(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 2 497 577 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
12.09.2012 Bulletin 2012/37

(51) Int Cl.:
B05B 17/08 *(2006.01)*

(21) Application number: **11157700.3**

(22) Date of filing: **10.03.2011**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME

(71) Applicant: **Ubbink Garden B.V.**
1822 BN Alkmaar (NL)

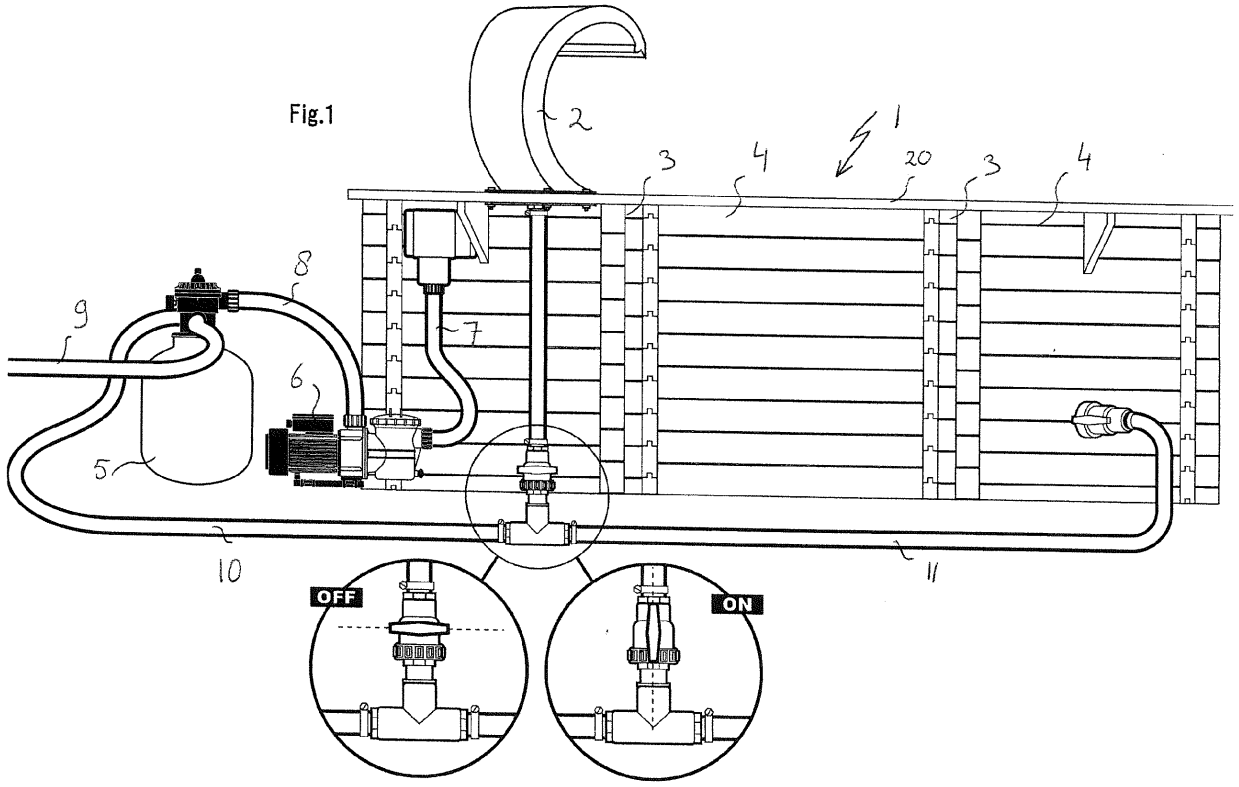
(72) Inventor: **Klaus, Hartmut**
37299, Weissenborn (DE)

(74) Representative: **Hooiveld, Arjen Jan Winfried**
Arnold & Siedsma
Sweelinckplein 1
2517 GK Den Haag (NL)

(54) **A device comprising a water reservoir such as a swimming pool or a pond**

(57) A device comprising a water reservoir, such as the swimming pool or a pond, a waterfall object, as well as a water system for supplying water to said water for object, wherein the water being supplied to the waterfall object can flow down into the water reservoir, characterised in that the waterfall object is at least substantially C-shaped, wherein the upper end of the C-shape comprises an outlet, and wherein the water being supplied to the waterfall object can flow down into the water reservoir via said outlet.

Fig.1



EP 2 497 577 A1

Description

[0001] The present invention relates to a device comprising a water reservoir, such as the swimming pool or a pond, a waterfall object, as well as a water system for supplying water to said waterfall object, wherein the water being supplied to the waterfall object can flow down into the water reservoir. The invention also relates to a water object as used in said device.

[0002] Such a device is generally known. In particular garden centres are experiencing an increasing public interest in all kinds of garden ornaments and related articles. Said public interest in particular results from an increasing need that people feel to embellish the surroundings of their houses, in particular the garden, with ornaments, such as fountains, waterfalls and the like. Especially the last few years there has been a increasing interest in waterfall objects, from which water flows down in a decorative manner.

[0003] The object of the invention is to provide a device which meets the public's increasing desire to arrange a pond, for example, in a decorative way, using a waterfall object.

[0004] In order to accomplish that object, a device of the kind described in the introduction is according to the invention characterised in that the waterfall object is at least substantially C-shaped, wherein the upper end of the C-shape comprises an outlet, and wherein the water being supplied to the waterfall object can flow down into the water reservoir via said outlet. More in particular, the lower end of the C-shape comprises an inlet, via which inlet water is supplied to the waterfall object. The water is in that case preferably directed from the inlet, over the entire C-shape, to the outlet.

[0005] In a preferred embodiment of the device according to the invention, the outlet extends across the entire width of the C-shape.

[0006] In another preferred embodiment of the device according to the invention, the C-shape comprises a light source near the outlet, wherein light emitted by the light source can illuminate the water from behind at the location of the outlet. The water flowing down via the outlet preferably functions as a light guide for guiding the light downward. In other words, the water at the outlet behaves as a light guide, as if the water forms a collection of glass fibres, which "capture" the light being emitted from behind and project said light downward. Thus a playful and graceful effect of falling water and light is obtained.

[0007] In another preferred embodiment of the device according to the invention, the light source is mounted in a chamber that extends outward near the outlet. Preferably, said light source is made up of a row of LEDs, which row extends across the entire width of the outlet.

[0008] In another preferred embodiment of the device according to the invention, the light source can be connected to the electric system of a house. In other words, the light source is fed from the electricity grid. An electrical conductor for supplying current to the light source in particular extends in the entire C-shape in that case.

[0009] In another preferred embodiment of a garden device according to the invention, the water system can be connected to the water supply system of a house. The water system is in particular equipped with a water pump which is connected to the waterfall object via a, preferably flexible, water conduit.

[0010] In another preferred embodiment of the device according to the invention, the waterfall object is connected to a wall of the water reservoir near the lower end of the C-shape.

[0011] As already said before, the invention also relates to the C-shaped waterfall object defined in the present device. The waterfall object is preferably made of a material selected from the group consisting of metal, plastic and wood.

[0012] The invention will now be explained in more detail with reference to figures illustrated in a drawing, in which:

- Figure 1 is a schematic side view of a preferred embodiment of the invention, in which the water reservoir is embodied as a swimming pool;
- Figure 2 shows various (partial) views of the waterfall object used in figure 1; and
- Figure 3 shows the installation in steps of the waterfall object shown in figure 2 on the swimming pool shown in figure 1.

[0013] Figure 1 shows a swimming pool 1 with a waterfall object 2 in the form of an elegant C, which is connected to the water supply system of a house. The swimming pool 1 is built up of columns 3 and vertical walls 4 fitted therebetween. A water system for supplying water to the waterfall object 2 consists of a vessel 5, an electric motor 6 connected thereto for pumping water from the swimming pool 1 into the vessel 5 via flexible conduits 7, 8, a flexible conduit 9 for supplying water from the water supply system of the house to the vessel 5, as well as a flexible conduit 10 for supplying water from the swimming pool 1, via the vessel 5, to the waterfall object 2 by means of the electric motor 6. When the swimming pool 1 is to be filled, the electric motor 6 is turned off and water is directed to the swimming pool 1 from the water mains by means of the flexible conduit 11. The supply to the waterfall object 10 is shut off ("off") in that case. Once the swimming pool 1 is filled, the supply from the water mains to the vessel 5 is shut off, and a closed system is obtained, in which the water is circulated by the electric motor 6. The supply to the waterfall object 2 is open ("on") in that case.

[0014] The waterfall object 2 in the form of the C is made of stainless steel.

[0015] With reference now to figure 2, the lower end 12 of the C-shape is provided with an inlet 13 for supplying water to the waterfall object 2 via the inlet 13. As shown,

the water is directed from the inlet 13, over the entire C-shape, to an outlet 14 near the upper end 15 of the C-shape. The outlet 14 extends across the entire width of the C-shape. Near the outlet 14, the C-shape comprises a light source 16 in the form of a row of LEDs, which row extends across the entire width of the outlet 14. As shown in figure 2, the water in the C-shape flows down over a flat wall portion 17 of the C-shape. The water flowing over the flat wall portion 17 is illuminated from behind by the row of LEDs, so that the emitted light is coupled into the water flowing at that location, as if said water were a light guide in the form of glass fibres. The light being guided down over the flat wall portion 17 is thus protected at a location where the water falls into the swimming pool 1 as well. The combination of falling water and lighting enhances the attractiveness of the whole. The LEDs forming the aforesaid row are mounted in a chamber 18 which extends outwards and downwards near the outlet 14. Said LEDs are connected to the electric system of the house, with an electrical conductor 19 for the LEDs extending over the entire C-shape.

[0016] Figure 3 relates to the installation in steps of the waterfall object 2, by which the waterfall object 2 is fixed to a flat, horizontal wall 20 of the swimming pool 1. Use is made of a jigsaw 21 for forming a hole in the wall 20 for fixing the waterfall object 2 to the wall 20 at that location, and also of a drill 22 for drilling screw holes 23, via which the waterfall object 2 is fixed to the wall 20 by means of bolts 24 and nuts 25. Connecting pieces 26 are provided on either side of the wall 20.

[0017] It is noted that the invention is not limited to the embodiment shown herein, but that it also extends to other variants that fall within the scope of the appended claims.

Claims

1. A device comprising a water reservoir (1), such as the swimming pool or a pond, a waterfall object (2), as well as a water system for supplying water to said waterfall object (2), wherein the water being supplied to the waterfall object (2) can flow down into the water reservoir (1), **characterised in that** the waterfall object (2) is at least substantially C-shaped, wherein the upper end (15) of the C-shape comprises an outlet (14), and wherein the water being supplied to the waterfall object (2) can flow down into the water reservoir (1) via said outlet (14).

2. A device according to claim 1, wherein the lower end (12) of the C-shape comprises an inlet (13), via which inlet (13) water is supplied to the waterfall object (2).

3. A device according to claim 2, wherein the water is directed from the inlet (13), over the entire C-shape, to the outlet (14).

4. A device according to claim 1, 2 or 3, wherein the outlet (14) extends across the entire width of the C-shape.

5. A device according to any one of the preceding claims 1-4, wherein the C-shape comprises a light source (16) near the outlet (14), and wherein light emitted by the light source (16) can illuminate the water from behind at the location of the outlet (14).

6. A device according to claim 5, wherein the water flowing down via the outlet (14) functions as a light guide for guiding the light downward.

7. A device according to claim 5 or 6, wherein the light source is mounted in a chamber (18) that extends outward near the outlet (14).

8. A device according to any one of the preceding claims 5, 6 or 7, wherein said light source (16) is made up of a row of LEDs, and wherein said row extends across at least substantially the entire width of the outlet (14).

9. A device according to any one of the preceding claims 5-8, wherein the light source (16) can be connected to the electric system of a house.

10. A device according to any one of the preceding claims 5-9, wherein an electrical conductor (19 of the light source (16) extends in the entire C-shape.

11. A device according to any one of the preceding claims 1-10, wherein the water system can be connected to the water supply system of a house.

12. A device according to any one of the preceding claims 1-11, wherein the waterfall object (2) is connected to a wall (20) of the water reservoir (1) near the lower end (12) of the C-shape.

13. A device according to any one of the preceding claims 1-12, wherein the waterfall object (2) is made of a material selected from the group consisting of metal, plastic and wood.

14. A waterfall object (2) as defined in a device according to any one of the preceding claims 1-13.

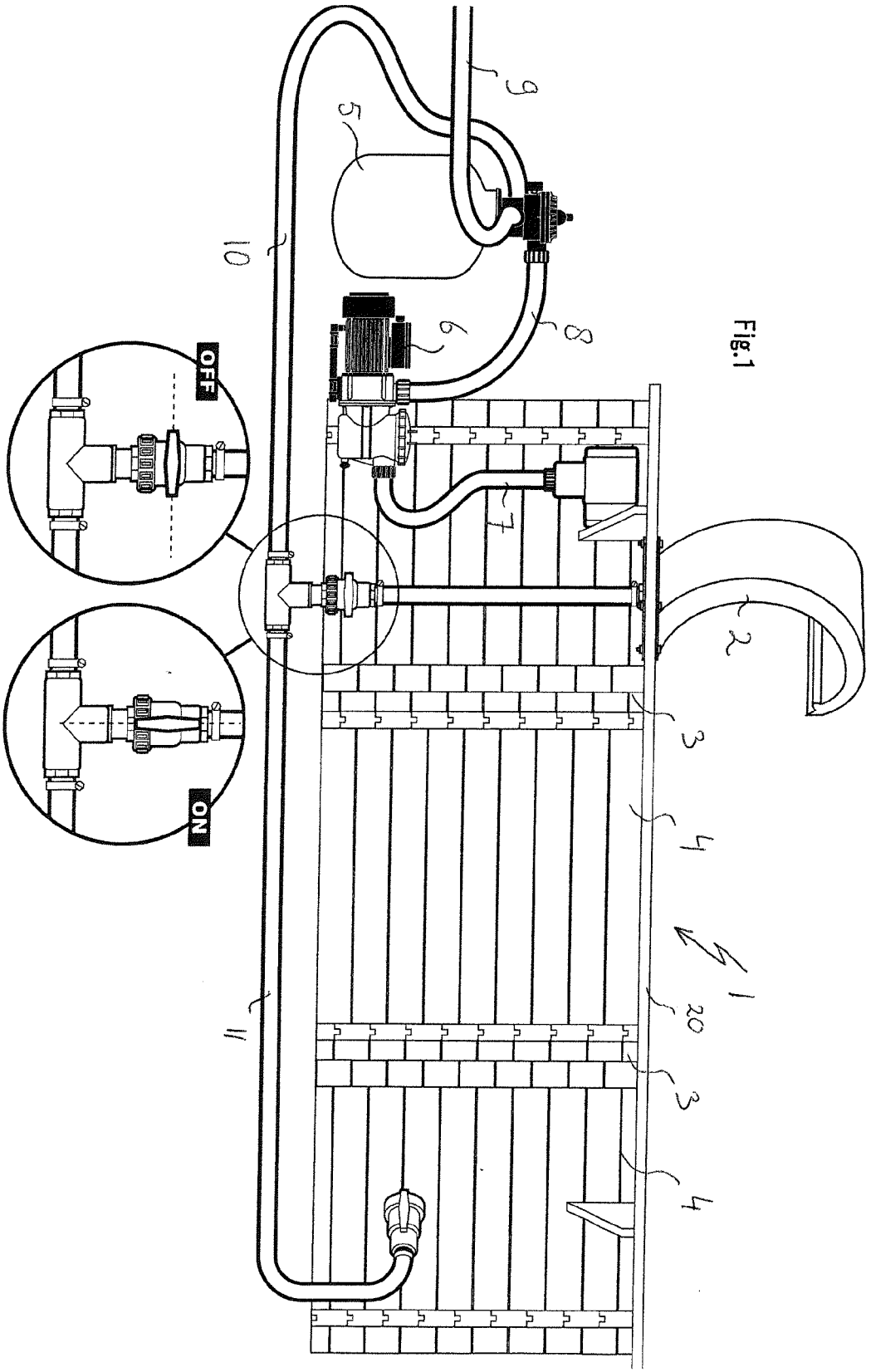


Fig.1

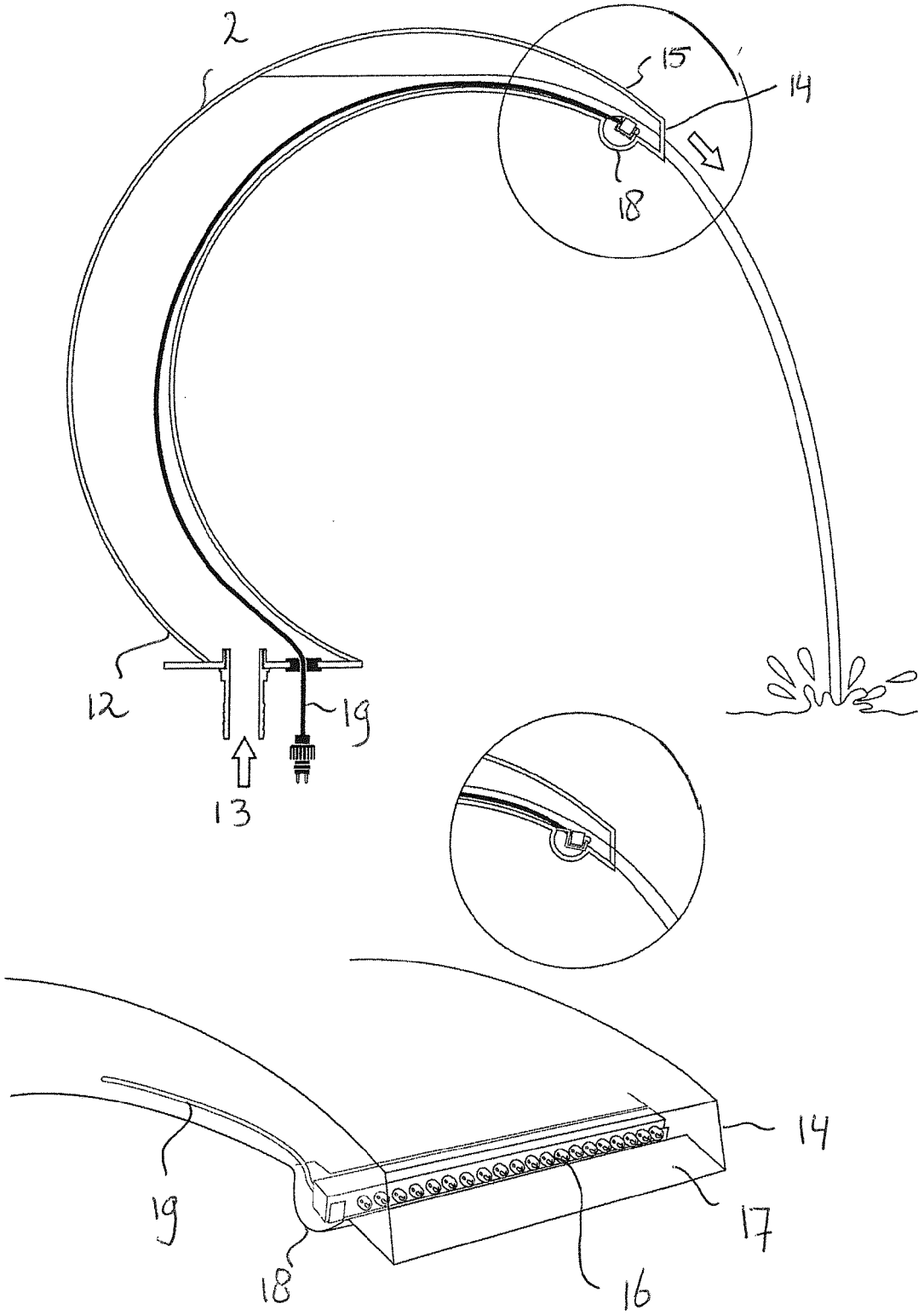


Fig.2

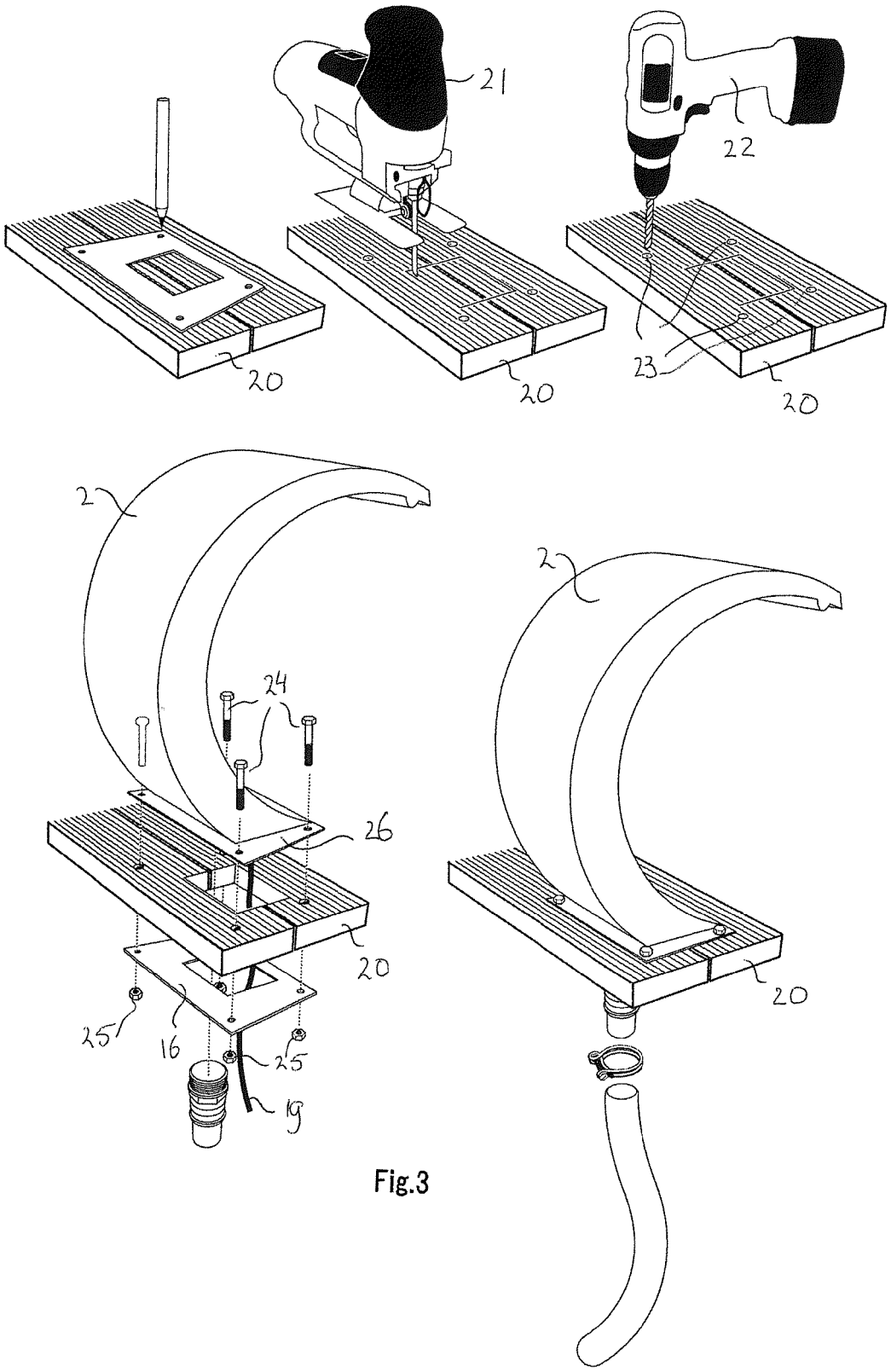


Fig.3

Europäisches Patentamt
European Patent Office
Office européen des brevets

PARTIAL EUROPEAN SEARCH REPORT

under Rule 62a and/or 63 of the European Patent Convention. This report shall be considered, for the purposes of subsequent proceedings, as the European search report

Application Number
EP 11 15 7700

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 6 196 471 B1 (RUTHENBERG DOUGLAS [US]) 6 March 2001 (2001-03-06) * column 3, line 62 - column 5, line 7; figures *	1-9, 11-13	INV. B05B17/08
X	WO 85/05167 A1 (KESSENER HERMAN PAULUS MARIA [NL]; BRULS GEORGIUS JOSEPHUS CYRILL [NL]) 21 November 1985 (1985-11-21) * the whole document *	1-7, 10-13	

TECHNICAL FIELDS SEARCHED (IPC)

B05B

INCOMPLETE SEARCH

The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC so that only a partial search (R.62a, 63) has been carried out.

Claims searched completely :

Claims searched incompletely :

Claims not searched :

Reason for the limitation of the search:

see sheet C

Place of search	Date of completion of the search	Examiner
Munich	27 July 2011	Krysta, Dieter

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

1

EPO FORM 1503 03.82 (P04E07)

Europäisches Patentamt
European Patent Office
Office européen des brevets

INCOMPLETE SEARCH
SHEET C

Application Number
EP 11 15 7700

Claim(s) completely searchable:
1-13

Claim(s) not searched:
14

Reason for the limitation of the search (non-patentable invention(s)):

1. The basic characterising feature of the invention is the waterfall object being at least substantially "C-shaped".
As set out in the description the object of the invention is to provide a device which meets the public's desire to arrange a pond in a "decorative way". This is supposed to be achieved by said waterfall object being "C-shaped".
However, this aspect is an "aesthetic creation" which, according to Article 52(2)b) is not regarded as a technical invention. Therefore, this non-technical aspect has been ignored.

2. Contrary to Article 84 EPC independent claim 14 has no own technical features but only refers to parts of previous claims.

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 11 15 7700

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
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

27-07-2011

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6196471 B1	06-03-2001	AU 763858 B2	31-07-2003
		AU 1103801 A	12-06-2001
		CA 2395560 A1	07-06-2001
		EP 1236008 A1	04-09-2002
		WO 0140704 A1	07-06-2001
WO 8505167 A1	21-11-1985	DE 3565171 D1	27-10-1988
		EP 0181896 A1	28-05-1986
		JP 61502155 T	25-09-1986
		US 4901922 A	20-02-1990
		US 4749126 A	07-06-1988

EPO FORM P0459

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