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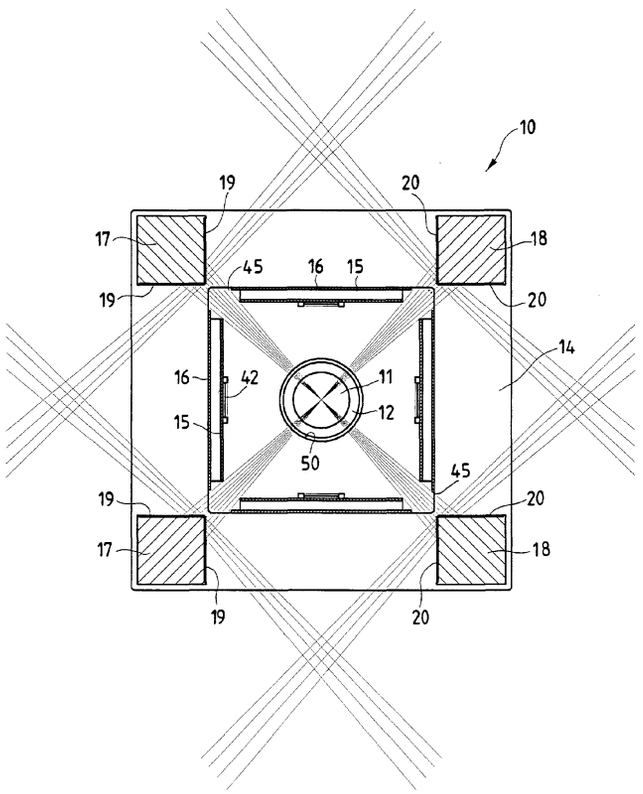
## (54) Lighting apparatus for the creation of luminous effects

(57) A lighting apparatus (10, 40) for the creation of luminous effects comprises a containment body that houses a light source (11, 22), where the light source (11, 22) is contained inside a shell comprising a plurality of anti-reflection black screens (15, 25) provided with openings for the diffusion of light. The lighting apparatus (10, 40) is moreover provided with a plurality of columns (17, 18, 27, 28) arranged around the light source (11, 22), each of which is equipped with a pair of reflecting plates (19, 20, 29, 30) so as to enable sharp and precise reflection.

Fig.6

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## Description

**[0001]** The subject of the present invention is a lighting apparatus for the creation of luminous effects.

**[0002]** As is known, there exist numerous types of wall-mounted or ceiling-mounted lamps, which are equipped with a containment body for one or more light sources.

**[0003]** Notwithstanding the fact that the above apparatuses perform their lighting function in a satisfactory way, not always are they able to valorize fully the environment in which they are set.

**[0004]** A purpose of the present invention is to provide a lighting apparatus that creates particular luminous effects on the wall on which it is mounted.

**[0005]** Another purpose of the present invention is to provide a lighting apparatus that produces sharp and defined lighting.

**[0006]** These and other purposes are achieved by a lighting apparatus for the creation of luminous effects, according to Claim 1, to which the reader is referred for reasons of brevity.

**[0007]** Further purposes and advantages of the present invention will emerge clearly from the ensuing description and from the annexed drawings, which are provided purely to give explanatory and non-limiting examples, and in which:

- Figure 1 represents a side elevation view of the lighting apparatus for the creation of luminous effects, according to one first embodiment of the invention;
- Figure 2 represents a side elevation view of the lighting apparatus for the creation of luminous effects, according to another embodiment of the invention;
- Figure 3 represents an exploded view, in side elevation, of the lighting apparatus of Figure 1;
- Figure 4 represents a view, in a section taken along a plane substantially parallel to the axis of the light source, of the lighting apparatus of Figure 1;
- Figure 5 represents a sectional view taken along the plane V-V of the lighting apparatus of Figure 1;
- Figure 6 represents a sectional view taken along the plane V-V of the lighting apparatus of Figure 1, in which the path of the light beams is highlighted;
- Figure 7 represents an exploded view, in side elevation, of the lighting apparatus of Figure 2;
- Figure 8 represents a cross-sectional view, along a plane substantially parallel to the axis of the light source, of the lighting apparatus of Figure 2;
- Figure 9 represents a cross-sectional view taken along the plane IX-IX of the lighting apparatus of Figure 2; and
- Figure 10 represents a cross-sectional view taken along the plane IX-IX of the lighting apparatus of Figure 2, in which the path of the light beams is highlighted.

**[0008]** With particular reference to Figures 1 and 3-6, the lighting apparatus for the creation of luminous effects, according to the invention, is designated as a whole by the reference number 10.

**[0009]** The said lighting apparatus 10 consists of a cube-shaped lamp which, by means of small parallelepipedal columns, produces particular luminous effects on the wall.

**[0010]** In greater detail, the lighting apparatus 10 has a containment body consisting of a cube-shaped or parallelepipedal box, which contains a light source 11, supported by a corresponding lamp-holder 12.

**[0011]** In turn, the lamp-holder 12 is fixed to a wall-mounted base 14 belonging to the lighting apparatus 10.

**[0012]** The light source 11 is contained inside a shell comprising a plurality of anti-reflection black screens 15.

**[0013]** The black screens 15 are arranged along the four sides of one first ideal square, at the centre of which the light source 11 is set, and are connected together by means of a plate 41 provided with a hole, through which the light source 11 passes.

**[0014]** The plate 41 has, in fact, a hole 50.

**[0015]** Brackets 42 are moreover provided for fixing the plate 41 provided with a hole to the black screens 15.

**[0016]** In addition, on the wall-mounted base 14, brackets 43 are provided for fixing the set of black screens 15 to the base 14 itself, for example by means of screws 44.

**[0017]** The configuration of the four black screens 15 is such as to create openings on the edges of the ideal square formed by them, so enabling diffusion of the light.

**[0018]** The lighting apparatus 10 is moreover provided with a body, which can be fixed to a cover 21 that limits light emission at the top and consists of four walls 16 painted white and set along the four sides of a second ideal square, external with respect to the first ideal square formed by the black screens 15.

**[0019]** The walls 16 in turn have openings 45 on the edges to enable diffusion of the light and are fixed to the black screens 15 by means of the screws 44, as may be seen in Figure 4.

**[0020]** The lighting apparatus 10 is moreover provided with a plurality of small parallelepipedal columns 17 and 18, each of which is made of extruded aluminium.

**[0021]** The columns 17 and 18 are four in number and are set at the vertices of a third ideal square having its centre in the light source 11.

**[0022]** The columns 17 and 18 are provided with reflecting plates 19 and 20, made of mirrored aluminium, which affords sharp and precise reflection.

**[0023]** A second embodiment of the lighting apparatus for the creation of luminous effects, according to the present invention, is designated, as a whole, by the reference number 40, in Figures 2 and 7-10.

**[0024]** The said lighting apparatus 40 consists of a circular lamp presenting small columns the cross section of which is shaped like the arc of a circle.

**[0025]** Also in this case, the lighting apparatus 40 is

equipped with a light source 22, supported by a corresponding lamp-holder 23, which is in turn fixed to a wall-mounted base 24.

**[0026]** The lighting apparatus 40 is moreover provided with a plurality of small columns 27 and 28 the cross section of which is shaped like the arc of a circle, as may be more clearly seen in Figures 9-10.

**[0027]** The columns 27 and 28 are made of extruded aluminium and are provided with reflecting plates 29 and 30 made of mirrored aluminium, which affords sharp and precise reflection.

**[0028]** The columns 27 and 28 are four in number and are set at the vertices of an ideal square having its centre in the light source 22.

**[0029]** The light source 22 is contained inside a shell comprising a plurality of anti-reflection black screens 25.

**[0030]** Also in this second embodiment, the black screens 25 are arranged along the four sides of one first ideal square, at the centre of which the light source 21 is set, and are connected together by means of a plate 41 provided with a hole, through which the light source 21 passes.

**[0031]** Brackets 42 are moreover provided for fixing the plate 41 provided with a hole to the black screens 25.

**[0032]** In addition, on the wall-mounted base 24, brackets 43 are provided for fixing the set of black screens 25 to the base 24 itself, for example by means of screws 44.

**[0033]** The configuration of the four black screens 25 is such as to create openings on the edges of the ideal square, so enabling diffusion of the light.

**[0034]** The lighting apparatus 40 is moreover provided with a body, which can be fixed to a cover 31 that limits light emission at the top and consists of four walls 26 painted white and set along the four sides of a second ideal square, external with respect to the first ideal square.

**[0035]** The walls 26 in turn have openings 45 on the edges to enable diffusion of the light and are fixed to the black screens 25, as may be seen in Figure 8.

**[0036]** The operation of the lighting apparatus for the creation of luminous effects, according to the invention, is illustrated briefly in what follows.

**[0037]** The light emitted by the light source 11 of the apparatus 10 is reflected by the mirrored-aluminium reflecting plates 19 and 20 applied to the columns 17 and 18.

**[0038]** This reflection of the light forms distinct and uniform reflected light beams coming out of the apparatus 10 according to preferential directions, as may be seen in Figure 6.

**[0039]** In particular, the light beams come out of the openings 45 of the walls 16 and of the openings made between the black screens 15.

**[0040]** The presence of the anti-reflection black screens 15 makes it possible to direct the light beams as desired. Likewise, the light emitted by the light source 22 of the apparatus 40 is reflected by the mirrored-aluminium reflecting plates 29 and 30 applied to the columns 27 and 28, so creating luminous effects similar to those created by the apparatus 10.

**[0041]** Also in this case, the light beams come out of the openings 45 of the walls 26 and of the openings present between the black screens 25, as may be seen in Figure 10.

**[0042]** The characteristics, as well as the advantages, of the lighting apparatus for the creation of luminous effects, which forms the subject of the present invention, emerge clearly from the foregoing description.

**[0043]** Finally, it is clear that numerous variations may be made to the lighting apparatus for the creation of luminous effects, which forms the subject of the present invention, without thereby departing from the principles of novelty inherent in the inventive idea.

**[0044]** In the practical implementation of the invention, the materials, shapes and sizes of the items illustrated may be any whatsoever according to the requirements, and the said items may be replaced with others that are technically equivalent.

## Claims

1. A lighting apparatus (10, 40) for the creation of luminous effects, characterized in that it comprises a containment body that houses a light source (11, 22), where said light source (11, 22) is contained inside a shell comprising a plurality of anti-reflection black screens (15, 25) provided with openings for the diffusion of light, and in that the aforesaid lighting apparatus (10, 40) is moreover provided with a plurality of columns (17, 18, 27, 28) arranged around the light source (11, 22), each of which is equipped with a pair of reflecting plates (19, 20, 29, 30) so as to enable sharp and precise reflection.

2. A lighting apparatus (10, 40) according to Claim 1, characterized in that the aforesaid columns (17, 18, 27, 28) are four in number and are set at the vertices of an ideal square having its centre in said light source (11, 22).

3. A lighting apparatus (10, 40) according to Claim 1, characterized in that the aforesaid columns (17, 18, 27, 28) are made of extruded aluminium.

4. A lighting apparatus (10, 40) according to Claim 1, characterized in that the aforesaid columns (17, 18) are parallelepipedal.

5. A lighting apparatus (10, 40) according to Claim 1, characterized in that the aforesaid columns (27, 28) have a cross section shaped like the arc of a circle.

6. A lighting apparatus (10, 40) according to Claim 1, characterized in that the aforesaid reflecting plates

(19, 20, 29, 30) are made of mirrored aluminium.

**7.** A lighting apparatus (10, 40) according to Claim 1, characterized in that the aforesaid light source is supported by a lamp-holder (12, 22) fixed to the base (14, 24) of said lighting apparatus (10, 40).

**8.** A lighting apparatus (10, 40) according to Claim 1, characterized in that the aforesaid black screens (15, 25) are set at the four corners of one first ideal square, at the centre of which the light source (11, 21) is present, and are connected together by means of a plate (41) with a hole through which the above-mentioned light source (11, 21) passes.

**9.** A lighting apparatus (10, 40) according to Claim 1, characterized in that it has a body fixed to a cover (21, 31) which limits emission of the light from the top and consists of four walls (16, 26) which are painted white and are set at the four sides of a second ideal square, which is external with respect to said first ideal square, where said walls (16, 26) in turn have openings (45) on their edges to enable diffusion of the light.

Fig.1

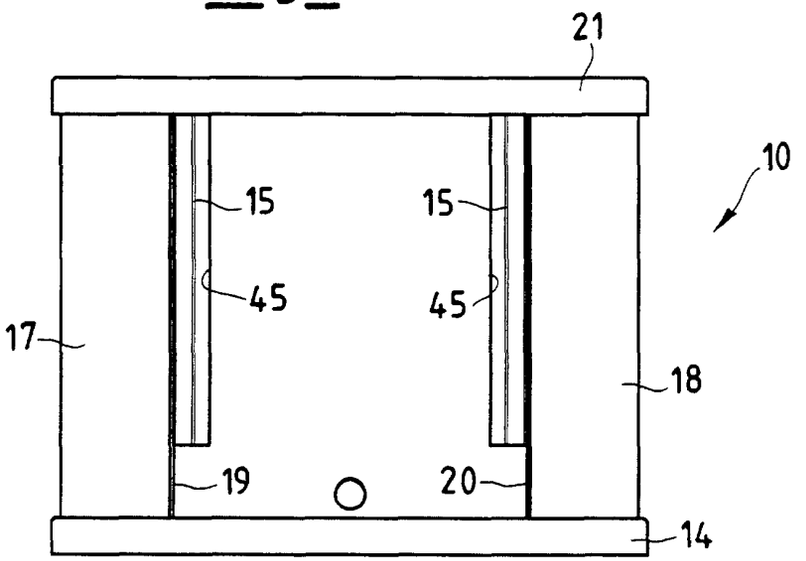
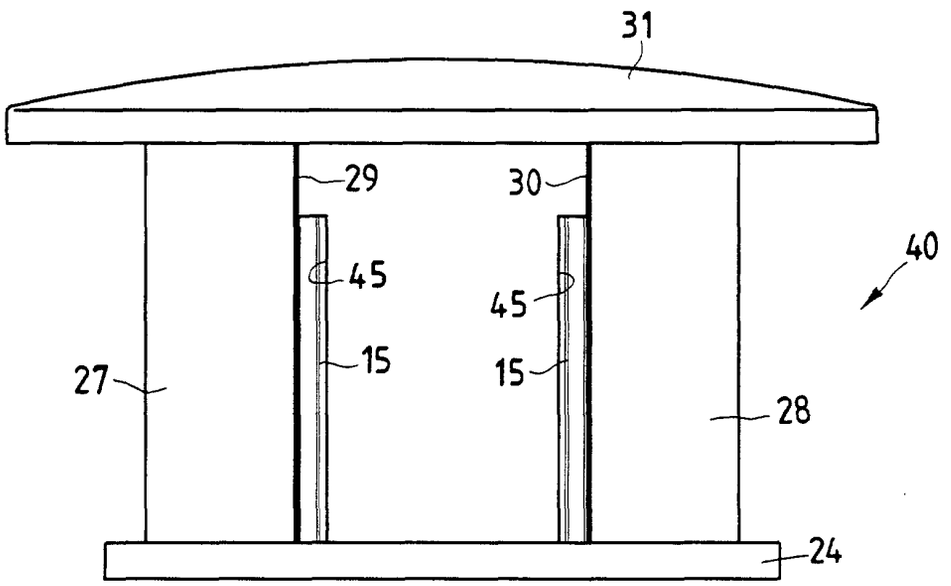



Fig.2



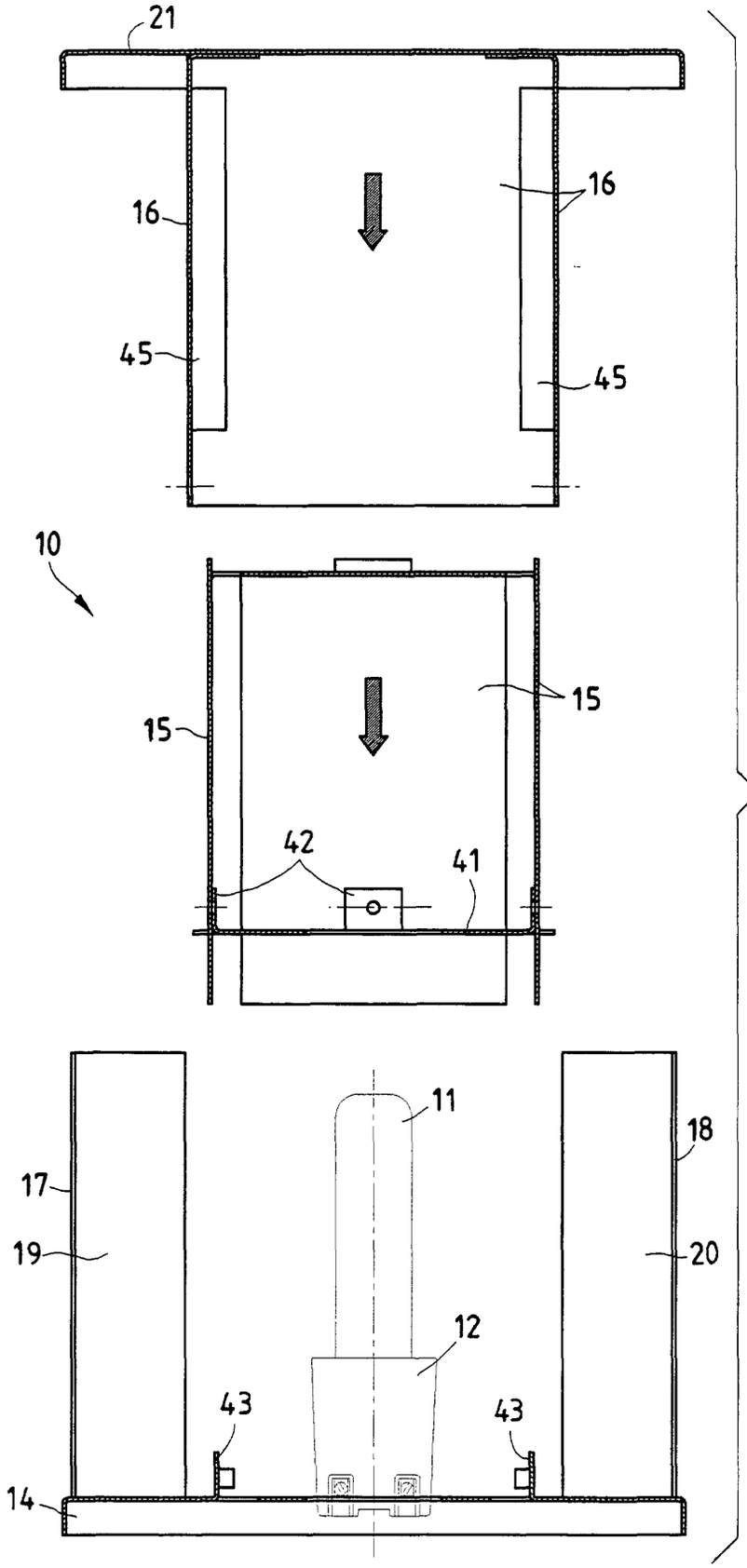



Fig.3

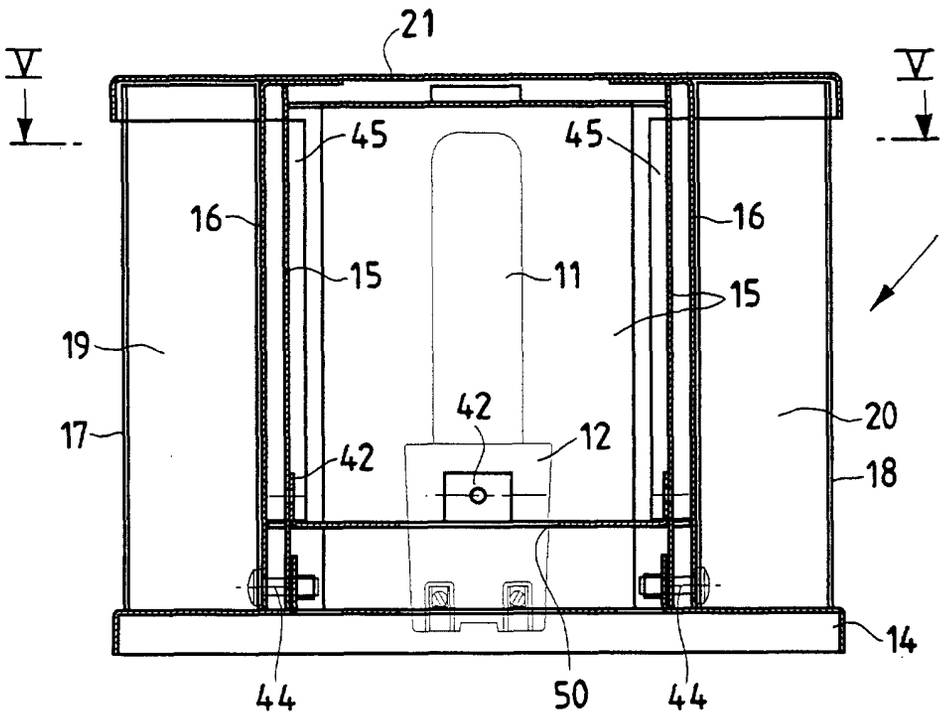

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Fig.4

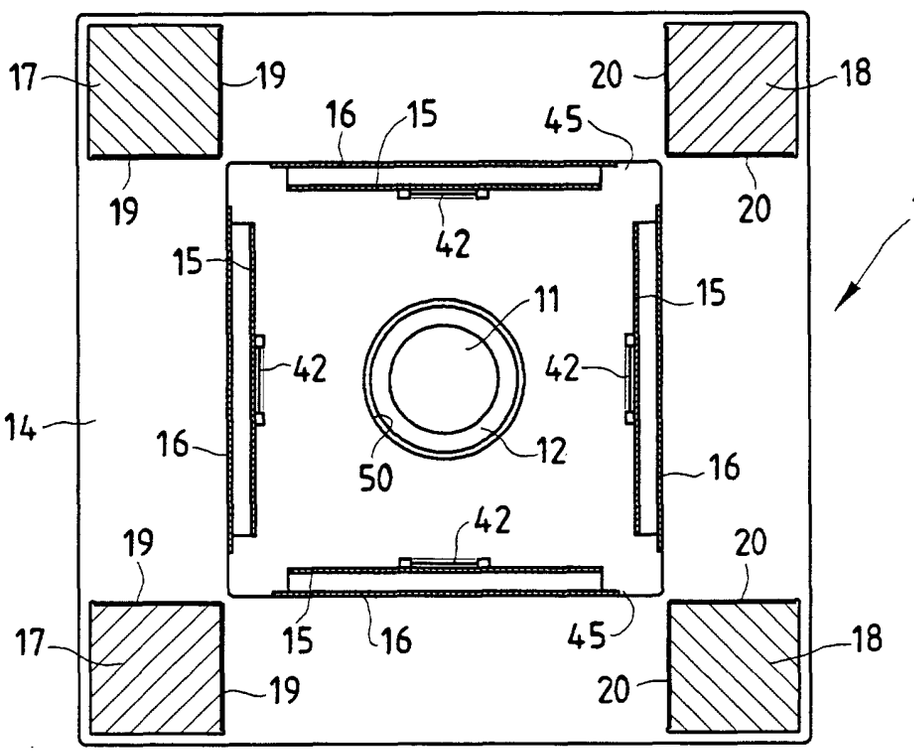
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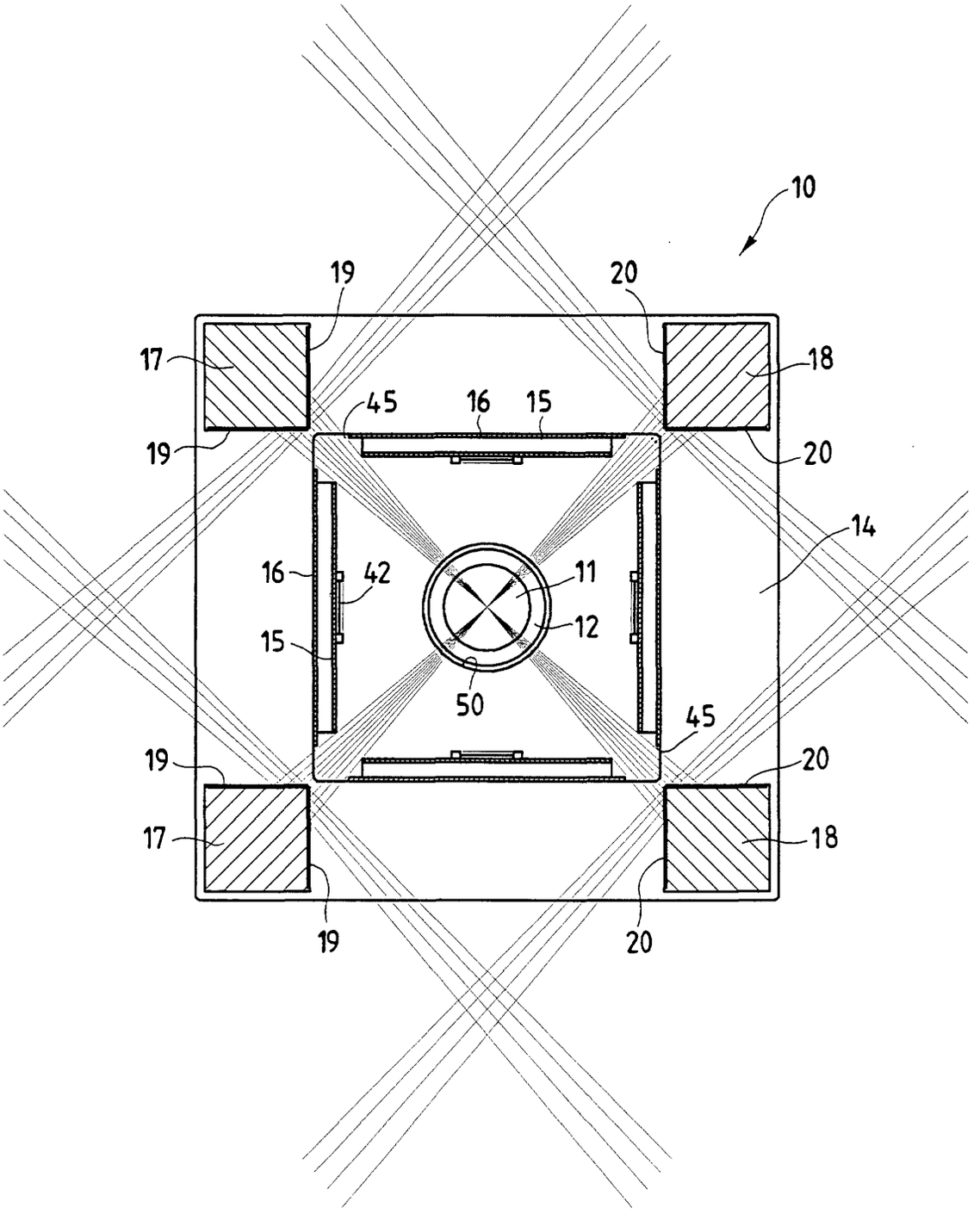
Fig.5

Fig.6



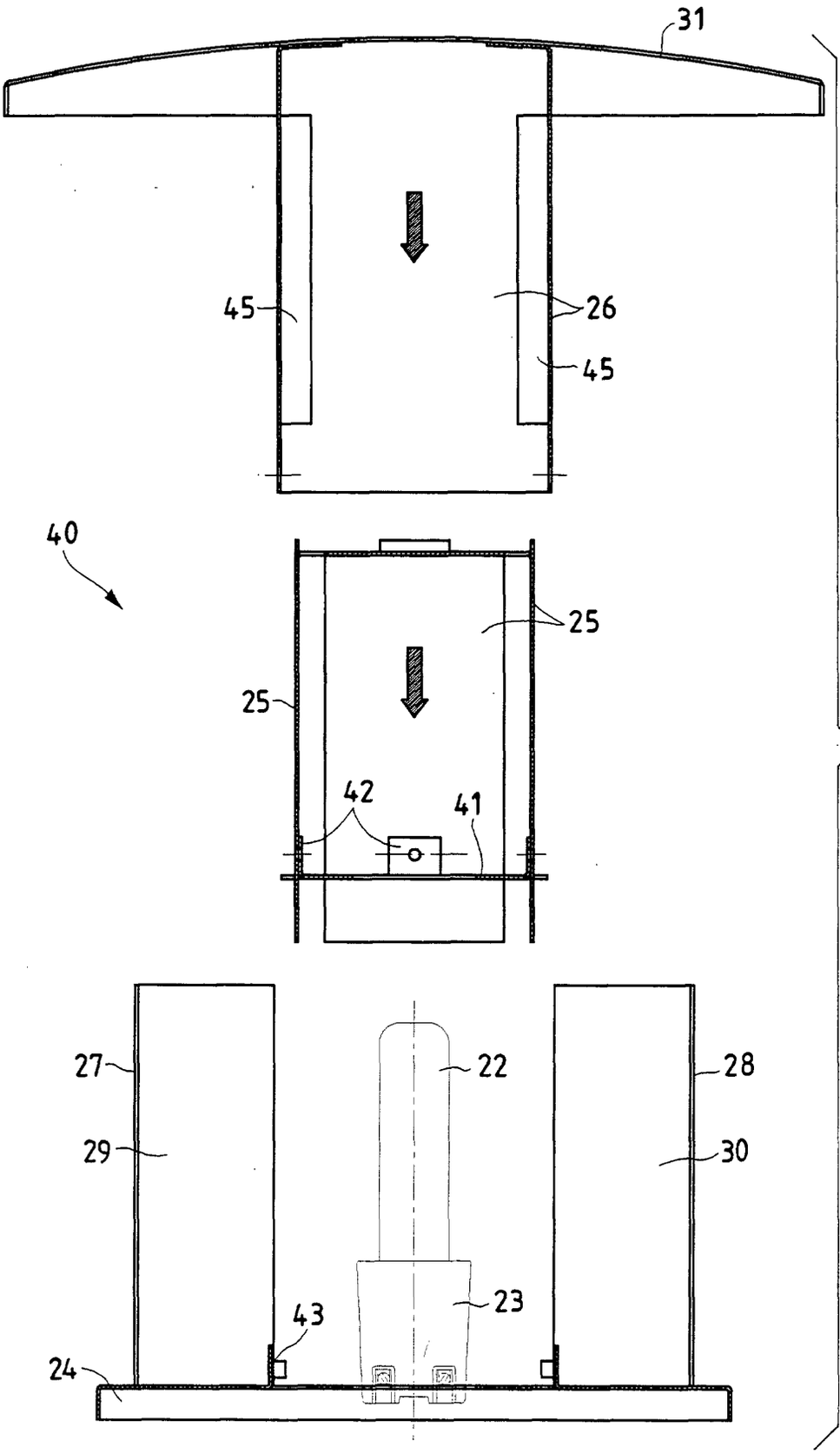



Fig.7

Fig.8

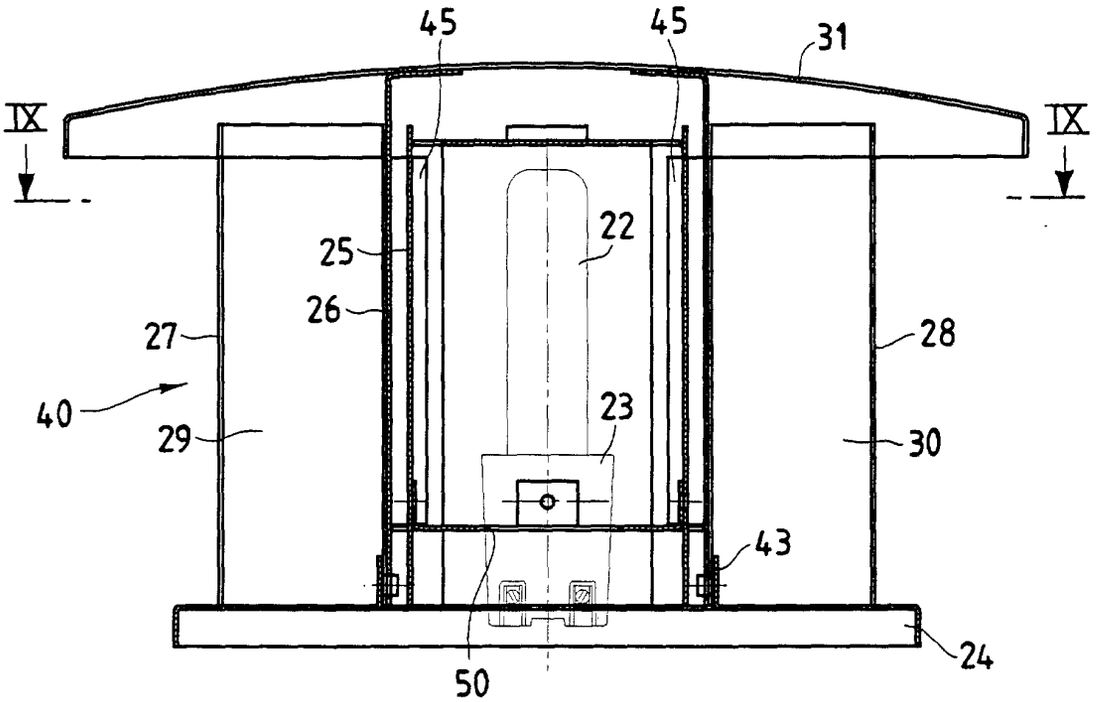

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Fig.9

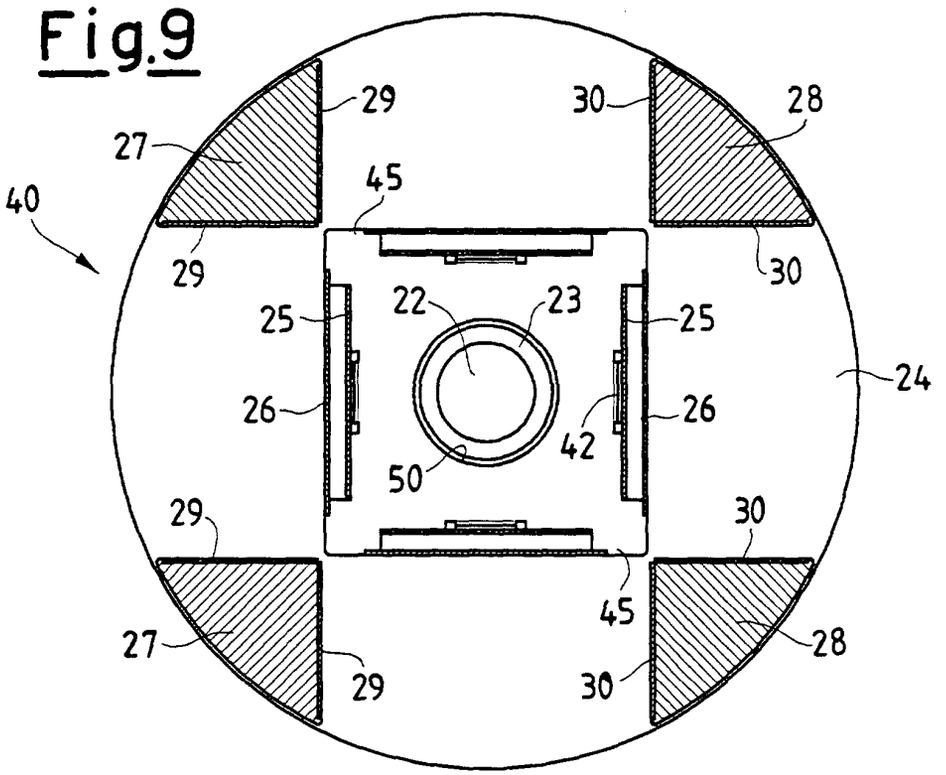
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Fig.10