

E. E. G. BOZÉRIAN.
Hydrotherapeutic Apparatus.

No. 204,879.

Patented June 18, 1878.

Fig. 1.

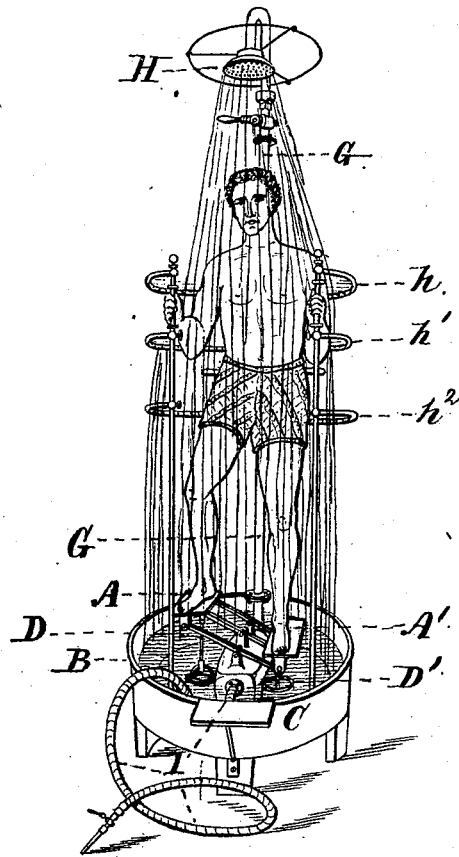
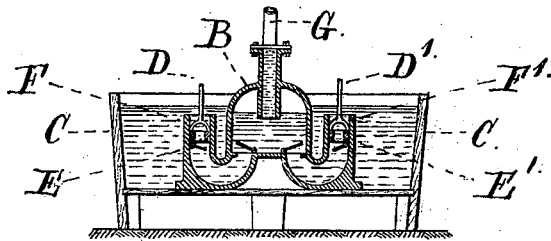


Fig. 2.



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Witnesses.

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UNITED STATES PATENT OFFICE.

EUGÈNE E. G. BOZÈRIAN, OF PARIS, FRANCE.

IMPROVEMENT IN HYDROTHERAPIC APPARATUS.

Specification forming part of Letters Patent No. **204,879**, dated June 18, 1878; application filed April 25, 1878.

To all whom it may concern:

Be it known that I, EUGÈNE ELIE GASTON BOZÈRIAN, of Paris, in the Republic of France, have invented certain new and useful Improvements in Hydrotherapic or other like Apparatus, of which improvements the following is a full, clear, and exact description.

In Letters Patent of the United States issued to me on the 4th day of December, 1877, and bearing the number 197,759, and which is for an improvement upon an invention patented to me on the 29th day of May, 1877, and numbered 191,508, I have described an apparatus whereby the weight of the operator, alternately transmitted to two pedals connected with three levers oscillating upon centers, two of which are located higher or lower with respect to the third, can be utilized in various ways, and among other uses I have indicated that of shower-baths or hydrotherapic apparatus.

I have since perfected an arrangement embodying the application of my said invention to the uses last referred to; and the object of my present patent is to specially secure such application and improvements.

In the accompanying drawing I have shown, in Figure 1, a perspective view of a hydrotherapic apparatus or shower-bath of my construction in operation. Fig. 2 is, on an enlarged scale, a vertical section of part of the apparatus.

The apparatus consists of two pedals, A A', resting upon three levers of even lengths, vibrating upon centers or brackets or lugs in the upper part of an air-reservoir, B, of a double pump, which is established upon or connected with the bottom of a tub, C. The two cylinders are united with the air-reservoir by means of U-shaped connecting-pipes and valves opening upwardly.

Of the three levers before mentioned, the middle one is located higher than the other two. By this arrangement the pedals can always be maintained in a horizontal position. Under each pedal, or on the ends of the middle lever, are applied or articulated rods D D', operating pistons E E', which are provided with central valves, opening downward. Each piston moves in a metal cylinder, F F', the

two being communicating, as shown in the drawings.

The air-reservoir B is provided with two tubular connections. Upon the one is fixed the tube G, which is curved, and carries at its upper end a rose, H. Along this tube are or may be adapted one, two, or more tubular connections for horizontally-curved and inwardly-perforated tubes $h h' h''$, each of which may be provided with a suitable cock. Upon the second tubular connection of the reservoir B may be fixed a rubber hose and nozzle and cock I.

It is hardly worth mentioning that the arrangement shown may be varied in many ways. Thus, instead of placing the pumps within the tub, they may be put under it, and the opening on top may be flush with the bottom. The arrangement may have the advantage of requiring less water to operate the apparatus.

If the tub be supposed to contain water to a proper level, and the person wishing to take a shower-bath take his position as indicated in Fig. 1, resting with his weight upon one of the pedals, the piston underneath it will be depressed, and the water will be forced out of the cylinder into the reservoir by lifting the valve, and thence up the tube G and out of the rose H, or out of the perforations in the curved tubes $h h' h''$, to be projected upon the body of operator. The water may also be projected by the nozzle I against any part of the body at will. The operator will then press, by transferring his weight upon, the other pedal, which will actuate the other valve in like manner and with like effect, and so on. The same body of water will always be raised and forced out to fall back into the tub.

Having thus described my said invention, and the manner in which the same is or may be carried into effect, I would observe that I do not claim the connection of the pistons of two pumps each with the ends of an oscillating platform; but

What I claim, and desire to secure by Letters Patent, is—

1. The combination, with a system of pedals mounted upon levers oscillating upon their centers, as described, of pumps corresponding

to said pedals, and air-reservoir, together with tubes provided with roses, perforations, or nozzles, as and for the purposes set forth.

2. In a hydrotherapeutic or shower-bath apparatus, in combination with two cylinders containing alternating tubular pistons, provided with valves opening upon the ascent of said pistons, an air-reservoir, connected with the said cylinders by means of branch-pipes, provided with valves opening upon the descent

of the corresponding pistons, as shown and set forth.

In testimony whereof I have signed my name to this specification before two subscribing witnesses.

E. E. G. BOZÈRIAN.

Witnesses:

EMILE BARRAULT,
AUG. VINCK.