July 2, 1940. F. M. ROSS 2,206,368

INTERNAL BATH

Original Filed July 8, 1937

Fig. 1.

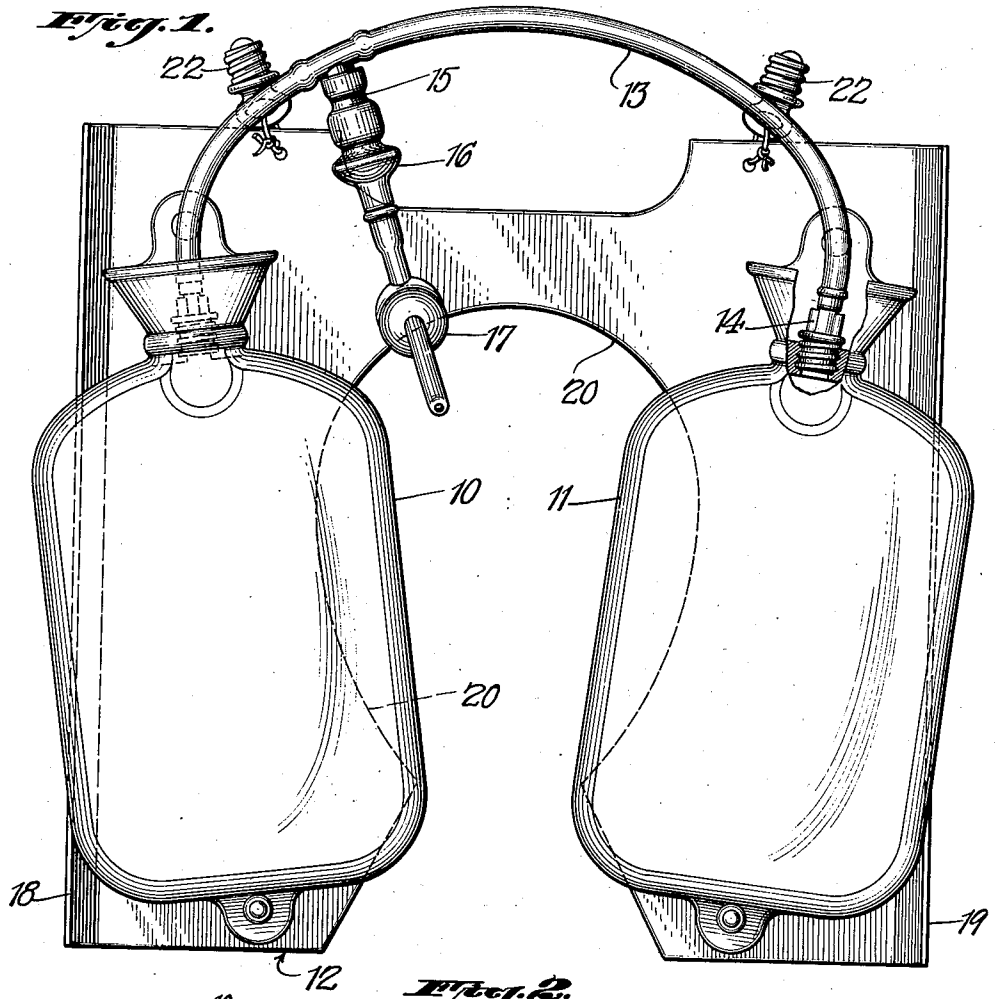


Fig. 2.

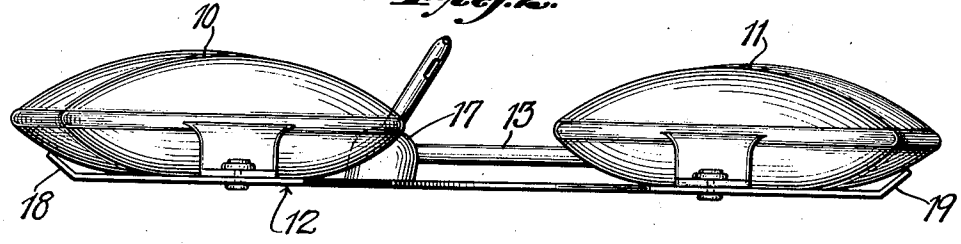


Fig. 3.



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INTERNAL BATH

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3 Claims. (Cl. 128—226)

My invention relates to apparatus for internal baths, that is, apparatus in which a body of liquid such as water or an aqueous solution is supplied to the internal organs as, for example, rectally to the colon.

In one type of apparatus heretofore used for the above purpose, the liquid is supplied under pressure to a nozzle from a flexible walled container or reservoir such as a soft rubber container on which the nozzle is mounted and on which the user sits to put the liquid under pressure. As the container must quite large, generally suffiicent to hold about four quarts, it was necessary to make its walls correspondingly strong in order to sustain the pressure imposed on it without bursting. To this end the container or reservoir of such apparatus has been generally reinforced with fabric. Apparatus of this type was, therefore, of expensive construction. The mounting of the nozzle directly on the upper face of the reservoir as required for apparatus of the above apparatus had the further disadvantage of a tendency to cause the rubber wall to bend sharply about the base of the nozzle with any movement or tilting of the nozzle. In use, moreover, the bath apparatus of the above construction had the further disadvantage of not providing for the immediate disposal or drainage of return waste water.

These various disadvantages are overcome or avoided in my present invention which provides a bath in which the water supply is stored and put under pressure in a series of reservoirs, each of which may be of a capacity equal to a part of the total requirements, and which leaves a space between these reservoirs for the disposal of waste water or liquid.

In my invention the bath water is contained in a series of water bags of rubber, or other resilient flexible material, from which it is supplied to a connecting tube and thence to a nozzle which may be positioned at a convenient position between the bags. A shut-off is also provided between the nozzle and the connecting tube so that the flow of bath water may be stopped or controlled. The bags and their connection to the nozzle are supported on any suitable base, preferably one having an opening between the bags through which waste water may fall.

In using the apparatus, the weight of the user is supported by the bags so that each has only a section of the weight to support. The bags being of less size than in the case of a single reservoir, enables a weaker or thinner walled or less expensively constructed container to be used for a given pressure per square inch on the contents of the bags. Consequently bags of unreinforced rubber, as for example, a hot water bottle, may be used, to which the connecting tube may be connected by a screw connection.

The various features of the invention are illustrated by way of example in the accompanying drawing, in which—

Fig. 1 is a plan view of apparatus embodying a preferred form of my invention.

Fig. 2 is a front elevation of the apparatus shown in Fig. 1, and

Fig. 3 is a view of a modified element of the apparatus.

In the embodiment of the invention illustrated in the drawing, a pair of flexible walled bags 10 and 11, such as hot water bottles of rubber or similar material, are supported on a flat or approximately flat base 12. The bottles 10 and 11 are connected to each other by a connecting tube 13 at the back of the apparatus, having at each end a screw connection 14 which is screwed into the neck of its respective bottle in the same manner as the usual stopper of the bottle. When thus connected, water may flow from each bottle into the connecting tube 13 so that the total quantity available for one bath is the combined total volumes of the several bags. The pressures in the bags are equalized and will be equal to that which would be obtained if the weight of the user were supported on a single reservoir of an area equal to the combined plane area of all bags.

Water is supplied from the connecting tube 13 to a branch tube 15 and thence through a shut-off 16 to the base of a nozzle 17, which is thus positioned between the bags 10 and 11. The tube 15 is preferably placed nearer one bag than the other so that the shut-off 16 may be more conveniently reached by the user when sitting on the bags and facing forwardly. The valve 16 may be of any suitable construction, that one shown in the drawing being of a type commonly used in surgical rubber goods and being opened by tilting to one side or the other.

The base 12 may be of any suitable rigid material as, for example, wood or a molded composition such as ebonite, or a molded thermo-plastic material. It is preferably turned upwardly at its side edges as at 18 and 19 to prevent sidewise overflow of water. A bay 20 is formed or cut between the bags 10 and 11 back to about the edge of the nozzle 17 so that waste water may fall freely therethrough into a suitable container such as a toilet. The water bags 10 and 11 may

be secured or anchored to the base 12 near its forward edge by any suitable means such as snap fasteners 21 which enable the bags to be removed for other users, or to be replaced. They are held in position at the back or necks of the bottles by the connecting tube 13 and the upturned base edges 18 and 19. The usual stoppers 22 of the bottles may be secured to the base 12, as shown, so as not to be lost.

It will be understood that the above apparatus is but one embodiment of the invention and that it may be embodied in other forms. For example, a nozzle of the type shown in Fig. 3 may be used instead of nozzle 17. Also, other forms of base, bags, connecting tube, valve, etc., may be used.

Through my invention I have provided an internal bath apparatus of simple, inexpensive parts, that may be conveniently and neatly used. It also enables parts to be readily replaced when they become worn or injured.

What I claim is:

1. Internal bath apparatus which comprises a base member having upturned side edges and a bay centrally located between said side edges and extending inwardly from the front edge of the member towards the rear edges to provide for the drainage of fluid from the base, a pair of flexible flat walled water bags, means adjacent the front edge on each side of the said bag to detachably secure the said water bags onto said base member, a nozzle secured on the said base adjacent the rear edge of said bay, and conduit means including a control valve to conduct water from the said water bags to the said nozzle.

2. In an internal bath apparatus having a suporting base, the combination of a pair of separate and independent flat, flexible-walled, water bottles or bags to rest in horizontal, approximately parallel, spaced relation on the base, said water bags having necks and a tube having at one end a stopper connected to one of said bags and another end having a stopper to the other of said bags to place said bags in communication, a connector on said tube, an upstanding nozzle between said bags on said connector to supply said nozzle jointly from said bags when pressure is applied to the bags while on said base.

3. In an internal bath apparatus having a supporting base, the combination of a pair of separate and independent, flat, flexible-walled, water bottles or bags to rest in horizontal, approximately parallel spaced relation on said base, said water bags having necks and to place said bags in communication, a connector on said tube, an upstanding nozzle between said bags on said connector to supply said nozzle jointly from said bags when pressure is applied to the bags while on said base and a control valve in said connector.

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