

(No Model.)

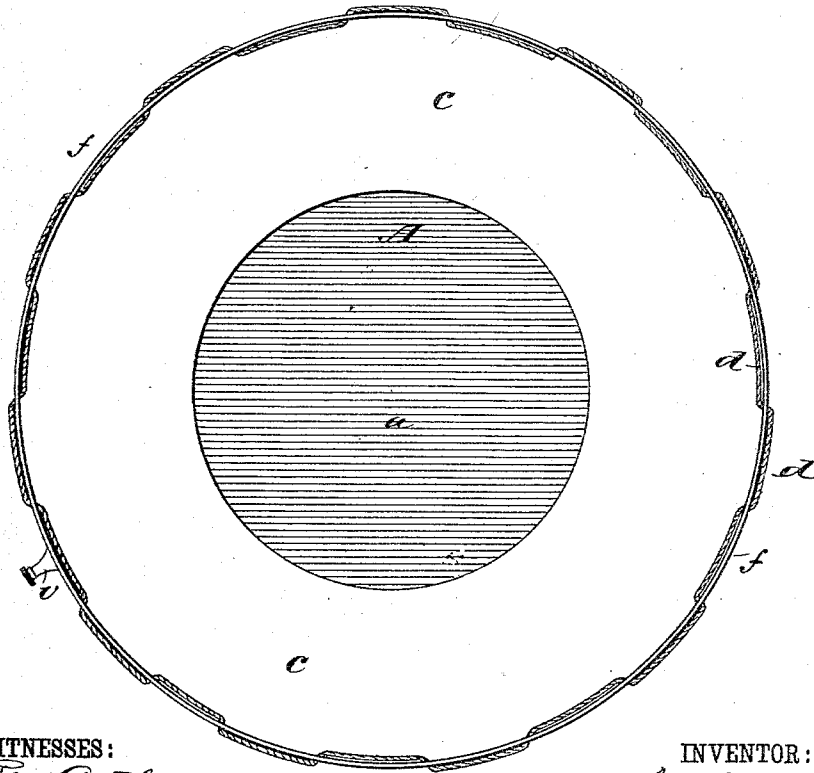
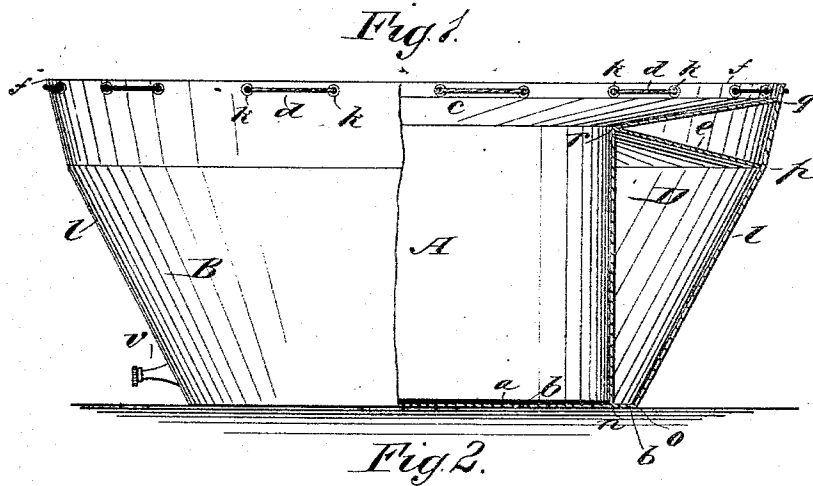
2 Sheets—Sheet 1.

S. D. FREEMAN.

PORTABLE BATH TUB.

No. 356,582.

Patented Jan. 25, 1887.



WITNESSES:

J. M. Child-
C. Sedgwick

INVENTOR:

S. D. Freeman

BY *Munn H.*

ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

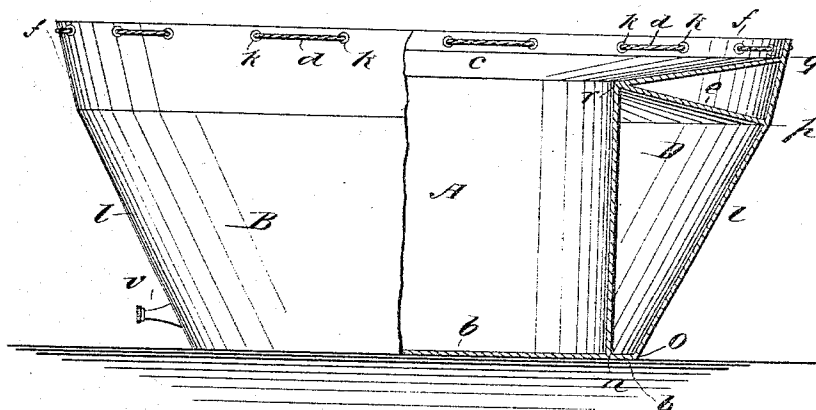
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Fig. 3.



WITNESSES:

J. Mc Ardle.
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INVENTOR:

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UNITED STATES PATENT OFFICE.

SAMUEL D. FREEMAN, OF FORT THOMAS, ARIZONA TERRITORY.

PORTABLE BATH-TUB.

SPECIFICATION forming part of Letters Patent No. 356,582, dated January 25, 1887.
Application filed November 10, 1885. Renewed July 24, 1886. Serial No. 209,012. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL D. FREEMAN, of Fort Thomas, in the county of Graham and Territory of Arizona, have invented a new and Improved Portable Bath-Tub, of which the following is a full, clear, and exact description.

My invention relates to the construction of a portable bath-tub, my object being to produce a tub wherein the sides will be sustained by the action of the water or other liquid contained in the tub upon a confined volume of air; and to this end the invention consists of two sacks or pouches made from a light flexible material that is impervious to air and water, that are united by impervious seams and properly connected to form a central water-chamber and a surrounding air-chamber; and the invention further consists of certain details of construction and combinations of parts, as will be hereinafter described, and specifically pointed out in the claims.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side view of my improved portable bath-tub, a portion of the device being shown in section to disclose the construction of the parts, and Fig. 2 is a plan view of the tub. Fig. 3 is a view illustrating a modified construction.

Referring now to the construction of the tub, A represents the inner, and B the outer, sack or pouch, each preferably formed with a separate and independent bottom, as *a* and *b*, the two sacks being united in substantially the relative positions shown in the drawings, the top of A being joined to the inner side of B just below its top by a circular flanged strip, *c*, thus leaving a rim, *f*, above the point of juncture of the inner face of the sack B and the outer edge of the strip *c*, and in this rim there are formed re-enforced eyelets *k k*, through which a cord, *d*, is woven, which prevents any undue strain on the fabric of which the sacks are composed, and at the same time may be used in handling the tub when it is filled with water.

The fabric or material used to form the

sacks A and B and the strip *c* must be impervious to air and water, as must also the seams formed in uniting the parts.

In order to strengthen and sustain the wall of the outer sack, B, I connect said wall to the upper edge of the sack A by a diaphragm, *e*, of perforated or loosely-woven cloth, so that while the parts are strengthened there will be an equal pressure in the air-chamber D, that is formed about the water-receptacle by joining the parts, as has been hereinbefore set forth, to form the figure *no p q r*. A valve, *v*, acts as an induction or an eduction port to the chamber D.

Such being the construction of the parts, it will be readily understood that if more air be introduced into this space D than is necessary to fill it when the two sacks are standing smooth and full, and water be then poured into the inner sack, A, or tub proper, the inclosed air will be compressed and will seek such shape as will make its volume a maximum and its pressure a minimum, and as the greatest volume is obtained when the ports are in the position shown in section, Fig. 1, it follows that the volume of inclosed air will be at a maximum when the tub stands upward, as shown.

The inner sack, A, is made cylindrical, or a conical frustum, with the larger base down, consequently any movement of this cylinder from a perpendicular would tend to decrease rather than increase its volume for any given height.

Although I have stated that the sacks A and B are provided with separate bottoms, as shown, it will of course be understood that a single bottom common to both might be used without departing from the spirit of my invention.

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

1. In a portable tub, the combination, with the sack A, forming a water-receptacle, of a sack, B, a strip, *c*, and a cord, *f*, substantially as described.

2. In a portable tub, the combination, with the sack A, forming a water-receptacle, of a sack, B, and a strip, *c*, whereby an encircling

air-chamber is formed, the wall of the sack being strengthened by a diaphragm, *e*, substantially as described.

3. In a portable tub, the combination, with the sack *A*, forming a water-receptacle, of a sack, *B*, a strip, *c*, and a strengthening-diaphragm, *e*, the two sacks being united to form a rim, *f*, in which there are eyelet-holes *k*,

through which a cord, *d*, is passed, substantially as described, and for the purpose specified.

SAMUEL D. FREEMAN.

Witnesses:

HENRY P. CLARE,
MICHAEL DONOVAN.