

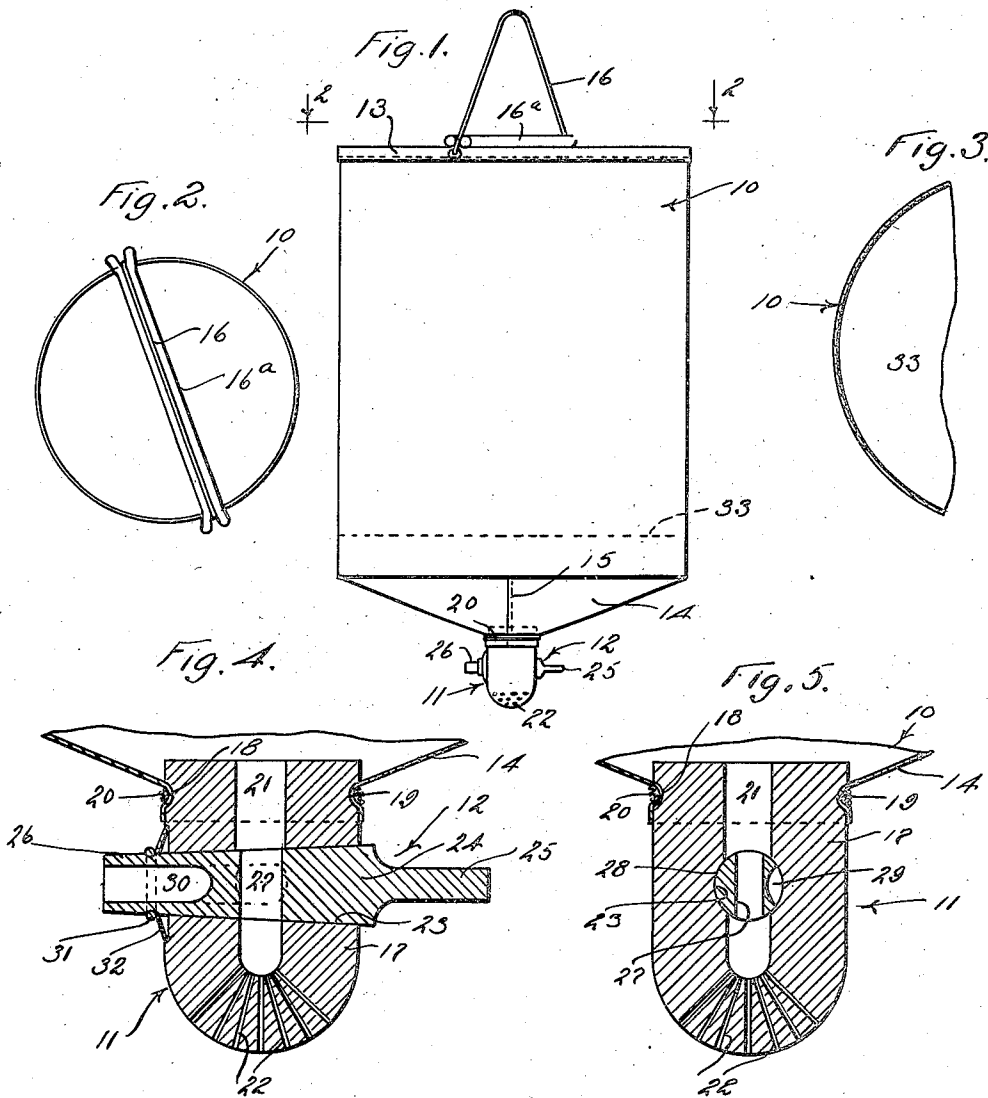
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PORTABLE SHOWER

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PORTABLE SHOWER

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1 Claim. (Cl. 4—151)

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This invention relates to portable bathing equipment and relates more particularly to a portable shower bath. A general object of this invention is to provide a practical, effective portable shower apparatus that is compact and light in weight and, therefore, well adapted for use by troops in the field, hunters, travelers, etc.

Another object of this invention is to provide a portable shower that may be easily and quickly conditioned for use and that may be employed wherever there is a convenient source of water, as for example a stream, pond, river, or the like.

Another object of this invention is to provide a portable shower that embodies a container or bag for the water and a nozzle for the discharge of the water and is characterized by a screen or filter means for preventing leaves, twigs and other objects, that may be present in the water, from reaching and possibly clogging the discharge orifices of the nozzle.

Another object of this invention is to provide a portable shower of the character referred to embodying a two way valve operable to a position where it controls the delivery of the water to the shower nozzle and operable to another position where it provides for the controlled discharge of the water in a single stream from a laterally directed spout so that the device may be conveniently employed as a dispensing means for drinking water or as a source of water supply for other uses.

Another object of this invention is to provide a portable shower of the character mentioned in which the valve when in either of its open positions provides for the flow of the water to the shower nozzle or the lateral spout, as the case may be, through large, substantially straight passages providing for the substantially unrestricted discharge of the water.

Another object of this invention is to provide a portable shower that may be formed entirely of fabric, wood and other non-metallic materials to be light in weight and inexpensive of manufacture.

A further object of this invention is to provide a portable shower of the character mentioned that may be folded or arranged in a very small, compact unit so as to be conveniently carried in a knap-sack, or the like.

The various objects and features of my invention will be fully understood from the following detailed description of a typical preferred form and application of the invention, throughout which description reference is made to the accompanying drawing, in which:

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Fig. 1 is a side elevation of the portable shower of this invention. Fig. 2 is a reduced plan view of the shower. Fig. 3 is a fragmentary transverse sectional view of the bag. Fig. 4 is an enlarged longitudinal detailed sectional view of the lower portion of the device illustrating the valve in the position for the discharge of the water through the shower nozzle and Fig. 5 is an enlarged, fragmentary longitudinal detailed sectional view of the lower portion of the device taken in a plane disposed at 90° to the plane of sectioning of Fig. 4.

The improved portable shower of the present invention may be said to comprise a bag 10 adapted to receive a supply of water, nozzle means 11 at the lower end of the bag 10 and valve means 12 for controlling the nozzle means and providing for the lateral discharge of water.

The bag 10 is adapted to receive and contain a substantial quantity of water to be used for bathing, etc. The bag 10 is preferably a simple container of pliable, foldable material such as duck, or other suitable fabric, treated or rubberized fabric, leather, rubber, or the like. In accordance with the broader aspects of the invention the bag 10 may be of any selected shape. In the particular construction illustrated the bag 10 is cylindrical or round in horizontal cross section and is vertically elongated. The upper end of the bag 10 is open to receive the supply of water to be used for the shower. It is preferred to reinforce the upper edge of the bag 10 with a stitched hem 13. Assuming the bag 10 to be in the upright suspended position its lower end or lower wall 14 is dished or slopes downwardly and inwardly from the side wall toward its center. The end wall 14 is seamed or integrally joined with the side wall of the bag 10 and has one or more radial seams 15. It is to be understood that the bag 10 is constructed to be water tight.

Means is provided for suspending the bag 10 from any suitable or convenient support such as the branch of a tree, a post, or the like. This means may comprise a bail 16 formed of a length of rope, or the like, and secured at its opposite ends to the upper portion of the bag 10. The bail 16 may be anchored to the reinforced upper edge portion of the bag 10 at diametrically opposite points. A rod or stick 16^a of wood, or the like, may be engaged between the end portions of the bail 16 adjacent the upper edge of the bag 10 to hold the mouth of the bag open or spread to receive the water. The opposite ends of the stick 16^a may be notched to remain in coopera-

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tion with the bail. This is clearly illustrated in Fig. 2 of the drawing.

The nozzle means 11 includes a nozzle body 17 secured to the lower end of the bag 10. The nozzle body 10 may be a simple, one-piece member formed of wood, plastic material, or the like. The body 17 is an elongate part and is preferably cylindrical in horizontal cross-section. The body 17 is engaged and secured in a central opening 18 in the lower wall 14 of the bag 10. The upper portion of the body 17 is received in the opening 18 and is provided with an annular depression or groove 19. The material of the end wall 14 around the opening 18 is engaged in the groove 19 and wrappings 20 of cord, leather, or the like, are tightly engaged about the material of the wall 14 to bind it in the groove 19 and thus secure the body 17 in the opening 18. Cement or the like may be employed to assure a liquid tight seal between the end wall 14 and the body 17.

A central longitudinal opening 21 enters the body 17 from its upper end where it has communication with the interior of the bag 10. The opening 21 terminates in the body 17 a considerable distance from the lower extremity of the body. A multiplicity of discharge orifices 22 join the lower end of the opening 21 and extend downwardly to the lower end of the body 17. The lower end of the body 17 is round or partially spherical and the orifices 22 discharge from this spherical surface. The discharge openings or orifices 22 diverge downwardly and outwardly from the lower end of the opening 21 and their lower ends are spaced apart throughout a substantial area of the spherically curved end face of the body 17. The orifices 22 are spaced, proportioned and directed to provide for the delivery of a spray of water suitable for shower bath purposes.

The valve means 12 is a feature of the invention. The valve means is carried by the body 17 to control the discharge of water from the shower orifices 22 and to provide for the lateral discharge of a stream of water. The body 17 is provided with a transverse opening 23 which intersects the vertical opening 21. The opening 23 extends diametrically through the body from one side to the other and is longitudinally tapered. As illustrated in Fig. 5 of the drawing, the opening 23 is round in cross section and is larger in diameter than the opening 21 where it intersects the opening 21.

The valve means 12 includes a turnable plug or valve member 24 in the opening 23. The member 24 is round in cross section and is tapered to fit the opening 23. As best illustrated in Fig. 4 of the drawing the valve member 24 extends completely through the opening 23 and has projecting end portions. The larger end portion of the tapering valve member 24 is shaped to form a convenient handle 25 to facilitate turning of the member. The smaller end portion of the member 24 projects from the opposite side of the body 17 and forms a lateral spout 26 for the discharge of a solid or single stream of water. A transverse or diametric opening 27 passes through the valve member 24. The opening 27 is located so that it may be brought to a position where it is in full communication with the longitudinal opening 21 of the body 17 as illustrated in Figs. 4 and 5 of the drawing. In this position the valve means is fully opened for the free discharge of the water from the shower orifices 22. The valve member 24 may be turned to restrict the flow through the opening 27 and may be further

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turned to completely cut off the flow of water to the shower orifices 22. When in the last named position the valve member 24 has an uninterrupted or plain portion 28 which cooperates with the upper wall of the opening 23 and which extends completely across the opening 22 to fully seal off the opening 21. In other words, the valve member 24 may be turned 90° to the right as viewed in Fig. 5 so that the portion 28 of the valve member prevents the discharge of water from the opening 21.

The side or portion of the valve member 24 diametrically opposite the portion 28 has a longitudinally extending channel 29. The channel 29 extends toward the spout 26 and joins a longitudinal opening 30 in the spout. When the valve member 24 is turned 90° to the left, as viewed in Fig. 5, the channel 29 is brought into communication with the opening 21 so that the water from the bag 10 is free to flow out through the channel to discharge from the spout opening 30. It is to be observed that at this time the valve portion 28 completely closes off the opening 21 at the under side of the valve member to prevent the delivery of water to the shower orifices 22.

If desired, means may be provided for yieldingly urging the valve member 24 longitudinally into the tapered opening 23 to maintain the valve member in sealing cooperation with the wall of the opening. This means may include a ring 31 engaged in an annular groove in the exterior of the spout 26 and a spring washer 32 engaged between the ring 31 and the exterior of the body 17. The spring washer 32 serves to urge the valve member 24 into the tapered opening 23. The ring 31 and the washer 32 are the only metal parts embodied in the device. These parts are very small and the invention contemplates that they may be eliminated if desired. The outer end portion of the spout 26 may be shaped and proportioned to couple with or receive a pipe or tube for conducting water away from the device.

The invention includes a screen or filter 33 for preventing solid matter objects, such as leaves, insects, etc., from reaching the nozzle means 11 and the valve means 12. The screen or filter 33 is preferably provided in the lower portion of the bag 10. The screen or filter 33 extends across the interior of the bag 10 adjacent its lower end and as illustrated may be substantially horizontal when the bag is in the upright position. The filter 33 may comprise one or more layers of metal or fabric of suitable mesh. The screen or filter 33 is such that it does not materially interfere with the downward flow or passage of the water but effectively traps and retains objects that might clog the opening 21, the orifices 22 or other passages of the nozzle means or the valve means.

It is believed that the utility and practicability of the portable shower provided by this invention will be readily apparent from the foregoing detailed description. When packed or conditioned to be carried or transported the bag 10 may be folded several times to constitute a very small, compact unit. The body 17 carrying the valve means 12 may be nested within the folded bag 10 or may be nested against the exterior of the folded bag, and in any case forms a very small, light-weight, part. When it is desired to employ the shower device the bag 10 is unfolded and extended and its bail 16 is engaged over or connected with any available or suitable overhead support. The upper end of the bag 10 is extended or held open by engaging the stick

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14 between the lower portions of the bail 16. The valve member 24 may be turned to the position where its plain portion 28 closes off the opening 21 so that a substantial supply of water may be provided in the bag 10 before it is discharged from the nozzle. When an ample supply of water has been poured into the bag 10 the valve member 24 may be turned to the position illustrated in Figs. 4 and 5 of the drawing so that water is discharged through the shower orifices 22. The water is discharged from the orifices 22 in an effective shower bath spray. It is to be understood that the delivery of the water may be readily controlled or diminished by turning of the valve member 24.

In the event the device is to be used as a container or source of supply of water for drinking purposes or the like, the bag 10 may be filled as above described with the valve means closed. When the water is to be obtained from the device the valve member 24 is turned to the position where the channel 29 faces upwardly to communicate with the opening 21. This allows the water to flow through the channel 29 and discharge from the spout opening 30.

It is to be observed that in any use or application of the device the screen or filter prevents leaves, twigs, insects or other objects from entering or clogging any of the ports, passages or orifices of the nozzle means or the valve means. The filter 33 is large and is located where it may be easily inspected and cleaned.

Having described only a typical preferred form

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and application of our invention, we do not wish to be limited or restricted to the specific details herein set forth, but wish to reserve to ourselves any variations or modifications that may appear to those skilled in the art or fall within the scope of the following claim.

Having described our invention, we claim:

A portable shower bath device including a bag for receiving and containing a supply of water, a vertically disposed nozzle body, means tying the bag around the upper end portion of the body whereby the body is fixed directly to the lower end of the bag, the body having a vertical opening whose upper end is in communication with the interior of the bag, having nozzle orifices extending from the vertical opening to the lower end of the body and having a transverse opening intersecting said vertical opening at a point above said orifices, and a turnable valve member in the transverse opening having a spout portion projecting laterally from one side of the body and having a handle portion projecting from the opposite side of the body, the valve member having a transverse port adapted to be moved into and out of registration with said vertical opening to control the delivery of water to the orifices and having a longitudinal passage adapted to be moved into and out of registration with said vertical opening to control the delivery of water to said spout portion.

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