

(No Model.)

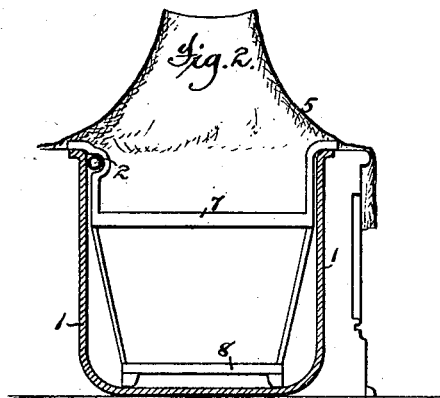
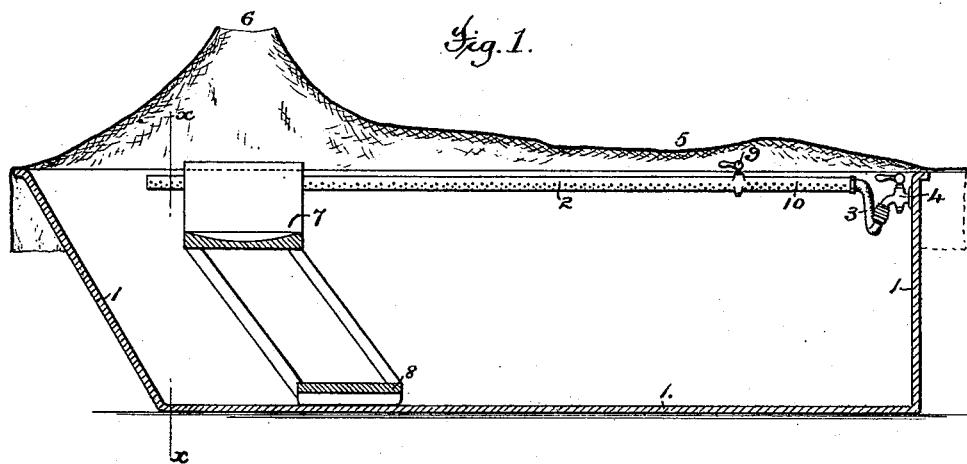
2 Sheets—Sheet 1.

W. W. ROSENFELD.

BATH TUB.

No. 266,531.

Patented Oct. 24, 1882.



Attest;
Geo. C. Graham
A. N. Jasbera

Inventor,
Wm. W. Rosenfield,
by *Munson & Phillips*
Attys.

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2 Sheets—Sheet 2.

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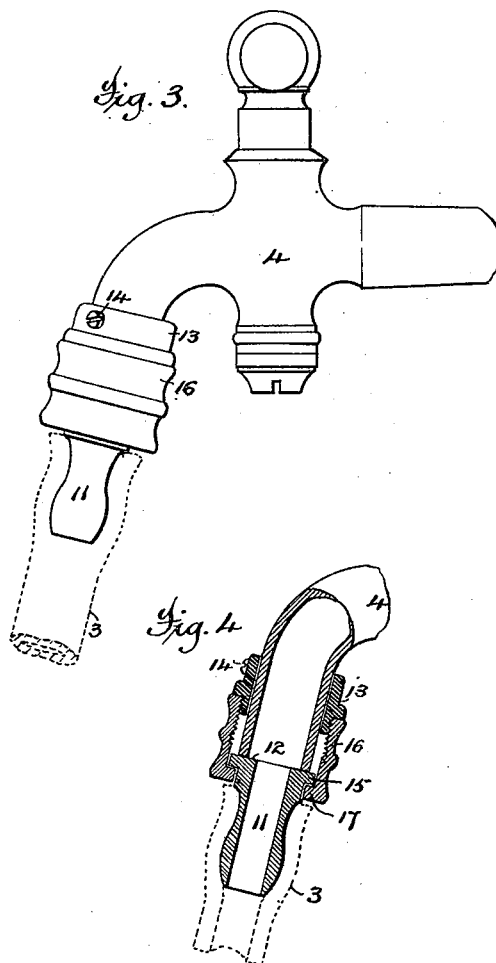
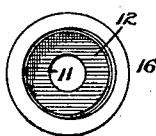


Fig. 5.



Attest:
G. H. Graham
A. T. Jasbera.

Inventor,
Wm. W. Rosenfield,
by *Munton & Philipp*
Att'ys.

UNITED STATES PATENT OFFICE.

WILLIAM W. ROSENFELD, OF NEW YORK, N. Y., ASSIGNOR TO THE PORTABLE
HYGIENIC VAPOR AND DISINFECTOR COMPANY, OF SAME PLACE.

BATH-TUB.

SPECIFICATION forming part of Letters Patent No. 266,531, dated October 24, 1882.

Application filed July 26, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. ROSENFELD, a citizen of the United States, residing in the city of New York, county of New York, and State of New York, have invented certain new and useful Improvements in Bath-Tubs, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

In an application for United States Letters Patent filed by me in the Patent Office on January 12, 1882, I have shown an ordinary bath-tub provided with a longitudinal spray or shower pipe so arranged that the shower will extend over the greater portion of the body of the bather when recumbent in the tub. In that case, also, I have shown a detachable Siamese connection, by which the ordinary hot and cold water cocks of the bath-tub may be utilized to supply water to the shower or spray pipe.

The present invention is designed to effect certain improvements upon the apparatus shown in the former application, by which said apparatus is capacitated to administer a steam or vapor bath as well as a shower-bath, thereby giving bathing facilities to an ordinary bath-tub which have heretofore been gained only by the use of special and costly apparatus.

The invention also embraces certain improvements by which the devices for connecting the shower-pipe to the ordinary smooth cocks of a bath-tub are simplified and cheapened.

To these ends the invention consists in various details of construction and combinations of parts, all of which will be hereinafter fully explained and particularly pointed out.

In the drawings, Figure 1 is a longitudinal vertical section of an ordinary bath-tub, showing the application of the present invention. Fig. 2 is a transverse vertical section of the same, taken upon the line $x x$ of Fig. 1. Fig. 3 is a side view of one of the ordinary smooth cocks of a bath-tub, showing also the devices by which the shower-pipe is connected thereto. Fig. 4 is a longitudinal section of the same, and Fig. 5 is a view showing the upper end of the nipple and the annulus for holding the same against the end of the cock.

The bath-tub is in the present case, as in my former application, of any ordinary or approved form, and is provided at a point near its top with the longitudinal shower or spray pipe 2, which may, as also in the former application, be permanently attached to or made integral with the tub, or be loosely supported, so as to be removed when not required for use. This pipe, which extends nearly or quite the entire length of the tub, so as to administer a shower along the entire length of the body of the recumbent bather, is connected by a flexible branched tube, 3, with the hot and cold water cocks 4, from which it receives water.

When cold or tepid water is allowed to pass into the pipe 2 it will flow through the perforations in said pipe and fall to the bottom of the tub in a large number of jets or in the form of spray; but I have found that when water of the temperature usually found in the hot-water pipes of ordinary dwelling-houses is allowed to pass into the pipe 2 and through its perforations (said perforations being quite small) it will be largely converted into steam or vapor, which vapor will, if confined within reasonable limits, be sufficiently hot for the purposes of a vapor bath.

For the purpose of confining the vapor generated in the manner just stated the bath-tub is provided with a flexible cover, 5, of rubber cloth or other suitable material, which extends over its entire top, and is hooked, buttoned, or otherwise suitably fastened around the edge of the tub; or it may be allowed to fall loosely over the edges of the tub, as shown in the present case, this cover being at a proper point provided with an opening, 6, for the neck of the bather. The flexible cover, instead of being arranged as shown, may be made in two parts—one stretched flat over a portion of the length of the tub, and the other, in the form of a cape, fitting around the neck of the bather, and falling over the edge of the tub and onto the flat part of the cover.

For the comfort of the bather the tub is provided with a removable seat, 7, of any convenient form, to which is attached a foot-rest, 8, which latter supports the feet of the bather a short distance from the bottom of the tub and

prevents them from being scalded by the hot water which accumulates in the bottom of the tub.

It will readily be seen that were the hot water, when a vapor bath is being taken, allowed to flow the whole length of the perforated pipe 2, not only would an unnecessary amount of water be used, but the jets issuing from the perforations would strike against and scald the body of the bather. To obviate this difficulty the pipe 2 is provided with a cock, 9, located a short distance—say about twelve or eighteen inches—from the ingress end, by which, when steam or vapor is to be generated, the hot water can be shut off from all but the short section 10 of the pipe. When the water is reasonably hot the small amount issuing from the perforations in this short section of the pipe will be sufficient to produce all the steam or vapor required for a bath, while at the same time the hot water will be economized and the body of the bather protected.

When a vapor bath is to be taken the bather will seat himself upon the seat 7, and, having put his head through the opening 6 and secured the cover 5 around the edge of the tub, will allow the hot water to pass into the section 10 of the pipe 2 and out through the perforations until the tub is filled with steam or vapor. The water may be allowed to flow as long as the bather remains in the bath; or it may be shut off whenever the vapor rises to the required temperature.

The perforated pipe 2 may, as already stated, be made integral with or permanently attached to the bath-tub, in which case it may communicate with the hot and cold water pipes by permanent connections, one form of which is shown in my former application, before referred to; but it will more frequently be found desirable, particularly as this apparatus is especially adapted for application to tubs already set, to have the pipe 2 so supported that it can be readily removed, and to detachably connect it by a flexible pipe, as shown, with the usual hot and cold water cocks. When these cocks are provided with screw-threaded nozzles, such connection can be readily made by an ordinary coupling. These cocks more frequently, however, have only plain or smooth nozzles, and to make a temporary connection in such case I provide a nipple, 11, of such form that the elastic flexible connecting-pipe 3 can be slipped over it to form a water-tight joint, as shown in Figs. 3 and 4, and having a broad smooth surface, 12, adapted to make a water-tight joint by abutting against the mouth of the cock. A plain annulus, 13, is then passed over the end or nozzle of the cock and secured in position a short distance above the end of the cock by means of a set screw or screws, 14. The annulus 13 is screw-threaded upon its outside, and the nipple 11 is provided with an annular shoulder, 15, as clearly shown in Fig. 4, from which construction it results that by the use of a simple interior-threaded annulus, 16,

provided with a shoulder, 17, the nipple may be drawn and held snugly against the end of the cock.

It is of course to be understood that a suitable annular packing will be interposed between the nipple and the end of the cock to insure a tight joint under all circumstances. It is evident that if the annulus 16 is made sufficiently short the annulus 13 may be secured in position so as to be just flush with the end of the cock.

To connect or disconnect the shower-pipe all that is required is to simply screw or unscrew the annulus 16.

It will readily be seen that a coupling apparatus of this character can be used in connection with a cock of almost any size, as an annulus 13 suitable for a large-sized cock can be used equally well upon one of small size.

It is apparent that the means herein shown for connecting the flexible pipe 3 to the smooth end of the cock may be made useful for other purposes than that herein shown, and therefore the right to claim such connecting devices broadly is reserved for a future application for Letters Patent.

What I claim is—

1. The combination, with an ordinary bath-tub, of a flexible cover, as 5, provided with an opening, as 6, a perforated pipe, as 2, and means for connecting the same with the hot-water cock, substantially as described.

2. The combination, with an ordinary bath-tub, of the longitudinal perforated pipe, as 2, provided with a cock, as 9, for shutting the water off from a part of its length, substantially as described.

3. The combination, with an ordinary bath-tub, of the flexible cover, as 5, provided with the opening, as 6, the perforated pipe, as 2, and means for detachably connecting the same to the hot-water cock, substantially as described.

4. The combination, with an ordinary bath-tub, of a flexible cover, as 5, provided with an opening, as 6, a perforated pipe, as 2, and a removable seat and foot-rest, as 7 8, substantially as described.

5. The combination, with an ordinary bath-tub and its hot-water cock, of the perforated pipe, as 2, flexible connecting-pipe, as 3, nipple, as 11, plain annulus, as 13, and annulus, as 16, substantially as described.

6. The combination, with an ordinary bath-tub and its hot-water cock, of the perforated pipe, as 2, flexible connecting-pipe, as 3, and means whereby the flexible pipe is coupled directly to the cock, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

WM. W. ROSENFELD.

Witnesses:

JAS. A. HOVEY,
T. H. PALMER.