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(54) Shower provided with a luminous shower head

(57) The present invention concerns a shower comprising at least a shower head (2) for the ejection of a jet of water and a hydraulic circuit (4) for feeding said jet of water, said shower head (2) being realised in a transparent material and presenting, disposed from the opposite side of the water outlet, a luminous source (3) able to light the zone in correspondence with the jet of water coming out of the head shower (2). The luminous shower head can be installed in a shower for external spaces, said shower having the shape of a plant or a flower, for instance a sunflower.

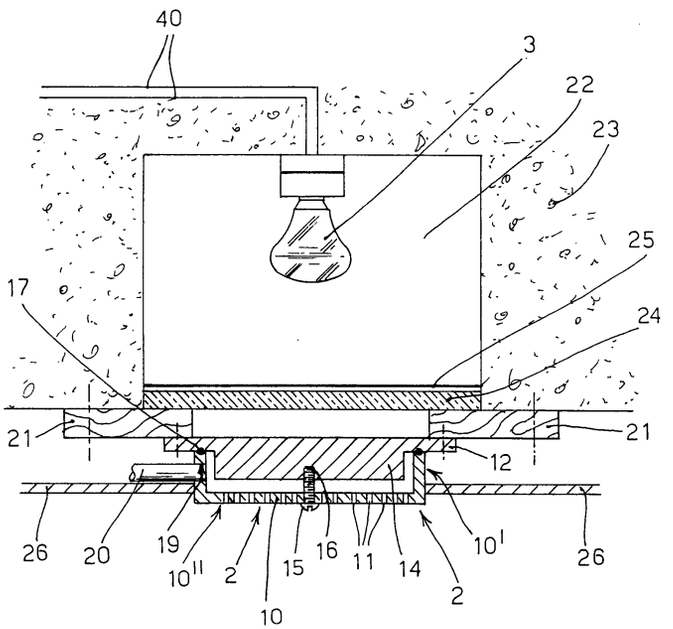

FIG. 1

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Description

[0001] The object of the present invention is a shower provided with a luminous shower head.

[0002] It is often desiderable that, in order to improve the visibility or to obtain a decorative effect, the zone located in correspondence with the jet of water coming out of the shower head of a shower is lit.

[0003] In fact, a greater lighting becomes necessary both for those shower stalls which do not turn out to be lit enough by the natural or artificial light sources and for the external showers.

[0004] Besides, such a luminous source can contribute to increase the relaxing effect of the jet of water.

[0005] It is therefore a first object of the present invention to provide a shower equipped with a luminous shower head projecting a white or a coloured light in correspondence with the jet of water of the shower.

[0006] It is a further object of the present invention to provide a safe shower which does not present any risk to the user.

[0007] Advantageously, the shower according to the invention presents automated and remote controls for simplifying and making the control functions safe.

[0008] These and other objects and advantages of the invention, as it will appear clear from the description, are obtained by a shower provided with a shower head as claimed in the hereby attached claims.

[0009] The above mentioned objects will appear more clear from the detailed description of an embodiment of the invention with particular reference to the hereby attached drawings wherein:

- figure 1 is a sectional front view of the shower head of the shower according to the preferred embodiment of the invention;
- figure 2 is a schematic representation of the shower according to the invention;
- figure 3 is a frontal view of a shower according to a second embodiment of the invention.

[0010] With reference to the figures 1 and 2, the shower according to the invention comprises at least a shower head 2 realised in a transparent material, a luminous source 3, for instance a bulb disposed from the opposite side of the water outlet, a hydraulic circuit 4 and an electric circuit 5.

[0011] The shower head 2 comprises a support plate 12 from which a hollow cylindrical element 10 protrudes, said element comprising a side wall 10' and a base 10" provided with holes 11 for the ejection of water.

[0012] A cylindrical deflecting element 14 protrudes from the plate 12 internally to the shower head, thereby forcing water to circulate only in the zone next to the side wall 10' and to the base 10" of the cylindrical element 10 and avoiding that water accumulates inside the shower head 2.

[0013] The plate 12 and the deflecting element 14, realised in transparent plastic or in other suitable material, can constitute a single body or be realised by fixing, for instance by gluing, the deflecting element 14 to the plate 12.

[0014] The cylindrical element 10 is removably fixed to the plate 12 by means of a screw 15 crossing the base 10" of the cylindrical element 10, and engages in a blind hole 16 centrally realised in the deflecting element 14.

[0015] Advantageously, in order to increase the sealing of the shower head 2, a seal 17, for instance an o-ring introduced inside suitable seats obtained in the contact surfaces between the rim of the cylindrical element 10 and the support 12, is interposed between the cylindrical element 10 and the plate 12 along the contact surface.

[0016] Water feeding from the hydraulic circuit 4 to the shower head 2 is realised by means of a duct 20, preferably flexible for facilitating the mounting operations, which presents its free end screwed in a threaded hole 19 realised in the side wall 10' of the cylindrical element 10.

[0017] For ease of replacement or maintenance, the plate 12 of the shower head 2 is removably fixed to a frame 21.

[0018] In this way, the head shower 2 can be installed in an opening 22, able to house the luminous source 3, obtained in the walled structure 23 of the shower stall where the shower is installed.

[0019] In the preferred embodiment of the invention the head shower 2 and the luminous source 3 are installed in the ceiling of the shower stall. However, they can also be installed in the walls of the shower stall in order to obtain water and light horizontally directed towards the user's body.

[0020] The frame 21 is in turn removably fixed to the walled structure 23 and carries a pane 24, said pane being transparent, preferably in glass, sealed and fixed to the walled structure, for closing the opening 22 so as to isolate the luminous source 3 from the shower head 2.

[0021] A coloured filter 25 is placed between the pane 24 and the luminous source 3 for colouring the light emitted by the luminous source 3.

[0022] As an alternative, a light of a preferred colour can be directly obtained by means of a coloured luminous source 3.

[0023] For greater safety, the luminous source 3 is connected to a low voltage electric line 40.

[0024] The hydraulic circuit 4 comprises a conventional piping 30 and a tap 31 for the manual control of the water feeding to the shower head 2.

[0025] In order to synchronise the switching of the luminous source 3 with the opening of the tap 31, a flow switch 32 which, when the tap 31 is opened, closes the electrical circuit 40 thereby feeding the luminous source 3, is placed upstream of the shower head and of the luminous source.

[0026] Upstream of the flow switch 32 it is further provided a switch 42 which allows to cut out the flow switch

32 and to manually control the luminous source 3 by means of a line section 43 which is connected to the electric line 40 downstream of the flow switch 32.

[0027] Besides, for transforming the line tension into a low voltage tension, it is provided a transformer 44, preferably disposed externally to the shower stall.

[0028] As a further safety measure, upstream of the transformer 44 it is provided a manual master bipolar switch 45 by means of which, if necessary, it is possible to cut out the power supply to the system.

[0029] As it appears clear from figure 2, the shower can feed a plurality of luminous shower heads, each individually controlled by a flow switch 32, as in the case of multiple showers for sports facilities.

[0030] For aesthetic reasons, an opaque false ceiling can be provided in order to leave free way to water coming out of the head showers and to conceal the components of the equipment, said ceiling being constituted by a pane 26 realised in fibreglass or in other light material and water-resistant, and being provided with holes in correspondence with the cylindrical elements 10 of the shower heads 2.

[0031] A second embodiment of the invention is shown in figure 3, wherein the luminous shower head is installed in a shower 50 for external spaces having the shape of a plant or a flower, for instance a sunflower, having dimensions sufficient to allow the user to position himself/herself below a leaf-shaped support 52, to which the shower head 2 directed towards the user and, from the opposite side, the luminous source 3 are fixed.

[0032] The shower is realised so as to conceal inside a duct 51 shaped like a flower stem both the electrical circuit and the hydraulic circuit controlled by means of the tap 31 applied to the duct 51 and of a (not shown) flow switch.

[0033] Next to the support 52, the duct 51 divides into a deviation 53 having the double scope of sustaining the support 52 and of housing at its interior the hydraulic and electric lines feeding the shower head 2 and the luminous source 3.

Claims

1. A shower comprising at least a shower head (2) for the ejection of a jet of water and a hydraulic circuit (4) for feeding said shower head (2), **characterised in that** said shower head (2) is realised in a transparent material and presents, disposed from the opposite side of the water outlet, a luminous source (3) able to light the zone in correspondence with the jet of water coming out of the shower head (2).

2. A shower according to claim 1, **characterised in that** a coloured filter (25) is interposed between said luminous source (3) and said shower head (2).

3. A shower according to claim 1, **characterised in that** said luminous source (3) is constituted by a coloured bulb.

4. A shower according to anyone of the previous claims, **characterised in that** said shower head comprises a support plate (12) from which a hollow cylindrical element (10) protrudes, said element comprising a side wall (10') and a base (10") provided with holes (11) for the ejection of water.

5. A shower according to claim 4, **characterised in that** a cylindrical deflecting element (14) protrudes from said plate (12) internally to the shower head (2), thereby forcing water to circulate only in the zone next to the side wall (10') and to the base (10") of said cylindrical element (10).

6. A shower according to claim 4, **characterised in that** said cylindrical element (10) is removably fixed to said plate (12).

7. A shower according to anyone of the previous claims, **characterised in that** said luminous source (3) is controlled by means of a flow switch (32) for automatically switching the luminous source (3) when the water flow is opened.

8. A shower according to claim 7, **characterised in that** it comprises an electrical switch (42) for cutting out said flow switch (32) and for manually controlling the switching of said luminous source (3).

9. A shower according to anyone of the previous claims, **characterised in that** said shower comprises a plurality of luminous shower heads, each controlled by a flow switch (32).

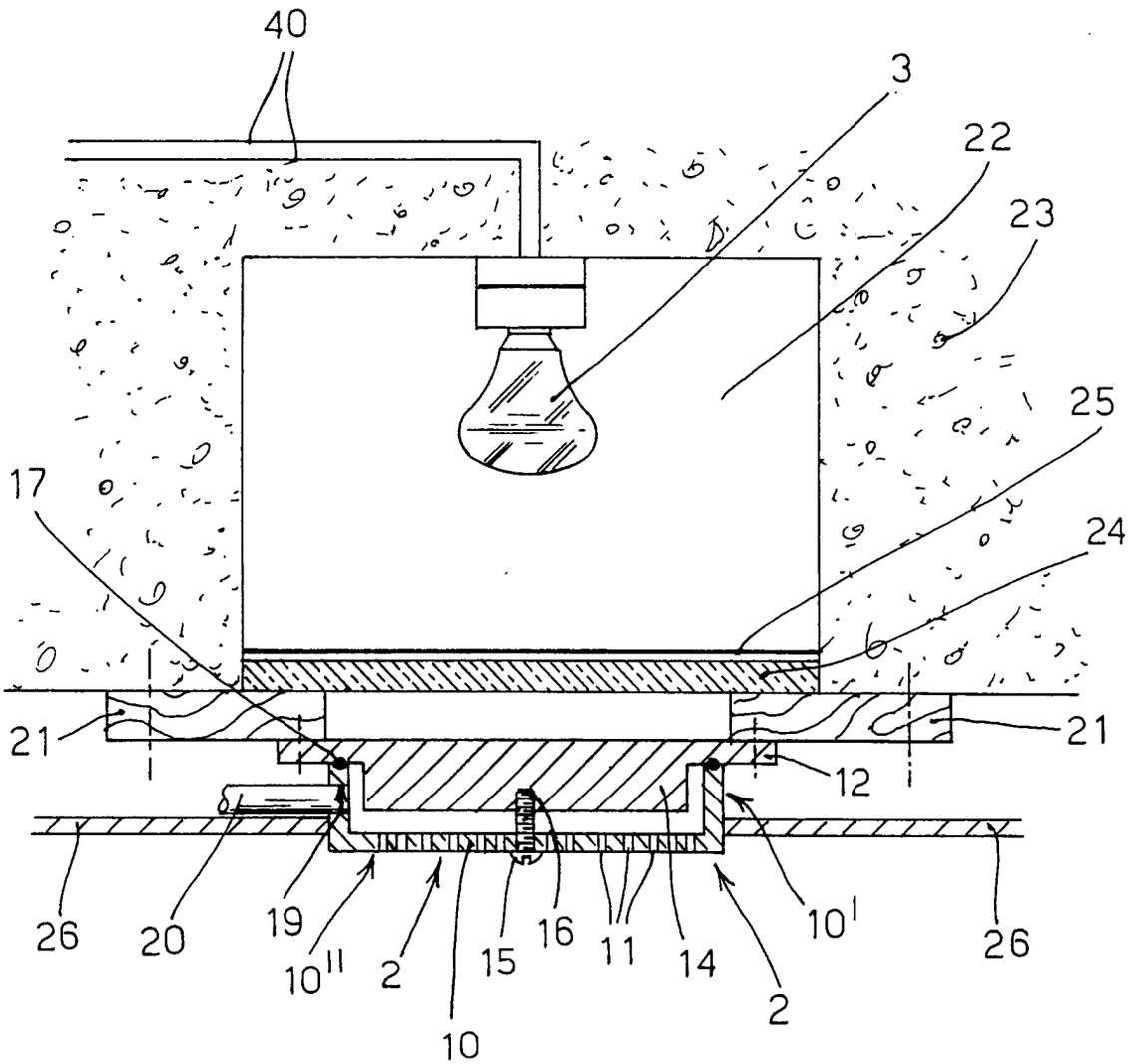
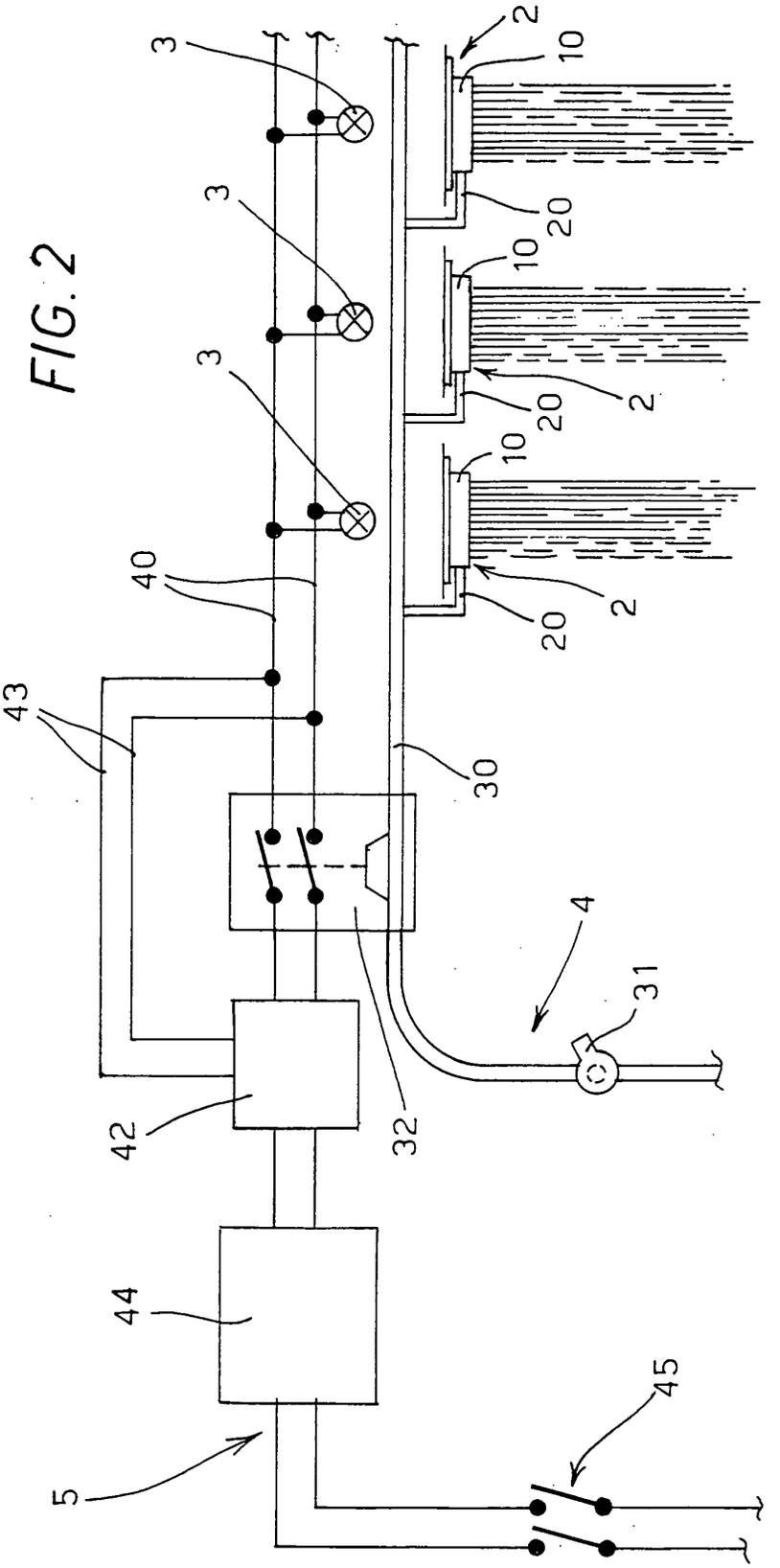


FIG. 1

FIG. 2



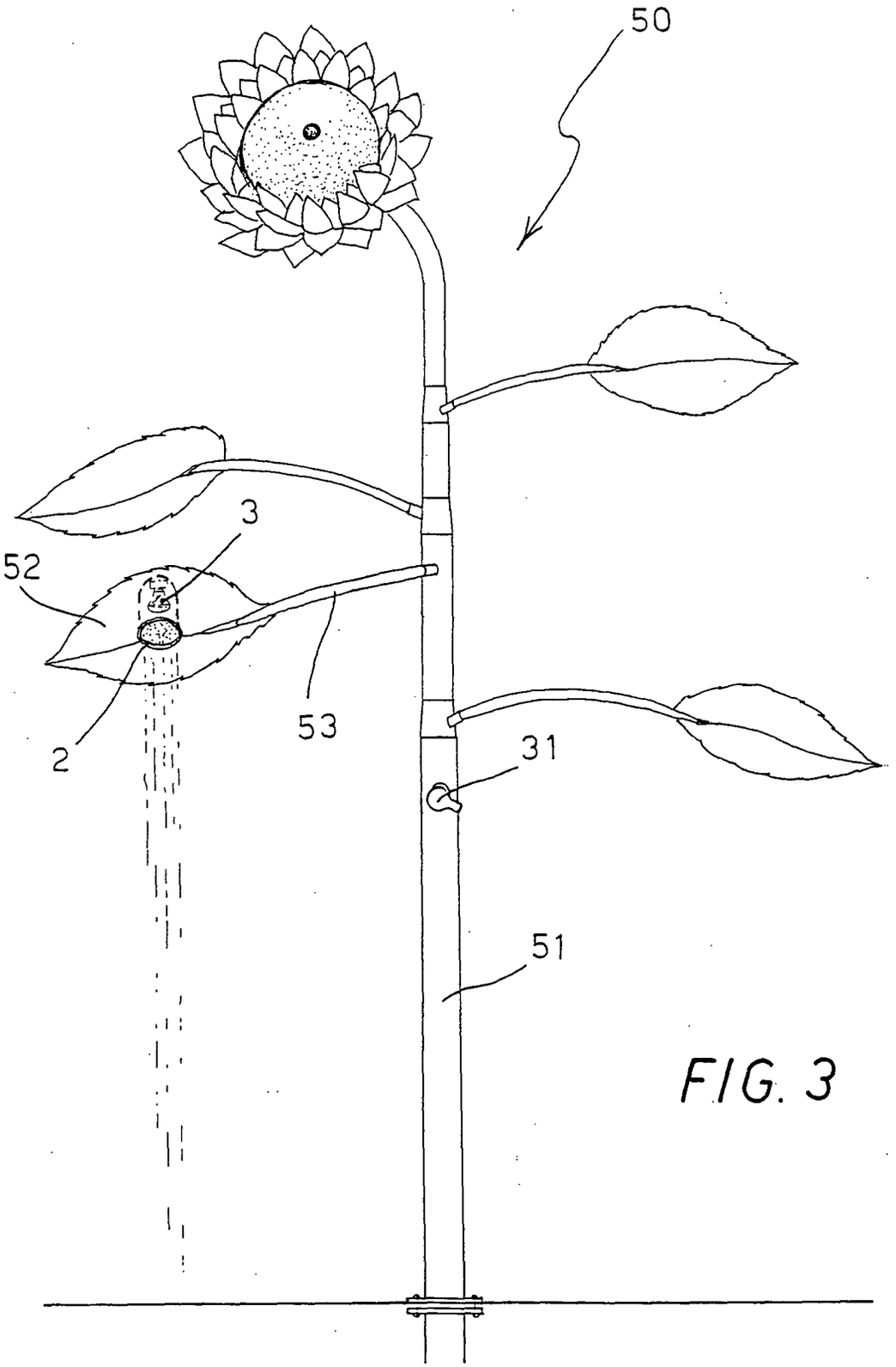


FIG. 3