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(54) **PORTABLE SHOWER APPARATUS**

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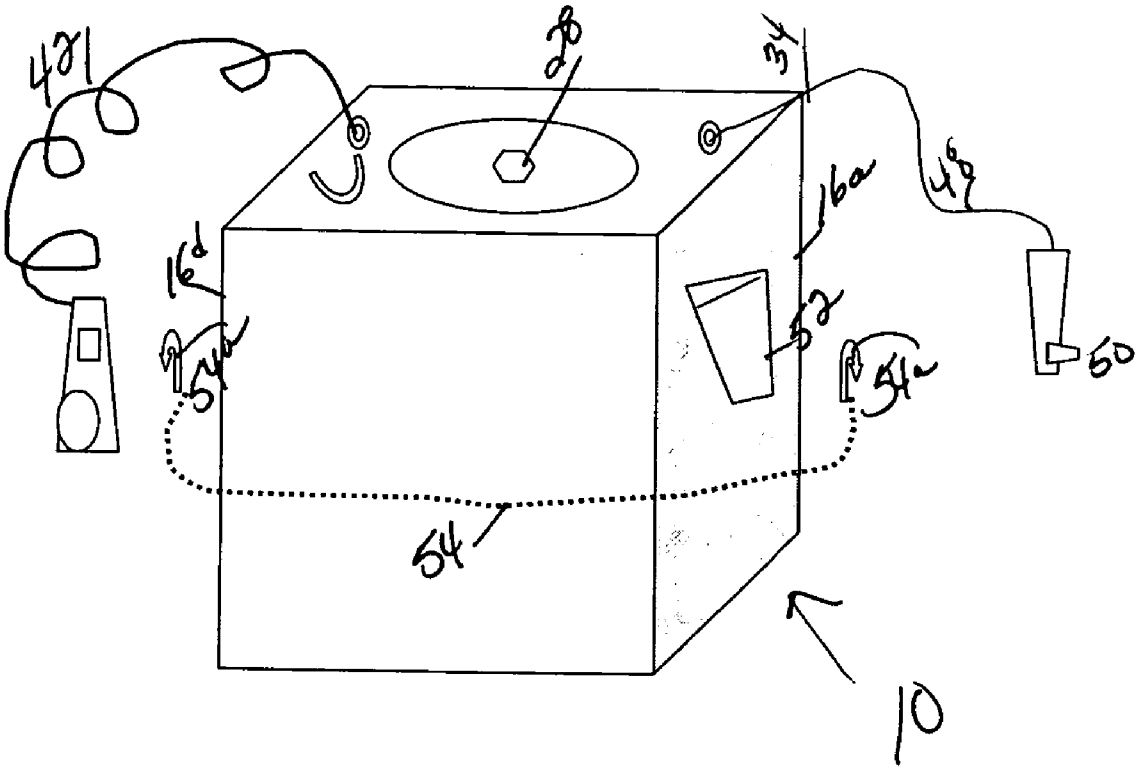
(57) **ABSTRACT**

A portable shower apparatus for storing and dispensing water during an outdoor activity. The apparatus includes a container for storing water and an electrical pump within the container. The water is dispensed by a shower head actuated by a push button that regulates the flow of water dispensed by the shower head. The pump is powered through a 12-Volt DC adapter of a vehicle. The container is further provided with a bracket for mounting the shower head and a pouch for storing additional accessories.



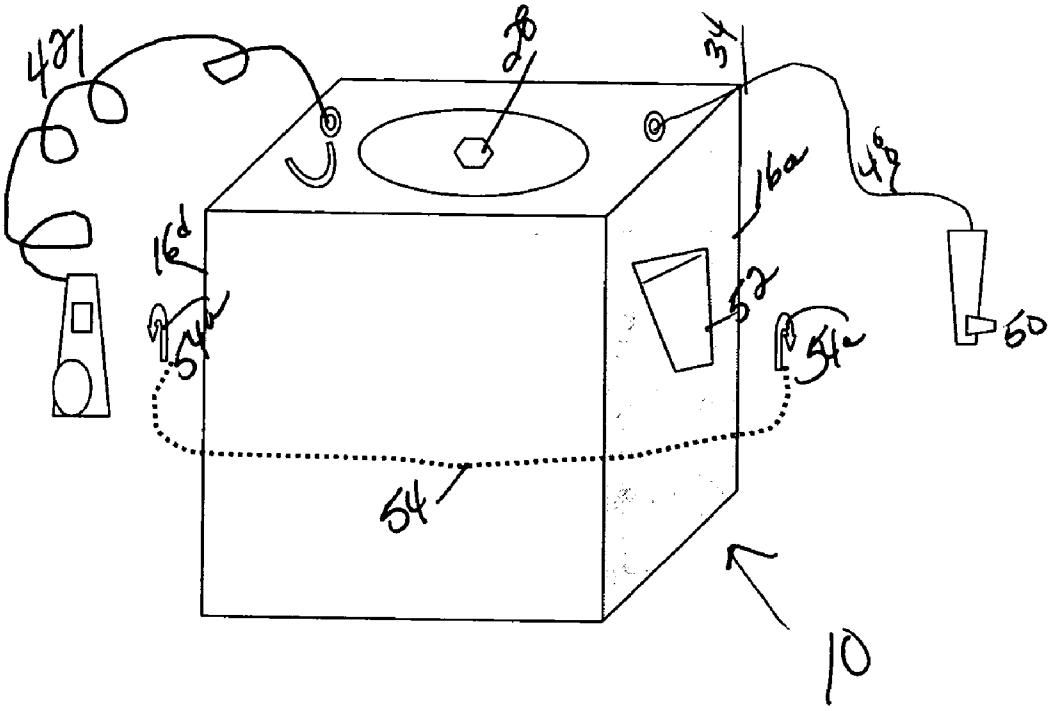


Figure 1

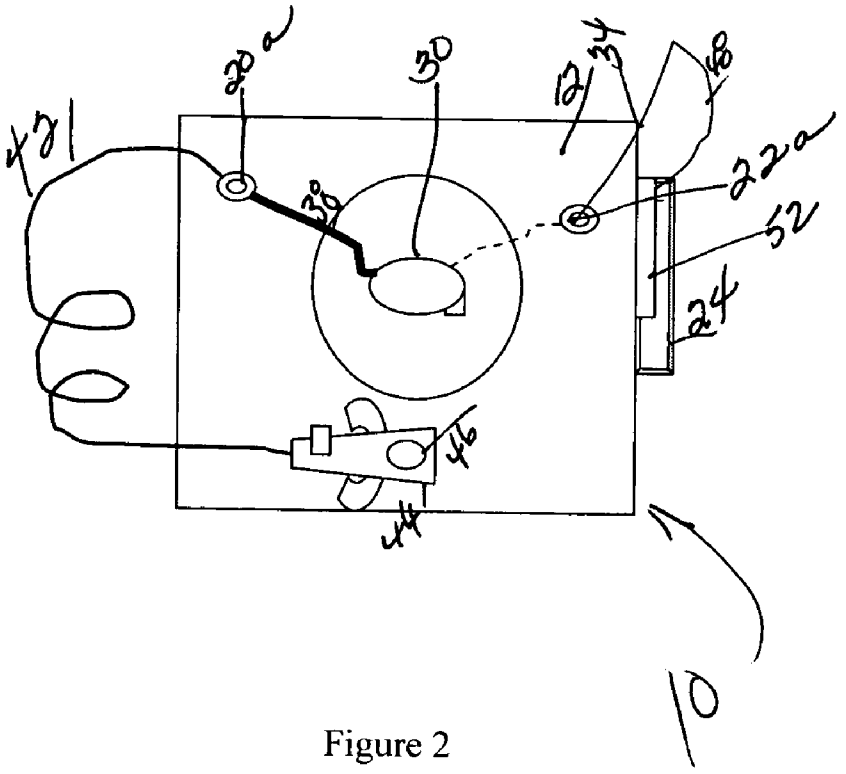


Figure 2

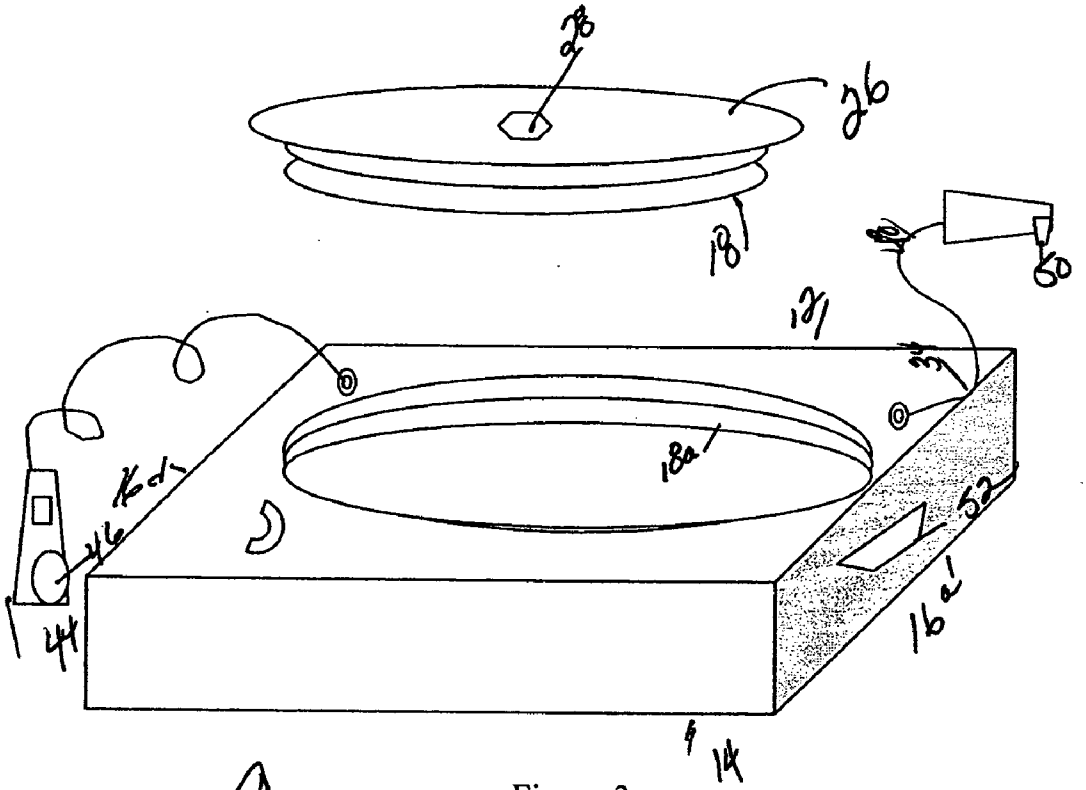


Figure 3

PORTABLE SHOWER APPARATUS

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The invention relates to a portable shower apparatus to transport and dispense water during outdoor activities, such as camping or going to the beach.

[0003] 2. Description of Related Art

[0004] Prior art devices attempt to solve the problem of storing water during an outing. Some of these devices include flexible fluid container such as a bag, as shown in U.S. Pat. No. 6,295,663 B1 of Haller et al, or a solid container as shown in U.S. Pat. No. 6,651,907 B2 of Rodd and U.S. Pat. No. 6,049,919 of Roteman.

[0005] Moreover, these devices address the problem of dispensing said liquid with the help of a pumping means. In the apparatus of Haller, the pumping means is a foot pump while Rodd and Roteman show the use of a DC powered pump.

[0006] However, these devices fail to show means for protecting elements of the apparatus that extend from the fluid container, such as the shower head and power connector cord, thus preventing said elements from being damaged or soiled during transport and/or storage. For example, when a prior art portable shower apparatus is stored in a trunk of a vehicle the shower head and power

[0007] cords are likely to lay on the floor of the trunk where they can be ruptured by another object placed on top thereof.

[0008] The present invention solves the aforementioned problems by providing means for holding the shower head when not in use and means for carrying the power cord and additional accessories during storage and/or transport of the device.

[0009] Other benefits of the present invention are ease of storage and transport by providing means to anchor the apparatus.

BRIEF SUMMARY OF THE INVENTION

[0010] The present invention comprises a portable shower apparatus with a variable flow shower head and an electric fluid pump which can be powered through a 12-Volt DC adapter of a vehicle. Additionally, the fluid container is provided with several features to facilitate handling, storing and/or transporting the apparatus while protecting the shower head, power connector cord and other accessories.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] The present invention is described in detail below with reference to the drawings in which:

[0012] **FIG. 1** shows the portable shower apparatus of the present invention.

[0013] **FIG. 2** shows the interior of said shower apparatus.

[0014] **FIG. 3** shows a top view of said shower apparatus, illustrating details of the lid and bracket for the shower head.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0015] The system of the present invention includes a solid container **10** for storing a volume of fluid. The container has a top **12**, bottom **14** and side walls **16***a*-**16***d*. The top **12** of the container **10** has a circular aperture **12***a* with an internal thread **18***a* formed on perimeter of the aperture **12***a*. First **20** and second **22** ports are installed on the exterior of the container **10**. A fluid connection coupler **20***a* is engaged to the first port **20** and an electrical connection coupler **22***a* is engaged to the second port **22**. A bracket **24** is installed on the exterior of said container **10**, preferably on the upper portion of a side wall **16** of said container **10**, as shown in **FIG. 1**. The function of said bracket **24** will be described in detail below.

[0016] The apparatus further includes a lid **26** for said container **10**. The bottom surface of the lid **26** is provided with external threads **18***b* that mate with the internal threads **18***a* on the container aperture **12***a* to form a watertight seal. The lid **26** is also provided with a knob **28** engaged to the top surface of the lid to facilitate handling of the lid **28**, thereby ensuring a proper sealing of the container **10**. As shown in **FIG. 3**, the knob **28** is generally round and has a number of protrusions to prevent slipping when handling the lid.

[0017] A fluid pump **30** is positioned within the container **10** to force dispensing of the liquid carried by the container **10**. Said pump requires a 12-Volt power source to operate. In the illustrated embodiment, the pump **30** is powered through a 12-Volt DC adapter of a vehicle, such as a cigarette lighter adapter. However, the apparatus can alternately be powered through any 12-Volt DC power adapter of a vehicle or by providing a battery. The use of the term vehicle refers in general to an automobile, truck, boat, trailer, or camper. The pump **30** has an electrical power input terminal **32** connected to the second coupler **22***a* by an electrical lead **34**. A fluid inlet **36** of the pump **30** accepts liquid held by the container. A fluid outlet **38** discharges fluid from said pump **30** into a corrugated conduit **40** connected from the outlet **38** to the first coupler **20***a*.

[0018] Extending from the container **10**, a hose **42** is connected to the first coupler **20***a* opposite said conduit **40** transports fluid into the shower head **44**. The first coupler **20***a* ensures a water tight connection between the corrugated conduit **40** and the hose **44** to prevent a leakage of fluid from the container. The shower head **44** is capable of dispensing a variable flow of fluid and is actuated by a push-button **46** which regulates the flow of liquid dispensed by the shower head **44**. The bracket **24** is used to secure the shower head **44** onto the container when not in use. This prevents damage to the shower head **44** that can occur by someone stepping on it or placing an object on top of the shower head, and further prevents the shower head **44** from getting soiled with mud or other substances in the trunk of a vehicle.

[0019] Also extending from the container **10**, a cable **48** is connected to the second coupler **22***a* opposite the electrical lead **34** and the other end of the cable **48** is coupled to an adapter plug **50** through which electrical power is provided to the pump **30**. The second coupler **22***a* ensures a water tight electrical connection between the lead **34** and the cable **48** and prevents a leakage of fluid from the container. The adapter plug **50** is adapted to mate with a 12-Volt DC adapter in a vehicle, such as a cigarette lighter adapter.

[0020] A pouch **52** is releasably attached to a side wall of the container **10**. The pouch is used to hold the cable **48** and adapter plug **50** when the shower is not is use and can also carry additional accessories, such as a brush, and bath products to be used with the shower apparatus.

[0021] When the portable shower apparatus is stored or transported in a vehicle, the apparatus can be anchored by the use of an elastic band **54** provided with hooks **54***a* at either end. The use of this band prevents the device from slipping or turning on its side during transport and/or storage, thereby preventing damage to the container and any feature extending there from. The elastic band **54** is also stored in the pouch **52** when not in use.

[0022] The present invention can also be used for other applications besides acting as a portable shower, such as carrying and dispensing a beverage; carrying and dispensing water for engine cleaning; carrying and dispensing water for pet care or kid care during an outdoor activity; or for use during any medical, military, or emergency personnel activities.

[0023] While the present invention has been shown and described herein in what are conceived to be the most practical and preferred embodiments, it is recognized that departures, modifications, adaptations, variations and alterations in the described methods and systems may be made and will be apparent to those skilled in the art of the foregoing description which does not depart from the spirit and scope of the invention which is therefore not to be limited to the details herein.

[0024] For this reason, such changes are desired to be included within the scope of the appended claims. The descriptive manner which is employed for setting forth the embodiments should be interpreted as illustrative but not limitative of the full scope of the claims which embrace any and all equivalents thereto.

What is claimed is:

1. A portable shower apparatus comprising:

a solid container comprising a top side, bottom side and side walls;

a circular aperture on the top side of said container provided with an internal thread; and

first and second ports provided on the upper portion of a side wall of said container;

a lid for said container, said lid having an external thread on its bottom surface which is configured to mate with the internal thread of the container aperture to form a watertight seal;

a knob installed on the upper surface of the lid to facilitate handling of the lid;

a fluid pump positioned inside said container, said pump having a fluid inlet, a fluid outlet and an electrical power terminal;

a first coupler installed on said first port;

a fluid conduit within said container connected from said pump outlet to said first coupler;

a fluid hose having a first and second end, said first end being coupled to said first coupler, opposite said fluid conduit, wherein said first coupler provides a watertight coupling between said fluid conduit and said hose;

a shower head provided with a push button configured to regulate a variable flow of fluid dispensed by said shower head, wherein said shower head is coupled to said second end of said fluid hose;

a second coupler installed on said second port;

en electrical lead within said container connected between said electrical power terminal of said pump to said second coupler;

a cable having a first and second end, said first end being coupled to said second coupler, opposite said electrical lead, wherein said second coupler provides a water tight electrical connection between said lead and said cable;

an adapter plug coupled to said second end of said cable, wherein said adapter plug is configured to mate with a 12-Volt DC adapter of a vehicle to provide power to said pump;

a bracket engaged to the exterior of said container configured to hold said shower head, when not in use; and

a pouch releasably attached to the exterior the container and configured to store said adapter plug and shower accessories.

2. The portable shower apparatus of claim 1, wherein said container holds from about 4 to about 10 gallons of fluid.

3. The portable shower apparatus of claim 1, wherein said container holds from about 4 to about 10 gallons of water.

4. The portable shower apparatus of claim 1, further comprising an elastic band with a hook on each end, configured to anchor the container to a vehicle during storage and transport of the apparatus.

5. The portable shower apparatus of claim 1, wherein said vehicle adapter comprises a cigarette lighter adapter.

6. The portable shower apparatus of claim 1, wherein said accessories comprise at least one of the group consisting of a brush, bath products and an elastic band.

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