

[72] Inventor **Roy A. Jacuzzi,**
1555 Lakeside Drive
Oakland, Calif.
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[73] Assignee **Jacuzzi Research, Inc.**

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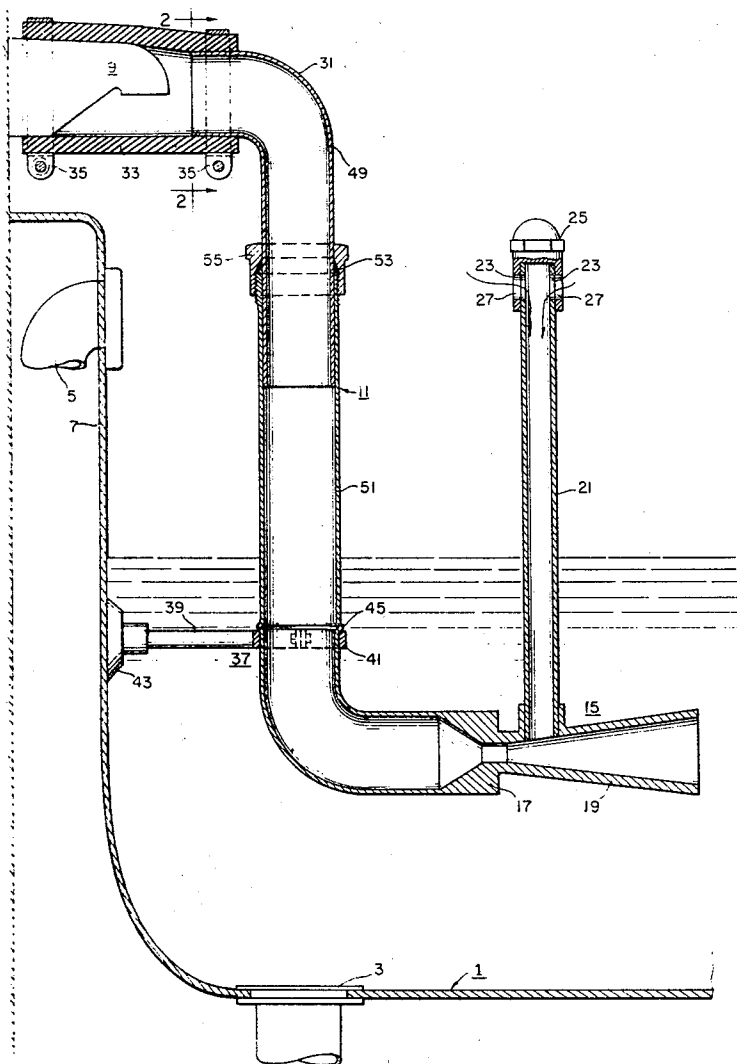
Primary Examiner—M. Henson Wood, Jr.
Assistant Examiner—Michael Y. Mar
Attorney—Edward Brosler

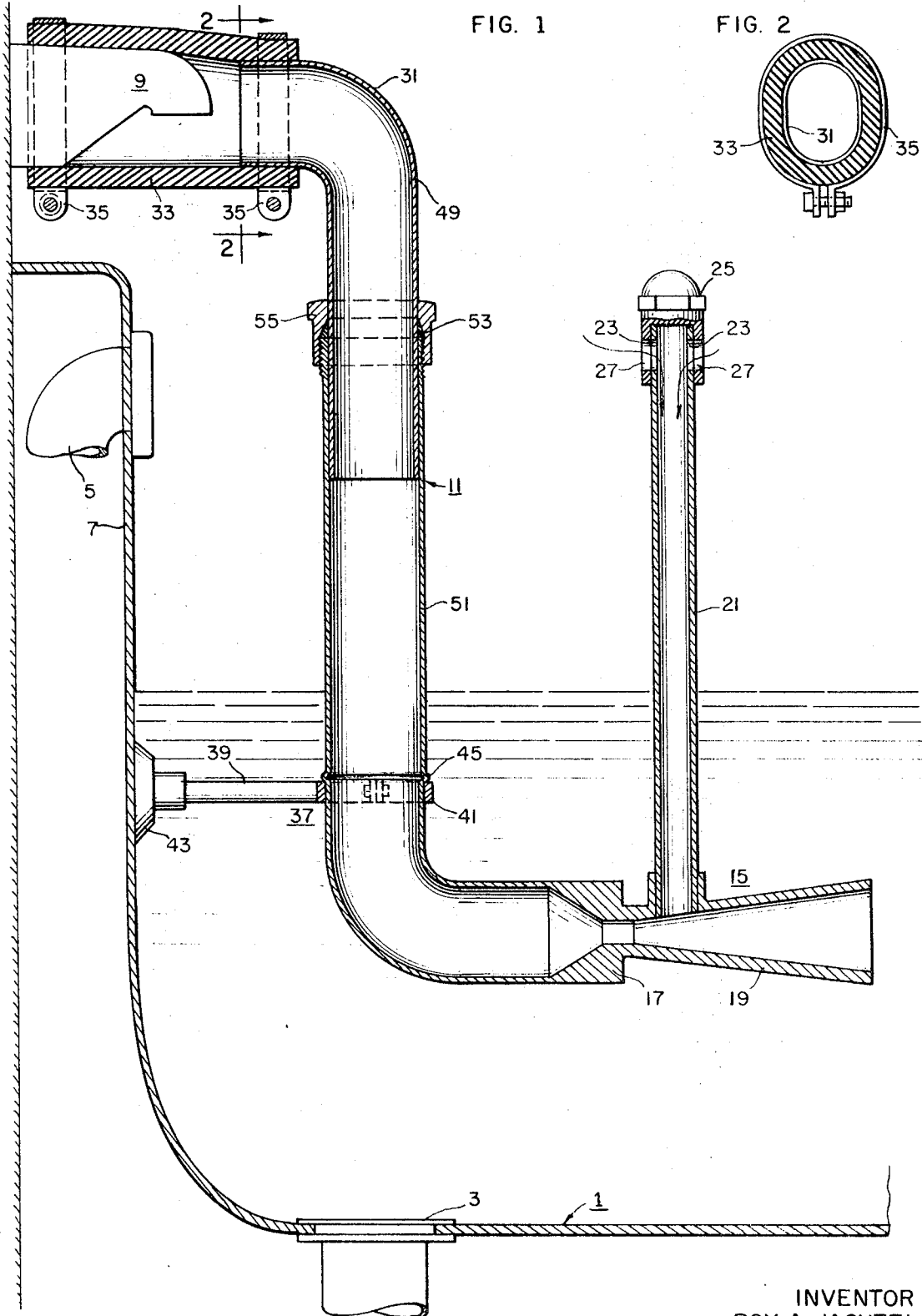
[54] **TUB-INSTALLABLE HYDROTHERAPY ASSEMBLY**
2 Claims, 2 Drawing Figs.

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128/66, 239/434, 239/588
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587, 588, 428.5; 128/66

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ABSTRACT: A hydrotherapy assembly for tub installation and utilizing existing water pressure, involving an adjustable telescoping pipe terminating at one end in a hydrojet head assembly, while at its other end, are provided means for suspending the pipe and jet head assembly from the tub associated nozzle and in flow communication therewith. A suction cup bracket mounted on the pipe, is adapted to be anchored to a wall of the tub to stabilize the pipe and jet head assembly, while permitting directional adjustment of the jet head assembly in substantially a horizontal plane.





INVENTOR
ROY A. JACUZZI

BY *Edward Brosler*
ATTORNEY

TUB-INSTALLABLE HYDROTHERAPY ASSEMBLY

My invention relates to hydrotherapy equipment, and more particularly to an assembly which utilizes existing water pressure in a water system, as its flow pressure.

Hydrotherapy equipment for the most part, involves a water-jet-producing nozzle with means for introducing air into the jet stream, and a pump for developing the flow pressure essential toward the creation of such jet stream.

I have discovered that the prevailing pressure in most municipal water supply systems, when the water is applied in sufficient volume within the capacity of existing nozzles or spigots associated with the bathtubs, will satisfy requirements for practical hydrotherapeutic purposes and the present invention is predicated on this discovery.

Among the objects of my invention are;

1. To provide a novel and improved hydrotherapy assembly;
2. To produce a novel and improved hydrotherapy assembly which utilizes in a practical manner, the water pressure of the municipal water system; and
3. To provide a novel and improved hydrotherapy assembly capable of installation in a conventional bathtub and which utilizes water at the prevailing pressure of the municipal water system supplying such tub.

Additional objects of my invention will be brought out in the following description of a preferred embodiment of the same, taken in conjunction with the accompanying drawings wherein

FIG. 1 is a view in section depicting a hydrotherapy assembly of the present invention as installed in connection with a conventional bathtub; and

FIG. 2 is a view in section, taken in the plane 2-2 of FIG. 1.

Referring to the drawings for details of my invention in its preferred form, the same as previously indicated, has been depicted in its installed position with respect to a conventional bathtub 1 having at one end, a drain 3 in the floor of the tub, and an overflow pipe 5 in the proximate end wall 7 of the tub.

Emerging from the adjacent wall of the room, at a point of above the drain of the tub, is a spigot or nozzle 9 through which flow of water from the associated municipal system, may be controlled.

The present invention has been designed for use with such tub and broadly involves a pipe 11 of a length extending from the elevation of the nozzle to which it is coupled, to a point above the bottom of the tub but below the contemplated water level, the lower end of the pipe being flow connected to a hydroair jet head assembly 15 of any conventional design, but which in general involves a nozzle 17 and venturi 19 with air intake means in the form of a snorkel type tube 21 connecting with the nozzle venturi assembly at a point in proximity to the nozzle discharge. The volume of air intake may be controlled at the upper end of the snorkel tube, which is provided with air intake openings 23 adapted to be adjustably exposed by means of a manually rotatably cap 25 provided with matching openings 27, which are adapted to be rotated into or out of alignment with the snorkel tube openings 23.

In coupling the upper end of the pipe 11 to the tub nozzle 9, I preferably form a right angle bend 31 in the end of the pipe and provide coupling in the form of a section of flexible hose 33, one end of which is adapted to frictionally fit about the end of the pipe, while the other end is adapted to be slipped over the nozzle, to effect a frictional grip thereon. Both ends of the hose section coupling may be secured against accidental dislodgement, by the use of conventional hose clamps 35.

To stabilize such installation, I provide a suction cup bracket 37 which involves a stem 39, at one end terminating in a split ring 41 adapted to encircle the pipe, while at its other end, the stem carries a suction cup 43 adapted to engage the end wall of the tub. A bead 45 in the pipe, just above the ring, will enable the suction cup bracket to carry part of the weight of the installed hydrotherapy assembly.

To assure maximum flow capacity into the pipe from the nozzle, which might normally be impaired by the fact that the nozzle terminates in a downward flow direction, I prefer to increase the vertical diameter at the entrance to the pipe, as by pinching the sidewalls thereof, and this, as illustrated in FIG. 2, exposes a greater portion of the intake area of the pipe to direct flow from the nozzle.

Adjustability of the hydroair jet head assembly, both as to elevation and as to angular direction in a horizontal plane, is desirable and toward this end, I formed the pipe 11 of a pair of telescoping sections 49, 51, the upper section 49 telescoping into the lower section 51 and sealed at this point by a friction seal assembly of a conventional type involving a seal 53 against the exposed end of the outer pipe section 51 and pressured into sealing relationship with the inner pipe section 49 by a clamping nut 55. Loosening of the clamping nut will permit vertical adjustments of the hydroair jet head assembly, prior to attachment of the suction cup bracket. Since the seal is a friction seal, angular adjustments of the hydroair jet head assembly, may be made at any time.

In utilizing the installation for its intended purpose, the tub nozzle is opened and the discharge is increased until the water level in the tub reaches the desired height, at which time, the discharge is slowed down to the point where the input to the tub just about balances the discharge down the drain, or in the alternative, adjustments of discharge at the drain may be made.

Such adjustments will maintain level in the tub while affording the occupant, a full measure of jet action, utilizing the existing water pressure of the municipal system and thereby avoiding the requirement of a separate pump and associated plumbing previously required. The equipment becomes extremely simplified and may be readily installed and removed; and since it involves no need for a separate pump, the risks formerly involved in the use of electrical equipment in association with hydrotherapeutic installations, and the precautionary measures necessary to protect against such risks, are thereby entirely eliminated.

From the foregoing description of my invention in its preferred form, it will be apparent that the same has fulfilled all the objects of my invention, and while I have illustrated and described the same in its preferred form, it is apparent that the same is subject to alteration and modification without departing from the underlying principles involved, and I accordingly do not desire to be limited in my protection to the specific details illustrated and described except as may be necessitated by the appended claims.

I claim:

1. A tub-installable hydrotherapy assembly capable of installation in a conventional bathtub and operating on prevailing water system pressure, comprising a pipe of telescoping sections capable of being extended to a length comparable to the distance from the inlet nozzle of such tub and a point above the bottom of, but below contemplated liquid level in such tub, said pipe at the upper end of its uppermost section, having means for flow connecting said pipe to said nozzle, a hydroair jet head assembly at the lower end of the lowermost section of said pipe, and adapted for directional adjustment by rotational movement of said lowermost section, and means for stabilizing said pipe when flow connected to said nozzle, said means for flow connecting said pipe to said nozzle including a compressible sleeve frictionally gripping the nozzle coupling end of said pipe and adapted to slide over said nozzle, and a hose type clamp for clamping said sleeve to said nozzle.

2. A tub-installable hydrotherapy assembly in accordance with claim 1 characterized by said means for stabilizing said pipe when flow connected to said nozzle, comprising a bracket including at one end, means for attachment to said pipe, and at its other end, means for fixing said bracket to the proximate end wall of such tub.