M. M. GRUBER & P. LAUTER.

WATER MASSAGE VIBRATOR.

APPLICATION FILED MAR. 5, 1915.

1,210,929. Patented Jan. 2, 1917.

Fig. 3.

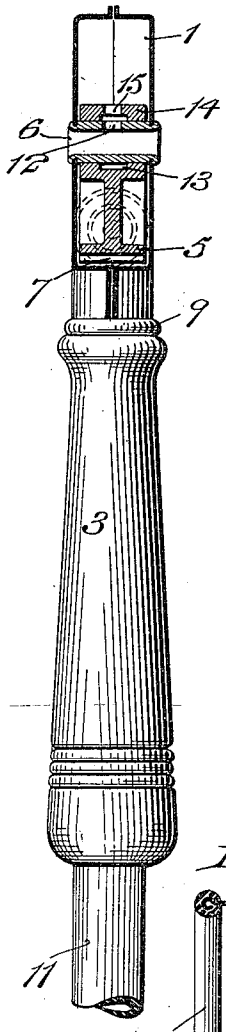


Fig. 4.

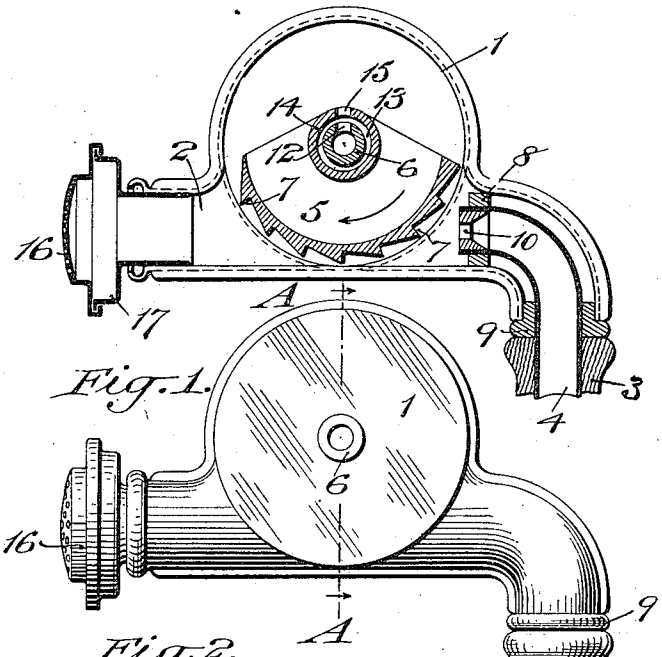


Fig. 1.

Fig. 2.

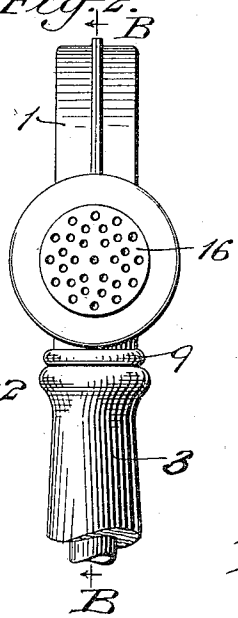
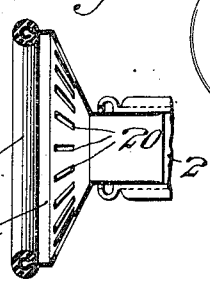
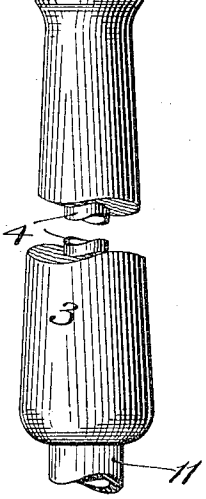


Fig. 5.





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WATER-MASSAGE VIBRATOR.

1,210,929. Specification of Letters Patent. Patented Jan. 2, 1917.

Application filed March 5, 1915. Serial No. 12,361.

To all whom it may concern:

Be it known that we, MORRIS M. GRUBER and PHILIP LAUTER, citizens of the United States, and residents, respectively, of the borough of Bronx, in the city and State of New York, and of the borough of Manhattan, in the city and State of New York, have invented a new and useful Improvement in Water-Massage Vibrators, of which the following is a specification.

This invention relates to an improvement in a water massage vibrator and has for its object to provide a device which will deliver an interrupted spray or stream of water and, at the same time, impart to the device a vibratory motion.

Another object is to provide a massage vibrator which is particularly adapted for use in connection with a faucet of a bath-room, etc., and actuated by the pressure of water passing therethrough.

A practical embodiment of this invention is represented in the accompanying drawings, in which—

Figure 1 represents a side elevation of the device, Fig. 2 represents a partial front elevation of the same, Fig. 3 represents a vertical section taken in the plane of the line A—A of Fig. 1, Fig. 4 represents a vertical central section taken in the plane of the line B—B of Fig. 2, and Fig. 5 represents a detail central section of a modified form of nozzle.

The device comprises a casing 1, having a discharge outlet 2, a hollow handle 3, a water supply conduit 4, and a rotating sector 5. The sector 5 is mounted to freely rotate upon a tubular axle 6, which is securely held within the casing 1.

The concentric peripheral surface of the sector is provided with a series of teeth 7 against which the water from the conduit 4 is directed. The inner end of the conduit 4 is held rigidly in the casing between washers 8 and 9, and is formed into a nozzle 10, which is directly in line with the outlet 2 upon the opposite side of the casing. The outer end of the conduit 4 is connected by a suitable flexible tube 11 with a source of water supply, not shown.

The teeth 7 of the sector are so shaped that the water issuing from the nozzle 10 is directed by the inclined face of one tooth against the radial face of the preceding tooth, thus facilitating the rapid rotation of the sector 5 and the effectiveness of the device.

Air is admitted to the interior of the casing from the tubular axle 6 through the passage 12 which leads into an annular chamber 13 in the hub 14 of the sector 5, and a passage 15 from the hub to the interior. The purpose of this air supply is to prevent any partial vacuum within the casing which might tend to put a drag upon the water passing therethrough.

A spray nozzle 16 is removably secured in the outlet 2 of the casing, and is provided with an annular recess 17 for effecting an even or uniform spray. The spray nozzle shown in Figs. 1 to 4 inclusive, is particularly adapted for use as an intermittent shower or spray for light or gentle massage. In Fig. 5 we have shown a cup nozzle 18 provided with a soft or yielding rubber ring 19 and a series of holes 20 for passage of the water therethrough. This cup nozzle 18 is particularly adapted for use as a heavy vibratory body massaging device.

In operation; as the water is passed through the conduit 4 and nozzle 10 it is directed with sufficient force against the teeth 7 of the sector 5 to cause it to rotate upon the tubular axle 6 in the direction of the arrow shown in Fig. 4. After the sector has passed from the stream of water, the water will pass through the discharge outlet 2 and nozzle 16 in the form of a fine needle spray.

In the form shown in Fig. 5, the water will flow through the cup nozzle 18 in a single stream or jet.

The rotary motion of the sector intermittently impedes the stream of water through the casing, thereby giving an intermittent flow to the spray or stream. The rotation of the sector also imparts vibrations to the device as a whole, due to its eccentricity.

It is evident that slight changes might be resorted to in the form, construction and arrangement of the several parts without departing from the spirit and scope of our invention; hence we do not wish to be limited to the specific details set forth except as they may be included in the claims.

What we claim is:—

1. A device of the character described having a hollow casing, a sector rotatably mounted therein, means for directing a stream of water against said sector for ro-

tating it, and a discharge nozzle for said casing.

2. A device of the character described having a hollow casing, a toothed sector rotatably mounted therein, means for directing a stream of water against said sector for rotating it, and a discharge nozzle for said casing.

3. A device of the character described having a hollow casing, a tubular axle therein, the interior of said casing being in open communication with external atmosphere through said tubular axle, a toothed sector rotatably mounted on said axle, means for directing a stream of water against said toothed sector for rotating it, and a discharge nozzle for said casing.

4. A device of the character described having a hollow casing, a tubular axle therein, a toothed sector having a hub rotatably mounted on said axle, an annular chamber in said hub surrounding said axle, the interior of said casing being in open communication with external atmosphere through said chamber and tubular axle, means for directing a stream of water against the toothed sector for rotating it, and a discharge nozzle for said casing.

In testimony that we claim the foregoing as our invention, we have signed our names in presence of two witnesses, this twenty-sixth day of February, 1915.

MORRIS M. GRUBER.
PHILIP LAUTER.

Witnesses:
R. LAUTER,
F. GEORGE BARRY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."