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(54) Luminous signalling device

(57) A signalling device (1) comprises a container (2) having a recessed housing (4), a support (10) housed in the housing (4), which forms a cavity (12) with the lateral wall of the housing (4), a signalling panel (14) supported by the support (10), having through apertures (16) in the thickness which define a signalling message, surrounded by a free gap (40). The LED light source is housed in the housing (4), under the panel (14), and the light emitted highlights the panel by illuminating the free gap (40) and the signalling message.

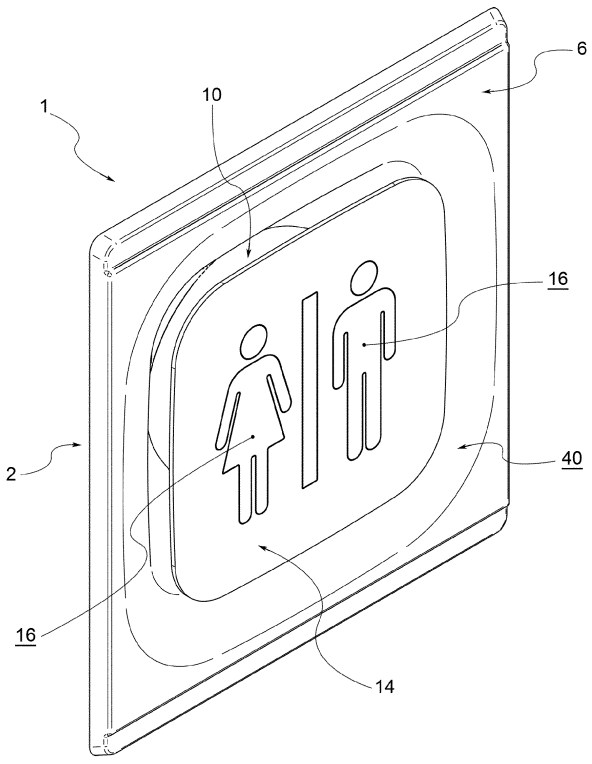

Fig.1

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Description

[0001] The present invention relates to a luminous signalling device, for indoors or outdoors, in particular for indicating services such as restaurants, toilets, commercial brands, or to indicate directions.

[0002] The signalling devices sector has recently enjoyed an enormous boom, dictated by the need to improve the comfort of the surroundings, as far as possible, in the workplace, in public places and entertainment venues.

[0003] Luminous signalling devices, that is devices associated to a light source which draw attention to the signal are particularly appreciated.

[0004] Currently, the luminous signalling devices sector has seen a significant increase in attempts to innovate, aimed mainly at obtaining efficacious and aesthetically attractive devices.

[0005] The purpose of the present invention is to make a luminous signalling device which is particularly efficient in drawing attention to the signal and particularly attractive from an aesthetic point of view.

[0006] Such purpose is achieved by a luminous signalling device according to claim 1.

[0007] The characteristics and advantages of the luminous signalling device according to the present invention will be evident from the description below, made by way of a non-limiting example in accordance with the appended drawings wherein:

[0008] - figure 1 shows a luminous signalling device according to the present invention, according to one embodiment;

[0009] - figure 2 shows a diagram in separate parts of the signalling device according to the present invention; and

[0010] - figure 3 shows a transversal cross-section of the signalling device according to the present invention.

[0011] With reference to the appended drawings, reference numeral 1 denotes a luminous signalling device according to one embodiment of the present invention.

[0012] The device 1 comprises a container 2, having a recessed housing 4, for example quadrangular or circular in shape, delimited by a perimetral frame 6.

[0013] Preferably, the frame 6 is connected in a rounded manner towards the inside of the housing 4.

[0014] According to one embodiment; the frame 6 is provided with a lowered or flattened rim 8, for the recessed installation of the device 1.

[0015] Furthermore, the device 1 comprises a colourless or coloured support or casing 10 transparent to visible light.

[0016] The casing 10 can be housed in the housing 4 of the container 2.

[0017] The device comprises an attachment (not shown) for connection to a light source, such as an LED, contained in the casing 10.

[0018] The housing 4 comprises a bottom for the support and a lateral annular wall, projecting from the bottom.

[0019] The casing 10 has smaller dimensions than the housing 4 which holds it, so that an interspace 12 is formed between the lateral wall of the casing and the lateral wall which peripherally defines the housing.

[0020] The signalling device 1 further comprises a signalling panel 14, supported by the casing 10.

[0021] In particular, the panel 14 can be connected to the rim of the casing 10, for example by a bayonet coupling, suitable for manually disconnecting the panel from the casing.

[0022] The panel 14, generally plate-shaped, flat or curved, has through apertures 16 passing through the thickness, which define the signal.

[0023] Preferably, the apertures 16 are at least partially covered by a colourless or coloured material transparent to visible light.

[0024] For example, according to a preferred embodiment, the device 1 comprises an intermediate element 30, for example plate-shaped, made at least partially in a colourless or coloured material transparent to visible light, having on its surface at least one prominence 32 of a complementary shape to the apertures 16 of the panel 14.

[0025] The intermediate element 30 is destined to couple to the panel 14, in such a way that the prominences 32 penetrate the apertures 16, preferably without protruding externally, forming the colourless or luminous transparent cover, for signalling.

[0026] The panel 14 is preferably fitted with its visible surface 14a below the visible surface of the frame 6.

[0027] In addition, the panel 14 has smaller dimensions than the mouth of the housing 4 thereby leaving a free gap 40 between its peripheral rim and the frame 6, which surrounds the panel 14, at least partially.

[0028] Conversely, the panel 14 has greater dimensions than the casing 10 underneath so as to conceal it from sight.

[0029] During normal use of the signalling device 1, the light source contained in the casing 10 is lit and the light is emitted through the apertures 16 mirroring the signal.

[0030] If desired, the light emitted through the apertures 16 may be coloured.

[0031] In addition, the light is also emitted through the interspace 12 between the casing and the lateral walls which delimit the housing 4, coming out from the free gap 40 surrounding the panel.

[0032] The signal is thereby set off in that the panel is surrounded by a luminous halo, of the same colour as the signal or a different colour, depending on the materials or colours used for the cover of the apertures 16 and for the walls of the casing.

[0033] Preferably, the signalling device 1 is recessed, that it to say it is mounted in a cavity made in a wall, and finished with a layer of mortar or plaster which covers the lowered rim 8 of the frame 6.

[0034] According to a further embodiment, the signalling device can be attached to the wall, like a wall light

or ceiling light.

[0035] For example, the container 2 of the device 1 is made in plaster or plasterboard, preferably strengthened. According to further embodiments, it is made in metallic material such as aluminium or in plastic material.

[0036] It is clear that a person skilled in the art may make variations to the signalling device described above so as to satisfy contingent requirements, while remaining within the sphere of protection as defined by the following claims.

Claims

1. Signalling device (1) comprising:

   - a container (82) having a housing (4) recessed delimited peripherally by an annular lateral wall accessible from a mouth delimited by a frame (6);
   - a support (10) housed in the housing (4), having small size as to form a cavity (12) with the side wall of the housing (4);
   - a signalling panel (14) supported by the support (10), having through apertures (16) in the thickness which define a signalling message, having small size as to form a free gap (40) separating it from the frame (6);
   - an attachment for a light source, for example an LED, housed in the housing (4), under the panel (14), to connect a source which lights the signalling message through the apertures (16) and highlights the panel by means of the free gap (40).

2. Device according to claim 1, wherein the support (10) is a transparent, colourless or coloured casing, which the attachment for the light source is housed in.

3. Device according to claim 1 or 2, wherein the apertures (16) are covered by a colourless or coloured transparent material.

4. Device according to claim 3, comprising an intermediate element (30) having at least one prominence (32) of a complementary shape to the apertures (16), insertable in said aperture to form the cover.

5. Device according to any of the previous claims, wherein the frame is rounded towards the mouth of the housing.

6. Device according to any of the previous claims, wherein the panel can be connected to the support (30) by means of a manually releasable bayonet coupling.

7. Device according to any of the previous claims, for flush installation.

8. Device according to any of the claims from 1 to 6, for installation on a wall.

9. Device according to any of the previous claims, wherein the container is made in plaster or plasterboard, preferably strengthened.

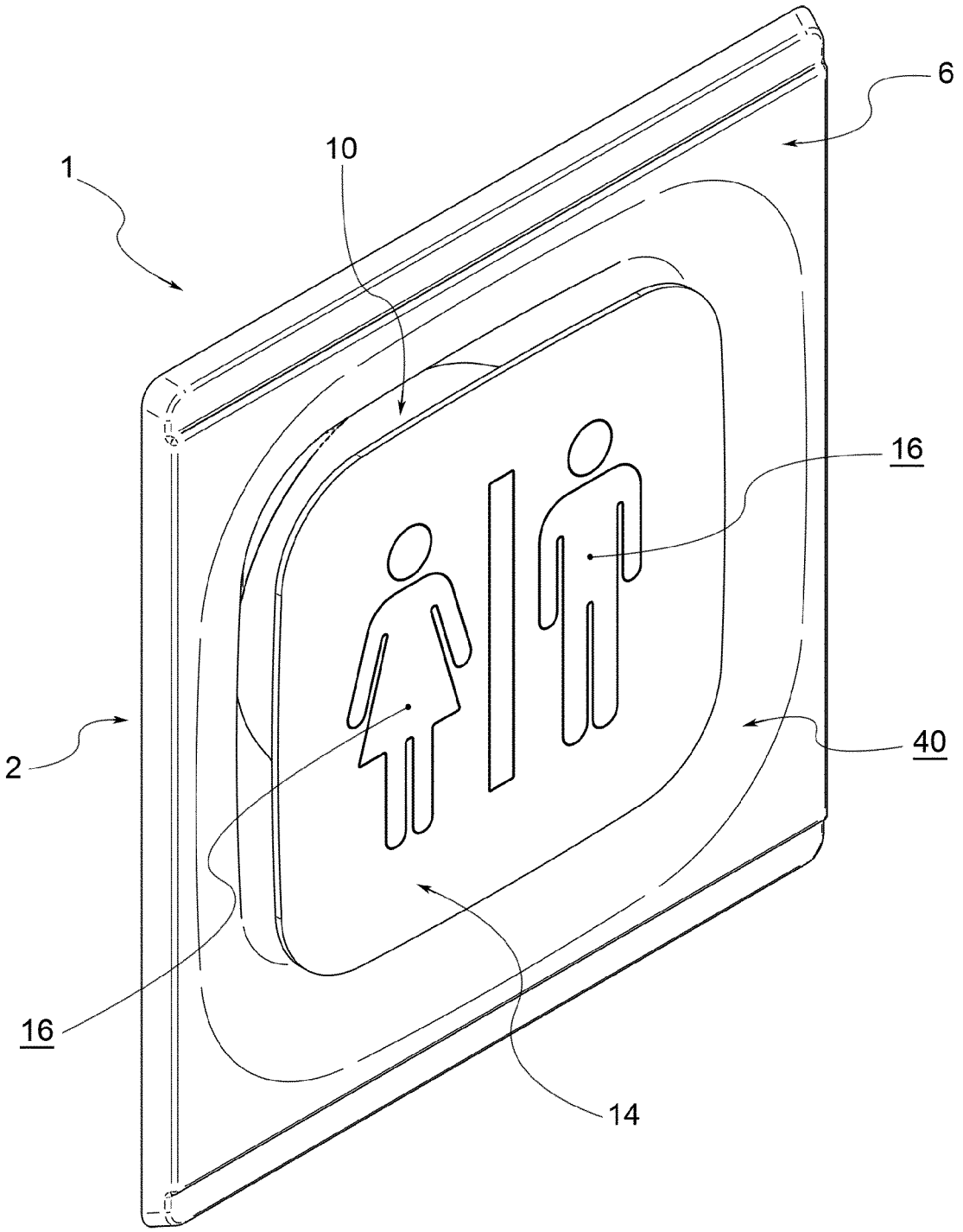

Fig.1

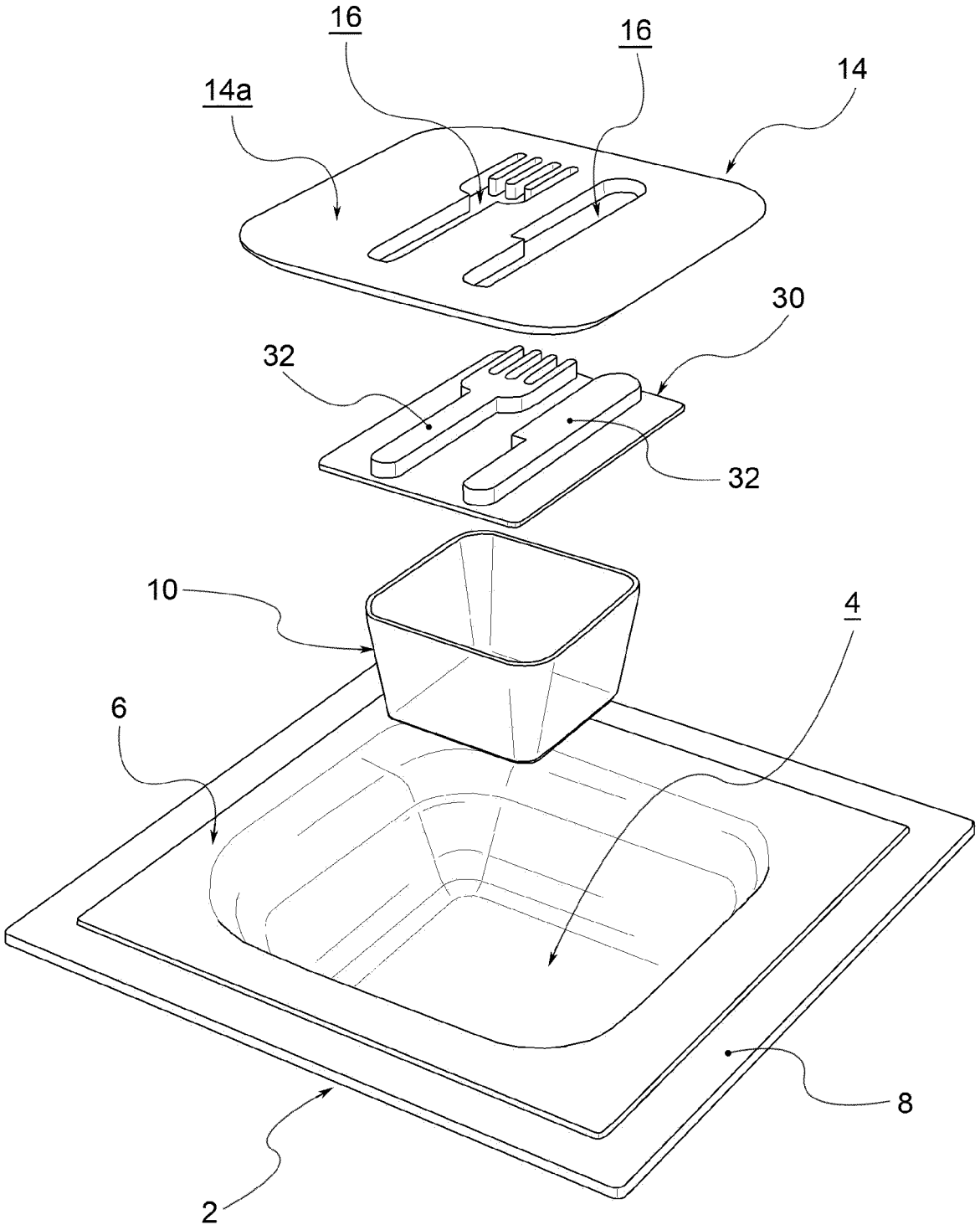

Fig. 2

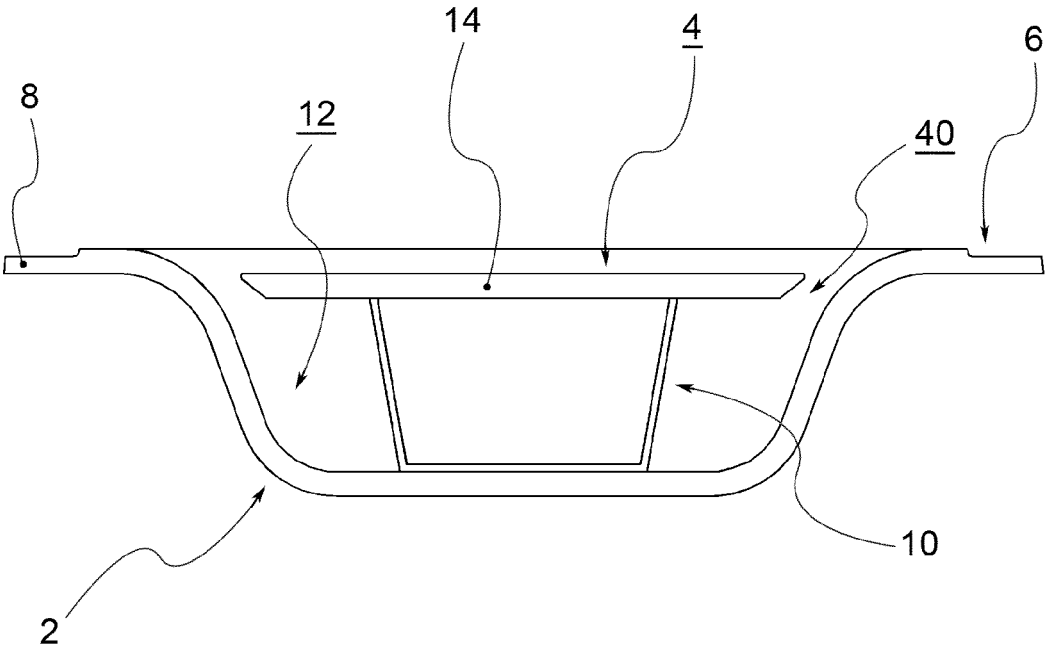

Fig.3

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EUROPEAN SEARCH REPORT

Application Number
EP 11 18 9655

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	US 2009/056183 A1 (REILAND DENNIS J [US] ET AL) 5 March 2009 (2009-03-05) * paragraph [0024] - paragraph [0040]; figures 1-8 *	1-9	INV. G09F13/00 G09F13/04
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A	US 2002/017045 A1 (WEISS RICHARD S [US] ET AL) 14 February 2002 (2002-02-14) * paragraph [0039] - paragraph [0087]; figures 1-8 *	1-9	

TECHNICAL FIELDS SEARCHED (IPC)
G09F
F21S

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	31 January 2012	Arboreanu, Antoniu

CATEGORY OF CITED DOCUMENTS

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EPO FORM 1503 03.82 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 11 18 9655

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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31-01-2012

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