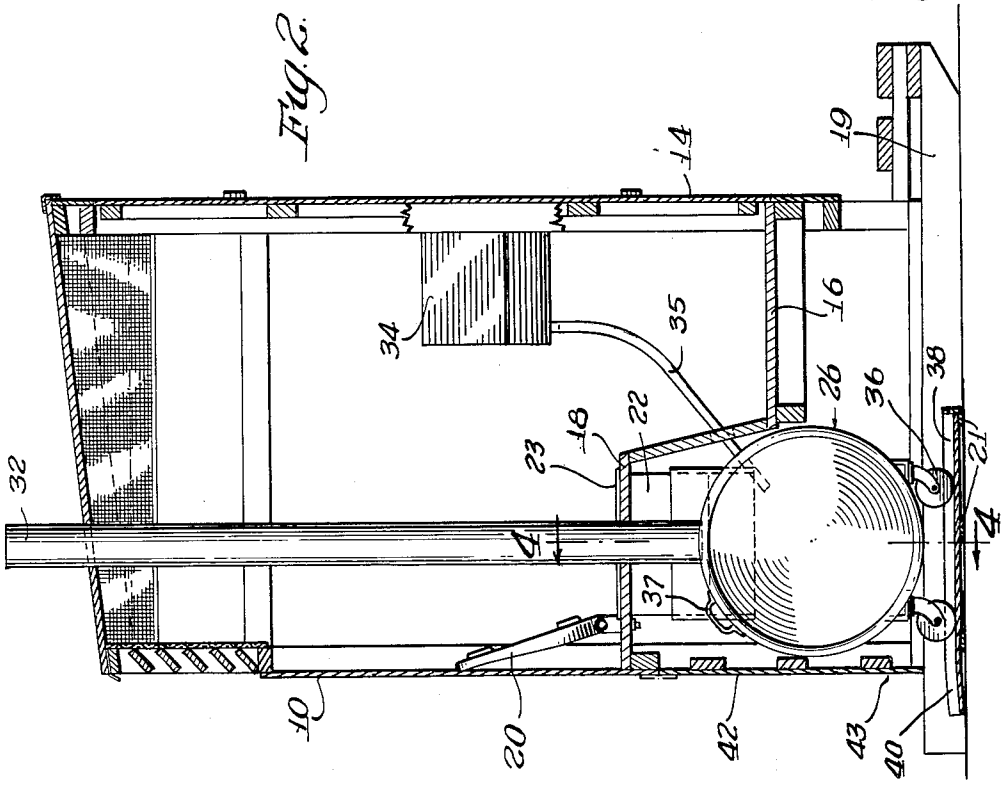
Sept. 12, 1961 J. M. KULKA 2,999,247

PORTABLE TOILET OR THE LIKE

Filed Oct. 13, 1959 2 Sheets-Sheet 1

Fig. 2



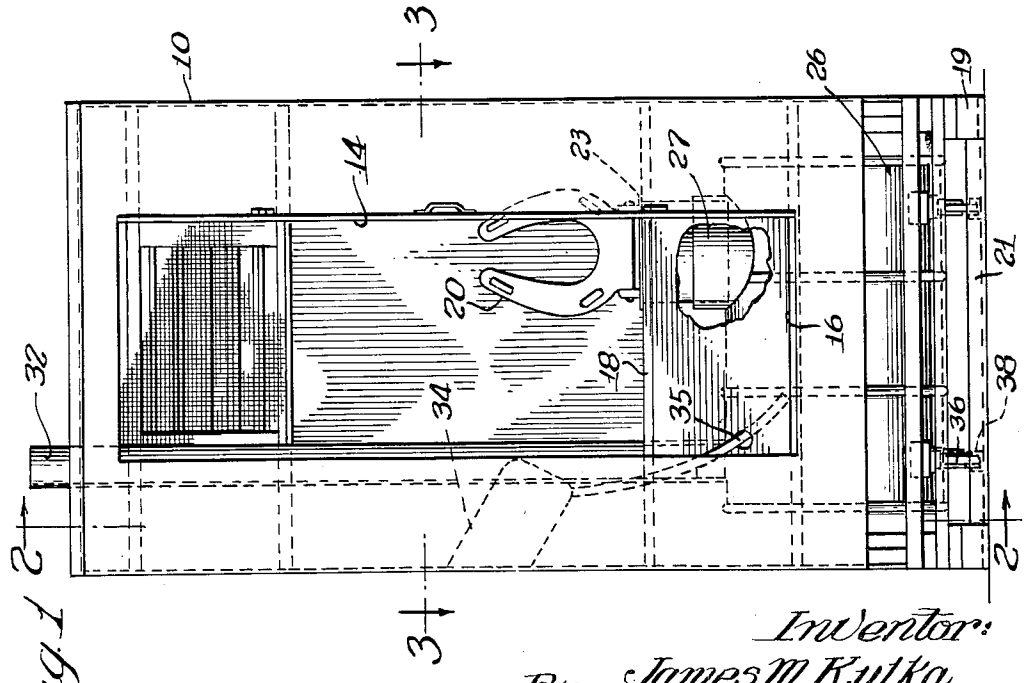


Fig. 1

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Sept. 12, 1961 J. M. KULKA 2,999,247

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Filed Oct. 13, 1959 2 Sheets-Sheet 2

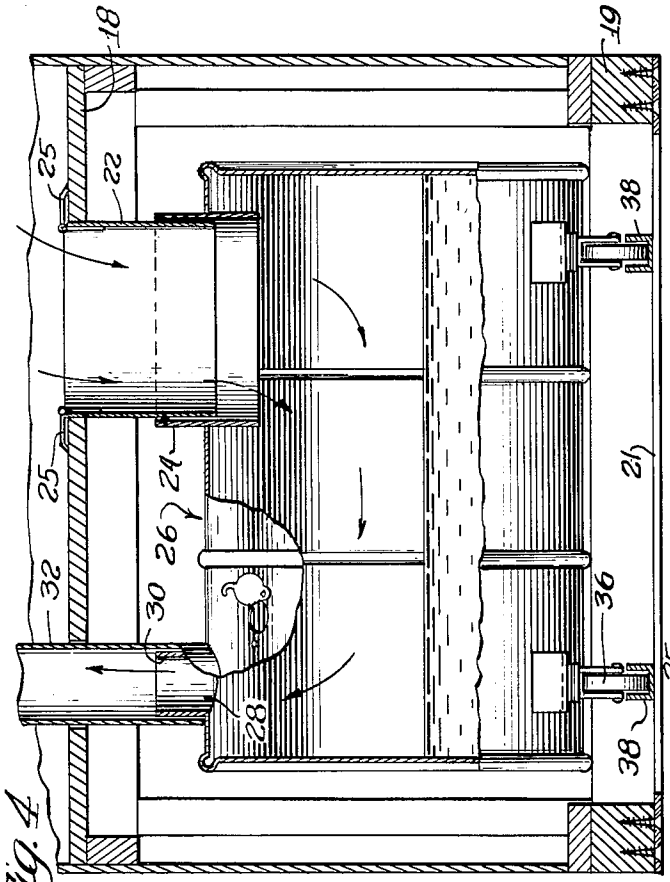


Fig. 4

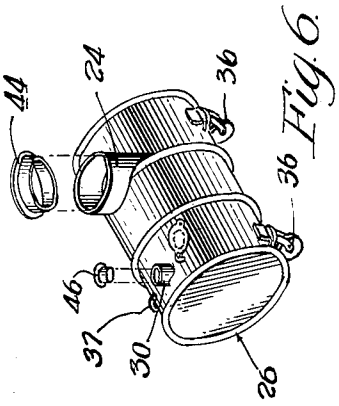
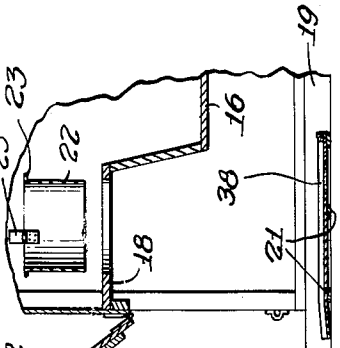


Fig. 6



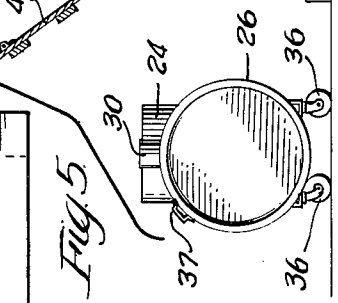


Fig. 5

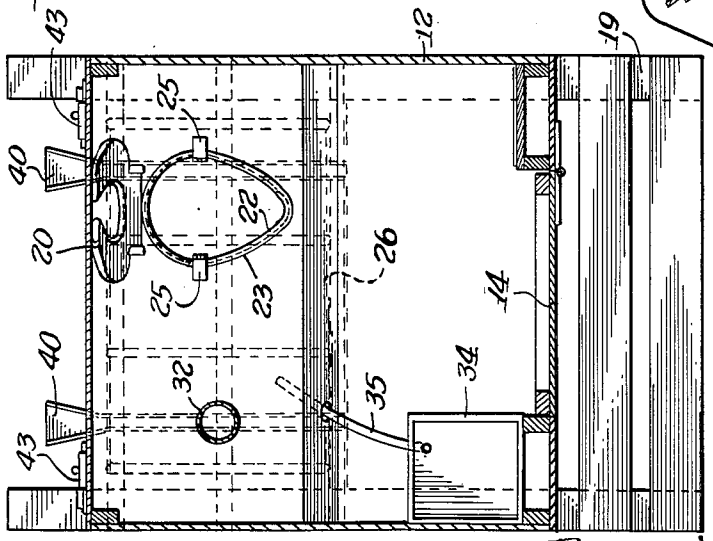


Fig. 3

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PORTABLE TOILET OR THE LIKE

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3 Claims. (Cl. 4—119)

This invention relates to improved portable toilets, and more in particular to a portable toilet which is adapted for installation, use and servicing in remote positions, such as high up in structures, or down deep in foundations.

An object of this invention is to provide a toilet which may be used and serviced in remote positions, such as on the high levels of buildings or other structures during the construction thereof. A further object is to provide toilets which can be positioned and used in locations which are not acceptable to the normal and usual servicing facilities. Another object is to provide a portable toilet which can be set up without the necessity for exterior drains or tanks, and which is sanitary and readily cleaned and serviced. A more specific object is to provide a unit of the above type which is inexpensive to build, maintain and service. These and other objects will be in part understood and in part pointed out in the description given hereinafter.

There is a need for improved toilet facilities in many locations, such as those where it is either impractical or economically unsound to provide permanent sewage connections or other means for handling the wastage. Such needs exist around many construction projects, such as the building of bridges, dams, office and factory buildings. In providing toilet facilities to meet such needs, it is important to comply with all of the local health and sanitation laws and regulations, and it is also necessary to insure that the toilet facilities are completely satisfactory to the users, and that the cost and difficulty of installation, maintenance and servicing are not excessive. It is an object of the present invention to provide toilet facilities which may be readily installed, serviced and maintained, and to satisfy the requirements which are encountered, and to void the difficulties and objections which have been present in the past.

In the illustrative embodiment of the present invention, a portable toilet is provided with a portable receptacle in the form of a drum. This drum has a main opening with a flange which receives a telescoping collar extending down from the toilet seat and which helps to locate and hold the drum in proper position. The drum is mounted on wheels which engage a pair of tracks on the floor of the housing and which provide guideways for accurately positioning the drum. When servicing is required, the drum is rolled out along these rails and taken to an area where it is emptied and cleaned. This arrangement permits the unit to be maintained and serviced, even though the toilet is located at a remote point which is inaccessible to servicing equipment. The entire toilet is light in weight, and is easily transported to and set up in the desired location.

A better understanding of the invention, together with a fuller appreciation of its many advantages will best be gained from a study of the following description given in connection with the accompanying drawings wherein:

FIGURE 1 is a front view of a toilet embodying the invention;

FIGURES 2 and 3 are sectional views on the lines 2—2 and 3—3 of FIGURE 1;

FIGURE 4 is a somewhat enlarged sectional view on the line 4—4 of FIGURE 2;

FIGURE 5 is a side view, partly in section, showing the receptacle being removed from the housing; and,

FIGURE 6 is a perspective view of the drum.

Referring to FIGURES 1 and 2 of the drawings, a

portable toilet **10** is in the form of a wooden building with a raised floor **16** and a toilet seat **20** hinged to a horizontal bench **18**. The wooden building is mounted upon a pair of skids **19**, so that it may be moved, and it is sufficiently sturdy to be lifted by a derrick or other means to remote positions, such as to the high floors of a building under construction, or to the bottom of an excavation for the foundation of a building. Supported by skids **19** and by three steel cross bars **21**, are two tracks **38**, upon which is supported a drum **26**. Drum **26** has four casters or pivoted wheels **36** which run in the tracks so as to facilitate the proper positioning of the drum beneath seat **20**. Drum **26** has a collar **24** which surrounds an opening the drum beneath seat **20**, and which extends downwardly into the drum (see also FIGURE 4). Telescoping into the top of sleeve **24** is a sleeve **22** which has a top flange **23** which rests upon bench **18**. Hinged to the top sleeve **22** are two handles **25** which are grasped to lift the sleeve when the drum is being installed and removed. These handles swing downwardly to the position shown, so as to be positioned beneath seat **20**. At the opposite end of drum **26**, there is a vent opening which is surrounded by a collar **30**. Telescoped around collar **30**, and resting upon the drum is a stack **32** which (see FIGURES 1 and 2) extends upwardly through the roof. This stick is lifted free of collars **30** during installation and removal of the drum. The drum renewal and installation operation is illustrated in FIGURE 5. A rear door **42** is hinged at its upper edge, and is swung upwardly to the position shown for the drum installation and removal operations. When the drum is installed, door **42** swings downwardly, and is latched in closed position by a pair of bolts **43** which interengage with keepers upon the adjacent side walls of the building. Tracks or rails **38** have side walls, and flared wheel guides **40**. Hence, when the drum is pushed into place, the casters are guided so that the drum is accurately positioned. The door is then closed against the drum. A urinal **34** has a flexible hose **35** which is projected through an opening in the drum after the drum has been properly positioned. The drum is provided with four handles **37**, which are welded to the sides near its ends. The openings in the drum are provided with lids or caps **44** and **46** which are put into place when the drum is removed.

As shown best in FIGURE 4, stack **32** provides a vent from the extreme top of the drum, and the stick effect tends to cause air circulation, as indicated. The extension on sleeve **24** tends to permit this circulation in that it inhibits the escape of air from the extreme top of the drum.

It will be seen that the invention provides a solution of the problems referred to above. The toilet may be serviced in a routine manner, even though it is positioned remotely. It meets the most exacting standards, and it is adaptable to various conditions of use.

As many possible embodiments may be made of the mechanical features of the above invention, all without departing from the scope of the invention, it is to be understood that all matter hereinabove set forth, or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

I claim:

1. A toilet unit providing improved sanitation and servicing facility, said unit comprising a housing having a floor, a front wall with an entrance door, a rear wall and a raised toilet seat platform along the inner side of said rear wall, said platform enclosing a chamber within and above the floor of said housing, said platform having a horizontal portion in which is placed a toilet seat opening and a vent pipe opening, the rear wall of said

housing having an openable panel covering said chamber, spaced U-shaped guide tracks mounted on the floor of said housing and extending from the front of said chamber out beyond the rear of said housing and terminating with flared mouths at a point level with the ground, a large drum-like tank having a generally cylindrical bottom and a top fitting closely beneath said horizontal platform portion, the top of said tank having a flanged opening corresponding to said toilet seat opening and a small opening corresponding to said vent opening, four caster wheels mounted respectively near each end of the tank on the underside thereof to support its bottom horizontally just above the ground, said wheels fitting said tracks to roll said tank sideways into said housing chamber, a movable vent pipe extending through the top of said housing down through said platform to said tank, and a movable collar flange extending from said toilet seat opening to the flanged opening of said tank, whereby said tank when filled can easily be removed from said housing for servicing.

2. A toilet unit providing improved sanitation and servicing facility, said unit comprising a housing having a floor, a front wall with an entrance door, a rear wall and a raised toilet seat platform along the inner side of said rear wall, said platform enclosing a chamber within and above the floor of said housing, said platform having a horizontal portion in which is placed a toilet seat opening and a vent pipe opening, the rear wall of said housing having an openable panel covering said chamber, spaced wheel-engaging and guide tracks mounted at the floor of said housing and extending from the front of said chamber out beyond the rear of said housing and

terminating with broad wheel-engaging surfaces at a point generally level with the ground, a large drum-like tank having a generally cylindrical bottom and a top fitting closely beneath said horizontal platform portion, the top of said tank having a flanged opening corresponding to said toilet seat opening and a small opening corresponding to said vent opening, four wheels mounted respectively near each end of the tank on the underside thereof to support its bottom horizontally just above the ground, said wheels fitting said tracks to roll said tank sideways into said housing chamber, a movable collar flange extending from said toilet seat opening to the flanged opening of said tank, and a movable vent pipe extending through the top of said housing down through said platform to said tank, whereby said tank when filled can easily be removed from said housing for servicing.

3. The unit in claim 2 wherein said tank has wheel supporting brackets to mount said wheels in pairs spaced respectively ahead of and behind the center axis of said tank by approximately the diameter thereof to permit easy sidewise rolling of said tank up and down said guide tracks without substantially changing the center of gravity of said tank and its contents.

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