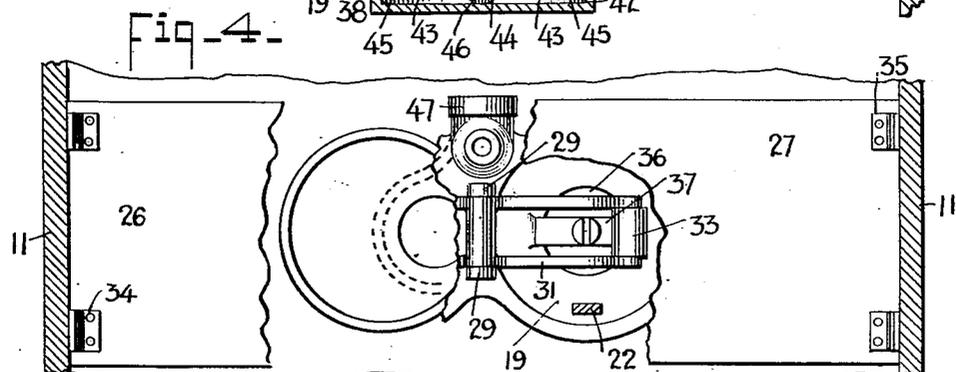
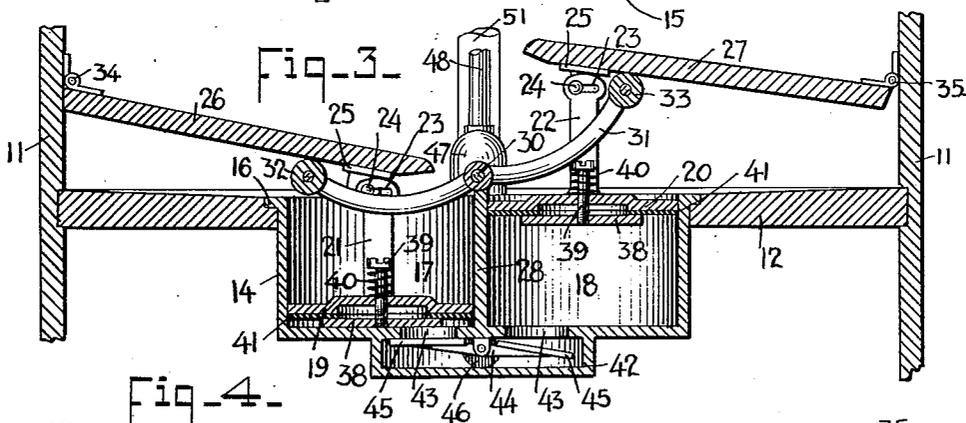
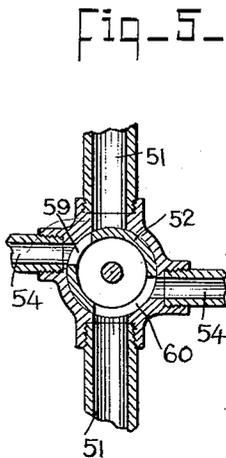
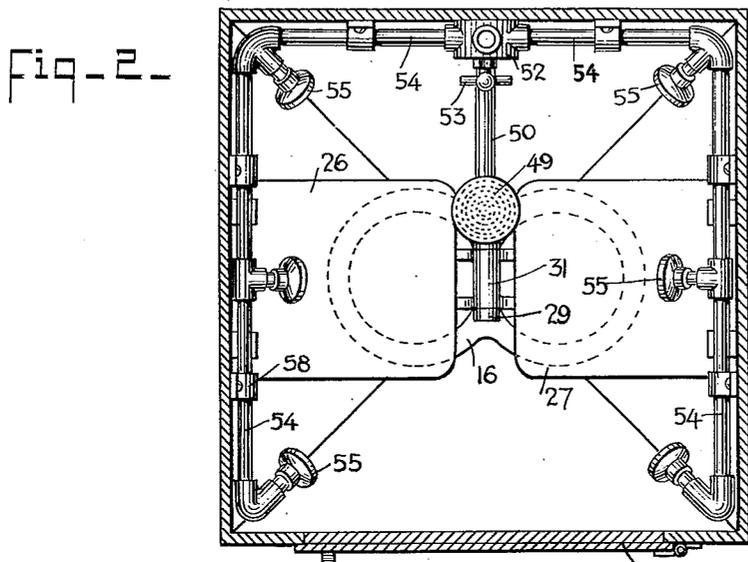


C. F. NORDMARK.
 PORTABLE SHOWER BATH.
 APPLICATION FILED FEB. 6, 1913.

1,065,265.

Patented June 17, 1913.

2 SHEETS-SHEET 2.



WITNESSES

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PORTABLE SHOWER-BATH.

1,065,265.

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To all whom it may concern:

Be it known that I, CARL F. NORDMARK, a subject of the King of Sweden, and a resident of Lynn, in the county of Essex and State of Massachusetts, have invented a new and Improved Portable Shower-Bath, of which the following is a full, clear, and exact description.

This invention has for its object an inexpensive, simple and comfortable shower bath that can be easily moved and in which the energy required for the raising of the water above the bather is supplied by the bather himself. These objects are obtained by providing a movable inclosure or cabinet carrying a pump, which is actuated by the bather, and sprinklers properly disposed in the inclosure.

The invention consists of the construction and combination of parts to be more fully described hereinafter and fully set forth in the claim.

Reference is to be had to the accompanying drawings forming a part of this specification, in which like characters indicate corresponding parts in all the views and in which:

Figure 1 is an elevated section of an embodiment of my invention; Fig. 2 is a horizontal section on line 2—2, Fig. 1; Fig. 3 is an enlarged vertical section through the pump; Fig. 4 is a plane view of the pump and the pedals partly broken away to show the structure of the pump; and Fig. 5 is a vertical cross section through the valve which forms the desired connection between the pump and the sprinklers.

Referring to the drawings, 10 represents a cabinet or inclosure formed of side walls 11, a bottom 12 and a top 13. The bottom 12 is preferably raised slightly above the lower ends of walls 11 to accommodate a cylinder casing 14 below the bottom 12 and rigidly secured to the bottom. One of the side walls 11 is provided with a door 15 fitting tightly and raised sufficiently high above the floor 12, as shown in broken lines in Fig. 1. The floor 12 and side walls 11 are made so as to be water tight.

The cylinder casing 14 is provided with a flange 16 engaging the floor and making a tight fit between the two. Two cylinders 17 and 18 are formed in the casing and provided with pistons 19 and 20 respectively.

Pistons 19 and 20 are each provided with a pair of rods 21 and 22 positioned symmetrically with respect to the center. The free end of the rods 21 and 22 is provided with slots 23 which is engaged by a pin 24 positioned in the support 25 attached to pedals 26 and 27 respectively, so that pedal 26 operates the piston 19 and pedal 27 operates the piston 20. The pedals 26 and 27 are pivotally attached by means of hinges 34 and 35 to the side walls 11.

The separating wall 28 between the cylinders 17 and 18 is provided with supports 29 carrying a pin 30 on which rocks a beam 31. The beam 31 carries at its extremities rollers 32 and 33 contacting with the under surfaces of pedals 26 and 27 respectively. Due to this provision, when pedal 26 is going down the motion is transmitted to the opposite pedal up by means of the beam 31, as can be seen from Fig. 3; and due to this motion the pistons 19 and 20 are reciprocated. Pistons 19 and 20 are each provided with a central aperture 36 bridged centrally by means of a member 37 preferably formed integrally on each of the pistons 19 and 20. Closing the aperture 36 from the underside of the piston heads is a circular valve 38 provided with a stem 39 projecting through the member 37 and carrying a coil spring 40, which normally tends to force valve 38 against the under surface of the pistons 19 and 20, closing the opening 36. To make a perfect contact between the valve 38 and the under surface of pistons 19 and 20 a rubber ring 41 is attached on the surface of the pistons 19 and 20.

The casing 14 is also provided with a separate compartment 42, preferably integrally formed underneath the casing 14. Each of the cylinders 17 and 18 has an aperture 43 leading inside the compartment 42. Centrally and pivotally mounted in the compartment 42 is a beam 44 carrying at each end a valve 45 closing intermittently the opening 43 leading to cylinders 17 and 18. An outlet 46 is provided in one of the sides of the compartment 42 which leads up above the floor and terminates in a T member 47, the upper portion of this T member being reduced and provided with a vertical pipe 48 carrying a sprinkler 49 at its upper extremity. A horizontal pipe 50 is connected

to the T member 47 and it is continued into a vertical pipe 51 leaning against the wall 11 opposite the one provided with the door. The vertical pipe 51 is, preferably near its middle, provided with a valve 52 controlled by means of a handle 53; and leading from this valve are two horizontal branches of pipes 54, each provided with a plurality of sprinklers 55 disposed at the corners and near the middle of the walls on these branches. The portion of the vertical pipe 51 lying above the valve is at its extremity also provided with horizontal branches 56 similarly provided with sprinklers 57 and similarly disposed as the sprinklers 55. All of the branches are provided with brackets 58 by means of which they are attached to the side walls 11 of the inclosure 10. The upper series of sprinklers has one more sprinkler than the lower series, which lies in alinement with the valve 52.

The valve 52, which is cylindrical in form, is provided on its lateral surface with a pair of unequal openings 59 and 60. The openings of the valve 52 are adapted to register with the branches 54 which are connected to the casing of the valve 52 and lie one above the other and at opposite sides of the opening. Similarly, the larger opening registers with the lower portion of the vertical pipe 51, while the opposite portion of the pipe 51 is closed by the valve, as shown in Fig. 5, so that when the water is forced through the lower portion of the pipe 51 the same will flow only through the side branches 54 without raising to the upper one, consequently, only the lower series of sprinklers will deliver the water to the bather, and this will be the case when a child uses the bath. By turning the valve 52 through an angle of 90 degrees the branches 54 will be closed and the water passing through the lower part of the pipe 51 will raise directly to the upper one and pass through the sprinklers 57 forming the upper series. This is the case when a grown person uses the bath. It will be remarked that during the operation of the valve so far water was allowed to pass through the pipe 48 leading from the reduced portion of the T 47 placed directly over the outlet 46, so that water is always delivered through the sprinkler 49. The valve 52 if revolved through an angle of 90 degrees to the left will entirely prevent the water from passing through the vertical pipe 51 into any of the sprinklers of the lower or upper branches, while sprinkler 49 will supply the water.

The use of the bath is as follows: Through the door opening into the side wall 11 water is introduced into the lower portion of the inclosure 10, as shown in Fig. 1, the inclosure being water tight, as above described, will retain the water. The bather then steps in, closing the door, and by operating the

pedals 26 and 27 reciprocates the pistons 19 and 20, thereby forcing the water to pass through pipes 48 and 51. By turning the valve 52 water can be supplied to any of the desired series of sprinklers. It can be easily seen that in case of a grown person the upper sprinklers will be used, as it requires more effort and the body is higher than in the case of a child. The water contained in the lower portion of the inclosure, above the pump, is then continuously raised above the bather until the bather is satisfied with his bath. Turning the valve 52 through an angle of 90 degrees to the left prevents the water when pumped from passing into any of the sprinklers except the sprinkler 49. The water can then be exhausted from the inclosure by removing the pipe 48 and attaching a pipe in place of the pipe 48 leading out of the inclosure through the door 15, then by operating the pump the water would be exhausted through this pipe. Or, a draining cock may be provided in the bottom of compartment 42, or the side of same, which is not shown in the drawing. The inclosure 10, carrying the pump and the sprinklers, may be mounted on casters or blocks for easier displacement of the inclosure.

The advantage of my shower bath, where there is no regular city supply of water or means for raising the water to a sufficient height, is easily seen. The person receiving the shower exercises himself physically in raising the water; and by the two series of sprinklers I provide means so that a child will not have to supply the same energy as a grown person to receive a shower bath. While my inclosure is provided with a top 13, to prevent the accumulation of dust, the same may be without a top, as it will answer the purpose for which it is intended. The upper series of sprinklers may be provided with a heater, not shown in the drawing, in which heat may be generated by gas or any other suitable substance to quickly heat the passing water to a suitable temperature for a shower bath.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

In a device of the class described, a water-tight inclosure formed of side walls and a floor; a door in one of said side walls; a pump, operable by the feet of the bather, in said floor; a substantially horizontal series of sprinklers at different levels in said inclosure; a supply pipe from said pump and said series; means in said supply pipe to exclude one or more of said horizontal sprinklers, said means comprising a casing having a bore, a pair of facing openings central with the bore and a pair of opposite openings at right angles to the above said openings and at each side of the center; and a

cylinder in said casing having a pair of unequal opposite openings on the lateral surface thereof, said cylinder having means whereby said opening can be so placed as to
5 establish communication between facing openings only or between one of the facing openings and the two center openings.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CARL F. NORDMARK. [L. s.]

Witnesses:

ALICE F. TRUSSELL,
ERNEST A. HODGDON.