June 3, 1969 L. K. GORDON 3,447,166

COMBINED BATHING APPARATUS, COMMODE, ETC., FOR CONVALESCENT PATIENTS AND THE LIKE

Filed May 18, 1966

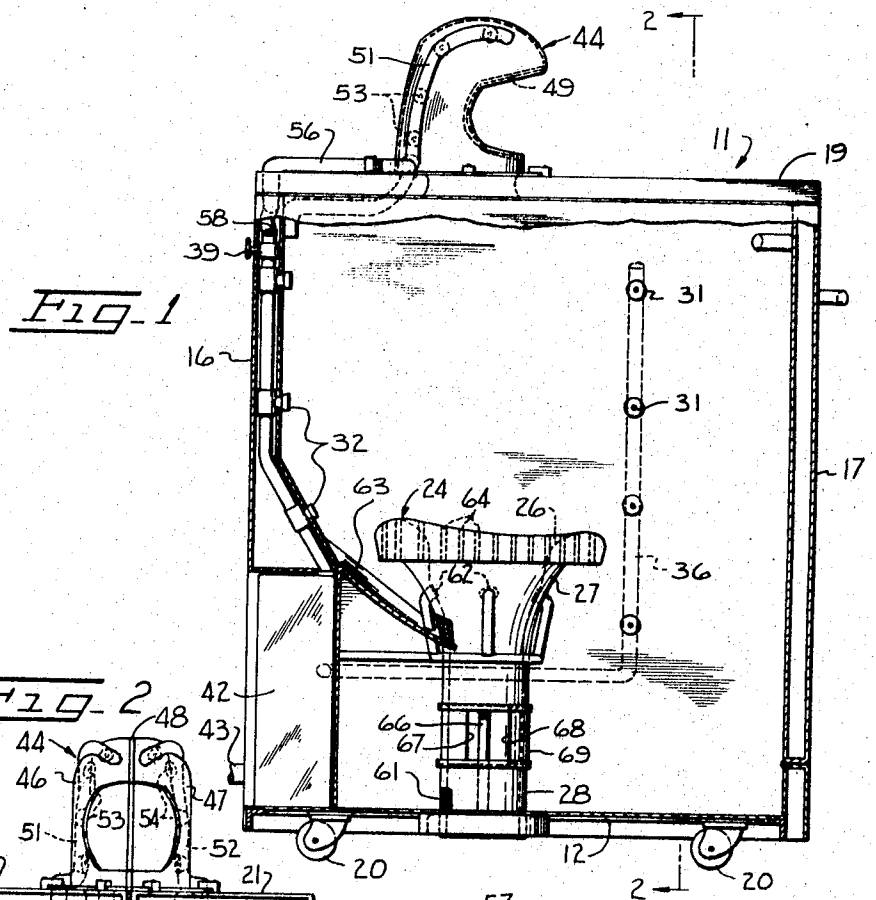

FIG. 1

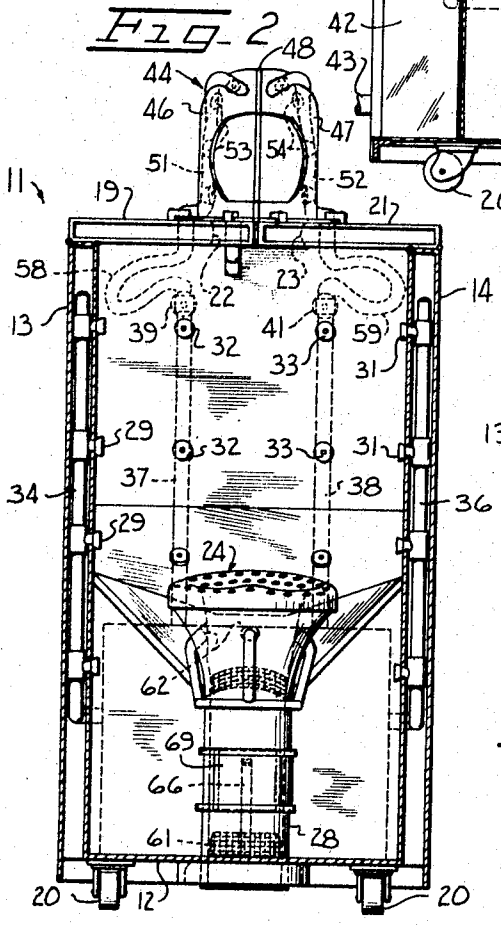

FIG. 2

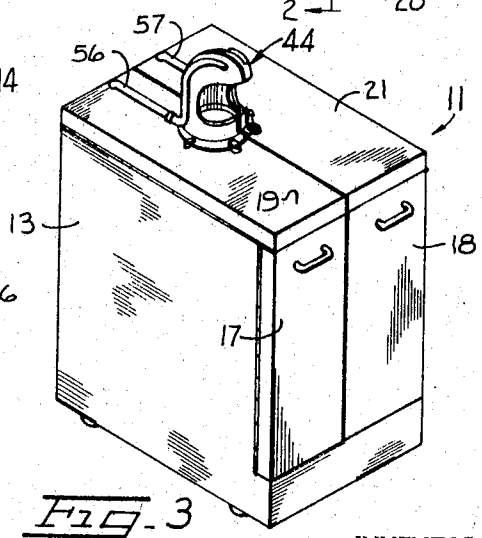

FIG. 3

INVENTOR.
LESLEY K. GORDON
BY
Gardner & Zimmerman
ATTORNEYS

United States Patent Office 3,447,166
Patented June 3, 1969

3,447,166

COMBINED BATHING APPARATUS, COMMODE, ETC., FOR CONVALESCENT PATIENTS AND THE LIKE

Lesley K. Gordon, Castro Valley, Calif.
(2212 Danville Blvd., Walnut Creek, Calif. 94529)

Filed May 18, 1966, Ser. No. 551,114
Int. Cl. A47k *17/00*; E03d *11/00*
U.S. Cl. 4—1 9 Claims

ABSTRACT OF THE DISCLOSURE

Apparatus for bathing a convalescent patient or other impaired individual is described which facilitates the bathing operation and includes means for automatically disposing of the results of bowel movements and the like without soiling of either the patient or the bath water. The apparatus includes a bathing cabinet which has doors which are openable for the entry of an individual for seated support within the cabinet. The doors sealingly engage each other when they are closed to provide a generally sealed enclosure about the body of the patient, and the cabinet includes an opening in its upper portion to permit the head of the patient to extend exteriorly of the cabinet. A seat is provided within the cabinet for supporting the patient, and a plurality of nozzles are mounted in spaced locations within the cabinet to direct a liquid upon the body of the seated patient. The seat is in the form of a commode seat and communicates with a drain pipe which extends to the exterior of the cabinet. A peripheral opening within the drain pipe adjacent the base of the cabinet allows drainage of the liquid sprayed from the nozzles through the drain pipe in a manner to flush the commode.

This invention relates generally to cabinets, or equivalent apparatus for facilitating the bathing of an individual such as a convalescent patient, and/or providing other beneficial services therefor, and is more particularly directed to such a cabinet which is so arranged that an individual may enter the cabinet with a minimum of effort and be enclosed in seated position therein for bathing of the body and hair, the taking of an enema, or the like.

It is usually quite difficult, if not impossible, for a convalescent patient, or other impaired individual, to bathe in a tube or shower. Much effort is expended in entering a tube and lowering oneself to a sitting position, and after bathing, standing up and stepping out of the tub. In many instances a patient is unable to stand at all, or to stand for only a limited time. Such patients, of course, cannot shower.

It is therefore a principal object of the present invention to provide a bathing cabinet which may be readily opened to permit the convenient entry of a patient for seated support therein and closed to form a sealed enclosure having spray nozzles for directing water and/or soap solution on the patient to facilitate bathing.

Another object of the invention is to provide a bathing cabinet having a hood for receiving the head of the cabinet occupant, such hood having spray nozzles to facilitate washing of the hair.

Still another object of the invention is the provision of a bathing cabinet of the class described having an appliance for facilitating the administration of an enema and disposal of the bowel movement.

It is yet another object of the invention to provide a bathing cabinet of the class described wherein the bowel movement appliance serves as the drain of the cabinet and is constantly flushed by the bathing water directed thereinto.

A further object of the invention is the provision of a cabinet of the class described which is provided with casters so as to be readily transportable.

The invention possesses other objects and features of advantage, some of which, with the foregoing, will be set forth in the following description of the preferred form of the invention which is illustrated in the drawings accompanying and forming part of the specification. It is to be understood, however, that variations in the showing made by the said drawings and description may be adopted within the scope of the invention as set forth in the claims.

FIGURE 1 is a side elevational view with portions broken-away of a cabinet in accordance with the present invention.

FIGURE 2 is a sectional view taken at line 2—2 of FIGURE 1.

FIGURE 3 is a perspective view of the cabinet.

Referring now to the drawing, a cabinet **11** in accordance with the present invention will be seen to include a rectangular base **12** having opposed side walls **13, 14** and an end wall **16** upstanding marginally therefrom. A pair of front doors **17, 18** are hingedly secured to the side walls **13, 14**, at the opposite ends thereof from end wall **16**. The doors are pivotal about vertical axes and are arranged to seal against the side walls and base, and seal with each other when the doors are in closed positions. There are also provided a pair of top doors **19, 21** hingedly secured to the upper edges of side walls **13, 14** for movement above horizontal axes. The doors **19, 21** are arranged such that when closed, they seal with the upper edges of side walls **13, 14** and end wall **16**, the upper edges of doors **17, 18**, and with each other. It will be thus appreciated that a sealed cabinet or enclosure is provided which yet may be readily entered upon pivoting the front and top doors open. The top doors **19, 21** are provided with opposed semicircular cutouts **22, 23** in their inner edges to define a circular opening, when the doors are in closed positions, to accommodate the neck of an occupant of the cabinet. To render the cabinet transportable, casters **20** are secured to the base **12** adjacent its four corners.

Within the cabinet, there is mounted a seat **24** for supporting the occupant in sitting position. The seat has a central opening **26** and generally resembles a toilet seat. The lower portion of the seat merges with a generally tapered hopper, or bowl **27** terminating in a drain pipe **28** extending through the cabinet base **12**. The exterior end of the pipe is adapted for connection to a sewer pipe or other soil connecting basin for purposes subsequently described. All of the foregoing components of course comprise a commode.

In order to facilitate bathing of the body of an occupant seated on the seat **24** within the cabinet, a plurality of preferably vertically spaced spray nozzles **29, 31** are mounted at the interiors of the respective side walls **13, 14** of the cabinet. Similarly, pluralities of preferably vertically spaced spray nozzles **32, 33** are mounted at the interior of the end wall **16**. The nozzles are appropriately positioned to direct water, soap solution, heated air, or the like, over the entire area of the occupant's body. To distribute such fluids to the nozzles for discharge, nozzles **29, 31** are best respectively communicably connected to pipes **34, 36** which are plugged at their upper ends. Similarly, nozzles **32, 33** are respectively communicably connected to pipes **37, 38** provided with valves **39, 41** at their upper ends for purposes subsequently described. The walls of the cabinet are preferably of double walled construction such that the pipes may be disposed in concealed positions within the inner wall spaces. The pipes extend into a central distribution and control housing **42** which extends transversely

between side walls **13**, **14** adjacent end wall **16**. Suitable means (not shown) are provided within the housing to communicably couple the pipes **34**, **36**, **37**, **38** to a water supply pipe **43**, or other inlets (not shown). The housing may also contain flow control and temperature regulating means, etc., for automatically conducting a bathing operation. Such means may, for example, initially introduce soap solution to the distribution pipes such that the soap solution is discharged from the nozzles upon the body of the individual seated within the cabinet. Warm water may be then supplied to the pipes and sprayed from the nozzles to rinse the body. Thereafter, warm air may be circulated from the nozzles to effect drying.

The cabinet of the present invention may be also arranged to wash the occupant's hair as well as the body. In this regard, a hood **44** may be mounted upon the top doors **19**, **21** for engagement with an occupant's head. The hood is formed by two separable parts **46**, **47** respectively secured to the doors **19**, **21** about the semicircular cutouts **22**, **23**. Each of the parts has substantially the configuration of half of a hollow hemisphere.

When the parts are engaged upon closing the top doors **19**, **21**, they thus have an overall configuration that is generally contoured to the sides, top, and back of the head. The engageable edges of the respective parts are provided with gaskets **48** of the resilient material which are deformed upon engagement to provide an effective seal. The front edges of the hood parts are likewise provided with resilient gaskets **49** which are adapted to engage the face of an occupant of the cabinet about the hair line.

Within the parts **46**, **47** of the hood **44** are provided pipes **51**, **52** having spray nozzles **53**, **54** communicably connected at spaced positions thereof. The pipes **51**, **52** are connected to pipes **56**, **57** mounted upon the top doors. Such pipes are in turn coupled, as by means of flexible tubes **58**, **59**, to the valves **39**, **41**. The flexible tubes enable the top doors **19**, **21** to be opened while still connecting the pipes **56**, **57** to the valves. When the valves are opened, the water, soap solution, etc., is thus sprayed from the nozzles **53**, **54** upon the hair. The hood parts **46**, **47** are sufficiently large that a space is provided between the hood and the head of the cabinet occupant. The nozzles **53**, **54** are thus unobstructed and able to direct well defined jet sprays upon the hair. In addition, the space permits the free drainage of water from the hair through the opening in the doors **19**, **21** defined by cutouts **22**, **23** into the cabinet **11**.

Considering now the drainage of both water from the cabinet and disposal of bowel movements therefrom, as previously noted the pipe **28** is arranged to receive bowel movements from an occupant of the cabinet seated upon the seat **24**. In addition, a peripheral portion of the pipe, preferably the rear portion, is provided with a horizontally elongated opening covered by a screen **61**. The screen serves to permit both water to enter the pipe from the cabinet interior, while confining the bowel movements to the pipe. The bath water entering the pipe flushes the bowel movements therethrough. The flushing action is enhanced by a plurality of circumferentially spaced spray nozzles **62** communicating with the interior of the bowl **27** and positioned to direct sprays of water upwardly upon the buttocks of an individual seated upon the seat **24**. As well as washing the buttocks, the water is deflected therefrom into the pipe to assist in flushing same. A deflector **63** is provided between the seat **24** and end wall **16** in shielding relation to the control housing **42**. The seat is provided with a plurality of vertical perforations **64** to permit the free drainage to water from exposed portions of the seat. The bath water thus flows freely to the base of the cabinet and then through the screen **61** into the pipe **28**. In this manner, the pipe receives the bowel movements and drains the water from the cabinet, the draining water at the same time flushing the pipe.

In order to promote the bowel movements, a pipe fitting **66** is coaxially mounted within the drain pipe **28** and adapted for connection of an enema attachment thereto. To afford access to the fitting to facilitate connection of the enema fitting, the pipe **28** is provided with a circumferential opening **67** adapted to register with an opening **68** in a collar **69** rotatably mounted on the pipe. When the openings are registered, the fitting is accessible therethrough. Otherwise, the collar closes the opening **67** to thus seal the pipe closed.

What is claimed is:

1. Apparatus for facilitating the bathing of an individual comprising a bathing cabinet including doors openable for the entry of an individual for seated support therein and closable to sealingly engage each other providing a generally sealed enclosure about the body of an occupant, said cabinet having an opening in its upper portion for accommodating the neck of an occupant of the cabinet allowing the head of the occupant to extend exteriorly of said cabinet, a plurality of nozzles mounted in spaced locations within said cabinet and oriented to direct a liquid upon the body of an occupant seated within said cabinet, means for introducing liquid to said nozzles whereby liquid is sprayed from said nozzles, a seat mounted in said cabinet for supporting an occupant of said cabinet, said seat having a central opening communicating with a bowl portion therebeneath defining a commode, a drain pipe communicating with said bowl portion and extending to the base of said cabinet and exteriorly thereof, said drain pipe having a peripheral opening adjacent said base for receiving liquid sprayed from said nozzles upon an occupant seated upon said seat to flush said commode.

2. Apparatus according to claim **1** further defined by a plurality of upwardly directed nozzles being mounted within said bowl portion, and means coupled to said nozzles mounted within said bowl portion for introducing liquid thereto.

3. Apparatus according to claim **1** further defined by a screen covering said peripheral opening of said drain pipe.

4. Apparatus according to claim **3**, further defined by a pipe fitting mounted within said drain pipe and adapted for attachment of an enema appliance thereto, said drain pipe having a second peripheral opening, a collar rotatably mounted on said drain pipe, said collar having an opening registerable with said second opening of said drain pipe, a second plurality of nozzles mounted within said bowl portion, and means coupled to said second plurality of nozzles for introducing liquid thereto.

5. Apparatus according to claim **1** wherein said cabinet comprises a base, opposed side walls and an end wall upstanding marginally from said base, a pair of front doors hingedly connected to said side walls at the opposite ends thereof from said end wall, said doors adapted to sealingly engage each other in closed positions thereof, a pair of top doors hingedly connected to the tops of said side walls, said top doors adapted to sealingly engage each other and sealingly engage the upper ends of said front doors and said end wall in closed positions of said top doors, said top doors having opposed cutouts for defining said opening for receiving the neck of an occupant of the cabinet, and wherein said plurality of nozzles are mounted on said side and end walls.

6. Apparatus according to claim **5**, further defined by a screen covering said peripheral opening of said drain pipe.

7. Apparatus according to claim **5**, further defined by a pair of hood defining parts each having substantially the configuration of half of a hollow hemisphere, said parts respectively mounted on said top doors about said cutouts and having peripheral resilient gaskets adapted to sealingly engage each other when said top doors are in their closed positions, said hood parts having gasket means for sealingly engaging the face of an occupant of the

cabinet adjacent the hair line, a second plurality of nozzles mounted at the interiors of said hood parts, and means for introducing liquid to said second plurality of nozzles.

8. Apparatus according to claim 5, further defined by a pipe fitting mounted within said drain pipe and adapted for attachment of an enema appliance thereto, said drain pipe having a second peripheral opening, and a collar rotatably mounted on said drain pipe, said collar having an opening registerable with said second opening of said drain pipe.

9. Apparatus according to claim 8, further defined by a plurality of nozzles mounted within said bowl portion, and means coupled to said nozzles mounted within said bowl portion for introducing liquid thereto.

References Cited

UNITED STATES PATENTS

6,047	1/1849	Cortlan	4—146
53,119	3/1866	Craigie	4—7
379,646	3/1888	Heinemann	4—159
998,804	7/1911	Salisbury	4—159
1,340,611	5/1920	Hinsdale	4—7
1,730,547	10/1929	Wallace	4—146
2,552,546	5/1951	Fergusson	4—146
2,589,281	3/1952	Ocaña	4—7
2,589,592	3/1952	Ocaña	4—4
2,714,725	8/1955	Boone	4—164
3,010,116	11/1961	Cowley	4—146

FOREIGN PATENTS

40,440	6/1929	Denmark.
2,754	12/1858	Great Britain.
22,038	10/1903	Great Britain.
980,122	1/1965	Great Britain.
811,149	8/1951	Germany.
455,283	2/1950	Italy.

LAVERNE D. GEIGER, *Primary Examiner.*

D. MASSENBERG, *Assistant Examiner.*

U.S. Cl. X.R.

4—7, 146, 164