

[54] PORTABLE MINIATURE WATERFALL

3,702,172	11/1972	Hawkins	239/18
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[57] **ABSTRACT**

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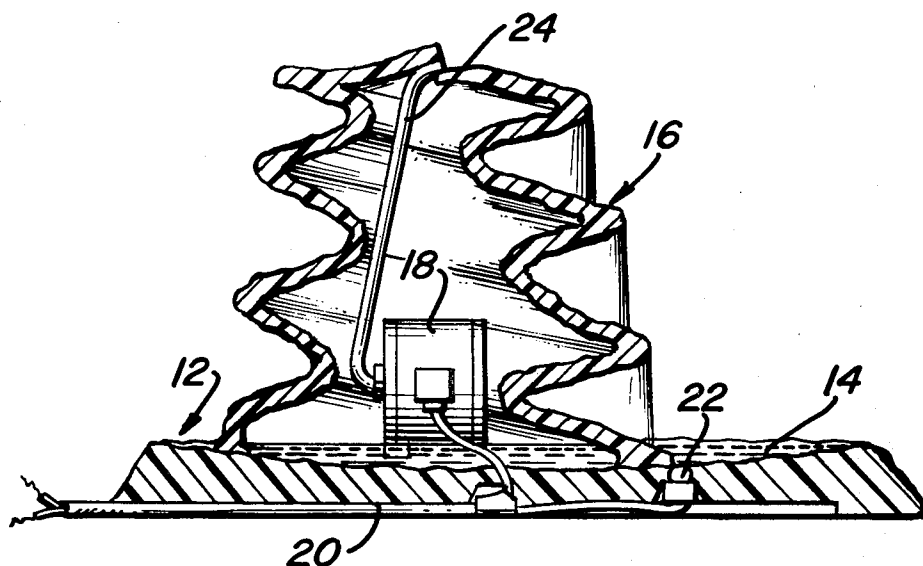
[58] **Field of Search** 239/16, 12, 17, 18, 20,
239/19, 211

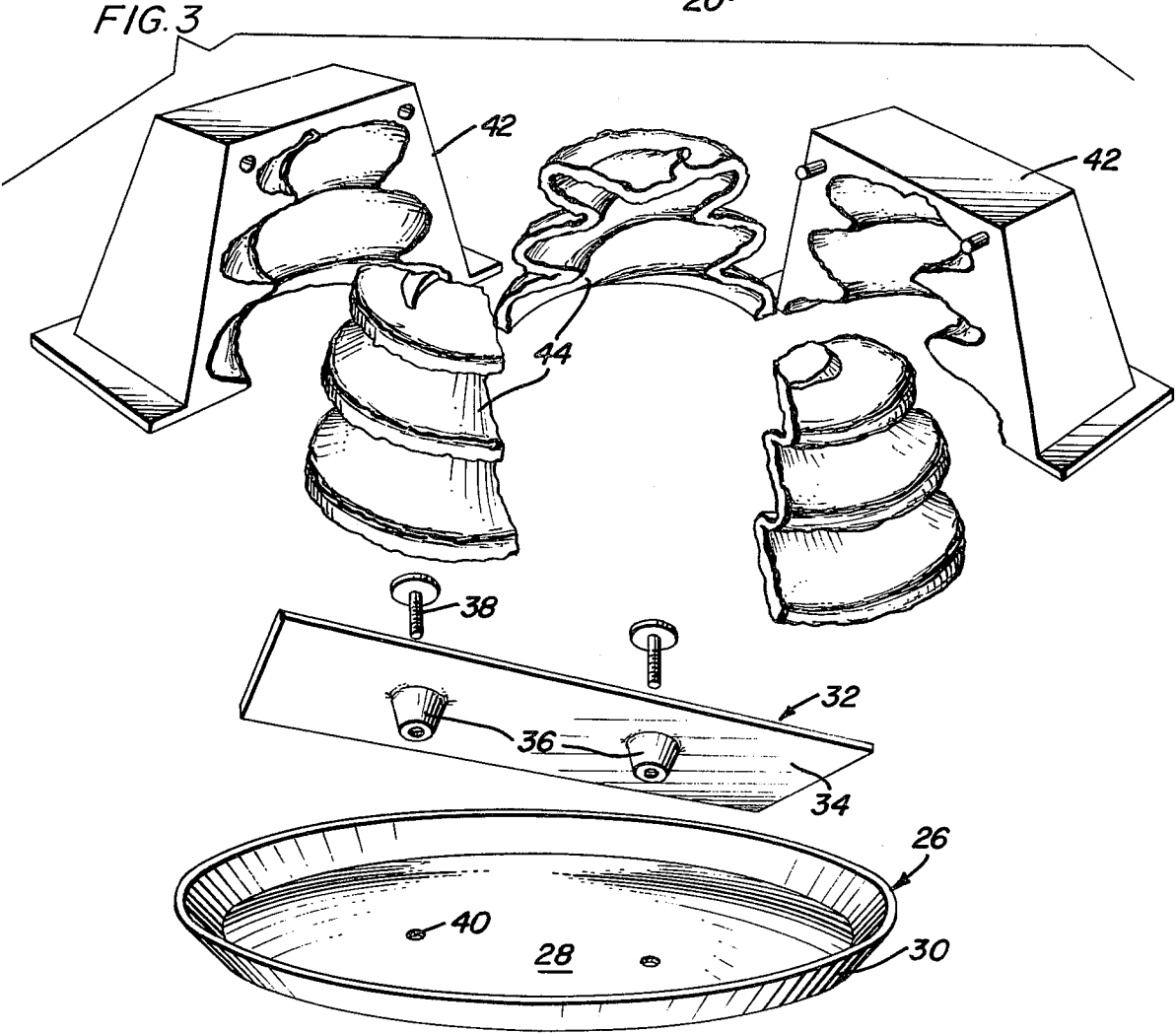
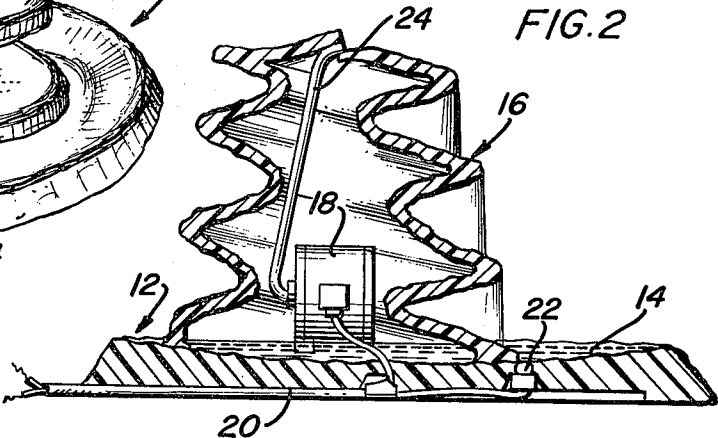
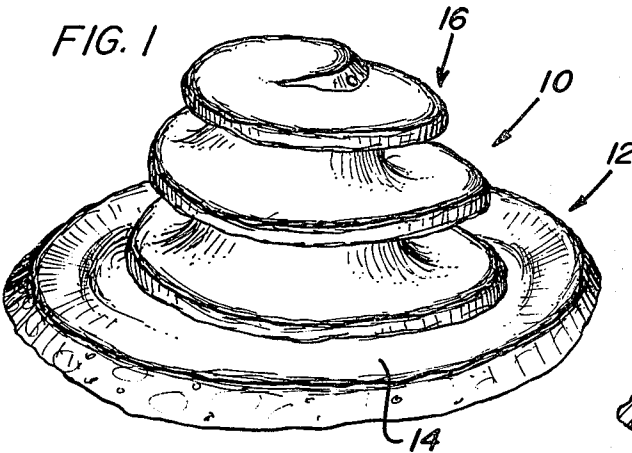
A portable miniature waterfall formed of an appropriate water resistant plastic and having a solid base provided with an upwardly directed cavity for holding a liquid such as water. The waterfall includes a simulated rock formation mounted on and extending upwardly from the base. The rock formation is hollow and includes an internal water circulating pump connected by a hose to the upper end of the rock formation for a discharge of pumped water which in turn cascades down the rock formation for recirculation.

[56] **References Cited**
UNITED STATES PATENTS

1,762,126	6/1930	Smith.....	239/20
2,973,904	3/1961	Zimmermann et al.	239/20
3,409,223	11/1968	Gosh.....	239/12

3 Claims, 3 Drawing Figures





PORTABLE MINIATURE WATERFALL

The present invention generally relates to decorative devices, and is more particularly directed to a portable miniature artificial waterfall.

One of the increasingly popular means for decorating homes, offices and the like, particularly about the exterior thereof, is waterfalls artificially created in a variety of forms. U.S. Pat. No. 3,409,223, as an example, discloses an artificial waterfall assembled by initially digging a hole and then defining the fall itself by individually positioned boulders after which a circulation pump is installed. Other equally elaborate procedures and constructions are often resorted to.

It is a primary object of the present invention to provide a simply constructed although highly unique miniature portable waterfall which can be installed as a single unit without either elaborate site preparation or construction procedures.

In conjunction with the above, it is contemplated that the waterfall of the invention be, aside from the pump, of light and cooperating components, constructed entirely of a rigid water resistant plastic which combines both durability and light weight.

These and other objects of the invention are achieved by the provision of a portable miniature waterfall having a solid stabilizing base including an upwardly directed water receiving cavity, a hollow simulated rock formation mounted on and extending upwardly from the base cavity, a pump mounted on the base within the hollow interior of the rock formation, and a hose connected to the pump and arranged extending through the rock formation to the upper extremity thereof for circulating the water from the cavity to an elevated discharge point from which the water falls back to the base.

The base will normally be formed within a dish-like mold with forming elements utilized to form passages for various operating elements or components. The rock formation will normally be formed within a multi-piece sectional mold.

These, together with other objects and advantages which will become subsequently apparent, reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout.

FIG. 1 is a perspective view of the waterfall comprising the present invention;

FIG. 2 is a vertical cross-sectional view through the waterfall illustrating the internal operating components; and

FIG. 3 is an exploded perspective view of the mold components utilized in the formation of the portable waterfall.

Referring now more specifically to the invention, reference numeral 10 is used to generally designate a portable miniature waterfall embodying the present invention. This waterfall is made of an appropriate water resistant rigid plastic and incorporates a solid base 12 having a central liquid receiving cavity or depression 14, and a hollow upstanding rock formation 16. The liquid is preferably water.

As will be appreciated, both the base 12 and the rock formation 16 can be of any suitable configuration. For purposes of illustration, the base 12 has been illustrated as being generally circular while the rock formation defines a generally spiral configuration.

The rock formation 16 will normally seat freely on the base 12 within the cavity 14 whereby water within the cavity 14 can freely circulate into the hollow interior of the rock formation 16 where the pump 18 is located. Should it become desirable to fixedly secure the rock formation 16 to the base 12, appropriate water flow passages can be provided at selected points about the lower or base-engaging end of the rock formation 16.

The pump 18 is to be of any suitable type of submersible pump preferably electrical with the associated power cord 20 also supplying current to a small water illuminating lamp 22 set in the base outward of the rock formation 16. Connected in a conventional manner to the outlet opening of pump 18 is a hose 24 extending vertically through the hollow interior of the rock formation 16 and discharging to the exterior thereof at an upper level with the water cascading or flowing downward to the base-formed depression or basin 14. In order to accommodate the wire 20, pump connection and lamp 22, suitable passages and recesses can be provided in the formed plastic base 12 as shall be explained presently.

With reference to FIG. 3, the formation of the waterfall 10 involves a series of molding steps and associated apparatus. In constructing the base 12, a dish-like mold 26 is utilized, the base 12 being formed in an inverted position. This base mold 26 includes a slightly domed bottom 28, which defines the cavity 14 in the finished base, and a peripheral outwardly flaring rim 30. A forming member 32, including a flat panel 34 with a pair of depending projections 36, is utilized with the mold 26 in defining the internal base passages and recesses. The member 32 is laid over the pan or mold 26 and secured by a pair of bolts 38 engaged through the bosses 36 and appropriate apertures 40 in the pan bottom 28, the bolts being releasably secured in any appropriate manner. The plastic material is then introduced to the top of the panel 34 of the member 32 and the plastic allowed to set. Upon a removal of the member 32 and the formed base 12, it will be appreciated that the base 12 has a pair of recesses defined therein by the projections 36 as well as an elongated recess defined by the panel 34 within which the current conducting wires 20 can extend to an appropriate power source. If deemed necessary, the cord accommodating elongated recess can extend through the side of the base as suggested in FIG. 2. In this event, an appropriate recess forming extension can be provided on the panel 34.

The rock formation 16 is formed by inner and outer sectional molds with the outer mold normally consisting of two mold sections 42 and the inner mold normally consisting of three or four mold sections 44 which complement the outer mold sections 42 and cooperate therewith in forming the desired hollow rock formation 16. The use of three or more internal mold sections 44 is to facilitate a removal of the inner sections, particularly in those instances wherein an intricate rock formation is being constructed. For example, in the configuration of the illustrated rock formation, it may be necessary to actually slightly unscrew the inner mold sections 44 for a removal thereof. The actual molding of the plastic rock formation 16 will be in accordance with conventional procedures.

Once the base 12 and rock formation 16 have been formed, the pump 18 and lamp 22 are mounted and the

formation 16 secured or mounted on the base 12 as desired. The waterfall is then ready for operation, this in turn requiring merely the introduction of water into the basin 14 and the activation of the pump 18.

If so desired, the base and rock formation can be coated with a clear epoxy and light reflective or colored particles embedded therein so as to further enhance the appearance of the device. Incidentally, in forming the basin 14, rather than slightly doming the bottom 28 of the pan mold 26, a separate core element can be provided.

When completely constructed, it will be appreciated that the waterfall is a self-contained portable unit usable both inside and outside to provide a decorative and attractive structure.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

What is claimed as new is as follows:

1. A portable miniature waterfall comprising a porta-

ble unitary base provided with a shallow liquid holding basin formed therein, a simulated rock formation carried within and extending upwardly from said basin, said simulated rock formation being of cast plastic or resin and having a plurality of simulated rock-surface levels to allow liquid to cascade over said rock-surface levels and being formed to cooperate with said basin to define an interior chamber, a pump positioned in said chamber to receive water from said basin, and a conduit connecting the pump with an elevated position in said rock formation for elevating liquid from the basin to a discharge opening in the rock formation from which the liquid may cascade back over said levels into the basin.

2. The waterfall of claim 1 including a light source mounted within said rock formation in a position to illuminate the liquid circulated over the rock formation into the basin.

3. The waterfall of claim 2 wherein said base includes two unitary members forming recesses upwardly directed from the bottom of the base into said basin, one of said recesses communicating directly with said pump, the second of said recesses containing a connection for the light source.

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