the actuation of the garage door or barrier opening or photocells, including possible actuation with volumetric probes.

Claims

1. An optical and acoustic signaling arrangement applicable to accesses to garages, parking lots and similar facilities, of those intended to provide pedestrians visualization of a vehicle crossing zone located in grassy areas, sidewalks, etc, **characterized by** being constituted by vertical (1) and horizontal (8), (8') and (9) signals, the vertical signals being configured as support pieces (2) vertically located on a wall or wall surface with a horizontal arm or span (3) originating from them, supporting a triangular piece (4) in which there is a zone with graphics (5) and an acoustic warning device (6) on the upper part and two intermittent optical warning devices (7) in the lower angles, being complemented by two transversal bands (8) and (8') delimiting an access area (10) to a garage or similar facility, incorporating intermittent signals (7') on the floor being activated by means of the garage door or barrier opening, photocells and even volumetric probes.

2. An optical and acoustic signaling arrangement applicable to accesses to garages, parking lots and similar facilities according to claim 1, **characterized in that** the intermittent lights located on the bands (8) and (8') can be located on the upper part of several bollards (9), the lights (7'') performing in an intermittent manner.

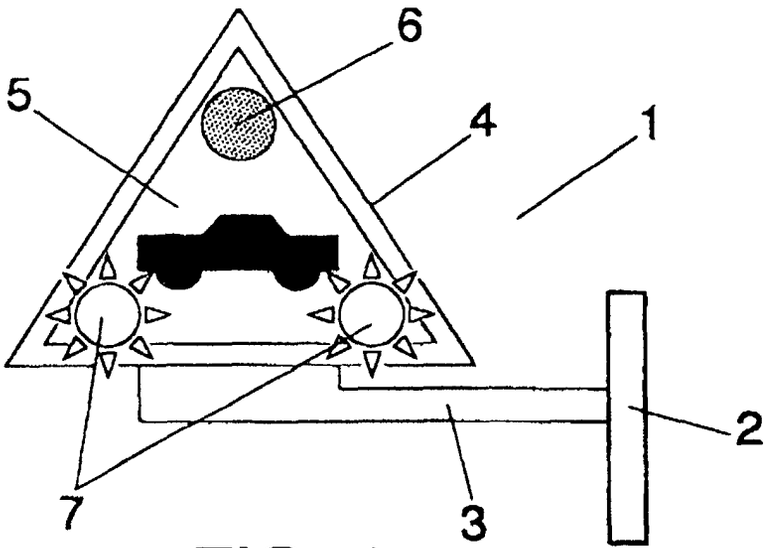

FIG. 1

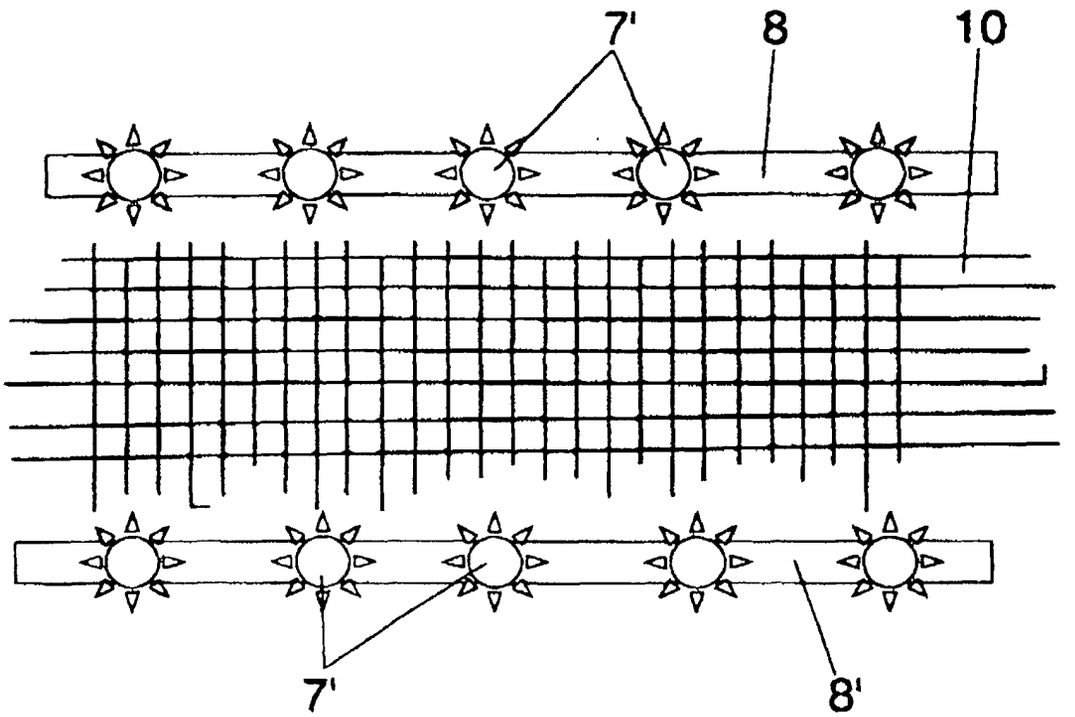

FIG. 2

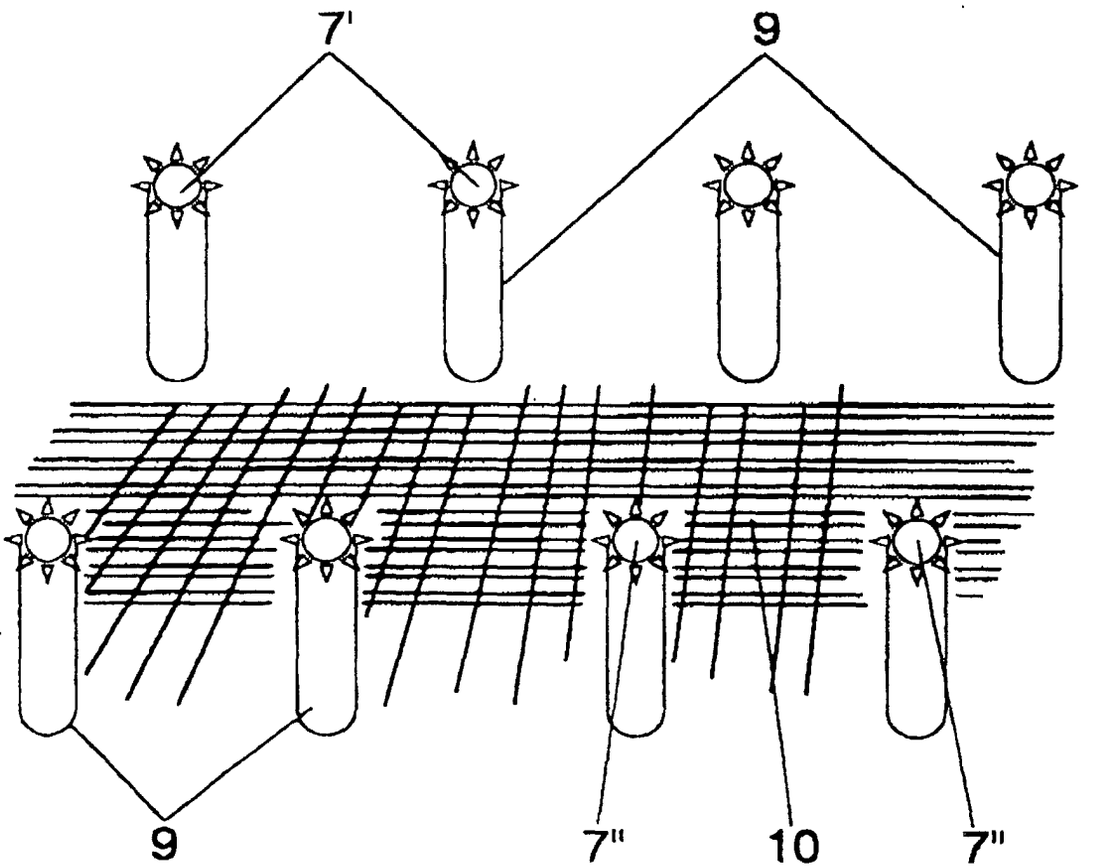

FIG. 3

INTERNATIONAL SEARCH REPORT

International application No.
PCT/ES 00/00469

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 E01F9/016, 9/04, G08G1/07, 1/09, 1/005
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 E01F+, G08G+

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used
CIBEPAT, EPODOC, WPI, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	FR 2584517 A (EQUINOXE PRODUTION.), 9 January 1987 (09.01.87) *The whole document*	1
A	US 5755051 A (ZUMBUHL.), 26 May 1998 (26.05.98) *Column 4, line 51- column 5, line 40 ; figures*	1
A	FR 1543084 (SIEMENS.), 18 October 1968 (18.10.68) *The whole document*	1, 2
A	FR 2665914 A (VANSUYT.), 21 February 1992 (21.02.92) *The whole document*	1, 2
A	PATENT ABSTRACTS OF JAPAN, CD- ROM PAJ, MIJP 9411, 1995- 2 (002) (06- 303801/06- 331300), JP- 06318295- A (AKIYOSHI)	1
A	US- 5247232- A (LIN), 21 September 1993 (21.09.93) *Column 1, line 66- column 2, line 56 ; figure 1, 2*	1

☐Further documents are listed in the continuation of box C. ☒Patent family members are listed in annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
6 April 2001 (06.04.01)	18 April 2001 (18.04.01)
Name and mailing address of the ISA/ S.P.T.O	Authorized officer Telephone No .

Form PCT/ISA/210 (second sheet) (July 1998)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT /ES 00/00469

Patent document Cited in search report	Publication date	Patent family member(s)	Publication date
FR 2584517 A	09.01.1987	AU 6128986 A EP 0229802 A WO8700326 A	30.01.1987 29.07.1987 15.01.1987
US 5755051 A	26.05.1998	NONE	
FR 1543084 A	18.10.1968	NONE	
FR 2665914 A	21.02.1992	NONE	
JP 06318295 A	15.11.1994	NONE	
US 5247232 A	21.09.1993	US 5357183 A	18.10.1994

Form PCT/ISA/210 (patent family annex) (July 1992)