July 8, 1969 M. COKIC ET AL 3,453,665

PORTABLE TOILET SINK UNIT

Filed July 3, 1967 Sheet 1 of 2

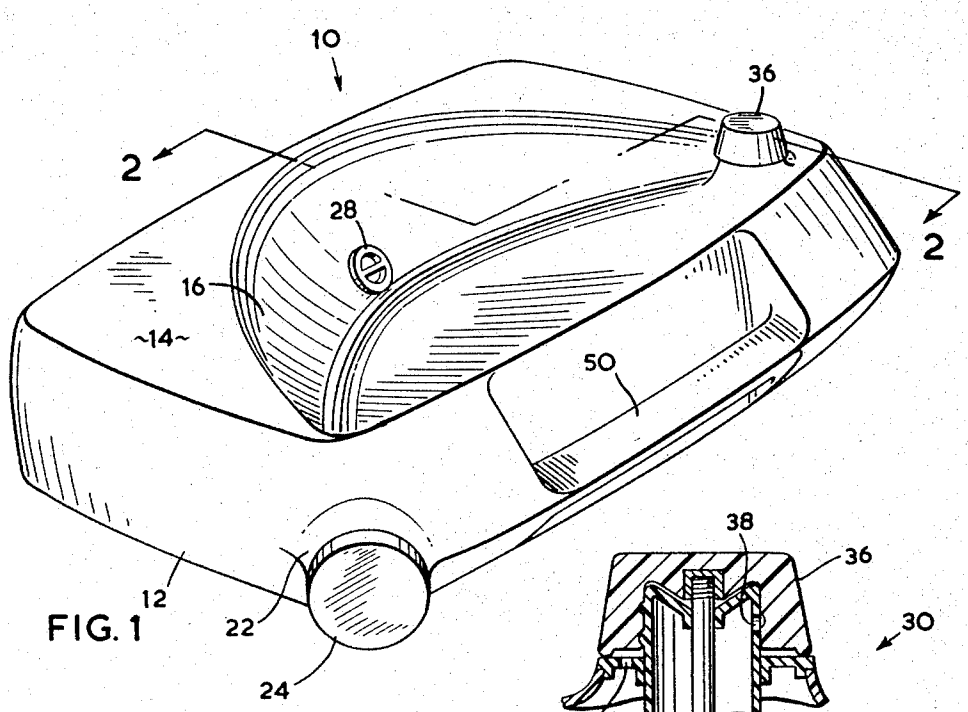
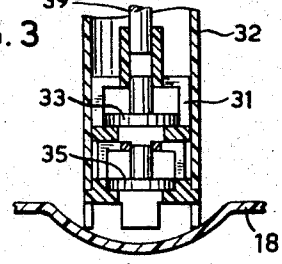


FIG. 1

FIG. 3



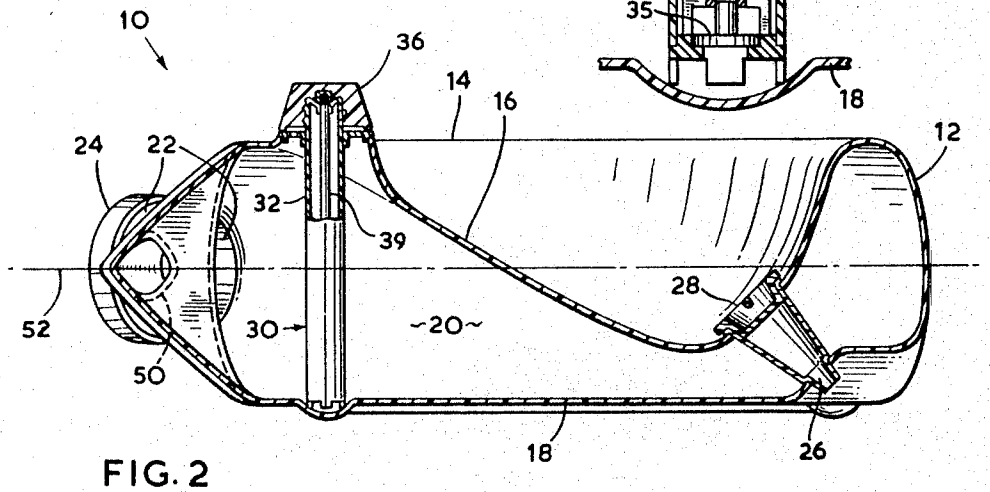


FIG. 2

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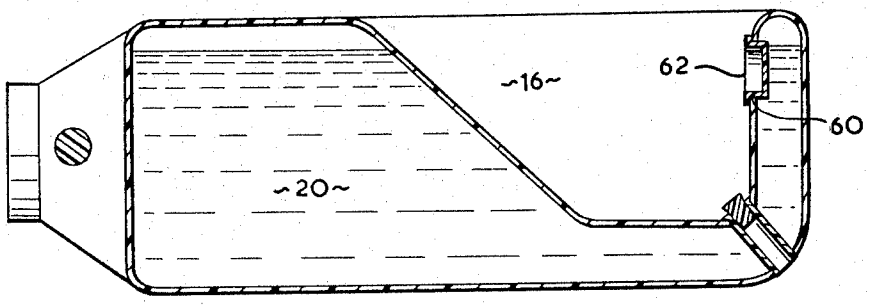


FIG. 4

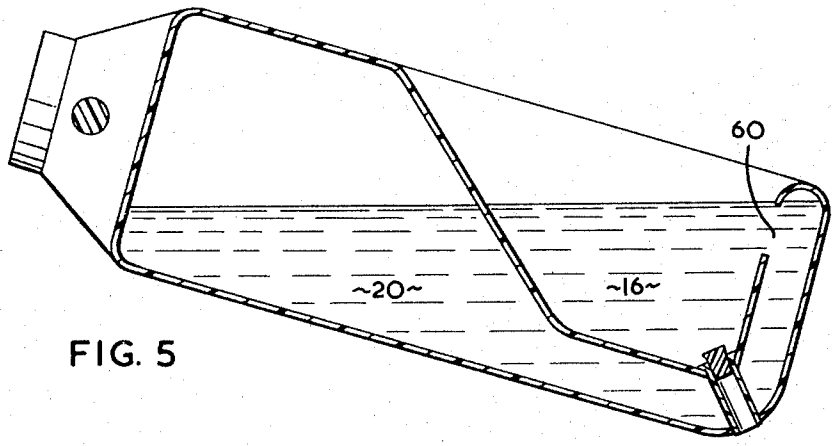


FIG. 5

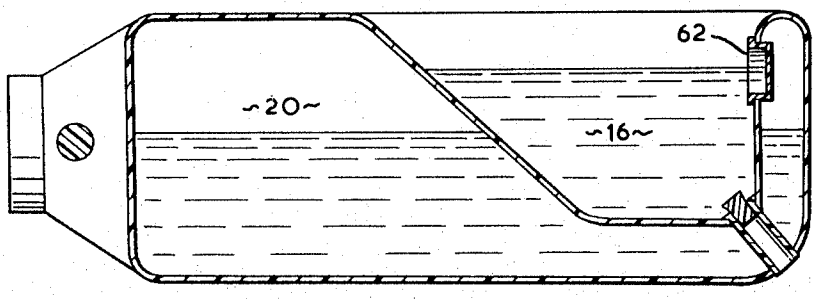


FIG. 6

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United States Patent Office 3,453,665 Patented July 8, 1969

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PORTABLE TOILET SINK UNIT

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Filed July 3, 1967, Ser. No. 651,007
Int. Cl. A47k 1/02
U.S. Cl. 4—166 9 Claims

ABSTRACT OF THE DISCLOSURE

The present invention relates to a portable toilet sink unit which is suitable for camping and other similar uses. The unit comprises a portable container having a reservoir for storing water and a wall which is formed to provide an exterior open toilet basin. The unit also includes suitable self support means for locating the basin in an operative position and passage means between the reservoir and the basin whereby water can be transferred from the reservoir into the basin.

This invention relates to a portable toilet sink unit.

In particular this invention relates to a portable toilet sink unit having an interior reservoir for water.

With the increasing popularity of vacational camping and outdoor activities the problem of providing adequate toilet facilities in remote areas is well known. It is customary when camping to carry a supply of clean water for drinking and washing purposes in plastic or metal containers and to carry a basin or other suitable receptacle for personal washing and toilet purposes. In modern camping sites public wash facilities are generally provided but these are invariably inadequate to cope with the numbers of campers.

The present invention provides a simple water storage container which provides a toilet basin which can be filled from the container reservoir and which can also be employed to carry and dispense drinking water.

It is an object of this invention to provide a portable container having a reservoir for water and having a contour to provide a basin for toilet purposes.

It is a further object of this invention to provide a portable container having a reservoir for water and having a contour to provide a basin wherein water can be transferred directly from the reservoir into the basin.

It is a still further object of this invention to provide a container as previously described wherein a manually operated pump is provided to facilitate the transfer of water from the reservoir to the basin.

It is a still further object of this invention to provide a container as previously described wherein provision is made for a drain plug, to permit spent water to be drained from the basin.

It is a still further object of this invention to provide a container as previously described, wherein a handle is provided to enable the container to be easily carried.

It is a still further object of this invention to provide a plastic container as previously described, wherein the contour of the container is such that it may readily be formed by means of a blow molding operation.

With these and other objects in view, the invention generally comprises, a toilet sink unit comprising, a portable container having an interior reservoir for water, said container having a first wall, an exterior open toilet basin carried by said first wall, said container having support means for self support thereof, to dispose said toilet basin in an operative position, said container having passage means between said reservoir and said toilet basin, whereby water can be transferred from said reservoir to said toilet basin.

In the drawing which illustrates embodiments of the invention.

FIGURE 1 is a pictorial view of a sink unit according to the invention.

FIGURE 2 is a sectional view along the line 2—2 of the sink unit of FIGURE 1.

FIGURE 3 is an enlarged sectional view of the pump as shown in FIGURE 2.

FIGURE 4 is a sectional view of an alternative form of the invention.

FIGURE 5 is a view similar to FIGURE 3 illustrating the method of filling the basin with water, and

FIGURE 6 is a sectional view similar to FIGURES 3 and 4 illustrating the basin having been filled with a supply of water.

With reference to the drawings, the reference numeral **10** refers generally to a portable sink unit comprising a portable container **12** of plastic such as polypropylene or other suitable material. The container **12** comprises a first wall **14** formed to provide a toilet basin as at **16** and a second wall **18** adapted to support the toilet basin **16** in an operative position. The container **12** is adapted to provide an interior storage reservoir **20** for water such that the unit may be employed without the need to carry a separate water storage vessel. Water is introduced to the storage reservoir **20** by way of a large input neck **22** which is provided with a closure cap **24** such that the water storage reservoir may be watertight to permit the unit to be carried around without spillage. A drain passageway **26** is provided in the lowermost region of the basin **16** and passes through and is isolated from the storage reservoir **20** such that water may be discharged from the basin. A drain plug **28** is adapted to fit into the drain passageway **26** in a well known manner to prevent the water contained in the basin from escaping while the unit is in use.

A simple manually operable pump generally indicated by the reference numeral **30** is employed to discharge water from the reservoir **20** to the basin **16**. The pump **30** comprises a hollow cylindrical body **32** which extends into the reservoir **20** and which is provided with a simple reciprocating piston and shutoff valve arrangement as will be described hereinafter, whereby actuation of the piston causes water to be drawn into the pump and discharged from the pump into the basin **16** by way of discharge orifice **38**. With reference to FIGURES 2 and 3, it can be seen that upward movement of the piston **31** causes the first valve **33** to close and the second valve **35** to open, thereby drawing water into the cylinder **32**. Downward movement of the piston causes first valve **33** to open and second valve **35** to close, thereby causing the water contained in the cylinder to pass into the upper end of the cylinder. Again upward movement of the piston causes first valve **33** to close and water is discharged from the cylinder by way of orifice **38**.

The reciprocating piston is connected to a closure cap **36** by way of connecting rod **39** and closure cap **36** is adapted to threadably receive the upper end of cylindrical pump cylinder **32** to close the discharge orifice **38** when the pump is not in use. An air vent **40** is provided such that air may enter the reservoir while the pump is in operation to facilitate the pumping operation. Again the closure cap **36** is adapted to close the air vent **40** when the pump is not in use, and thereby maintain the reservoir **20** in a watertight condition.

A handle **50** is provided as an integral portion of the container whereby the unit may readily be carried.

With reference to FIGURES 4, 5 and 6, it can be seen that by suitably locating the orifice **60**, it is possible to discharge water from the reservoir **20** into the basin **16** by tilting the container as shown in FIGURE 5. A simple

closure plug **62** being adapted to maintain the reservoir in a water tight condition when not in use.

It will also be apparent that water can be discharged from the basin **16** simply by tipping the container onto one edge. The provision of a drain plug, however considerably simplifies the operation and a hose may be attached to the lower end of the drain plug to convey the water to a suitable discharge point.

In the preferred embodiment, the container **12** is manufactured by a blow molding operation, and the pump unit **30** and the drain passageway **26** are welded into the orifices provided therefor at the assembly stage. To permit the container **12** to be manufactured by a blow molding process, the container is formed about a plane which extends transversely of the container along the centre line **52** as shown in FIGURE 2. All exterior surfaces of the container being inclined to said plane such that the container may readily be removed from the blow molding dies.

A typical portable sink unit according to the invention would have a reservoir capacity of 2.7 gallons, a basin capacity of 0.9 gallons and a pump capacity of 12 fluid ounces. The capacity of the reservoir is limited to ensure that when the reservoir is full the unit will remain readily portable.

What we claim is:

1. A self-contained toilet sink unit comprising, a portable container having a hollow interior defining a water reservoir, said container having a first wall formed to define an exterior open toilet basin, said container having support means for self support thereof to dispose said toilet basin in an operative position, said container having passage means communicating between said reservoir and said toilet basin whereby water can be transferred from said reservoir directly into said toilet basin and closure means for closing said passage means.

2. A toilet sink unit as claimed in claim **1** including input passage means communicating with said reservoir whereby said reservoir may readily be filled with water and closure means for said input passage.

3. A toilet sink unit as claimed in claim **1** including a manually operative pump for discharging water from said reservoir into said basin, an input passage communicating with said hollow interior whereby said reservoir may readily be filled with water and closure means for said input passage.

4. A toilet sink unit as claimed in claim **1** having outlet passage means opening from said basin whereby water may be discharged from said basin and closure means for said passage whereby water may be retained within said basin.

5. A toilet sink unit as claimed in claim **2** having outlet passage means opening from said basin whereby water may be discharged from said basin and closure means for said passage whereby water may be retained within said basin.

6. A toilet sink unit as claimed in claim **3** having outlet passage means opening from said basin whereby water may be discharged from said basin and closure means for said passage whereby water may be retained within said basin.

7. A toilet sink unit as claimed in claim **1** wherein said container is formed with a die parting plane parallel to said first wall such that all surfaces of the container extending from said plane are inclined at an angle thereto such that the unit may be formed by a blow molding process.

8. A toilet sink unit as claimed in claim **2** wherein said container is formed with a die parting plane parallel to said first wall such that all surfaces of the container extending from said plane are inclined at an angle thereto such that the unit may be formed by a blow molding process.

9. A toilet sink unit as claimed in claim **3** wherein said container is formed with a die parting plane parallel to said first wall such that all surfaces of the container extending from said plane are inclined at an angle thereto such that the unit may be formed by a blow molding process.

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U.S. Cl. X.R.

4—187; 220—20