L. A. TRIAL.

PORTABLE SHOWER BATH APPARATUS.

APPLICATION FILED SEPT. 19, 1918. RENEWED OCT. 24, 1921.

1,398,208. **Patented Nov. 22, 1921.**

2 SHEETS—SHEET 1.

Fig. 1.

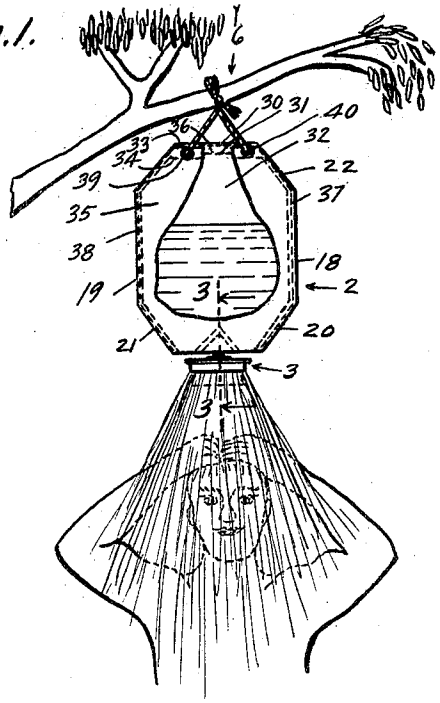


Fig. 2.

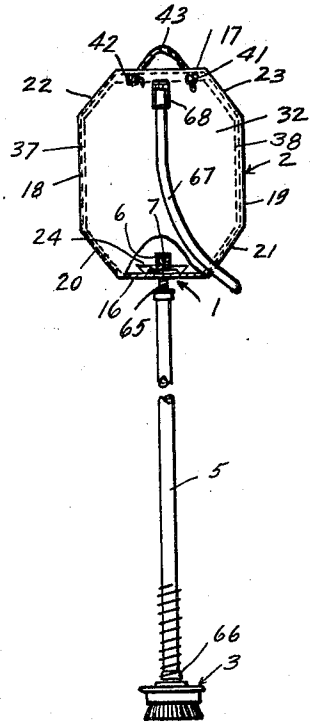


Fig. 3.

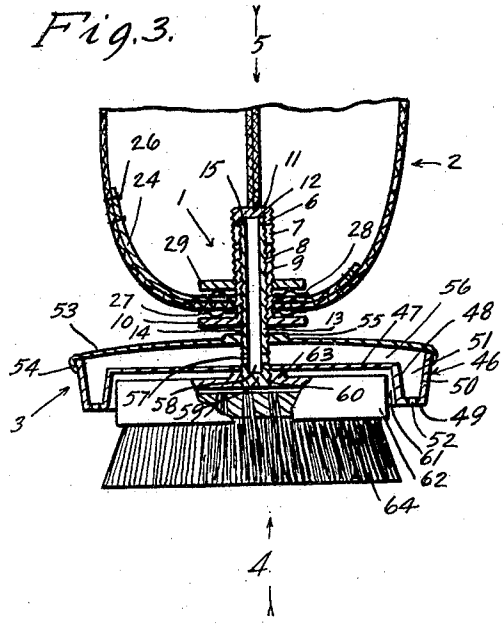
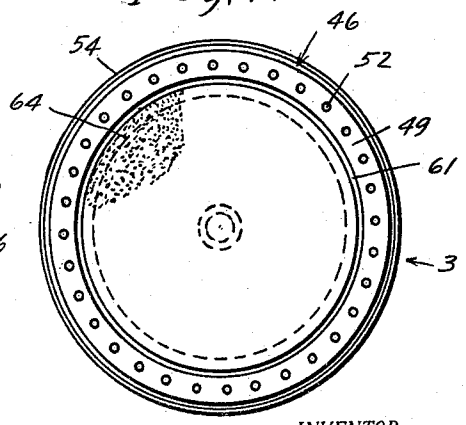


Fig. 4.



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2 SHEETS—SHEET 2.

Fig. 5.

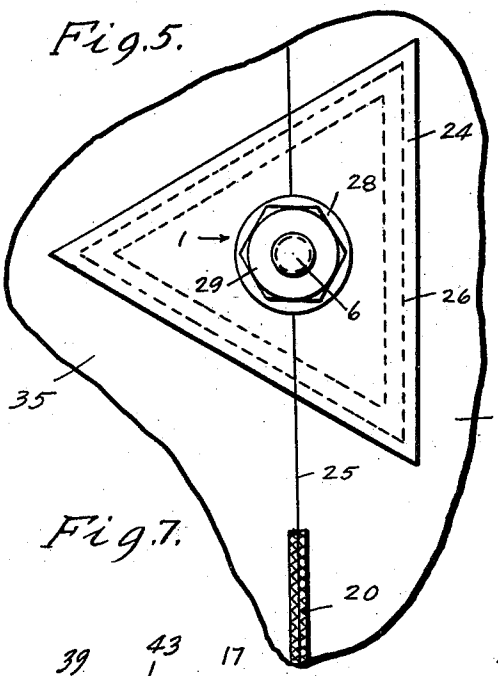


Fig. 6.

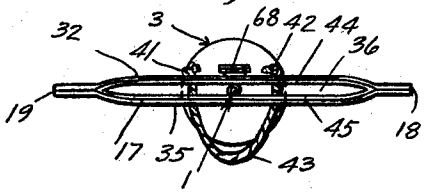
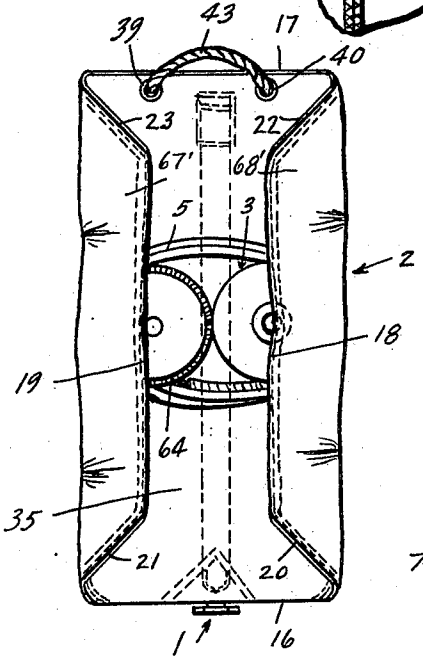


Fig. 8.

Fig. 7.



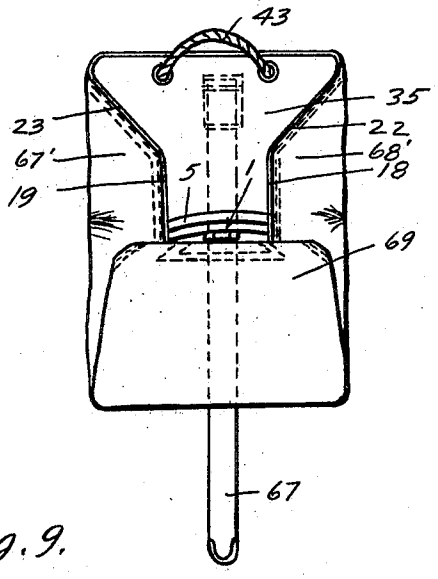
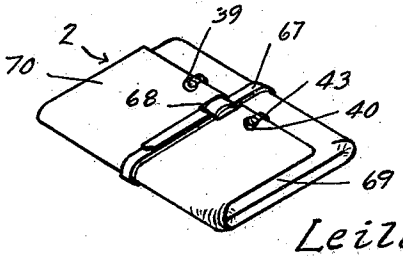


Fig. 9.



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UNITED STATES PATENT OFFICE.

LEILA A. TRIAL, OF LOS ANGELES, CALIFORNIA.

PORTABLE SHOWER-BATH APPARATUS.

1,398,208. Specification of Letters Patent. Patented Nov. 22, 1921.

Application filed September 19, 1918, Serial No. 254,855. Renewed October 24, 1921. Serial No. 510,103.

To all whom it may concern:

Be it known that I, Mrs. Leila A. Trial, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Portable Shower-Bath Apparatus, of which the following is a specification.

My object is to make a portable shower bath apparatus which may be readily bundled for transportation, and especially adapted for soldiers, campers, and the like, to carry in their knapsacks, hampers and the like, and my invention consists of the novel features herein shown, described and claimed.

Figure 1 is a front elevation of a portable shower bath apparatus embodying the principles of my invention, and showing the water bag supported by the limb of a tree, and the soldier or camper standing under the water bag and receiving the shower.

Fig. 2 is a rear elevation showing a flexible hose inserted between the water bag and the shower nozzle.

Fig. 3 is an enlarged sectional detail of the shower nozzle and regulating valve connected directly to the water bag, and taken on the line 3—3 of Fig. 1.

Fig. 4 is a bottom plan of the shower nozzle and scrubbing brush as seen looking in the direction indicated by the arrow 4 in Fig. 3.

Fig. 5 is an enlarged fragmentary plan of the water bag construction with especial reference to the regulating valve, the view being taken looking in the direction indicated by the arrow 5 in Fig. 3, that is looking at the bottom of the bag from the inside, the major portion of the bag being broken away.

Fig. 6 is a top plan view of the water bag collapsed and looking in the direction indicated by the arrow 6 in Fig. 1 before the water is placed in the bag.

Fig. 7 is a plan view illustrating the manner of folding the bag and apparatus for transportation.

Fig. 8 is a view analogous to Fig. 7, and showing the packing operation still further advanced.

Fig. 9 shows the complete package in end elevation.

A regulating valve 1 is placed in the bottom of the water bag 2. The shower nozzle 3 is connected either directly to the water bag as in Fig. 1 or with a flexible hose 5 as in Fig. 2.

The details of the regulating valve 1 are as follows:

The pipe nipple 6 is provided with transverse openings 7, an internal screw thread 8, an external screw thread 9, a flange 10 at its lower end and an integral cap or closure 11 at its upper end, the lower face of the cap being finished to form the valve seat 12 above the openings 7. The valve stem 13 is straight and tubular and has an external screw thread 14 fitting the internal screw thread 8 and a finished end 15 fitting the valve seat 12, so that when the stem 13 is screwed up to bring the end 15 tight against the seat 12 the valve is closed, and when the stem 13 is screwed down until the end 15 passes below portions of the openings 7 the valve is open, and the passages through the openings 7 are regulated to increase or decrease the flow by adjusting the positions of the end 15 relative to the openings 7.

The details of the water bag 2 are as follows:

In side elevation the empty water bag has a lower horizontal straight edge 16, an upper horizontal straight edge 17 parallel with the edge 16, vertical straight edges 18 and 19 at right angles to the edges 16 and 17, the lower slanting corners 20 and 21, and the upper slanting corners 22 and 23. In making the body of the water bag a piece of heavy duck is selected, and the piece of duck is folded upon itself to make the seamless straight lower edge 16. Then the duck is unfolded and a reinforcing patch 24 is placed against the inner face of the cloth across the line 25 which connects the lower ends of the corners 20 and 21 and forms the edge 16, and the patch is located with the center of the patch half way between the lower ends of the corners 20 and 21, and the patch is secured in place by stitching 26. Then a small opening is formed through the duck and patch, and the thin metal gasket or spring washer 27 is placed upon the valve casing formed by the pipe nipple 6 against the flange 10, and the valve casing is inserted upwardly through the opening. Then a similar thin metal gasket or spring washer 28 is inserted downwardly around the valve casing against the inner face of the duck, and a nut 29 is screwed down upon the tread 9 against the gasket 28

to firmly grip the duck between the nut 29 and flange 10 and hold the valve casing in place.

Then the duck is again folded upon the line 25 and cut or trimmed to the desired size, and the cut edges are turned inwardly. Lines of stitching 30 and 31 are applied across the rear half 32 of the duck parallel with the edge 17, and similar lines of stitching 33 and 34 are applied across the front half 35 of the duck parallel with the edge 17 to make a reinforcement or binding around the mouth 36 of the water bag. Then lines of stitching 37 and 38 run from the ends of the lower straight edge 16 along the lower inclined corners 20 and 21 along the vertical sides 18 and 19 and along the upper inclined corners 22 and 23, so as to connect the edges of the back 32 and the front 35 together all the way around except at the mouth 36 as required to make a bag. Openings are punched through the binding around the mouth 36, and eyelets 39 and 40 are fixed in these openings. A piece of rope has both ends inserted through the eyelets 39 and 40 across the mouth 36, and knots 41 and 42 are formed in the ends of the rope to prevent withdrawal from the eyelets, thereby forming a loop to serve as a handle 43 for suspending the water bag, and serving as a means for closing the mouth 36. When the handle 43 is free, as in Fig. 6, the sides 44 and 45 of the mouth may be spread open for the insertion of water and the like and then when the handle 43 is pulled to lift the load the sides 44 and 45 of the mouth will be drawn together and the mouth closed.

The details of the shower nozzle 3 are as follows:

The facing 46 is formed of sheet metal and comprises a circular flat central portion 47, an annular inclined portion 48 extending downwardly from the periphery of the portion 47, a flat annular foraminous portion 49 extending outwardly from the lower edge of the portion 48 and the annular portion 50 extending upwardly from the outer edge of the portion 49, thus producing the annular trough 51 with the perforations 52 in the bottom of the trough. The backing 53 is formed of sheet metal and fits the upper outer edge of the portion 50, and a flange 54 is spun from the periphery of the backing 53 downwardly around the upper edge of the portion 50, and a boss or reinforcement 55 is formed at the center of the backing 53, said boss having a central screw threaded opening to fit the screw thread 14 upon the valve stem 13, and the central portion 47 having a screw threaded central opening through which the valve stem 13 extends. The valve stem 13 is inserted through the boss 55 and through the portion 47 and soldered in place. A chamber 56 is formed between the facing portion 47 and the backing 53 communicating with the trough 50. Openings 57 are formed through the valve stem 13 within the chamber 56, and the lower end of the opening 58 within the valve stem 13 is closed by a wall 59 and the lower end of the valve stem extends some distance through the portion 47 to form an imperforate screw threaded nipple 60.

The shower nozzle 3 thus constructed serves as a handle for the valve stem 13 for manipulating the valve for regulating the flow of water. A brush seat 61 is formed below the portion 47 and within the portion 48, and the brush head 62 is circular in plan and fits loosely in the brush seat 61, and a boss 63 is formed at the center of the upper face of the head 62 and screw threaded to receive the nipple 60, so that the brush may be screwed upon the nipple and carried with the shower nozzle 3 when desired, and so that the brush may be removed when its use is not desired. The streams of water passing through the perforations 52 pass around the brush 64.

When desired the shower nozzle 3 is connected directly to the water bag 2 as shown in Figs. 1 and 3, either with or without the brush. Of course, the brush is of little use when the shower nozzle is connected directly to the bag. When desired the hose 5 provided with a valve stem 65 may be attached with the valve stem 65 screwed into the valve casing 6, and the shower nozzle 3 may be connected to the lower end of the hose 5 by screwing the valve stem 13 into the coupling 66. Then the shower nozzle 3 serves as a handle for the brush as well as a shower nozzle.

A strap 67 is secured at its upper end to the outer face of the back 32 near the mouth 36 and extends downwardly, and a buckle 68 is secured to the upper end of the strap, or with the upper end of the strap, and extends upwardly. The valve stem 65 operates the same as the valve stem 13.

When it is desired to fold the shower bath apparatus into a package for transportation, the hose 5, the shower nozzle 3 and the brush 64 are separated, the water bag is laid flat upon its back, the hose 5, the shower nozzle 3 and the brush 64 are placed in a close assembly, as in Fig. 7, upon the center of the front side of the water bag 2, and the edges 18 and 19 are swung upwardly and inwardly to fold the water bag on lines extending substantially from the outer ends of the edge 16 to the outer ends of the edge 17, thus making the flaps 67′ and 68′ partly covering the loose parts. Then the lower third of the water bag is folded upwardly and over upon the flaps 67′ and 68′, thus producing the flap 69. Then the handle 43 is folded downwardly and the upper

third 70 of the water bag is folded upwardly on to the flap 69 and the strap 67 is brought upwardly and inserted through the buckle 68 and drawn as tight as desired, thus producing the package, as shown in Fig. 9.

The construction and arrangement of the parts all contribute, more or less, to the compactness and convenience of the package. The size and shape of the water bag, placing the valve casing in the water bag, placing the valve stem upon the shower nozzle, as in Fig. 3, or upon the end of the hose, as in Fig. 5, and placing the brush within the circle of the shower nozzle are all important considerations in making the package. Placing the handle 43 to extend from the opposite side of the mouth from the strap 67 and buckle 68, also adds to the convenience of making the package.

Various changes may be made without departing from the spirit of my invention as claimed.

I claim:

1. In a portable shower bath apparatus, a bag having a seamless bottom; a valve casing inserted upwardly through the bottom; a nut screwed downwardly upon the valve casing against the bottom, there being perforations in the upper end of the casing; a valve seat at the upper end of the casing above the perforations; and a valve stem screwed upwardly into the valve casing and having an end fitting the valve seat.

2. In a portable shower bath apparatus, a bag having a seamless bottom; a valve casing inserted upwardly through the bottom; a nut screwed downwardly upon the valve casing against the bottom, there being perforations in the upper end of the casing; a valve seat at the upper end of the casing above the perforations; a valve stem screwed upwardly into the valve casing and having an end fitting the valve seat; and a shower nozzle fixed upon the lower end of the valve stem, there being a passage through the valve stem to the chamber of the shower nozzle and the shower nozzle serving as a handle for manipulating the stem.

3. In a portable shower bath apparatus, a bag having a seamless bottom; a valve casing inserted upwardly through the bottom; a nut screwed downwardly upon the valve casing against the bottom, there being perforations in the upper end of the casing; a valve seat at the upper end of the casing above the perforations; a valve stem screwed upwardly into the valve casing and having an end fitting the valve seat; a shower nozzle mounted upon the lower end of the stem, the stem extending through the shower nozzle and forming a screw threaded nipple, there being a passage through the stem to the chamber of the nozzle; and a brush screwed upon the nipple.

4. In a portable shower bath apparatus, a water bag comprising a piece of duck folded to form the two sides of the bag and a seamless bottom; a reinforcing patch secured to the seamless bottom; a valve casing mounted through the bottom and through the patch and having a flange fitting the lower face; a washer above the flange against the lower face; a washer upon the valve casing against the upper face of the duck; a nut screwed down upon the casing against the second washer; and stitching connecting the two sides of the bag together and leaving a mouth at the top.

In testimony whereof I have signed my name to this specification.

LEILA A. TRIAL.