No. 746,389. PATENTED DEC. 8, 1903.

I. W. SCHMIDT.

BATH TUB.

APPLICATION FILED MAR. 19, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

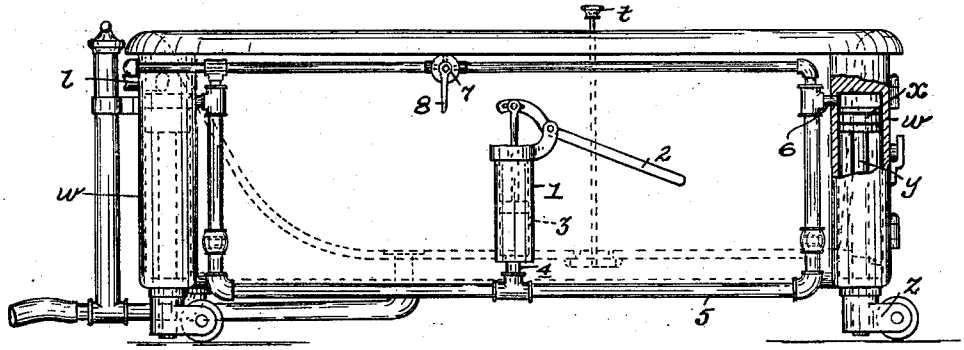


Fig. 1.

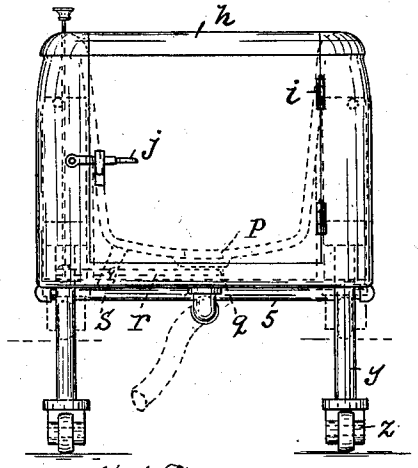


Fig. 2.

WITNESSES:

Wm. D. Bell.

James B. Newton.

INVENTOR,

Ida W. Schmidt,

BY

Gartner & Steward,

ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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NO MODEL. 2 SHEETS—SHEET 2.

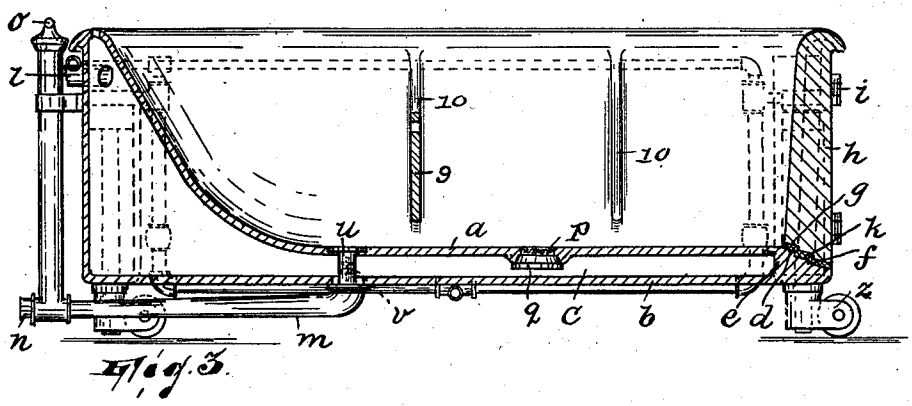


Fig. 3.

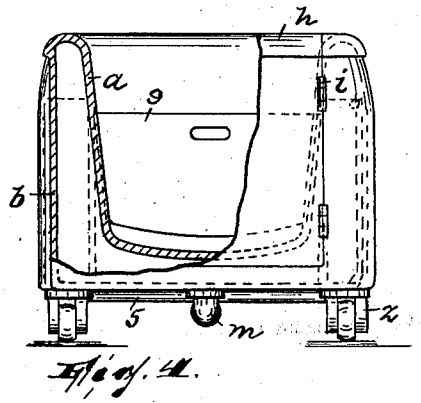


Fig. 4.

WITNESSES:

Wm. L. Bell.

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No. 746,389. Patented December 8, 1903.

UNITED STATES PATENT OFFICE.

IDA W. SCHMIDT, OF NEW YORK, N. Y.

BATH-TUB.

SPECIFICATION forming part of Letters Patent No. 746,389, dated December 8, 1903.

Application filed March 19, 1903. Serial No. 148,492. (No model.)

To all whom it may concern:

Be it known that I, IDA W. SCHMIDT, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Bath-Tubs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to characters of reference marked thereon, which form a part of this specification.

This invention relates to bath-tubs; and it has reference particularly to bath-tubs to be used by persons who are more or less unable to move about and otherwise help themselves. A tub constructed after the principles of my invention will be found very useful in hospitals, sanitariums, and the like, where the occasion for utilizing it is more or less frequent.

The invention will be found fully illustrated in the accompanying drawings, wherein—

Figure 1 is a view in side elevation of my improved tub, a portion of it being shown as broken away to illustrate a detail. Fig. 2 is an end view showing the tub, which is made to be elevatory, elevated. Fig. 3 is a longitudinal vertical sectional view of the tub, and Fig. 4 is a view of the tub partly in end elevation and partly in section.

In order to carry out the object in view, the tub is provided with a water-tight door adapted to close an opening formed in one of the walls of the tub affording entrance to and exit from the tub. The water is admitted to the tub after the person has entered or been placed in the same and the door properly closed, and in order to avoid the necessity of waiting for the water to acquire the desired level, which would be unduly protracted were it necessary to depend upon the usual pipes and other water connections, a temporary reservoir for holding the water, and between which and the tub there is a sufficiently capacious and valved communicating means, is provided.

In the drawings, *a* is an inner shell forming the tub proper, and *b* an outer shell. These shells are preferably made integral and form between them a space *c*, which constitutes the reservoir aforesaid, in which the water to be used is temporarily stored.

Entrance to the tub is afforded by an opening *d*, at which point the space between the shells *a* and *b* is of course closed, as at *e*, the material being, as shown, preferably shaped as a stepped jamb *f*, against which the correspondingly-stepped faces *g* of the door *h* seat, the door being supported by hinges *i* and having a suitable latch *j* for securing it closed. Between the door and its jamb may be placed a seal *k* to make the connection water-tight.

l designates the fittings, which are adapted to be connected to the supply, and *m* the fittings adapted to be connected to the waste *n*, controlled by a valve *o*.

In the bottom of the shell *a* is formed a relatively large opening *p*, affording communication with space *c* and provided with a valve *q*, carried by a lever *r*, fulcrumed at *s* and having an operating device *t*.

u is a discharge-pipe affording direct communication between the interior of shell *a* and fitting *m*, into which latter it projects. In order to prevent the water in space *c* from flowing in by way of this pipe, a buoyant check-valve *v* only opening outwardly is provided.

At the four corners of the shell *b* are formed, preferably integral with said shell, vertical cylinders *w*, in which are arranged pistons *x*, whose piston-rods *y* are supported at their lower ends on casters *z*. At the side of the tub is arranged a pump 1, having an operating part 2, an inlet-port 3, and a discharge 4. The port 4 communicates with piping 5, which in turn by ports 6 communicates with each cylinder above the piston. In the system of piping is arranged a valve 7, operated by a handle 8 for releasing the air from the system of piping and cylinders forced into the same by the pump 1.

In bathing very weak persons it is found useful to provide means for keeping them resting against the inclined end of the tub. This may be effected by providing the tub with a brace or footboard 9, arranged to slide in any of pairs of grooves 10 formed in the sides of the tub.

The tub being portable, it is presupposed that the apartment in which it is used is pro-

vided with suitable water connections, which will render it possible to move the tub from place to place.

In using the tub the reservoir is first filled, the valves *o* and *q* being previously closed. The tub being disposed near the patient's bed or couch, the pump is operated to force air into the piping 5 and then into the cylinders *w* above the pistons *x*, so as to raise the tub, and when the desired elevation is thus attained the door of the tub is opened and the patient placed in the tub. The door is then closed and secured and the water from the reservoir permitted to flow into the shell *a* by opening valve *q*. In order to remove the patient, the valve *o* is first opened, permitting the water to be discharged from both the shell *a* and the reservoir, whereupon the door may be opened to permit moving the patient back to the bed or couch. The air from the piping and cylinders is released, so as to permit the tub to lower by operating valve 7.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination of a bath-tub, cylinders arranged vertically and forming fixed portions of the tub, vertically-movable tub-supports comprising pistons arranged in said cylinders, piping communicating with said cylinders above the pistons, and a pump communicating with the piping, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 19th day of January, 1903.

IDA W. SCHMIDT.

Witnesses:
JOHN W. STEWARD,
JOSEPH B. FLYNN.