Aug. 11, 1931. A. N. MABRY 1,818,489

COMBINATION BEDPAN AND FOUNTAIN SYRINGE

Filed June 3, 1929 2 Sheets-Sheet 1

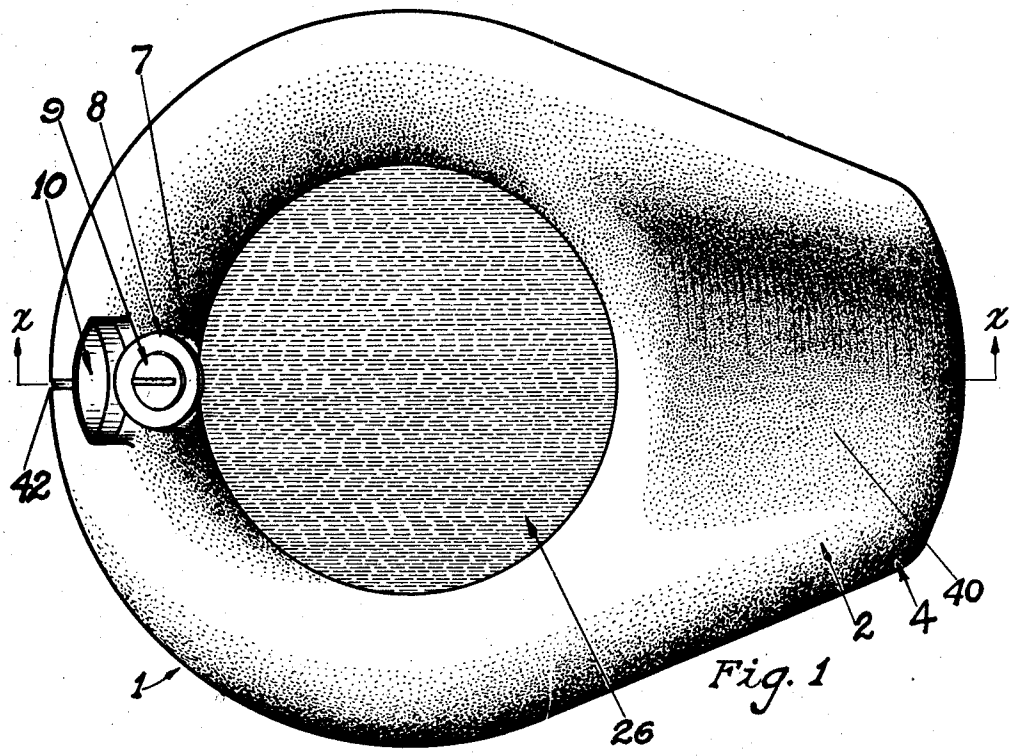


Fig. 1

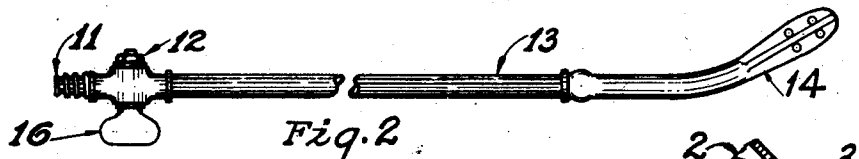


Fig. 2

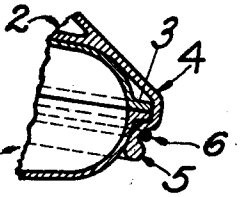


Fig. 3

Fig. 4

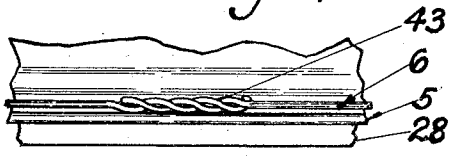


Fig. 5

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COMBINATION BEDPAN AND FOUNTAIN SYRINGE

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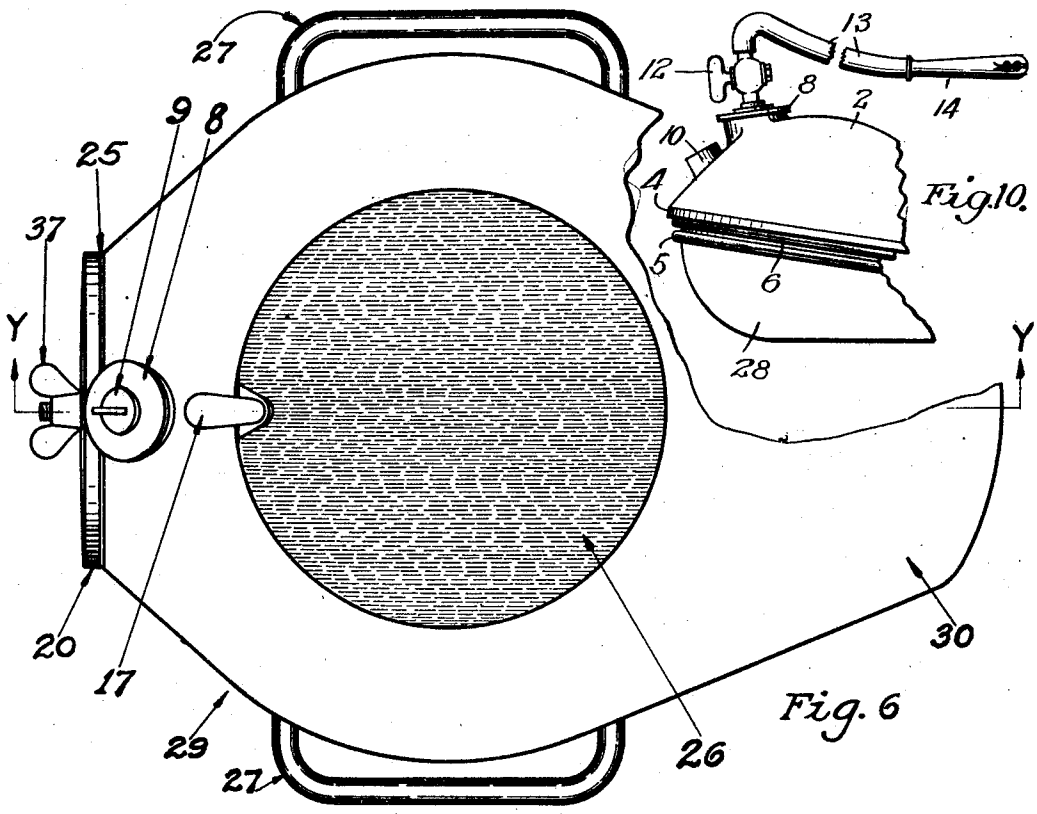


Fig. 10.

Fig. 6



Fig. 7



Fig. 8

Fig. 9

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1,818,489

UNITED STATES PATENT OFFICE

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COMBINATION BEDPAN AND FOUNTAIN SYRINGE

Application filed June 3, 1929. Serial No. 368,040.

This invention relates to improvements in sick room and hospital equipment used for rectal and vaginal cleansing.

The main object of this invention is to provide a combination bed pan and fountain syringe built as a unit and which will perform all the functions performed by the two devices built as separate units.

Another object of this invention resides in the provision of locking means for uniting a bed pan and a fountain syringe.

Another object of this invention is to provide a combination flushable bed pan and fountain syringe, comprising a rubber bag superimposed and fastened to a bed pan, the bed pan having an open receiving chamber in an upper compartment and a closed and sealed waste-fluid chamber in a lower compartment, and so arranged that the waste-fluid or excreta may be flushed from the open receiving to the waste-fluid chamber and an odor-proof door is provided so as to prevent any waste-fluid odor from reaching the patient.

In the treatment of patients, where medicated water is used for douching or internal body cleansing, it is customary to fill a rubber bag or fountain syringe with the medicated liquid and to elevate the bag as high as possible, with the object in view that the liquid will be under a hydrostatic pressure and will flow out with considerable force. Such arrangements are used for rectal and vaginal cleansing. It is, however, necessary that the rubber bag be elevated near a flush basin so that the excreta may be deposited in the basin and the most available place for such treatment is in the lavatory.

It is desirable that such douches be performed in sick rooms and bed-rooms, directly on the bed and without the present inconveniences of handling two separate devices. In the combination bed pan and fountain syringe built in accordance with the subject matter of this invention, the rubber bag or fountain syringe is one unit with and is located on top of a bed pan and the patient sits on the warm water bag and the weight of the patient's body causes the medicated liquid within the bag to be under pressure. A rubber tube is provided, having one end attached to the rubber bag and the other end to a rectal or vaginal injection nozzle. The nozzle is inserted into the orifice of the part of the body to be cleansed. The medicated water flows out from the rubber bag with a considerable force and enters and cleanses the body. On the removal of the injection nozzle from the patient the excreta falls directly into the bed pan.

The design of the combined device is such as to allow the excreta to fall free of the sides of and into the bed pan where a predetermined water level is maintained and the excreta is immersed immediately after leaving the body.

With the above and other objects in view, the invention will be hereafter more particularly described and claimed. It will, however, be understood that the several forms of the invention herewith shown and described are merely illustrative, and in no sense restrictive, and that such changes and modifications may be made as may fall within the purview of one skilled in the art without departing from the spirit of the invention and the scope of the appended claims.

Reference will now be had to the drawings, wherein like numerals of reference designate corresponding parts throughout the several views in which:

Figure 1 is a plan view of an assembled combination bed pan and fountain syringe.

Figure 2 is a fragmentary section of rubber tubing having attached thereto a regulating valve and an injection nozzle used for feminine personal hygiene.

Figure 3 is an enlarged fragmentary section of the combination bed pan and fountain syringe and shows the locking means employed for uniting the fountain syringe to the bed pan.

Figure 4 is a sectional view of the combination bed pan and fountain syringe taken on line x—x in Figure 1.

Figure 5 is a fragmentary portion of the combination bed pan and fountain syringe and shows a front view of the locking means.

Figure 6 is a plan view of a modified form of the device and shows an assembled flush-

able combination bed pan and fountain syringe.

Figure 7 is a fragmentary section of rubber tubing having attached thereto a regulating valve and an injection nozzle used for rectal irrigation.

Figure 8 is an improved form of injection nozzle used for flushing the colon, a treatment popularly known as an "internal bath."

Figure 9 is a sectional view of the modified form of the device or flushable combination bed pan and fountain syringe, the section being taken on line *y*—*y* in Figure 6.

As shown in Figure 1, 1 indicates the assembled device comprising a rubber bag or fountain syringe 2, having the usual shape of a bed pan upon which the rubber bag is mounted and fastened. The rubber bag has a central opening of the same size as the open receiving chamber in the bedpan, and a clear water inlet 7 is molded on the bag. The inlet 7 has a threaded metal sleeve therein to receive a threaded closure cap 8 which is also threaded to receive a plug 9. The screw thread on the plug corresponds to the screw thread 11, on the valve 12 shown in Figure 2. The plug 9 may be removed and replaced with the valve 12. The bed pan 28 is of the usual construction having an upper and lower half, each half provided with a flange and these flanges are then permently united by any suitable process such as electric welding and results in the flange 3. At the rear of the bed pan I provide a waste fluid outlet 10, and at the front end I form a concave surface 40 at the top of the pan.

As shown in Figure 1 and Figure 4, the rubber bag 2 and the bed pan 28 are both designed along lines affording easy access to the anal and vaginal orifices as the concave bearing surfaces 40 conform to anatomical lines and prevent localized pressure on the patient's body, which pressure may irritate and interfere with the circulation of the blood.

As best shown in Figure 3 and Figure 5, the locking means for fastening the rubber bag 2 to the bed pan 28 comprises a beaded and angularly projecting flange 4 at the outer edge of the bag; this flange overhangs the flange 3 on the bed pan. The bead 5 is preferably circular and thicker than the flange 4 and extends all around the outer edge of the bed pan flange. A wire 6 is placed between the bead 5 and the flange 3.

As best shown in Figure 5, 43 is the junction where the ends of the wire are wound around each other until the wire fits tightly around the bag and draws the flange 4 of the bag tightly under the flange 3 of the bed pan and fastens the bag to the bed pan.

As shown in Figure 1, 42 is a cut, preferably triangular in the flange 4 of the rubber bag. The flange may have these triangular cuts at a number of points so as to be able to draw the rubber bag tightly all around the flange of the bed pan without forming any crinkles in the flange of the rubber bag.

In practical operation, the closure cap 8 is removed and the rubber bag is filled with medicated water through the inlet 7. The medicated water 23 best shown in Figure 4 fills the bag completely and the bag assumes the designed contour which conforms to the back and thighs of the patient. The closure cap 8 is screwed into place on the bag, the valve 12 is screwed in position in the cap and the valve handle 16 is set to a closed position and a quantity of water 26 is also poured into the bed pan.

The device may be placed in position upon a bed mattress in the home or hospital. The patient sits or lies on the bag 2 with the body orifice in line with the central opening 39 in the bag. Due to its resiliency the bag readily yields to any irregularities in position of the patient and provides a cushion upon which the patient may rest comfortably. The injection nozzle is inserted into the body orifice and the patient operates the handle 16 of the regulating valve 12, and regulates the rate of flow and the quantity of water injected and the force employed depends upon the weight of the patient's body. The weight of the body on the bag furnishes the necessary motive power which raises the liquid into the body without any apparent physical effort. The quantity of water 23, in the bag may be three quarts or more.

On removal of the nozzle from the patient, the injected liquid and the excreta falls directly into the open receiving chamber 41 of the bed pan where it is immersed in the water 26, previously provided.

The injection nozzles 14, 15 and 44 shown in Figures 2, 7 and 8 are interchangeable and fit the rubber tube 13 and other types and shapes of nozzles may be used and the device functions the same whether used for vaginal douching, rectal irrigation or enema and for flushing the colon or large intestine.

A flange 24 may be provided at the internal perimeter of the annular shaped bag to facilitate cleaning of the device after use. For washing the device there is provided the waste fluid outlet tube 10, which is preferably elliptically shaped due to the restricted location near the medicated water inlet 7.

From the above description it is clear that the device can be used as an ordinary fountain syringe without the necessity of suspending the rubber bag at a high level as heretofore.

When this device, as shown in Figure 1 and Figure 4, is used by sick people who are confined to bed, it is necessary that the nurse or attendant be present to empty and wash the bed pan. At times when the attendant is not at the bedside to remove the pan after use,

the patient is subjected to discomfort in being compelled to be near the foul odor.

The design of the flushable bed pan 29 shown in Figure 6 and Figure 9 eliminates the discomfort to which the patient is subjected by the delay of the attendant as the patient can readily flush the pan without any help by simply operating a lever 17 on top of the pan, and the excreta is flushed into a sealed lower compartment 33 where the odor is confined.

Referring to Figure 6, it will be noted that this rubber bag 30 has substantially the same annular form as that shown in Figures 1 and 4, and the clear water inlet closure cap 8 and the plug 9 are the same as in Figure 1 and Figure 4.

Referring to Figure 9, 31 indicates the flushable bed pan which is subdivided into two compartments, an open receiving chamber 32 and a closed waste-fluid chamber 33. A door 18, is suspended on a pivot 34, and has a thin, flexible rubber tube 19 affixed within a circular groove around the outer periphery of the door. A flat spring 35 has one end affixed to the door 18 and the other end is free and presses against the top wall of the bed pan. The spring reacts against the door and presses the rubber tubing 19 against the end edges of the receiving chamber and seals the waste-fluid chamber 33. The waste-fluid is removed through an opening 36 at the rear of the bed pan.

A cover 20 having a gasket 25 is attached to a threaded clamping member 21. A wing nut 37 on the clamping member is used to remove and replace the cover and to seal the opening in the waste fluid chamber.

In practical operation the valve 12 is screwed into place and the valve handle 16 is set to a closed position. The rubber bag 30 is filled with medicated water through the inlet 38, and a quantity of water 26 is poured into the open receiving chamber 32 to float the excreta.

The injection nozzle and the regulating valve 12 are operated as described for the type shown in Figure 1 and Figure 4, the quantity of water injected being subject to the convenience of the patient.

On removal of the nozzle from the patient, the injected liquid and the excreta falls into the open receiving chamber 32 where it is immersed in the water 26 previously provided.

The patient operates the lever 17 which is integral with the odor-proof door and causes the door to open and the excreta to drop into the waste fluid chamber 33.

A flush valve 22 in the front end of the rubber bag opens by means of a lever 45 and a link 46, at the same time that the operating lever 17 is moved and allows fresh water from the rubber bag 30 to flush the receiving chamber 32 and a quantity of fresh water remains in the open receiving chamber and the device is then ready for re-use by the patient.

The bed pans may be equipped with handles 27, shown in Figure 6, for carrying the device around.

It is to be noted that while the metallic fastening band has been shown as a circular wire 6, that the band may be made of a thin ribbon-like strip of metal coiled up at the junction and that a coil spring or other spring means may also be used to draw the ends of the metallic band tightly around the flange of the rubber bag. Other means may be employed for fastening together and uniting a bedpan or waste fluid receiving chamber and a distensible reservoir for the storage of medicated liquid as a single unit. Under normal, actual operating conditions, the superimposed fluid storage and ejecting reservoir is not removable from the bedpan.

It is also to be noted that both designs shown perform the functions of a combination bed pan and fountain syringe, the only difference is that the device shown in Figure 6 and Figure 9 has the added feature of being flushable.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A combination fountain syringe and bedpan comprising a bedpan provided at its upper face with a concave bearing surface at one end, a waste fluid outlet at the opposite end and a central opening intermediate the ends thereof and with handles at both sides and a resilient annular fluid reservoir superimposed on the bedpan, said reservoir having a central opening of the same size and in alignment with the central opening in the bedpan, said reservoir having a fluid inlet, closing means for the inlet and a nozzle attached to said closing means and the said bedpan and fluid reservoir being fastened together and forming a portable-bed-type commode adapted to be slipped under bed-ridden patients for operation as an inseparable unit.

2. A combination fountain syringe and bedpan comprising a resilient substantially annular fluid reservoir superimposed on the bedpan, said bedpan comprising upper and lower jointed members and provided with a flange all around its outer periphery and the said reservoir provided with a projecting beaded flange circumscribing the bedpan flange and the said beaded flange drawn tightly under the bedpan flange and affixed thereto by circumscribing clamping means and the said flanges projecting beyond and covering the clamping means.

3. A combination fountain syringe and bedpan comprising a rubber bag of the same plan view as the bedpan, superimposed and fastened to the bedpan, the combined device having an open receiving chamber, a fluid inlet, a waste fluid outlet, a closure cap for

the inlet, a regulating valve within the closure cap and an injection nozzle attached to said regulating valve by means of a rubber tube.

4. In a combination bedpan and fountain syringe comprising a fountain syringe superimposed on a bed pan, built up of upper and lower jointed members having a projecting flange all around the outer periphery of the bedpan at said junction, means for fastening the fountain syringe to the bed pan, said means comprising the said projecting flange on the bed pan, a beaded flange on the syringe circumscribing and projecting below the bed pan flange, and a metallic band around said bead, the ends of said band wound around each other, or equivalent means used to draw the ends of the metallic band together and to draw the beaded flange tightly under the bedpan flange, the said flanges projecting beyond and covering the circumscribing metallic band substantially as described.

5. In a device of the character described a fountain syringe superimposed and affixed to a bedpan and forming a combination bedpan and fountain syringe unit, said fountain syringe comprising a resilient container for medicated liquid, of annular form, and provided with a central opening of the same size as the opening in the bedpan and with an inwardly formed flange at said central opening, and said bedpan comprising a non-resilient receiving chamber for waste fluid.

6. In combination, a bedpan provided with a circumscribing flange and a central aperture in the upper face, a superimposed annular rubber bag of the same plan conformation as the bedpan and provided with a downwardly extending flange circumscribing the said bedpan flange and fastened thereto, said bedpan and rubber bag forming a portable unit.

7. In combination, a bedpan provided with a circumscribing flange, a concave upper face and a central aperture in said face, a superimposed annular rubber bag having its lower face in contact with said bedpan concavity and of the same plan conformation as the bedpan, and provided with a downwardly extending flange circumscribing the said bedpan flange and fastened thereto, said bedpan and rubber bag forming a portable unit.

8. In a device of the class described, a fountain syringe having an injection nozzle and means for regulating the outflow of liquid in combination with a bedpan having upper and lower faces, the upper face covering a portion of the lower face, said fountain syringe being superimposed on the said upper face and attached to the bedpan and forming a portable combination fountain syringe and bedpan unit.

9. A combination fountain syringe and bedpan comprising a bag of yieldable material superimposed and attached to the bedpan, the combined device having an open receiving chamber for excreta, an inlet for medicated liquid, closure means for the inlet, an injection nozzle attached to said fountain syringe and means for regulating the flow of liquid from said fountain syringe.

10. In combination, a bedpan provided with a flange and an opening in the upper face, a fountain syringe comprising a bag of the same plan conformation as the upper face of the bedpan and provided with means for engaging with said bedpan flange and attachable thereto, said bedpan and fountain syringe forming a portable unit.

11. In a device of the class described, an annular fountain syringe in combination with a hollow bedpan having an opening, said syringe being superimposed on said bedpan and adapted to encircle said opening, a liquid discharge means attached to said syringe and means for regulating the flow of liquid from said syringe.

12. In a portable device of the class described, a fountain syringe for internal cleansing purposes in combination with a hollow bedpan having an opening to receive excreta, said syringe being superimposed on and forming a unit with said bedpan and operative by pressure due to weight of person receiving treatment, a liquid discharge means attached to said syringe and operative for injecting the liquid into said person.

Signed at New York in the county of Bronx and State of New York this 18 day of May A. D., one thousand nine hundred and twenty nine.

ANNIE N. MABRY.

CERTIFICATE OF CORRECTION.

Patent No. 1,818,489. Granted August 11, 1931, to

ANNIE N. MABRY.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: Page 2, after line 13, insert Figure 10 is a fragmentary view of the bed pan, rubber bag, valve and injection nozzle, shown on Figures 2 and 4, in assembled relation as a unit.; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 27th day of October, A. D. 1931.

M. J. Moore,
Acting Commissioner of Patents.

(Seal)