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(54) **Lighting and audio diffuser unit**

(57) The lighting and audio unit comprises a lamp support (1) having in its middle a planar surface (2) with four holes to pass electrical leads therethrough. A lamp socket (4) is mounted on said planar surface. A second body (6) having equidistant stepped apertures (7) is fixed to the lamp support, each aperture receiving first ends of tubular arms (8). The second ends of said arms

threadedly engage nuts for fixing a disk-shaped plate (11), at the centre of which a loudspeaker (16) and a bracket (14) are mounted. A cover (12) is fastened to the unit by means of a threaded knob (18) screwed onto the upper part of said bracket (15). The end of a tubular stand (19) is received in a socket at the base of the lamp support (1) and fixed thereto by means of a transverse screw (21).

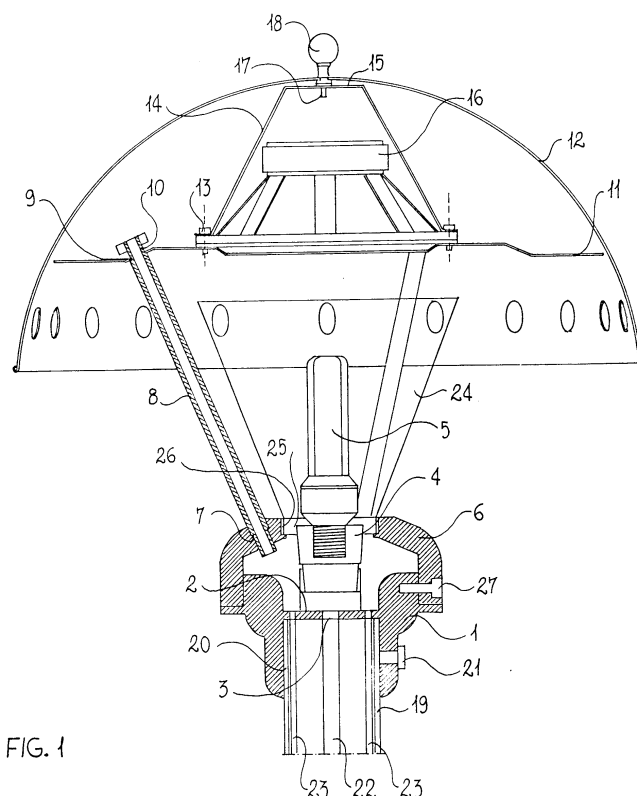


FIG. 1

EP 1 091 168 A1

Description

[0001] The invention refers to a lighting and audio diffuser unit outwardly shaped like a small lamp with a cover to protect it from the atmospheric agents so to determine a preferred embodiment to be used outside in public and private areas like restoring and free time places, discothèques and clubs, stands, trading areas and for services in general. Currently, to actuate in an area the lighting and the audio diffusion in the same time, are provided two different plants for lighting and for audio diffusion where the loudspeakers are placed in a fixed station. In comparison with the prior art devices the invented unit, by a new apparatus which comes to have in synergism contemporary the capacity to light the area and to diffuse audio in the same, gives the following advantages: a) a reduction of the plant components such as the audio diffusers with fixed station are got rid of; b) a better sound diffusion such as the same is supplied from each invented unit; c) the possibility to equip the area in better way such as each unit comes to form a point self-sufficient acting for the light and sound supply; d) the possibility to each time mnemonic prearrange the area to equip comparing the number of the units to be used with the working necessities; e) a structural simplification and a time reduction for the plant installation such as the invented units are prearranged for the direct use. In a preferred embodiment the unit consists of a structure body 1 having in the middle a plate orifice 2 with four holes 3 in which the conductors come to pass. Said body 1 brings a lampholder 4 with a lamp 5. On the structure body 1 is connected, to complete the lower setting out structure, a second body 6 which supports, for coupling into holes with two diameters on lower coupling stop reference 7, a set of equidistant linear supports 8 in opening toward bringing, on other upper stop references 9 with fixing permits by nuts 10 to be put on their threaded ends, an upper setting out structure formed by a disk-shaped plate 11 which perimetrically supports a cover 12. Centrally said disk-shaped plate 11 supports, with fixing permits by screws 13 blocking a centering bracket 14 with upper level part 15, a loudspeaker 16. On the upper level part is centrally provided a threaded pin 17 to screw the cover 12 by means of a screw knob 18. The unit is to be placed on a tubular support 19 to be inserted into the longitudinal channel 20 of the lower setting out structure and it is to be fixed by a transversal screw 21. Through the holes 3 of the plate orifice 2 the audio conductor 22 and the electric bipolar wires 23 come to be introduced so to be in different way connected with the outside plants. To protect the lamp 5 a transparent screen 24 is provided with its potting to be put into the cavity 25 on the stop crown 26 of the upper body 6. To give the possibility to act in its inside the setting out structure formed by the body 1 and by the second body 6 provides that these two bodies 1 and 6 are to be joint connected with fixing by a transversal screw 27. To protect the loudspeaker 16 a level grid 28 is provided.

The invented lighting and audio diffuser unit will be apparent from the accompanying drawings showing by way of not limiting example in the drawings of sheets 1, 2 and 3. In sheet 1 fig. 1 is the transversal section view of the unit to be seen supported on a first part of a support bearing 19 for its disposition on the ground or in a different position. In sheet 2 fig. 2 is a perspective view of the only setting out structure of the lamp with the lower setting out structure to be frontal seen and the upper setting out structure to be seen from the bottom and they to be formed with three linear supports 8 with bewilderment of 120° and in opening toward. In sheet 3 fig. 3 is perspective view of the setting out structure in lateral view from the top. In the realization the shape, the different components and the materials could be different provided in relation to the use necessities.

Claims

1. Lighting and audio diffuser unit providing the lighting and audio diffusion, characterized in that:
 - the structure body (1) having in the middle a plate orifice (2), with four holes (3) in which the conductors come to pass, brings a lampholder (4) with a lamp (5) and always on said body (1) is connected, to complete the lower setting out structure, a second body (6) which supports, for coupling into holes with two diameters on lower coupling stop reference (7), a set of equidistant linear supports (8) in opening toward bringing, on other upper stop references (9) and with fixing permits by nuts (10) to be put on their threaded ends, an upper setting out structure formed by a disk-shaped plate (11) which perimetrically supports a cover (12);
 - centrally said disk-shaped plate (11) supports, with fixing permits by screws (13) blocking a centering bracket (14) with upper level part (15), a loudspeaker (16) whereas on the upper level part (15) is centrally provided a threaded pin (17) to screw the cover (12) by means of a screw knob (18);
 - the unit is to be placed on a tubular support (19) to be inserted into the longitudinal channel (20) of the lower setting out structure and it is to be fixed by a transversal screw (21).
2. Lighting and audio diffuser unit, as per claim 1), characterized in that through the holes (3) of the plate orifice (2) the audio conductor (22) and the electric bipolar wires (23) come to be introduced so to be in different way connected with the outside plants.
3. Lighting and audio diffuser unit, as per claim 1), characterized in that to protect the lamp (5) a trans-

parent screen (24) is provided with its potting to be put into the cavity (25) on the stop crown (26) of the upper body (6).

4. Lighting and audio diffuser unit, as per claim 1), characterized in that to give the possibility to act on its inside the setting out structure formed by the body (1) and by the second-body (6) provides that these two bodies (1 and 6) are to be joint connected with fixing by a transversal screw (27). 5 10
5. Lighting and audio diffuser unit, as per claim 1), characterized in that to protect the loudspeaker (16) a level grid (28) is provided. 15

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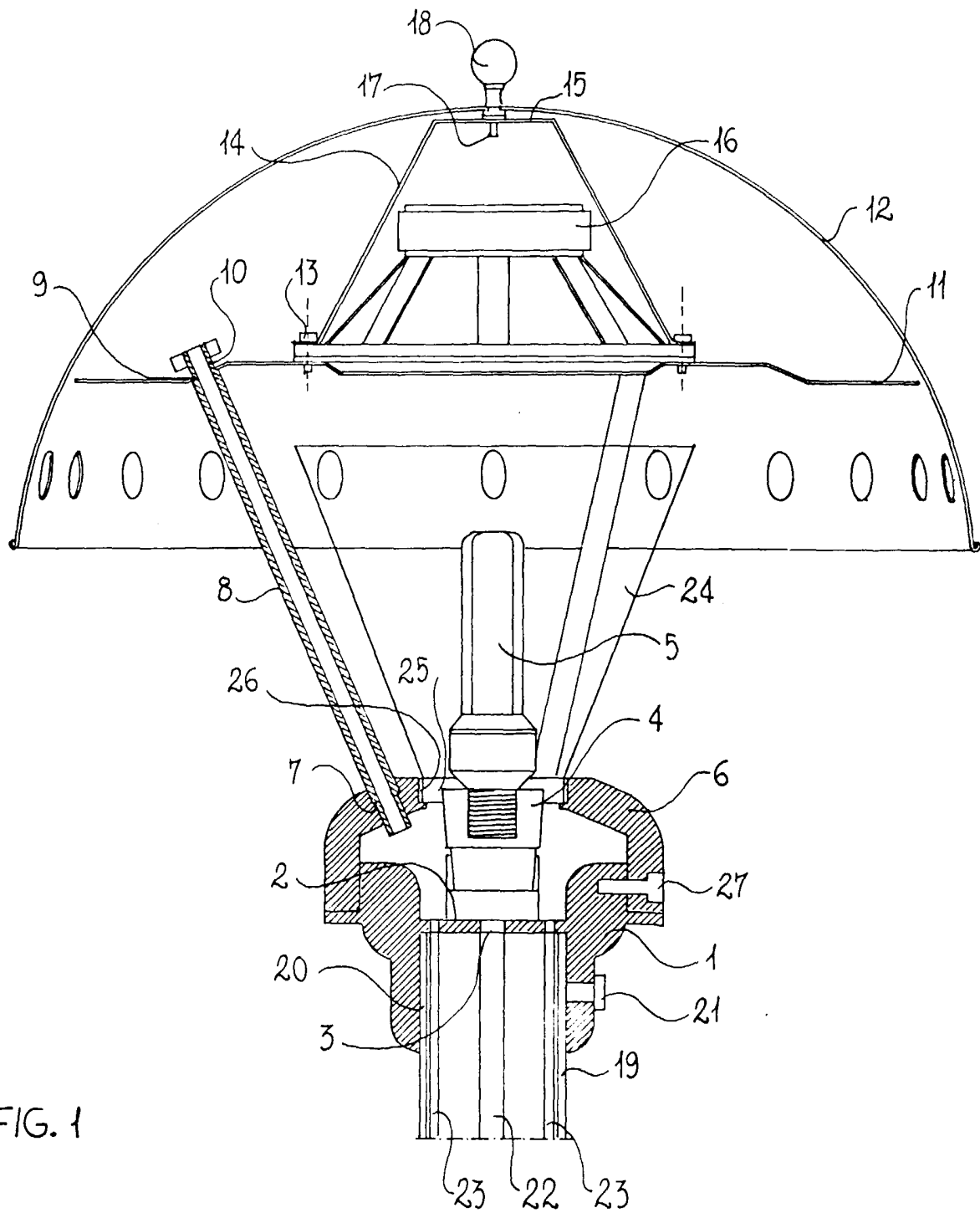


FIG. 1

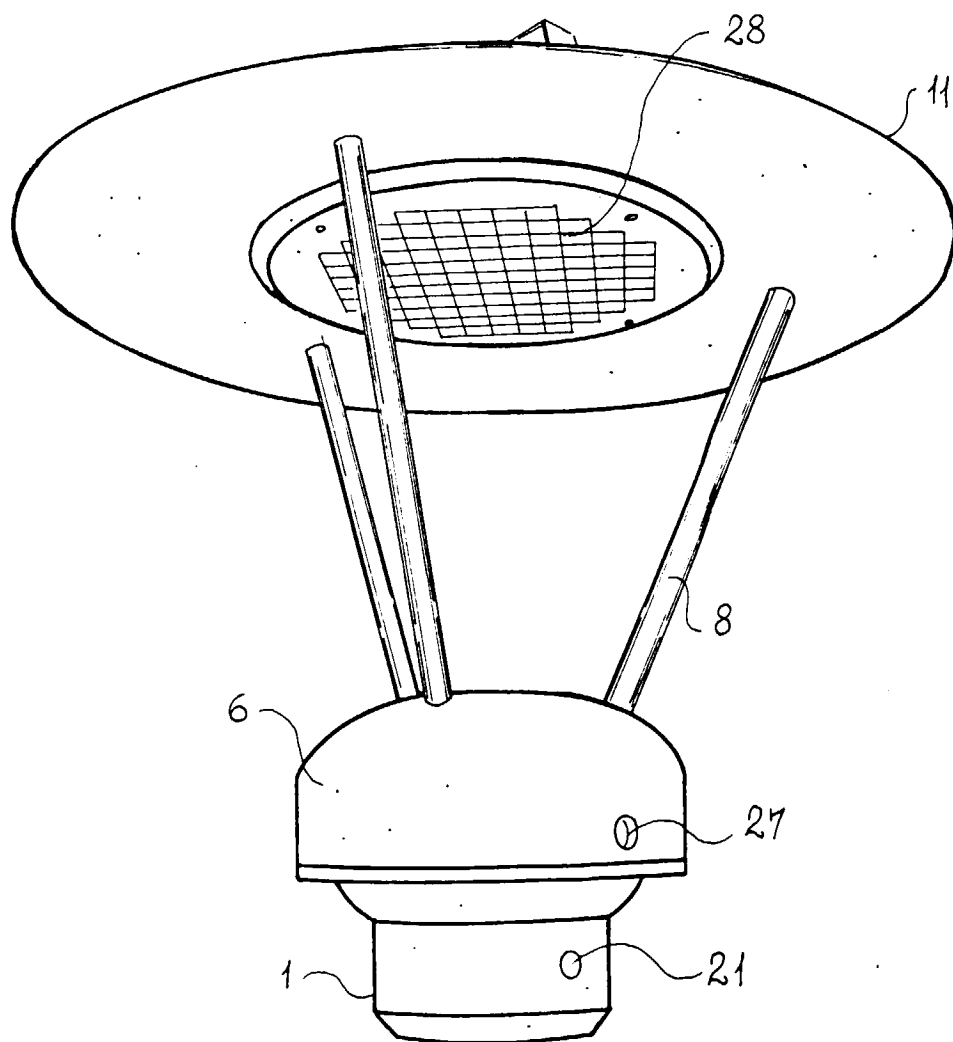


FIG.2

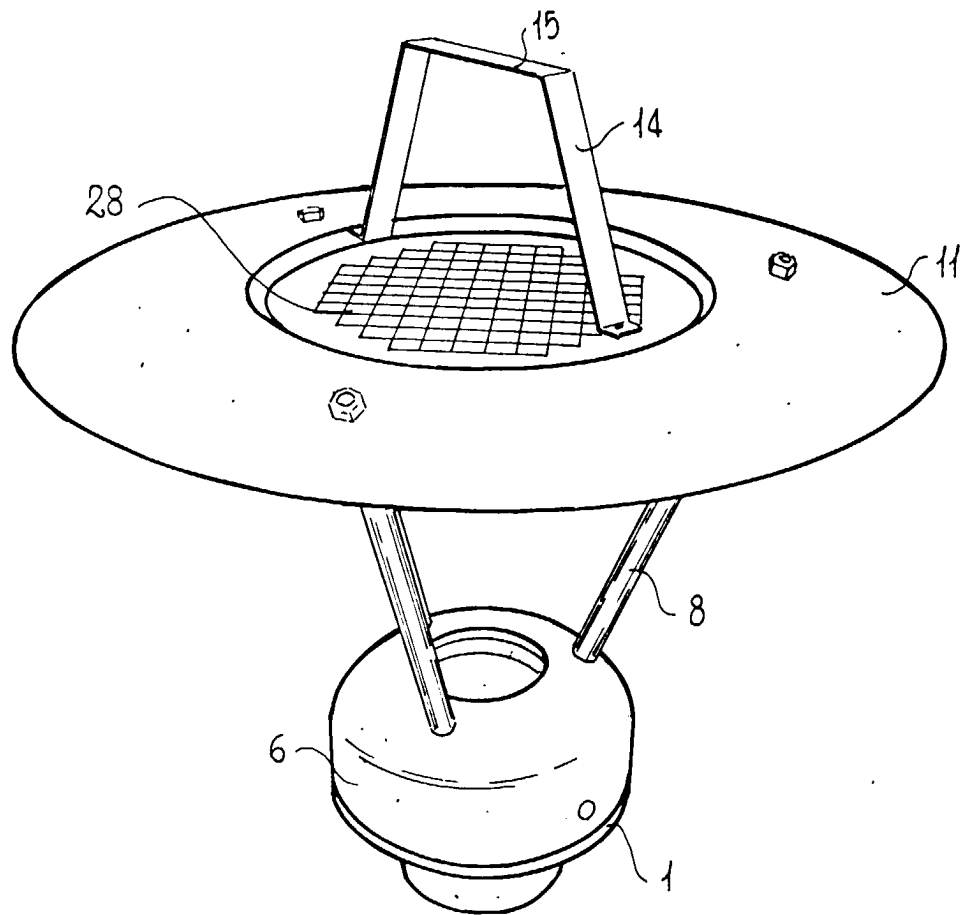


FIG. 3



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EUROPEAN SEARCH REPORT

Application Number
EP 99 83 0635

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	US 3 194 952 A (O. C. WELLS AND AL) 13 July 1965 (1965-07-13) * column 1, line 52 - column 2, line 25 * * figures 2,3,5 * ---	1-5	F21V33/00 F21S8/08
X	US 3 023 830 A (J. J. HAMMES) 6 March 1962 (1962-03-06) * column 2, line 57 - column 4, line 12 * * figure 6 * -----	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			F21V H04R F21S
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 4 February 2000	Examiner Cosnard, D
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 99 83 0635

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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04-02-2000

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US 3023830	A	06-03-1962	NONE	

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