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(54) **DECORATIVE GARDEN FOUNTAIN WITH A SPEAKER**

(57) Provided is a portable decorative fountain, comprising: a) a body with one or more cavities for collection of water; b) a pump for pumping the water from the cavity in an upward direction; c) a conduit for carrying water that is pumped by the pump; and d) a speaker for playing sound; wherein the fountain can be operated with or without the speaker playing sound.

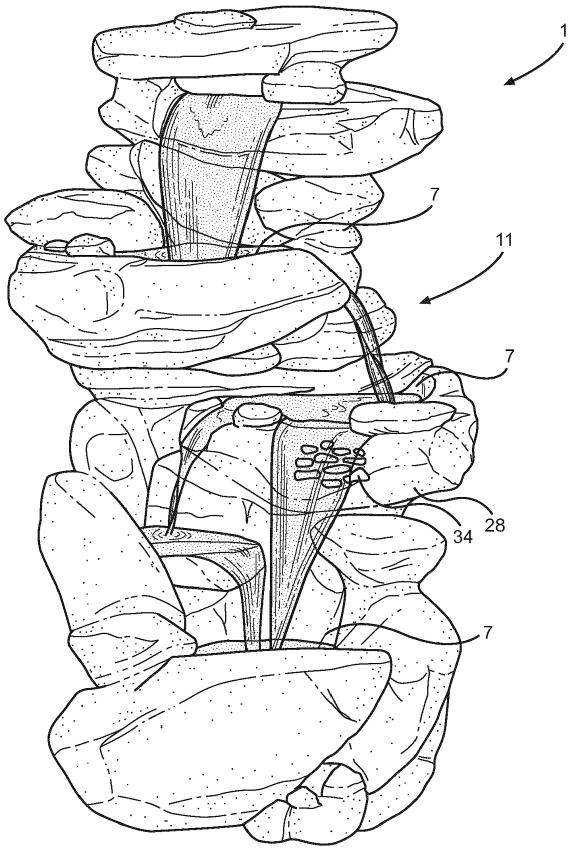

FIG. 1

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Description

Background Section of the Invention

[0001] Decorative garden fountains are typically placed in a garden for aesthetics. The existing decorative garden fountains have limited functionalities.

Summary Section of the Invention

[0002] The invention is defined in the claims. Provided is a portable decorative fountain, comprising: a) a portable body with one or more cavities for collection of water, and one or more openings configured for passage of sound from inside of the body to outside of the body; b) a pump for pumping water from at least one of the cavities in an upward direction; c) a conduit for carrying water that is pumped by the pump; and d) a speaker for playing sound through one or more openings on the body; wherein the fountain can be operated with or without the speaker playing sound. The body can have a height of one foot to six feet, weight of 1kg to 200kg, and a longest width from bottom center of the housing that is between 1 foot to three feet. The fountain can be a cascading fountain with a plurality of cavities. The cavity can have a light placed under where the water collects. The lights can change in response to a different sound coming from the speaker. The speaker can be incorporated on a side of the fountain in relation to a lowest cavity where water collects. The speaker can be less than 2 feet elevated, facing outward. The speaker can be placed at top of the fountain. The further comprising a waterproof casing where the speaker is placed. There can be a cover for the casing with the openings, wherein the cover makes a portion of the body of the fountain and is visible from outside of the fountain. The housing can comprise two more rocks, one of the rocks of the housing having openings for travel of sound. The speaker can be placed behind at least one flow of water. The speaker can be placed behind two separate flows of water from two different cavities placed above the speaker.

[0003] Provided is a portable decorative fountain, comprising: a) a portable body with at least two cavities configured in a cascading fashion, and the body having one or more openings configured for passage of sound from inside of the body to outside of the body, wherein the body has a height of one foot to six feet, weight of 1kg to 200kg, and a longest width from bottom center of the housing that is between 1 foot to three feet; b) pump for pumping water from at least the cavity position at a lowest level in an upward direction; c) a conduit for carrying water that is pumped by the pump; and d) a speaker for playing sound through one or more openings on the body; wherein the fountain can be operated with or without the speaker playing sound. The lowest cavity (from the center of the portion of the cavity that is visible (not blocked by rocks)) can define a front of the body, and the speaker is placed on a side. The waterproof casing and cover where the speaker is placed, wherein the cover makes a portion of the body of the fountain and is visible from outside of the fountain.

[0004] Provided is a portable decorative fountain, comprising: a) a portable body with at least two cavities configured in a cascading fashion, the body having an opening; b) a pump for pumping water from at least the cavity position at a lowest level in an upward direction; c) a conduit for carrying water that is pumped by the pump; d) a speaker; e) a waterproof casing for placing the speaker inside of the body; f) a cover configured to fit over the casing and cover the opening of the body, the cover having a plurality of its own openings, the cover's openings configures to allow sound from the speaker to travel from one side of the cover to another side of the cover; wherein the fountain can be operated with or without the speaker playing sound.

Brief Description of the Figures

[0005]

Figure 1 illustrates a cascading fountain with a speaker on its side (the speaker is illustrated in figure 2).
Figure 2 illustrates a speaker placed on the side of the fountain of figure 1.
Figure 3 illustrates internal electrical components of the fountain of figure 1.
Figure 4 illustrates a side view of the fountain with the speaker placed on the side.
Figure 5 illustrates a fountain where the speaker is placed on the top of the fountain.
Figure 6 illustrates a fountain with a speaker having a grill.
Figure 7 illustrates a waterproof casing for placement of the speaker.
Figure 8 illustrates a casing cover with a plurality of openings for placement on the cover of figure 7.
Figure 9 illustrates a cavity (pond) where water collects, with a light placed on the bottom of the pond.
Figure 10 illustrates various electronic components of the fountain.
Figure 11 illustrates a speaker that is placed above a pond.
Figure 12 illustrates one embodiment of the fountain speaker.
Figure 13 illustrates alternative networking arrangements.
Figure 14 illustrates a fountain with a speaker placed immediately behind a cavity that fills with water.

Detailed Description of the Invention

[0006] Provided is a portable decorative fountain, comprising: a) a portable body with one or more cavities for collection of water; b) a pump for pumping water from at least one of the cavities in an upward direction; c) a con-

duit for carrying water that is pumped by the pump; and d) a speaker attached to the body to play sound. The speaker is typically placed inside of the body, with the body having an opening for the passage of sound.

[0007] Provided is a decorative fountain **1** with a speaker **4.** The fountain **1** can have a plurality of speakers, such as 1, 2, 3, 4, or 5. The decorative fountain **1** can be suitable for placement in a garden. The decorative fountain **1** can have one or more components including a body/housing **28,** a cavity **7** (in form of ponds as illustrated) for collection of water, a pump **25,** and a conduit **29** for moving the water upward from the lowest positioned cavity **7** through the force generated by the pump **25.**

[0008] The fountain **1** can have one or more cavities **7** (ponds), such as 1, 2, 3, 4, or 5 cavities **7** for collection of water. As illustrated, the fountain **1** has three larger cavities **7** and a smaller cavity. The fountain **1** can be a cascading fountain (as illustrated in figure 1), where water from one pond falls into another fond that is positioned lower. Each cavity **7** (ponds), can have a light source **12** inside, which illuminates through the water in each cavity **7** (pond). The light source **12,** which can be an LED (Light Emitting Diode) light, can be a single-colored light, or a multi-colored light. A transparent (waterproof) window **18** can be placed over the light source **12** on the bottom of one or more of the cavities **7** (ponds).

[0009] The speaker **4** can be placed on the bottom of the fountain **1,** facing outward. The outwardly-facing speaker **4** can be placed inside of one of the faux rocks **2** of the fountain **1.** The fountain **1** can comprise two or more faux rocks **2** on the bottom, which a speaker grill **6** placed on one of the rocks **2** or openings **3** cut into the rock **2.** The fountain **1** can have a housing that gives the impression of presence of plurality of rocks (such as 10 to 30 rocks), with one of the faux rocks **2** turned into a speaker **4.**

[0010] The fountain 1 can also have a speaker **34** in the front, with the speaker placed behind the water that falls from one pond to another. The speaker **34** can be directly behind the waterflow, or behind and to the side of the water flow.

[0011] The fountain housing **1/28** can be made from a synthetic material such as plastic. The fountain/housing **1/28** can have a flat bottom for placement of the housing on a surface. The fountain/housing **1/28** can be one foot to four feet tall (or two feet to six feet tall) (at tallest point), and have a length and and/or width from the bottom center of the housing that is between 1 foot to three feet (at longest length). The inside of the fountain **1** can be hollow, with the rocks just representing the shape of the wall of the housing **28,** and made up of a piece of plastic that looks like a rock.

[0012] The housing can have a plurality of irregularly shaped openings **3** that are configured to allow sound that is produced by the speaker **4** to travel from the inside of the housing **28** to the outside of the housing **28.** The speaker **4** can be placed in a waterproof casing **16** and sealed with the casing cover **17.**

[0013] The portion of the speaker **4** that produces sound (diaphragm) faces the openings **3** of the housing. The plurality of openings **3** can be spaced apart from each other in such arrangement that forms a circle. There can be about 10 to about 20 openings **3.** In one embodiment, in between the housing **28** and the face of the speaker **4,** optionally there can be a sealing ring, and a speaker grill **6.**

[0014] In the back or side of the housing **28** there can be electronic access window **13,** which can be removed to access the speaker **4,** junction box **9,** and power cord **8** and wire **11.** A circuit board with a processor can be placed on the inside of the housing **28.** The main processor **19** on the circuit board can be in electronic communication with a port, such as a USB port **22,** which can be accessed from outside of the housing **28** through an opening in the cover **17.** There can also be a switch for turning on and off the speaker **4** which can be accessed from outside of the housing **28.** The main processor **19** can further be in communication with a processor configured for wireless communication, such as Bluetooth (Bluetooth chip) **21.** In one embodiment, the fountain **1** can also have a back-up battery with or without a solar panel which only powers the speaker **4** independent of the pump **25.**

[0015] Figure 1 illustrates a cascading garden fountain **1,** with the housing **28.** In the cascading fountain **1** of figure 1, there are at least three cavities **7** (ponds) where the water collects. A pump **25** inside the fountain **1** pumps the water to the top of the fountain through conduit **29,** and then the water cascades down from one cavity **7** to another. The fountain **1** of figure 1 is comprised of a housing **28** that gives the impression of being made from a plurality of rocks of different shapes and sizes arranged to allow for a cascading fountain with multiple cavities **7.**

[0016] Figure 2 illustrates placement of a speaker **4** inside of faux rock **2** of the fountain **1** on side of the fountain in relation to the front side of the fountain where the water flows. The speaker **4** is placed below two feet in height in this embodiment. As illustrated, the faux rock **2** where the speaker **4** is placed in above a smaller faux rock that sits on the ground. The speaker **4** in this embodiment is placed the side of the fountain **1** in relation to the cavity **7** where the water collects on bottom of the fountain. The grill **6** can be placed in front of speaker **4** but behind opening **3.** The openings **3** are part of casing cover **17.** The casing cover **17** can be blended into the body to give the impression that it is part of the body.

[0017] Figure 3 illustrates the electronic components of the water fountain **1.** Illustrated in this drawing is the speaker **4** placed on the side of the fountain **1.** The speaker **4** is connected with a wire to the junction box **9.** Additional wires **11** go to the light sources **12.** A light source **12** can be placed on the bottom of each cavity **7.** A power cord **8** can bring power from an outside source of energy, typically an electric plug, to power the lights. The power cord **8** can leave the fountain **1** through access window **13.**

[0018] Figure 4 illustrates a side view of the fountain **1.** Illustrated in this figure is speaker **4** that is placed on the bottom side of the fountain **1** and the wiring from the speaker **4.**

[0019] Figure 5 illustrates fountain **1** with a speaker **4** on top of the fountain **5.** The fountain **5** can be made from a plurality of rocks of different sizes, such as having the look of 10-30 faux rocks, with a speaker **4** placed inside a faux rock **2** all the way on top of the fountain **5.**

[0020] Figure 6 illustrates the fountain **10,** which is substantially the same as fountain **1** except that it uses a grill **15** instead of openings **3** in the rock **2.** Figure **6** also illustrates additional speakers **35** and **36** which can be placed in a alcove behind where water falls from one cavity to another cavity. Any of the fountains described herein can have only one speaker, or have two, or three, or even four speakers. Placement of the speaker either directly behind or behind and to the side of where water falls from one cavity to another cavity can somehow hide the speaker from view, or at least have the speaker blend in, and provide a more decorative appearance. In addition, the speaker can be placed at a higher position, somewhere in the middle of the fountain.

[0021] Figure 7 illustrates a waterproof casing **16.** Speaker **4** is placed inside of waterproof casing **16,** which is placed inside of the faux rock **2** of the fountain **1.**

[0022] Figure 8 illustrates a casing cover **17** that is placed on the casing **16,** which houses the speaker **4.** Casing cover **17** has a plurality of openings **3,** and forms an outer portion of the fountain housing **28.** Casing cover **17** can be painted the same as the rest of the fountain **1.**

[0023] Figure 9 illustrates a cavity **7** (pond) of the fountain **1** where the water collects. A light **12** can be placed under a transparent window **18** on the bottom of each cavity **7.** Alternatively, the light **12** can be waterproof and not need a window.

[0024] Figure 10 illustrates various electronic components of the fountains **1,** such as speaker **4,** CPU (Central Processing Unit) **19,** memory **20,** Bluetooth chip **21,** light source **12,** power management unit **23,** USB port **22,** pump **25,** power exchange **26.** Synchronization **27** can be between the light sources **12** and sound of the music coming from speaker.

[0025] CPU (Central processor unit) **19** can be a microcontroller with internal memory **20.** CPU **19** can be in communication with speaker **4** through driver. CPU **19** can also be in communication with a Power Management Unit **23** can control and monitor the electrical current. CPU **19** can also be in communication with Bluetooth chip **21** configured for wireless communication with a smart phone **33** or other electronic device of a user. The user would make a wireless communication protocol, such as by Bluetooth chip **21,** to pair the speaker **4** with a user's electronic device, such as a mobile or smart phone **33,** a tablet computer, or a dedicated music player. The user can then play the contents (such as songs) over the speaker **4.** After receiving a wireless signal, the speaker system forms connection (pairs) with the user's device. The speaker **4** then receives audio content from the user's device. The audio content can be played as a live stream (with a minimal buffer as needed) or stored in memory **20** and played overtime.

[0026] Alternatively, a wired connection can be made with the port (such as the USB Port **22**) to play the audio content (songs) and/or to charge the user's electronic device. The audio content can be uploaded from a storage device like a flash drive into the speaker's memory **20** and played over the speaker **4** overtime.

[0027] The lights **12** can be synchronized with the sound coming from the speaker **4** by using for example a sound effect sensor **24.** The light **12** can change in color and/or lumens/intensity depending on the characteristics of the sound produced by the speaker **4.**

[0028] In one embodiment, a plurality of fountains play the same sound in a synchronous manner. Figure 13 illustrates possible networking arrangements. The top arrangement illustrates a simple network with electronic device of a user (smart phone **33**) and one speaker. The middle illustration shows a mesh network where each speaker is configured to communicate with the smart phone and every other speaker. The user's phone is also configured to communicate with each speaker. The bottom illustration shows one speaker acting as a master, and then communicating with all the other speakers, in this housing sending audio content to the other speakers.

[0029] Figure 11 illustrates a fountain where the speaker is placed on a rock above a cavity **7** that holds water, in this case, two cavities **7.** The speaker openings **3** are above two cavities in this illustration. One pond immediately below the speaker openings **3** are off-set to the right, and has a channel **31** below the speaker openings that drains into a lower cavity **7.** The lower cavity **7** is placed below the speaker openings. The speaker openings **3** can be placed below another cavity **7** to protect the openings from water from the above cavity. Th speaker openings **3** can be at an angle that is downwardly, such as about 1 degree to about 45 degrees. The speaker openings can be placed in a recessed position in relation to any cavity **7,** such as the bottom most cavity **7.** The speaker openings **3** can be inside of an alcove that is formed by placement of other cavities **7** in the fountain.

[0030] Figure 14 illustrates a fountain with a speaker **38** placed immediately behind a cavity **7** that fills with water. In this embodiment, speaker **38** is placed immediately behind a cavity **7** that fills with water. In this embodiment, the cavity **7** that the speaker **38** is placed behind fills in with water flow **39, 40** from two separate cavities, one immediately above the speaker **38,** and another that is to the side and above the speaker **38.** The cavity **7** that is above the speaker **38** is a source of water for both the cavity **7** that is below the speaker **38** and the cavity **7** that is to the right and above the speaker **38.** The cavities **7** immediately above and below the speaker **38** extend in front of the speaker 38 in this embodiment, with cavity before the speaker **38** extending further in the front compared to the cavity on the top, so that waster

from the top cavity **7** falls into the below cavity **7.** The speaker **38** can further be placed behind the cavity **7** on the side, to further block view of the speaker **38.** The speaker **38** itself, placed in a cove created by the cavities **7,** can have its sounds come out of one or more openings in the body, with the openings being vertical in orientation, or have an orientation that is vertical to **45** degrees. In this embodiment, a portion of the sound from speaker 38 bounces from the water in cavity **7.**

[0031] Thus, from one perspective, there has now been described a portable decorative fountain, comprising: a) a body with one or more cavities for collection of water; b) a pump for pumping the water from the cavity in an upward direction; c) a conduit for carrying water that is pumped by the pump; and d) a speaker for playing sound; wherein the fountain can be operated with or without the speaker playing sound.

[0032] Further example embodiments are described in the following numbered clauses:

1. A portable decorative fountain, comprising:

   a) a portable body with one or more cavities for collection of water;
   b) a pump for pumping water from at least one of the cavities in an upward direction;
   c) a conduit for carrying water that is pumped by the pump; and
   d) a speaker attached to the body to play sound;

   wherein the fountain is configured to be operated with or without the speaker playing sound.

2. The portable decorative fountain of clause 1, wherein the body has one or more openings for passage of sound from the speaker.

3. The portable decorative fountain of any one of the preceding clauses, wherein the speaker is placed inside of the body, the speaker configured to play a sound through one or more openings in the body

4. The portable decorative fountain of any one of the preceding clauses, wherein the fountain has a plurality of speakers.

5. The portable speaker of any one of the preceding clauses, wherein the opening is a single opening.

6. The portable speaker of any one of the preceding clauses, wherein a grill is placed over the opening.

7. The portable decorative fountain of any one of the preceding clauses, wherein the body has a height of one foot to six feet, weight of 1kg to 200kg, and a longest width from bottom center of the housing that is from 1 foot to three feet.

8. The portable decorative fountain of any one of the preceding clauses, wherein the fountain is a cascading fountain with a plurality of cavities.

9. The portable decorative fountain of any one of the preceding clauses, wherein the fountain is a cascading fountain with four to eight cavities.

10. The portable decorative fountain of any one of the preceding clauses, wherein the speaker is placed above at least one cavity and below at least one cavity.

11. The portable decorative fountain of any one of the preceding clauses, wherein the speaker is in a recessed position in the body.

12. The portable decorative fountain of any one of the preceding clauses, wherein the body has an alcove, the speaker placed in the alcove.

13. The portable decorative fountain of any one of the preceding clauses, wherein the body has an alcove, the speaker placed in the alcove behind and/or above and/or next to at least one cavity.

14. The portable decorative fountain of any one of the preceding clauses, wherein at least one of the cavities has a light placed under where the water collects.

15. The portable decorative fountain of any one of the preceding clauses, wherein the lights change in response to a different sound coming from the speaker.

16. The portable decorative fountain of any one of the preceding clauses, wherein the speaker is incorporated on a side of the fountain in relation to a lowest cavity where water collects.

17. The portable decorative fountain of any one of the preceding clauses, wherein the speaker is less than 2 feet elevated from a ground, facing outward.

18. The portable decorative fountain of any one of the preceding clauses, wherein the speaker is placed at top of the fountain.

19. The portable decorative fountain of any one of the preceding clauses, further comprising a waterproof casing where the speaker is placed.

20. The portable decorative fountain of any one of the preceding clauses, further comprising a cover for the casing with the openings, wherein the cover makes a portion of the body of the fountain and is visible from outside of the fountain.

21. The portable decorative fountain of any one of the preceding clauses, wherein the housing comprises two more rocks, one of the rocks of the housing having one or more openings for travel of sound.

22. A portable decorative fountain, comprising:

   a) a portable body with at least two cavities configured in a cascading fashion, and the body having one or more openings configured for passage of sound from inside of the body to outside of the body, wherein the body has a height of one foot to six feet, weight of 1kg to 200kg, and a longest width from bottom center of the housing that is between 1 foot to three feet;
   b) a pump for pumping water from at least the cavity position at a lowest level in an upward direction;
   c) a conduit for carrying water that is pumped by the pump; and

d) a speaker for playing sound attached to the body;

wherein the fountain can be operated with or without the speaker playing sound.

23. The portable decorative fountain of any one of the preceding clauses, wherein the lowest cavity defines a front of the body, and the speaker is placed on a side.

24. The portable decorative fountain of any one of the preceding clauses, further comprising a waterproof casing and cover where the speaker is placed, wherein the cover makes a portion of the body of the fountain and is visible from outside of the fountain.

25. The portable decorative fountain of any one of the preceding clauses, wherein the fountain is a cascading fountain with four to eight cavities.

26. The portable decorative fountain of any one of the preceding clauses, wherein the speaker is placed above at least one cavity and below at least one cavity.

27. The portable decorative fountain of any one of the preceding clauses, wherein the speaker is in a recessed position in the body.

28. The portable decorative fountain of any one of the preceding clauses, wherein the body has an alcove, the speaker placed in the alcove.

29. The portable decorative fountain of any one of the preceding clauses, wherein the body has an alcove, the speaker placed in the alcove behind and/or next to and/or above at least one cavity.

30. The portable decorative fountain of any one of the preceding clauses, wherein the speaker is placed behind at least one flow of water.

31. The portable decorative fountain of any one of the preceding clauses, wherein the speaker is placed behind two separate flows of water from two different cavities placed above the speaker.

32. A portable decorative fountain, comprising:

a) a portable body with at least two cavities configured in a cascading fashion, the body having an opening;

b) a pump for pumping water from at least the cavity position at a lowest level in an upward direction;

c) a conduit for carrying water that is pumped by the pump;

d) a speaker;

e) a waterproof casing for placing the speaker inside of the body; and

f) a cover configured to fit over the casing and cover the opening of the body, the cover having a plurality of its own openings, the cover's openings configured to allow sound from the speaker to travel from one side of the cover to another side of the cover;

wherein the fountain can be operated with or without the speaker playing sound.

References

[0033]

1. Fountain
2. Rock
3. Openings
4. Speaker
5. Fountain with speaker on top
6. Grill
7. Cavity
8. Power cord
9. Junction box
10. Fountain with grill speaker
11. Wire to LED Light
12. Light Source (typically LED)
13. Access Window
15. Grill
16. Waterproof casing
17. Casing Cover
18. Transparent window
19. CPU
20. Memory
21. Bluetooth
22. USB port
23. Power Management Unit (PMU)
24. Sound Effect Sensor
25. Pump
26. Power Exchange
27. Synchronization
28. Body/Housing
29. Conduit
30. Power cord
31. Channel
32. Alcove
33. Smart phone
34. Openings/speaker
35. Openings/speaker
36. Openings/speaker
37. Fountain with a speaker
38. Openings/speaker
39. water flow
40. water flow

Claims

1. A portable decorative fountain, comprising:

a) a portable body with one or more cavities for collection of water, and one or more openings configured for passage of sound from inside of the body to the outside of the body;

b) a pump for pumping water from at least one of the cavities in an upward direction;

c) a conduit for carrying water that is pumped by the pump;
d) a speaker for playing sound through the one or more openings; and
e) one or both of (i) a Bluetooth chip in communicative connection with the speaker and configured for wireless communication with a smart phone or other electronic device of a user and (ii) a USB port in communicative connection with the speaker;

wherein the fountain is configured to be operated with or without the playing of sound by the speaker.

2. The portable decorative fountain of claim 1, further comprising at least one light source.

3. The portable decorative fountain of claim 2, further comprising a central processing unit, CPU, in communication with the Bluetooth chip and/or USB port and the at least one light source.

4. The portable decorative fountain of claim 3, wherein the CPU is configured to synchronise the light source with the sound.

5. The portable decorative fountain of claim 3 or claim 4, further comprising a power management unit in communication with the CPU.

6. The portable decorative fountain of any preceding claim, further comprising a junction box in electrical connection with one or more of the pump, speaker, Bluetooth chip, light source and CPU.

7. The portable decorative fountain of claim 6, further comprising a power cord in electrical connection with the junction box and configured to be connected to an outside source of electricity.

8. The portable decorative fountain of any preceding claim, further comprising an electronics access window to provide access to one or more of the speaker, junction box and power cord.

9. The portable decorative fountain of any preceding claim, further comprising a switch accessible from outside of the housing, the switch for turning on and off the speaker.

10. The portable decorative fountain of any preceding claim, further comprising a back-up battery and optionally a solar panel, the back-up battery configured to power the speaker independently of the pump.

11. The portable decorative fountain of any one of the preceding claims, wherein the fountain has a plurality of speakers.

12. The portable decorative fountain of any one of the preceding claims, wherein the body has a recess and the speaker is placed in the recess behind and/or above and/or next to at least one cavity, and behind at least one path along which water flows when the fountain is in use.

13. The portable decorative fountain of any of claims 2 to 12, wherein the at least one light source is arranged at the bottom of the at least one cavity and a transparent, waterproof, window is arranged over the light source.

14. The portable decorative fountain of any one of the preceding claims, further comprising a waterproof casing around the speaker.

15. The portable decorative fountain of claim 14, further comprising a cover for the casing with the openings, the cover having a plurality of its own openings, the cover's openings configured to allow sound from the speaker to travel from one side of the cover to another side of the cover.

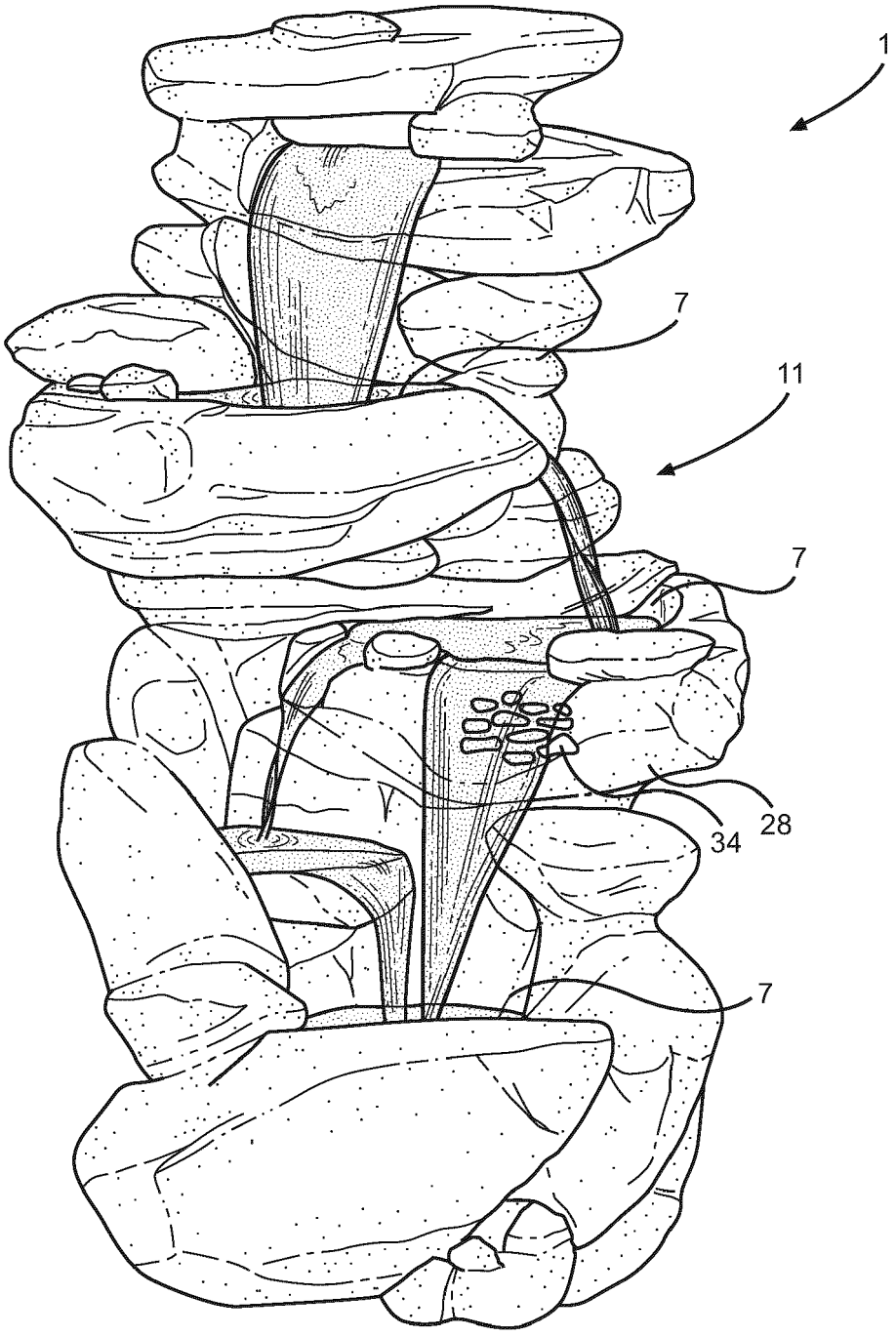

FIG. 1

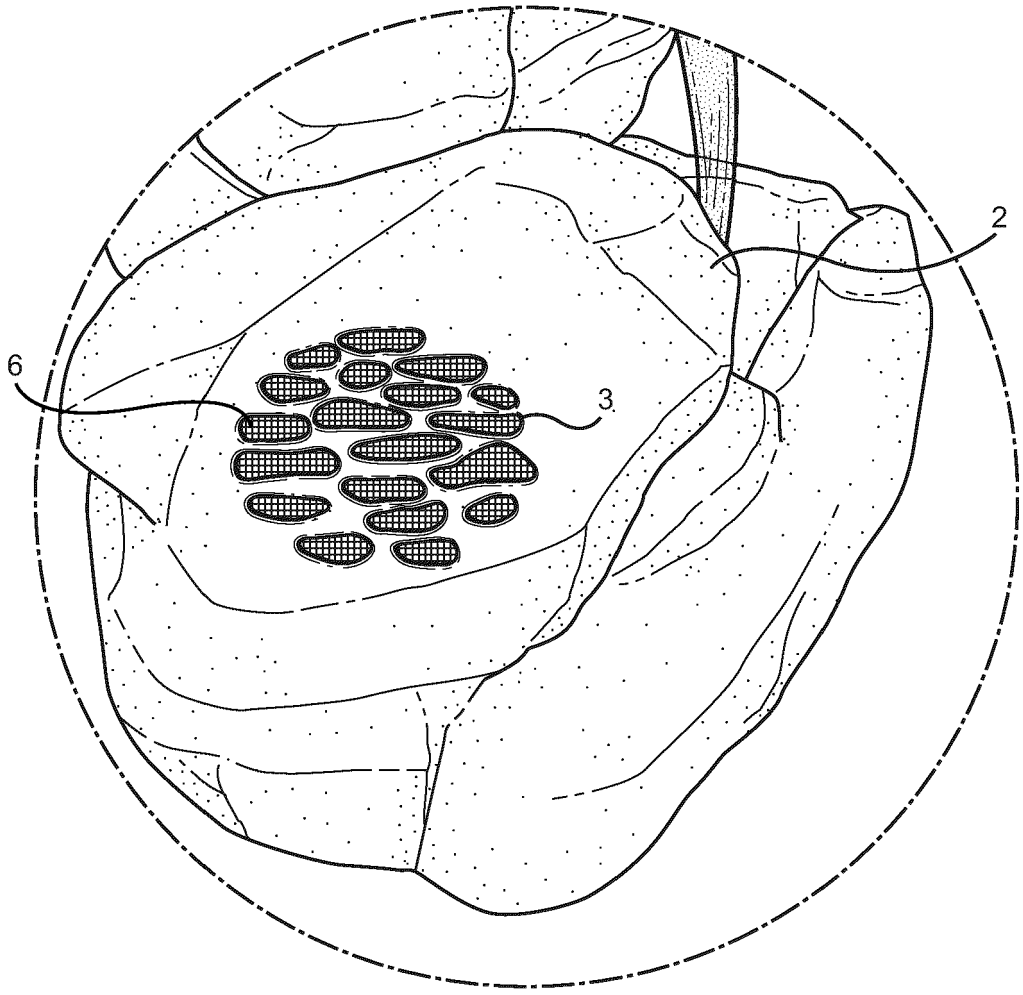

FIG. 2

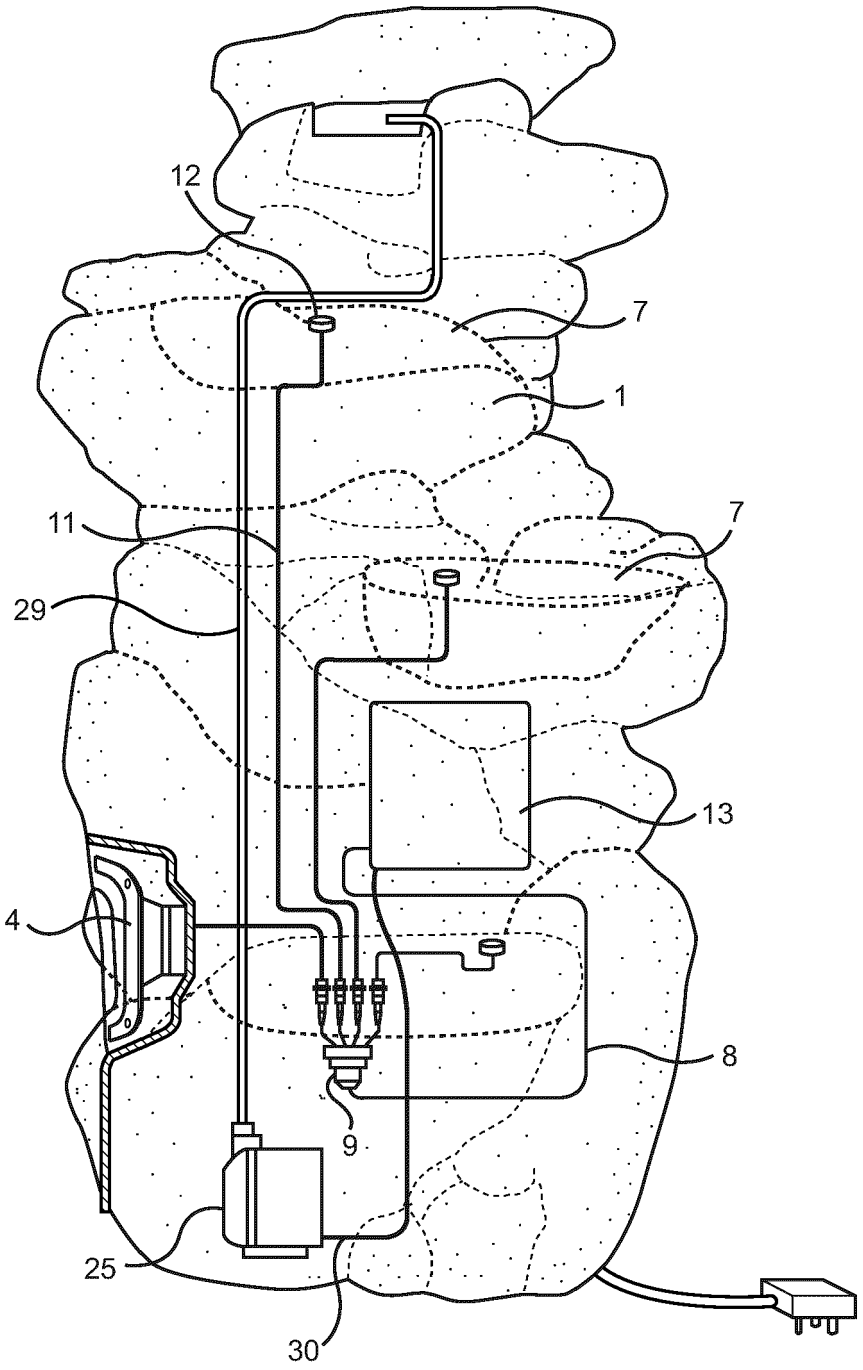

FIG. 3

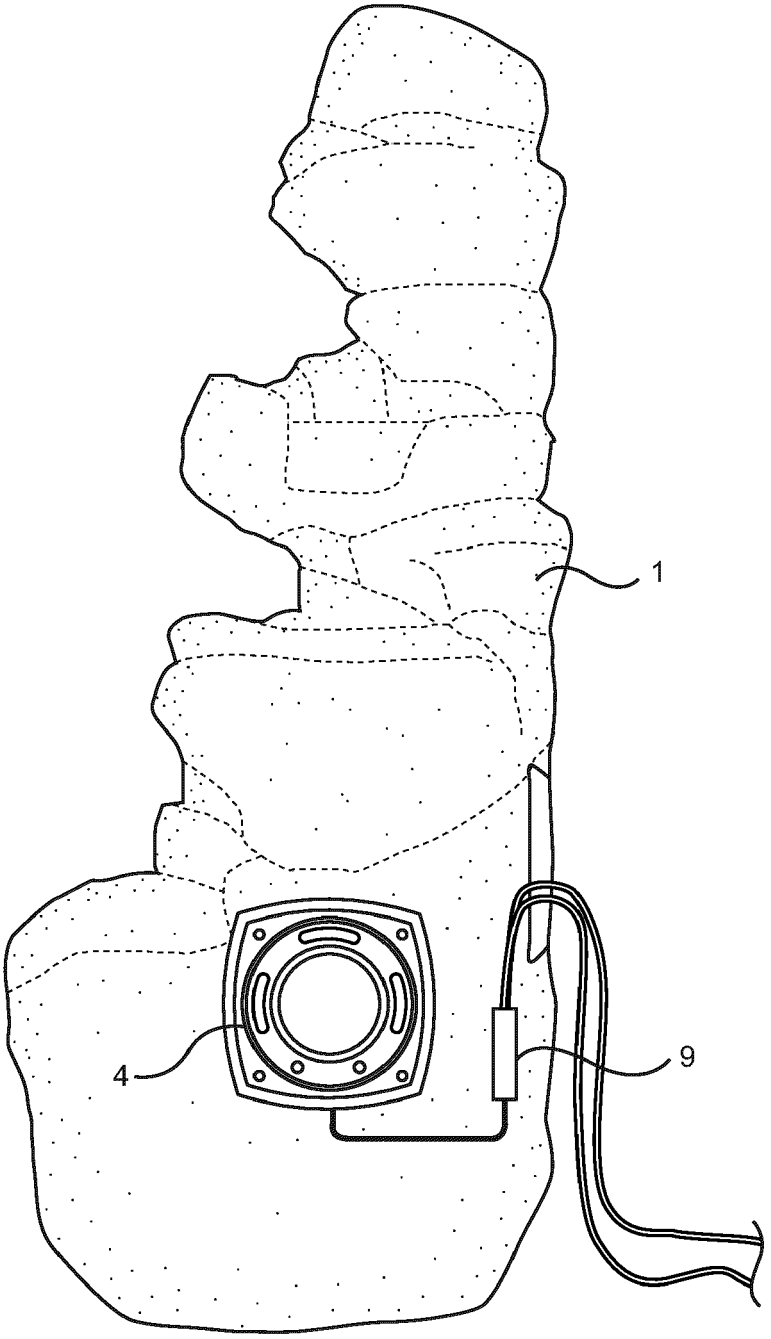

FIG. 4

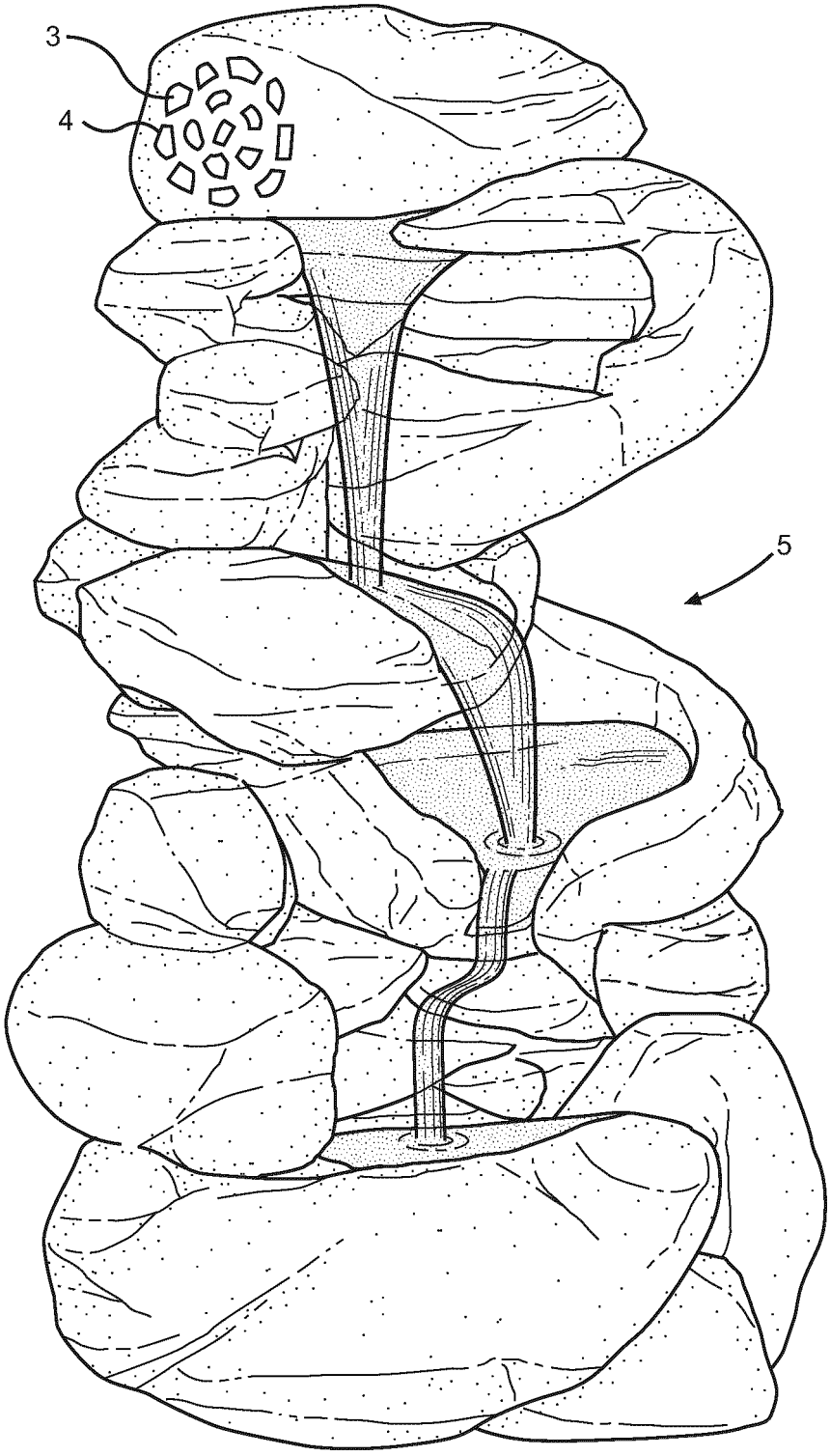

FIG. 5

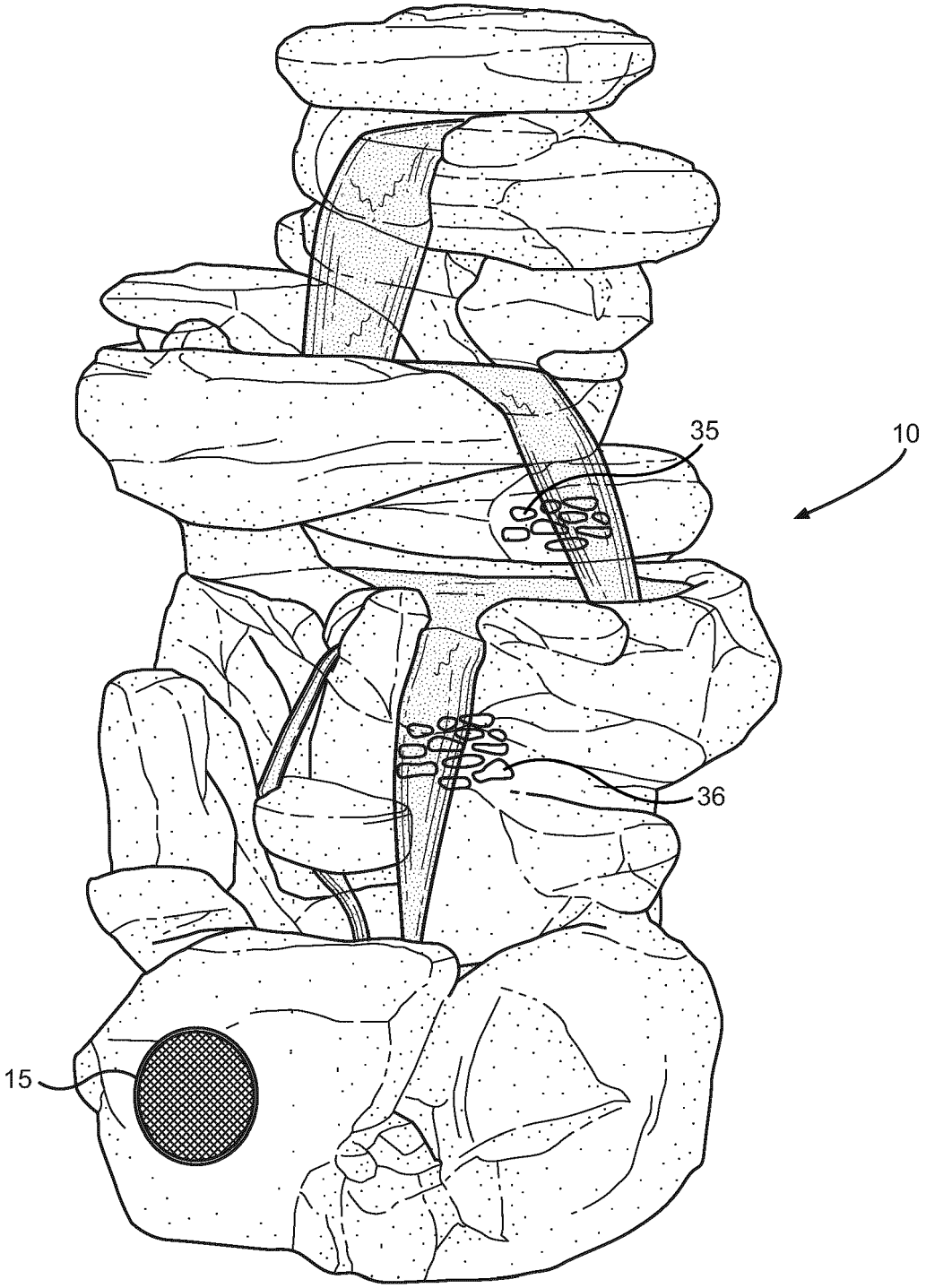

FIG. 6

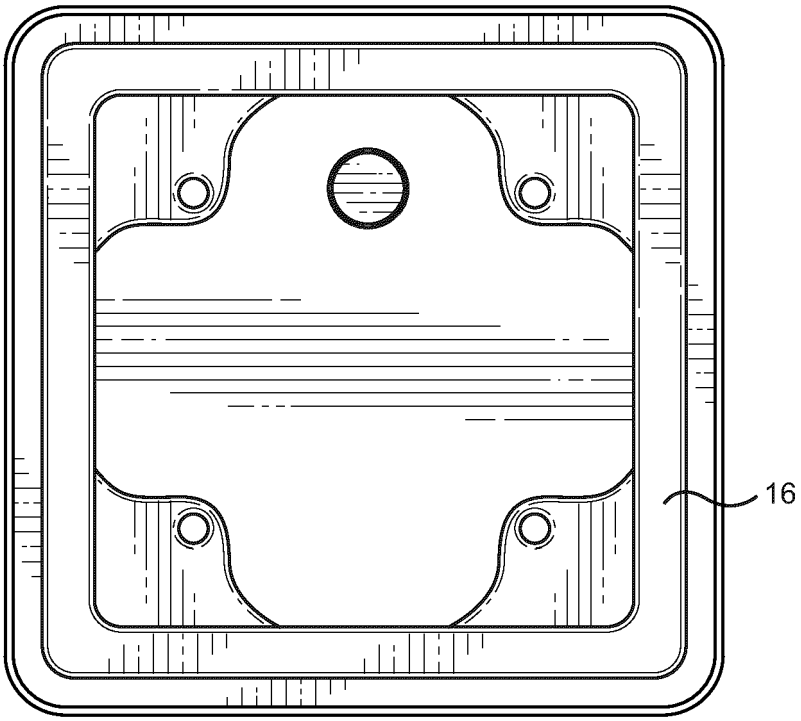

FIG. 7

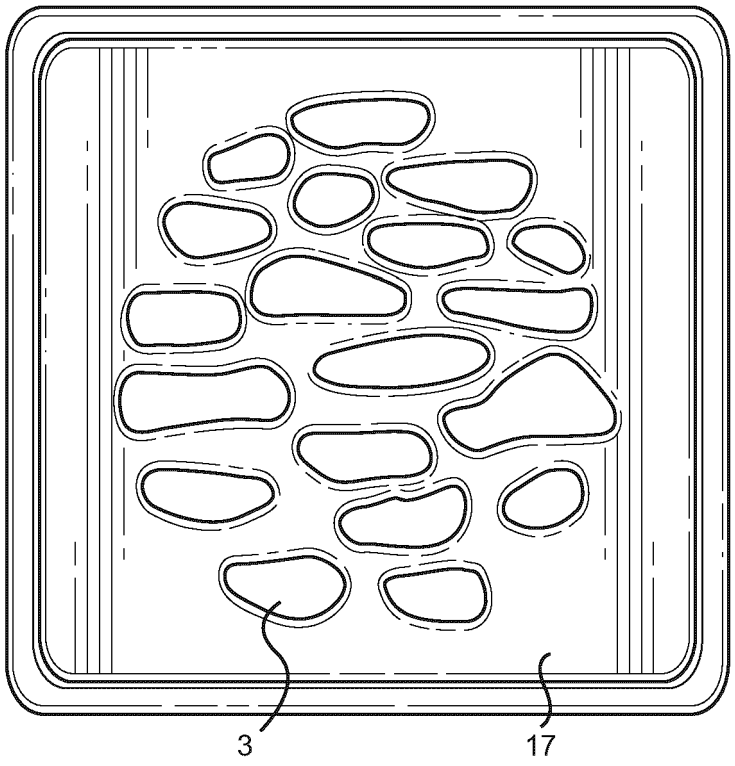

FIG. 8

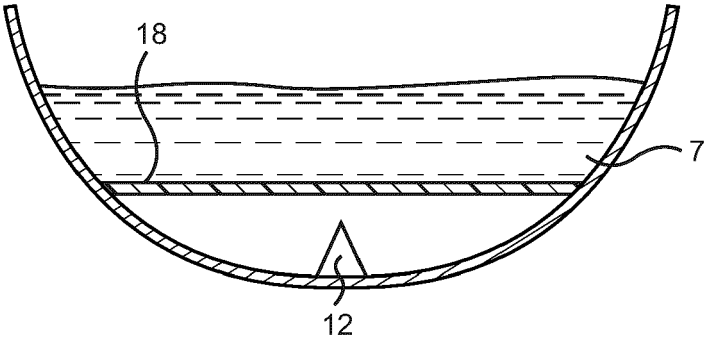
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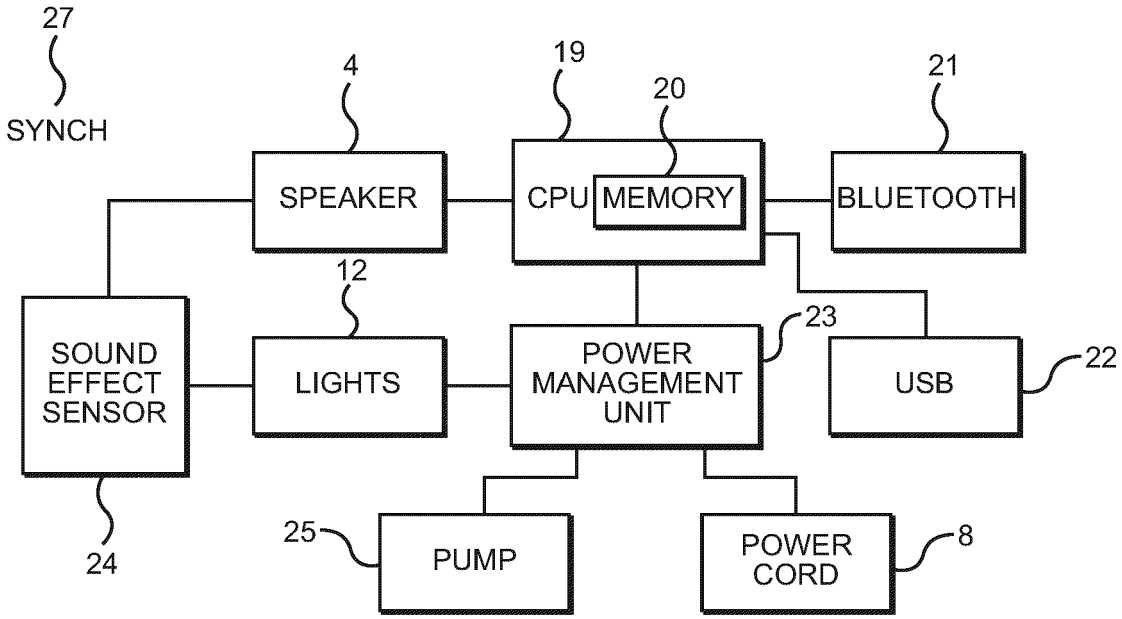
FIG. 9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PUMP
POWER CORD
8

FIG. 10

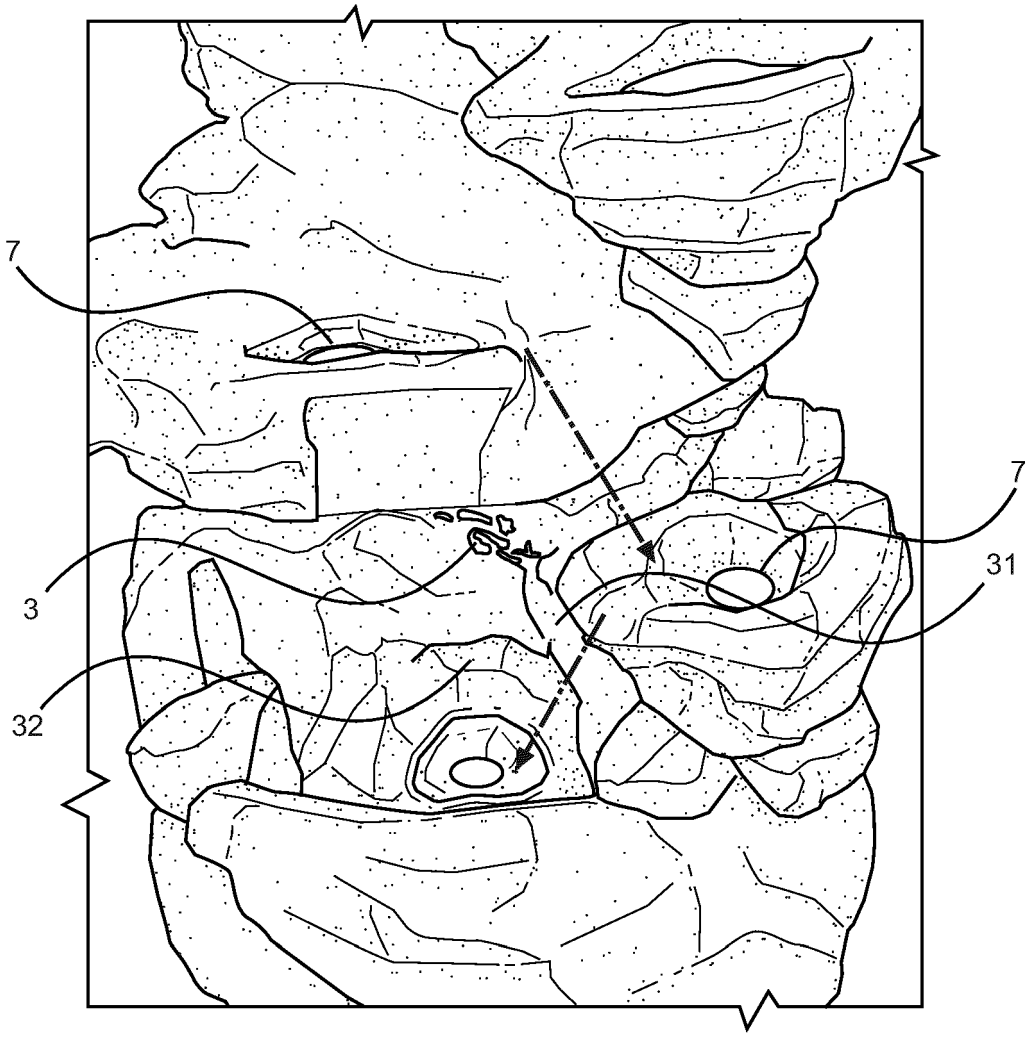

FIG. 11

FIG. 12

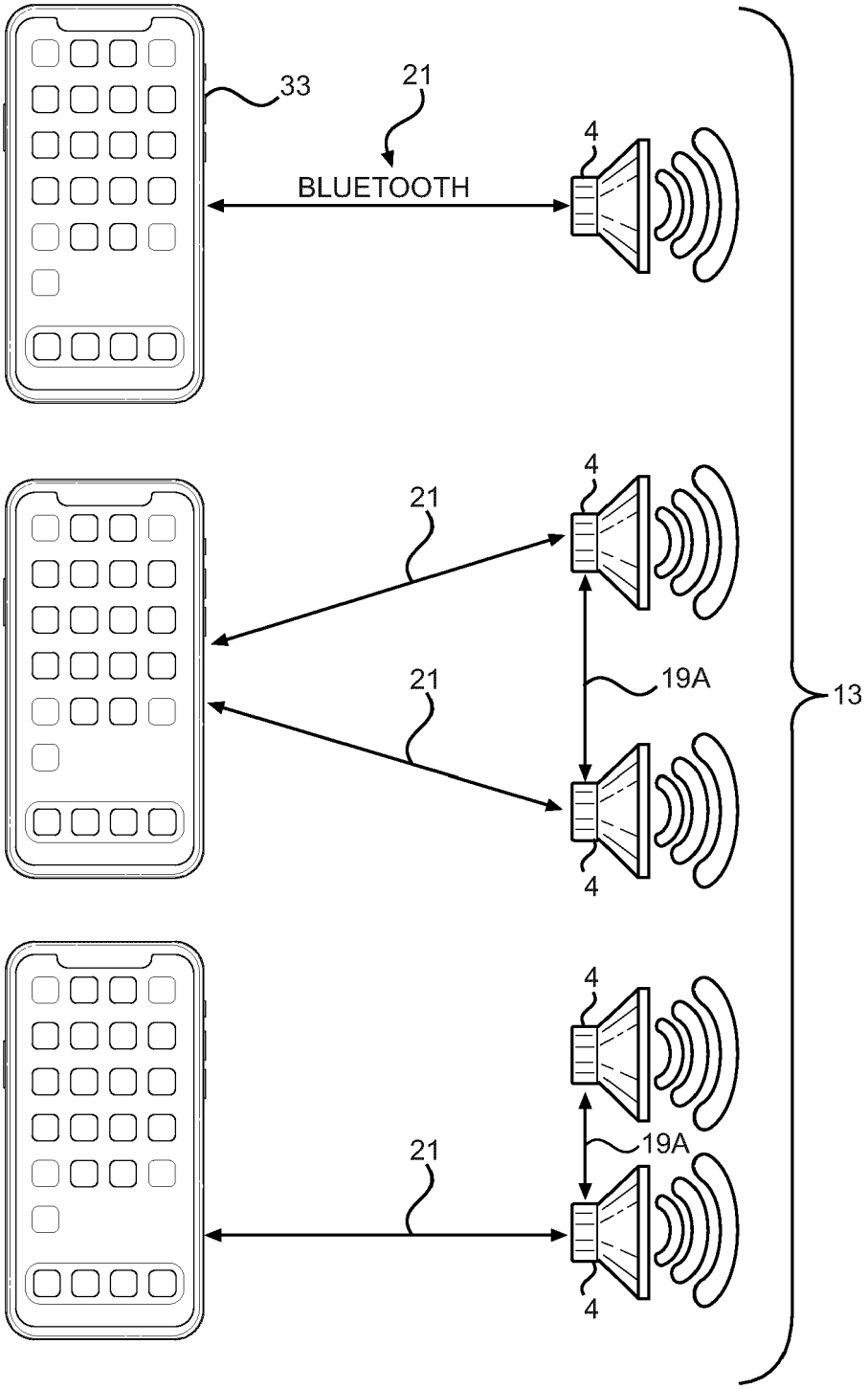

FIG. 13

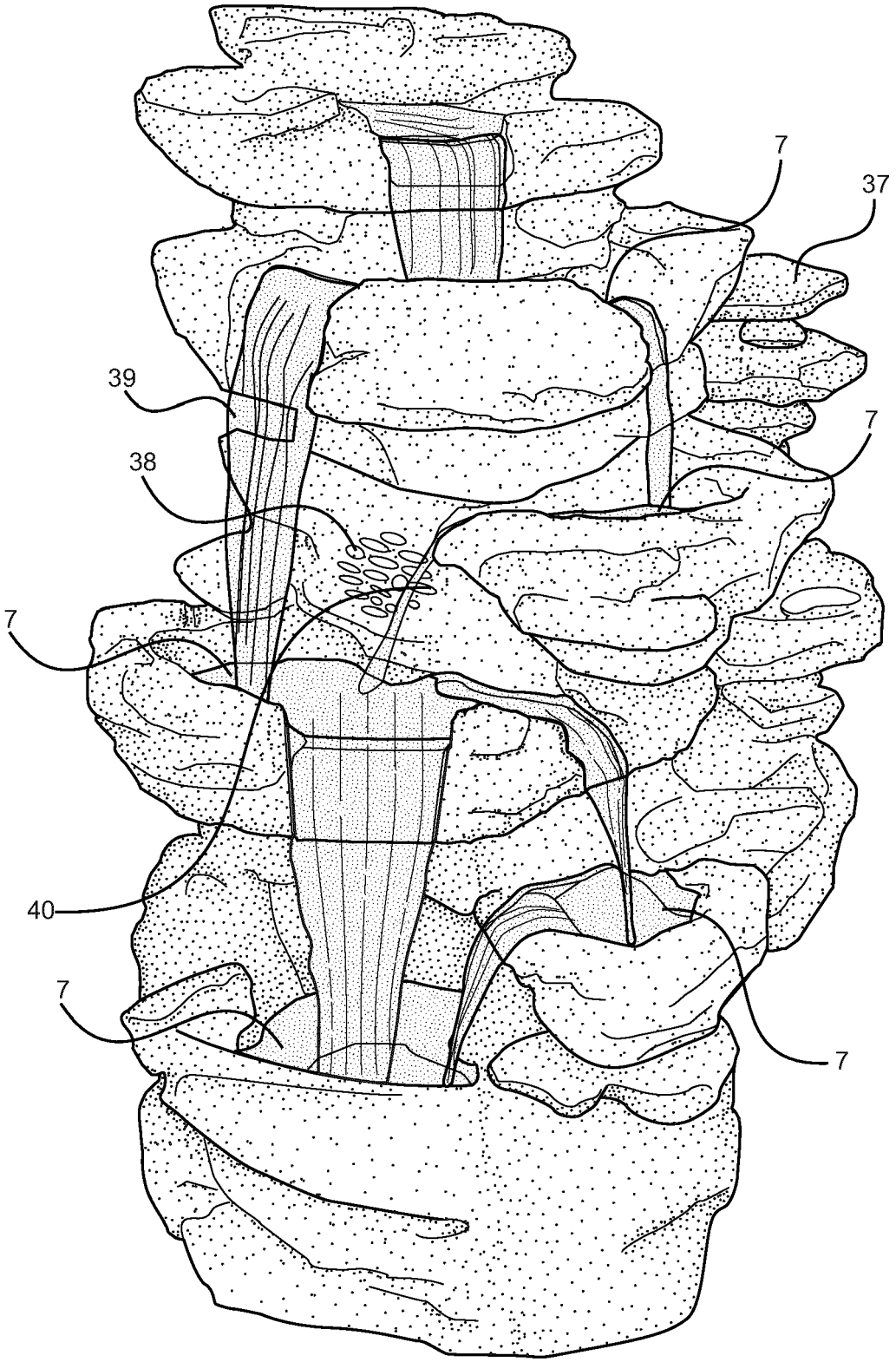

FIG. 14

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EUROPEAN SEARCH REPORT

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Munich	23 September 2021	Neiller, Frédéric

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