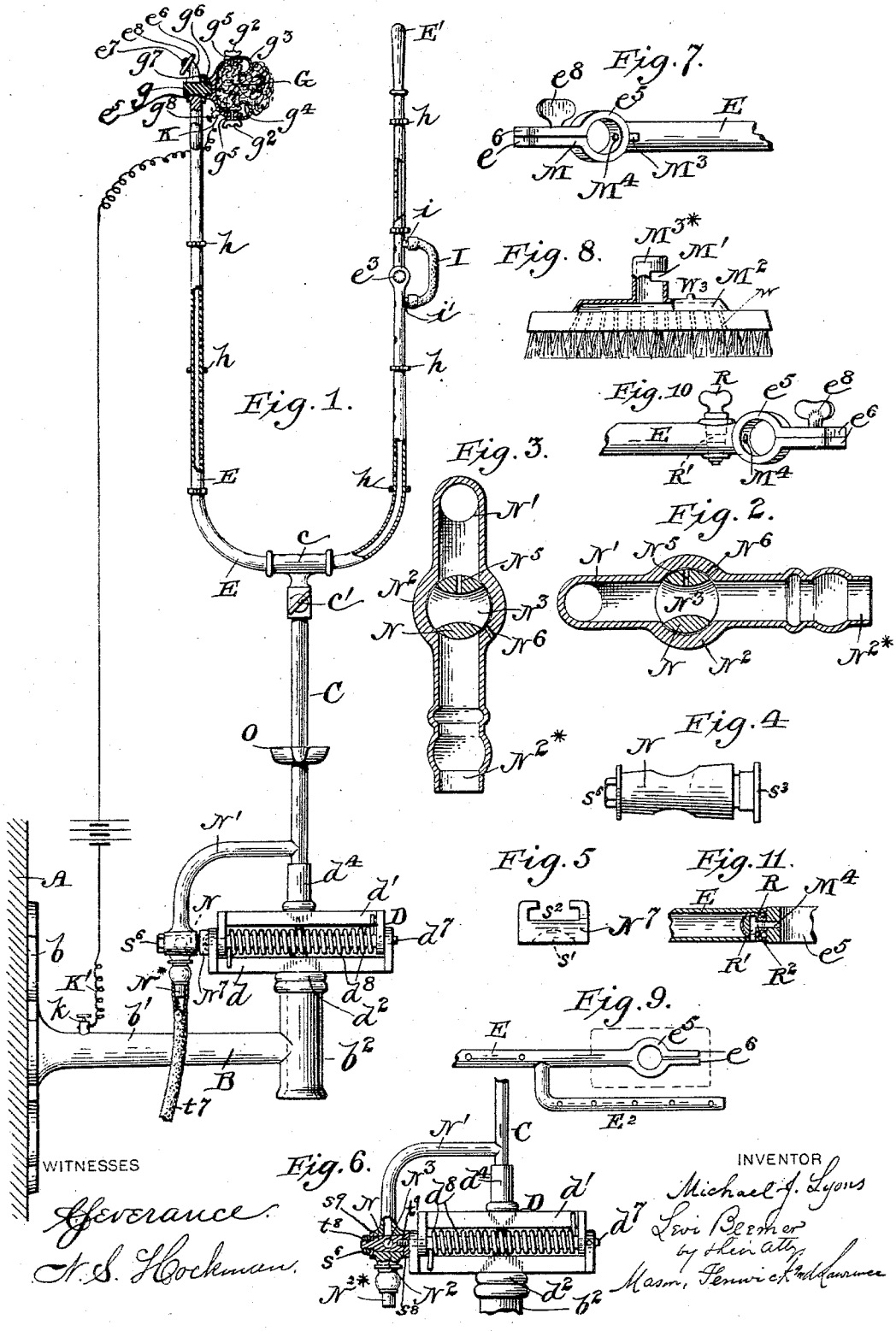
(No Model.)

M. J. LYONS & L. BEEMER.

BATH APPARATUS.

No. 565,010. Patented Aug. 4, 1896.



UNITED STATES PATENT OFFICE.

MICHAEL JOHN LYONS AND LEVI BEEMER, OF DULUTH, MINNESOTA, ASSIGNORS TO MARTIN EMERICH, OF CHICAGO, ILLINOIS.

BATH APPARATUS.

SPECIFICATION forming part of Letters Patent No. 565,010, dated August 4, 1896.

Application filed September 9, 1895. Serial No. 561,991. (No model.)

To all whom it may concern:

Be it known that we, MICHAEL JOHN LYONS and LEVI BEEMER, citizens of the United States, residing at Duluth, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Bath Apparatuses; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to bath brush and sponge holding and water-distributing apparatuses used as adjuncts for bathing tubs or tanks; and it consists in certain novel means, as hereinafter described, whereby a bather can, while in the bath-tub, direct the sprayed water upon his body below the brush and through the brush or sponge, and also can, after opening an auxiliary cock, if such is used, by turning the spraying device out of its normal upright or approximately upright position, automatically open a main supply water-cock, and thereby allow the water to flow through the apparatus, and then, by allowing the spraying device, under the influence of either a spring or weight, resume its normal upright position, automatically shut off the water through the said main supply-cock, and thereby prevent flooding of the bath-room and the discharge of water upon the wall of said room, which would occur if this automatic cock was not provided and the bather should forget to close the first-mentioned cock; also, the bather can at will apply electric currents to his body during the bathing operation, and thereby excite the blood to rapid action, so as to cause that healthful glow of the skin during the bathing operation which is usually produced by friction incident to brisk rubbing with a towel.

The improvements that we have made and are claimed under this application are specially applicable to the bathing apparatus shown in Letters Patent No. 544,362, the allowed application of Michael J. Lyons, Serial No. 541,477, and our pending application, Serial No. 555,277, and therefore such features as are shown in said patent and said applications and are claimed therein are not intended to be claimed herein.

In the accompanying drawings, forming part of this specification, Figure 1 is a front elevation and partial section of a brush and sponge holding and spraying apparatus similar to that shown in our aforesaid pending application, Serial No. 555,277, and having our present improvements applied to it. Fig. 2 is a detail section of our improved main automatic water-supply cock as it appears when opened. Fig. 3 is a similar section of the said cock, but as it appears after the spraying-yoke has assumed an upright position and the cock closed. Fig. 4 is a detail view of the stationary core or plug of the cock. Fig. 5 is a detail view of a seat-plate for holding the said plug or core in position on the swiveling non-swinging piece of the hinge-and-swivel joint of the apparatus. Fig. 6 is a sectional view illustrating more plainly the arrangement of the automatic cock and showing a slightly-different manner of constructing and applying the same. Fig. 7 is a detail view of the brush-clamp. Fig. 8 is a detail sectional view of the brush. Fig. 9 is a detail view showing a perforated branch spraying-arm on the yoke and arranged below the brush-clamp. Fig. 10 is a view similar to Fig. 9, but showing a cut-off cock applied to the yoke; and Fig. 11 is a longitudinal section of a portion of Fig. 10, taken on a horizontal plane.

A in the drawings indicates the wall of a bath-room; B, a bracket comprising a fastening-plate b, a horizontal arm b', and vertical tubular cross portion b^2.

C is a hollow lever, and E a spraying-yoke rigidly attached at c to said lever. The lever C is connected to a pivoted segmental piece d' of a hinge or swivel D of the apparatus, said hinged piece being connected by a pivot-pin d^7 to another segmental hinge-piece d, which is provided with a swivel-stem d^2, adapted to be fitted in the vertical tubular portion b^2 and kept from descending too far by a suitable shoulder, and is flared at its lower end to keep it from rising in said tube. The hinge-piece d is free to turn or swivel in the tubular part b^2, but cannot rise or descend after being set in position. A spring d^8 is coiled around the pivot d^7, and its ends are respectively constructed to bear upon the segmental

portions d d', so as to exert an increasing spring-tension upon the portion d' as the lever C is pulled down from an upright to an approximately horizontal position.

The construction and operation of the hinge-and-swivel-joint connection of the apparatus constitutes no claimed part of our present invention, but its operation and office are the same as in our aforesaid pending application, Serial No. 555,277. On one end of the segmental portion d a seat-plate N^7 is fastened so as to abut with its curved socketed end s' against one end of the pivot d'. This plate is formed with a guideway s^2, and into this guideway a flange s^3 of a stationary plug or core N of a valve-casing N^2 is fitted. The valve-casing N^2 and its core N are plainly illustrated in Figs. 1, 2, 3, and 6, and they are held together by a nut s^6, screwed upon the outer end of the plug or core. The plug or core is formed with a water-passage N^3, and is also provided with a drain-passage N^6; and the valve-casing has a water-passage N^{2*} and a drain-passage N^6, and at the bottom and top of the passage N^{2*} are provided pipe extensions N' N*, the extension N' being curved or angular and connecting with the hollow lever C, and the extension N* serving for receiving a supply-hose t'. It will be seen that when the water is let on through the hose, the lever in an upright position and the valve-casing in the position shown in Figs. 1, 3, and 6, the water cannot pass through the valve; but should the lever be turned down from its upright to a horizontal or approximately horizontal position the valve-casing will be turned to the position shown in Fig. 2 and the water can flow through the valve into the hollow lever C and therefrom into the spraying-yoke E and thence upon the bather. As soon as the bather frees the yoke from his hold it assumes, by the action of the spring, its normal upright position, and thereupon the valve-casing assumes the position shown in Figs. 1, 3, and 6 and the water is shut off, and thus accidental flooding of the bath-room and injury to the walls thereof avoided.

In Fig. 6 we have shown the plug or core of the valve fastened to a screw-threaded end t^9 of the pivot-pin d', on which the lever and yoke swing up and down, the valve-casing being confined between washers s^8 s^9 and secured by a nut applied on the screw-stem of the plug or core.

The spraying-yoke E and its handle E' are similar in construction and operation to those shown and described in our aforesaid pending application, Serial No. 555,277, and therefore need not be more particularly described here.

We have shown a sponge-holder G applied to the brush and sponge clamp e^6, but of course the brush can be applied to the said clamp in the same manner whenever it is to be brought into use. To the sponge-holder we have added a means for forming electrical connection between the sponge-holder and electric supply, these means consisting of a hard-rubber insulating-stud g, having an insulating washer-like flange g' and inserted into a socket g^6 of the sponge-cup, so as to insulate the bottom of the sponge-cup from the end of the yoke, said stud serving as the means for connecting the holder to the yoke, a binding-post g^8, applied to the sponge-holder and one conducting-wire K of an electric circuit, and a binding-post k, attached to the bracket B and the other conducting-wire K' of the circuit. With this arrangement it will be seen that when the spraying apparatus is in use the wet sponge will act as the anode and the operating-handle E' as the cathode. By thus providing for giving the bather electric shocks great benefit is secured, as the blood can be excited, and thereby a similar effect to that of frictional surface rubbing produced. When it is not desired to use the electrical portion of our device, one of the conducting-wires is disconnected from its binding-post.

To render the sprinkling device more effective, we have provided a perforated branch arm E^2 on the yoke and located it just below the brush or sponge holder, as illustrated in Fig. 9. This insures spraying of water upon the human body immediately where the brush or sponge is acting upon it. In order to introduce the water directly through the brush upon the body, we have provided the back of the brush with apertures w, inclosed said apertures by a chambered plate M^2, and to the center of this plate have attached a hollow stem M^{3*} with an aperture M' in its periphery. On the back of the plate we have provided a registering stop w^3, which strikes against the stop M^3 on the clamping end of the yoke. By these means the registering of the aperture M' in the stem of the brush with an aperture M^4, which leads out of the hollow arm of the yoke into the aperture M' of the stem of the brush, is insured, and thus water can pass through the yoke into the chamber formed by the plate M^2 on the back of the brush and therefrom through the apertures in the brush to the bather. This construction and arrangement of the brush and yoke afford facilities for introducing water upon the bather immediately opposite the bristles, and the bather can more effectually apply the water and rub his body at the points where the water is flowing through the brush. A cock R, having a passage R' through it, and a drain-passage R^2 may be provided on the yoke E for cutting off the water from the brush.

O is a drip-cup, and c' a hand-operated cock by which water may be shut off at will from the yoke, even when the yoke and lever are horizontal, or nearly so. The yoke and handle are placed in communication with each other by means of perforations at i i' and a connecting-pipe I. The handle is connected by a pin e^3 to the yoke and can be set so as

to stand inclining inward or outward, same as in our aforesaid pending application, but this is no claimed part of our present invention.

It will be understood that the normal position of the yoke of the lever is upright, or nearly so, and that water flows through the automatic supply-cock only when the lever and handle are adjusted approximately to a horizontal position.

In using the spraying apparatus the bather occupies a position between the arms of the yoke and draws the yoke downward by the handle, so as to bring the brush or sponge against one or the other of his sides or against the back or front of his body, and then vibrates the lever up and down with the brush or sponge in contact with his body, the return upward movements of the lever and yoke being assisted by the spring of the hinge and swiveling connecting device.

Having now described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a bath apparatus, the combination with a hollow vibrating lever and a perforated spraying-yoke carried by said lever, an automatic supply and cut-off cock, substantially as and for the purpose described.

2. In a bath apparatus, the combination with a hollow lever and perforated yoke having an operating-handle and carried by said lever, of a sponge-holder clamp, a sponge-holder provided with an insulating-stud, and an electric supply having connection with the said holder and handle of the yoke, substantially as and for the purpose described.

3. In a bath apparatus, the combination of a hollow vibrating lever, a hollow perforated yoke carried by said lever a hollow branch arm on the yoke near its brush or sponge clamping end and perforated along its length to throw a spray along beneath the whole length of the brush; said arm being in communication with the yoke near the brush or sponge holder, substantially as and for the purpose described.

4. In a bath apparatus, the combination of a hollow lever, a hollow perforated yoke having a brush-clamp and a water-aperture at one end, a brush having a perforated hollow base and a hollow stem communicating with said hollow base and having an aperture adapted to register with the water-aperture in the yoke when the stem is secured in the clamp, substantially as described.

5. In a bath apparatus, the combination of a brush having apertures through its back, and a chamber in rear of said perforations, and provided with a perforated hollow stem a hollow perforated yoke mounted upon a hollow lever through which water is supplied and having a clamping apertured end, stops on said brush and yoke to insure registering of the water-openings, the construction being such that the water can be shut off or admitted to said brush by turning the stem in the clamping end of the socket, substantially as described.

In testimony whereof we hereunto affix our signatures in presence of two witnesses.

MICHAEL JOHN LYONS.
LEVI BEEMER.

Witnesses:
C. F. JACOBS,
WM. STUEDEMANN.