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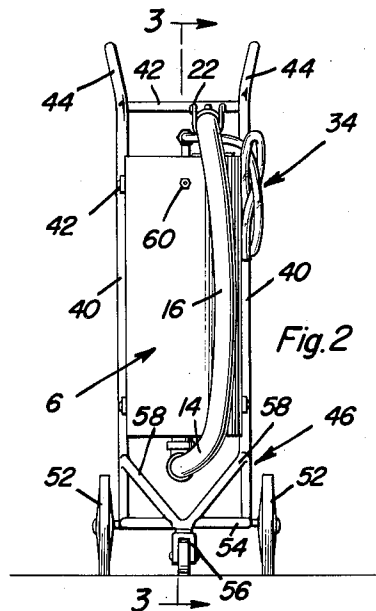
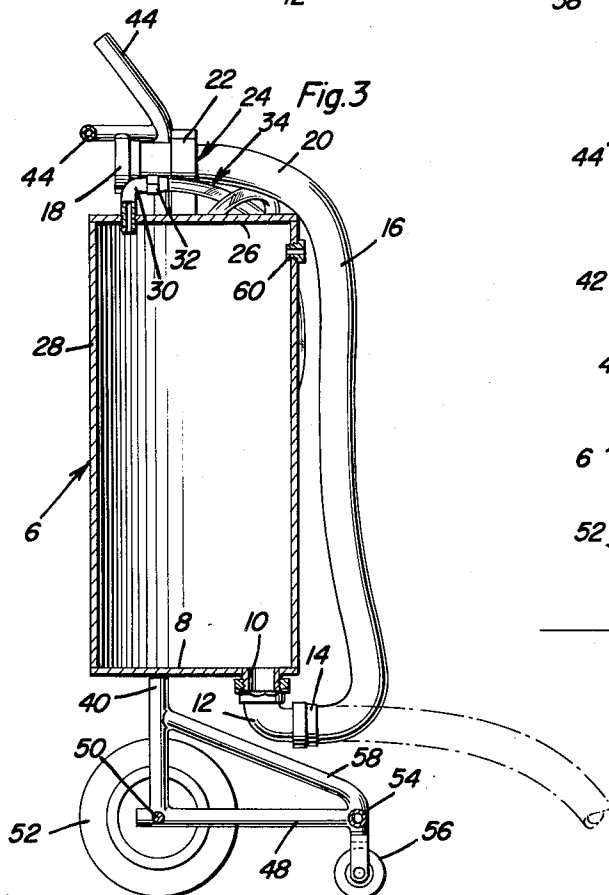
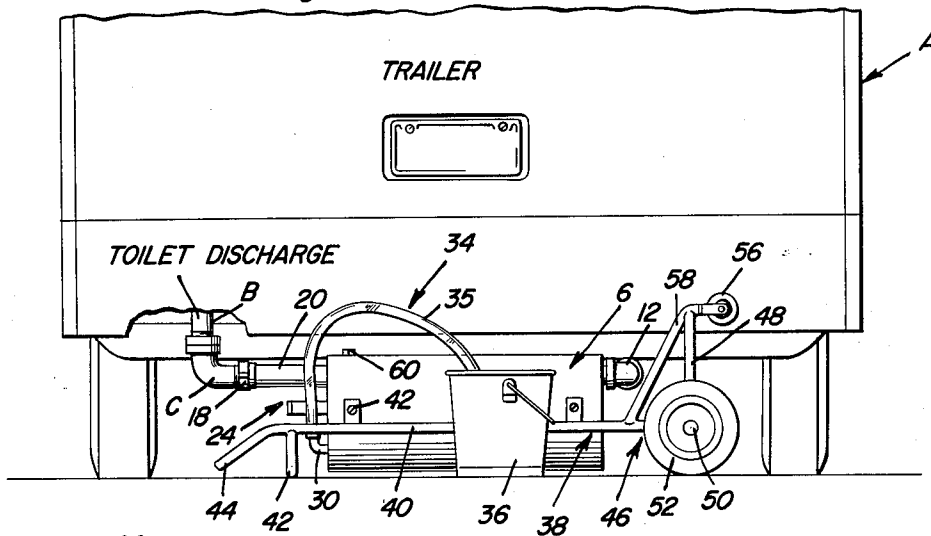
W. K. MERRILL

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WASTE MATERIAL DISPOSAL TANK

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Fig. 1



William K. Merrill
INVENTOR.

BY *Chance A. O'Brien*
and *Harvey B. Jacobson*
Attorneys

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WASTE MATERIAL DISPOSAL TANK
William K. Merrill, Rte. 2, 14822 Rodeo Drive,
Victorville, Calif.

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6 Claims. (Cl. 4—8)

This invention relates to novel and improved means for expeditiously trapping and disposing of fecal and waste matter discharged from a portable non-flushable gravity-type toilet, such as is commonly used in a conveyance, for example, a so-called mobile home or, alternatively, a touring or vacationing trailer.

While it is common practice to provide for sewage disposal at up-to-date tourists and trailer camps, there are numerous conditions and places where the handling and disposal of waste and sewage, for lack of proper facilities, is indeed a problem. No attempt will be undertaken here to dwell on the many resourceful but makeshift contrivances and methods currently employed for, obviously, many and varied procedures, generally crude, are resorted to. One such system or arrangement is where a trap, such as a tank, is hooked up to an elbow at the bottom of an accessible waste pipe which depends from the toilet bowl. This practice requires laborious and time-consuming efforts to cart the tank to a suitable place of disposal. To be sure, the handling steps and devices utilized are unacceptable, to say the least.

With the above generally stated background posing the problem, it is the objective here to do something practical about it and to thus acceptably solve the problem. To this end the present invention has to do with a contrivance which is simple, suitable and not costly, but has proved out to be just what has been so long needed to cope with the difficulties which have confronted those who are called upon to handle this unappreciated and troublesome duty.

To simplify this disclosure and to get to the point, it seems advisable to picture the invention used with a simple trailer having a toilet with a gravity-type disposal or waste pipe extending through the trailer's bottom and terminating, as is usual, in an elbow spaced above the ground. With this in mind, it will be observed that the presently provided improved adaptation or device comprises a portable or cartable trapping and storing tank having facilities whereby it may be hooked up for filling then uncoupled and transported or carted to a predetermined place of emptying and disposal.

In carrying out the preferred embodiment of this instant invention a tank of suitable capacity, say fifteen or twenty gallons, is provided. Inasmuch as the material which the tank has to contain is deleterious in character the tank should be and preferably is of non-corrodible material. Component parts may likewise be made of pre-selected materials inasmuch as the device is constantly employed out-of-doors. Novel frame means is carried by the tank or, conversely, the tank is mounted on a specially constructed frame.

Novelty is predicated on the frame in that it serves to properly suspend the tank slightly above the ground when in collecting or filling position. In addition a wheel-equipped truck is provided at the end of the tank which becomes the bottom in transporting position. At the other end a rest to engage the ground is provided and handles are employed so that the tank may be carted, in wheelbarrow fashion, from its place of use to the place of deposit for the collected fecal and waste matter.

More specifically, a frame having spaced parallel side members or arms is utilized, said arms having a lateral ground-engaging rest at one end and associated handles. The other end of the frame is fashioned into a wheel-equipped truck which also includes a caster whereby the truck with the attached tank is self-standing when emp-

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tying via the flexible conduit into a flushable stationary toilet or other suitable place of deposit.

The invention also features a relatively small clear plastic hose which is attached to the top which, in a manner to be described, constitutes a liquid level gage and also an overflow line.

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, and in which:

FIG. 1 is a view in elevation showing the rear end of a toilet-equipped trailer and illustrating the invention, a novel waste disposal tank, in its filling or collecting position.

FIG. 2 is a view in elevation which may be called a front elevation, showing the portable tank in an upstanding ready-to-roll position, and

FIG. 3 is a view on an enlarged scale but in section and elevation taken on the vertical line 3-3 of FIG. 2.

In FIG. 1 the trailer or equivalent conveyance or vehicle is denoted by the letter A. The trailer is provided interiorly with a toilet bowl (not detailed) having a waste matter discharge or disposal pipe B extending through the floor and provided with an elbow or an equivalent union C with which the invention is operatively but detachably connectible.

The invention is characterized by a tank 6 of suitable capacity and material. The tank may be and preferably is cylindrical in cross-section and of requisite cross-section to fit into the space between the ground and the bottom of the trailer, as shown in FIG. 1. For convenience of description the end wall 8 in FIG. 3 constitutes the bottom and it is provided with an intake neck 10 having a union or elbow-type coupling 12 to which a screw threaded or equivalent coupling 14 on one end of a flexible plastic or an equivalent conduit 16 is connected. This conduit is of a length greater than the length of the tank so that when the tank is being carted or moved about a coupling 18 on the upper end portion 20 may be removably clamped between the spring fingers 22 of a clip or an equivalent retainer 24. This retainer is mounted exteriorly of the top or end wall 26 of the tank. This same end wall is provided adjacent the side wall (the bottom in FIG. 1) 28 with an L-shaped neck 30 to which one end portion 32 of a relatively small clear plastic hose 34 is connected. This hose is of a length, obviously, greater than the cross-section of the tank and also may well be as long or longer than the tank. This hose 34 constitutes a visual liquid level gage and also an overflow line and the free end portion thereof may be placed in a bucket or overflow and trapping receptacle 36 in the set-up seen in FIG. 1.

Continuing with the description of the invention as a portable cart, attention is now directed to the novel frame which is denoted generally by the numeral 38. This frame is of suitable size and materials and it is characterized by a pair of spaced parallel side members or arms 40 which straddle the tank and are attached thereto by lugs or ears 42 on opposite sides of the tank. The side members are longer than the tank. The extending left hand end portions in FIG. 1 are connected together by a U-shaped or an equivalent laterally disposed brace 44 which constitutes a stand or rest when employed as seen in FIG. 1. The free end portions to the left thereof constitute suitable handles or hand grips 45. The extending right hand end portions in FIG. 1 constitute parts of a rollable or wheel-supported truck which is denoted as an entity by the numeral 46. This truck is best seen in FIGS. 2 and 3 wherein it will be observed that horizontal members 48 support an axle 50 carrying

the free turning wheels 52. The horizontal cross brace 54 is provided with a suitably positioned and balanced swivelly mounted caster 56. The numeral 58 designates diagonal braces. These component parts with the attached axle and wheels and caster go to make up an easy-to-handle truck which permits the tank when either full or empty, to be moved about in wheel-barrow fashion. Also the truck is such as, seen in FIGS. 2 and 3, render the tank self-standing.

With reference in particular to FIG. 2 it will be seen that the diagonal braces 58 form a V and the vertex portion thereof supports the depending caster thus providing a three point balanced suspension for the truck. Incidentally, the numeral 60 (FIG. 3) designates a suitable air vent.

In practice, as shown in FIG. 1, the tank is wheeled into position adjacent to the trailer and placed upon the ground, at which time the tank assumes a horizontal position. The stand or rest 42 engages the ground at the left and the wheels 52 rest on the ground at the right and thus the frame supports or suspends the tank with the then existing bottom above the ground. The coupling 18 at the end portion 20 of the conduit is connected to the union or elbow C. The invention is now ready to function and, obviously the waste and fecal matter will gravitate into and gradually fill the space of the tank. It is desirable to place an overflow bucket or other receptacle 36 at the point shown and to insert the free end of the gage and overflow hose 34 into the bucket. The hose being made of clear plastic is extended up so that the return bend 35 is above the tank where it is visible. In fact this part of the hose and the bucket may be accessibly arranged at the rear of the trailer to be seen. The liquid level is checked by way of this hose and in case of unexpected or accidental overflow the excess material fills the bucket 36. When it has been ascertained that the tank has filled it is then necessary to uncouple the coupling 18 and to withdraw the tank and frame from the position shown in FIG. 1. Then the wheeled truck comes into play. First, however, it is desirable to roll up or coil the hose 34 as seen in FIG. 2. In addition the free end 20 is snapped into the clip or clamp 24. Now the device may be angled and handled in a wheel-barrow like manner and transported to the place of deposit. The prevailing practice is to take the loaded tank to nearby quarters having a stationary flushable toilet bowl therein. Then the conduit 16 is disconnected from the clamp 24 and the end is held down as shown in dotted lines in FIG. 3 to flow into a toilet bowl or to a sewer or other place of deposit (not shown).

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 as claimed.

What is claimed as new is as follows:

1. A waste matter collecting and disposal device for use in cooperative association with a waste pipe on a portable toilet of a non-flushing gravity emptied type comprising: in combination, an elongated frame having carting and transporting wheels and a self-standing caster-equipped truck at one end of the frame, a ground supported rest and handles at the other end of said frame, a tank fixed on and carried by said frame, liquid level gage means operatively mounted on one end of the tank, and a flexible tank filling conduit having one end communicatively connected with an opposite end of said tank, said conduit being of a length greater than the length of the tank and having a free end provided with a pipe coupling.

2. A portable waste matter collecting and disposal device for use in cooperative association with a waste pipe

on a portable toilet of a non-flushing gravity emptied type comprising: in combination, a frame having a self-standing but mobile truck projecting laterally from and at one end of the frame, a lateral ground engaging rest and handles at the other end of the frame, said frame having spaced parallel arms, an elongated non-corrodible tank fixed and suspended by and between said arms, the end of the tank adjacent to and inwardly of the truck providing a bottom, the other end adjacent said ground engaging rest providing a top, clip means mounted accessibly atop the top, a flexible tank-filling conduit of a length greater than the length of said tank and having one end secured communicatively to said bottom, the other end being free and separably connectible, when desired, to and being held by said clip, and a relatively small but long hose having one end free and the other end communicatively connected with said top, said hose serving as an overflow and a tank contents level indicating gage.

3. For use in conjunction with a toilet-equipped vehicle: means for collecting and subsequently disposing of fecal and waste matter from an accessible toilet waste pipe comprising a one-piece non-corrodible material collection portable tank adapted to assume a horizontal waste trapping position, a flexible conduit having one end communicatively joined to an end wall of said tank, the other end of said conduit having a coupling separably connectible with said waste pipe, means carried by said tank for supporting the same in its horizontal waste trapping position and thereafter transporting it from the site of trapping and filling to a suitable place of deposit where the collected contents may be emptied, through the medium of said conduit and thus disposed of, whereby said conduit has the double function of first filling the tank and then emptying the tank and wherein said means comprises a wheel-equipped frame, said frame being mounted on the tank and having a ground engaging rest and handles at one end and transporting wheels at the other end.

4. The structure recited in claim 3, and in combination, a clear plastic flexible hose having one end connected to the other end wall of said tank, said hose constituting a sight gage, whereby the functioning of the tank may be visually checked from time to time.

5. For use in conjunction with a toilet-equipped vehicle: means for collecting and subsequently disposing of fecal and waste matter from an accessible toilet waste pipe comprising a tank adapted to assume a horizontal waste trapping position on the ground or other support surface, a flexible conduit having one end communicatively joined to an end wall of said tank, the other end of said conduit having a coupling separably connectible with said waste pipe, and means carried by said tank for supporting the same in its horizontal waste trapping position and thereafter transporting it from the site of trapping and filling to a suitable place of deposit where the collected contents may be emptied, through the medium of said conduit and thus disposed of, and wherein said one end of the conduit is joined to a bottom wall of the tank, and in combination, a clear plastic flexible hose having one end connected to a top wall of said tank, said hose constituting a sight gage, whereby the functioning of the tank may be visually checked from time to time, said hose being free and constantly open at its discharge end and being of a length appreciably greater than the cross-sectional dimension of said tank.

6. A portable waste material collecting, transporting and emptying device for a toilet on a house trailer comprising a horizontally disposed mobile frame embodying a pair of elongated spaced parallel coplanar arms having ground engaging and transporting wheels and caster-equipped truck means at corresponding ends of said arms, handles at opposite ends of the arms, a lateral depending ground rest connected to the arms inwardly of said handles, said wheels and ground rest simultaneously resting on a stationary support surface with the arms spaced in a plane above and generally parallel to said

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surface, a one-piece non-corrodible collection tank horizontally disposed and positioned between and suspended by said arms with a bottom side spaced above said surface, a flexible tank-filling conduit having one end communicatively joined to one end wall of said tank and having its other end separably connectible with a toilet waste pipe, clip means mounted on the other end wall of said tank and to which said other end of said conduit may be separably connected, and gage means for the

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tank's contents connected to the last-named end wall of said tank.

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