

[54] AGITATOR FOR A THERAPY BATH

[76] Inventor: Curtis M. Vaughan, 2021 Harlem, Joplin, Mo. 64801

[22] Filed: Apr. 29, 1971

[21] Appl. No.: 138,498

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 861,234, Sept. 26, 1969.

[52] U.S. Cl. 128/66

[51] Int. Cl. A61h 9/00

[58] Field of Search 128/66, 369; 4/178, 4/180

[56] **References Cited**

UNITED STATES PATENTS

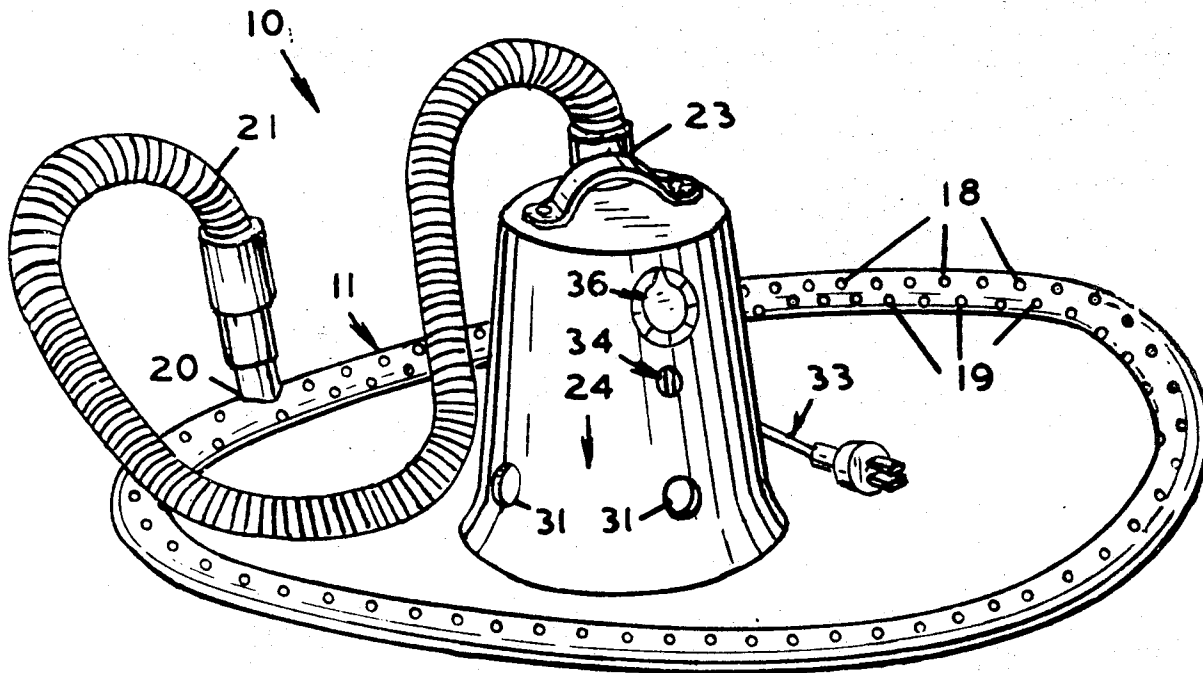
3,373,740	3/1968	Riepl.....	128/66
2,921,579	1/1960	Munroe	128/66
3,138,153	6/1964	Osborn et al.	128/66

Primary Examiner—Lawrence W. Trapp
Attorney—Gordon G. Schmidt et al.

[57] **ABSTRACT**

A flexible hose with a sufficiently thick wall that will not collapse under the weight of a person or small radius return bends; having a continuous circular like length; opposite portions of the flexible hose may be bent or manually pulled together having a general length of a person; tie members with hooked shaped end portions for retaining the hose portions in position, rows of outlet holes spaced therein along the normal upward and inward portions of the wall thereof. A motor-blower unit in a plastic like housing for generating air pressure and maintaining a flow of air pressure through an extra flexible hose connected into said flexible hose when submerged in a body of water.

1 Claim, 9 Drawing Figures



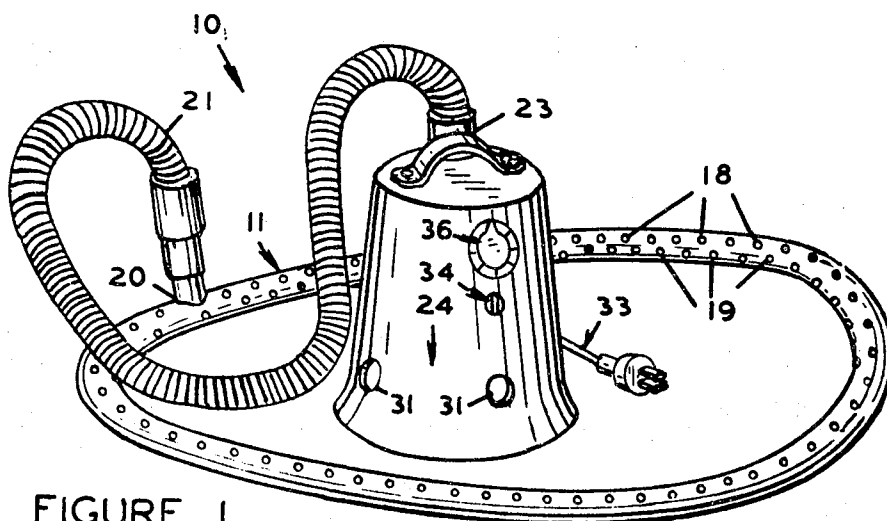


FIGURE 1.

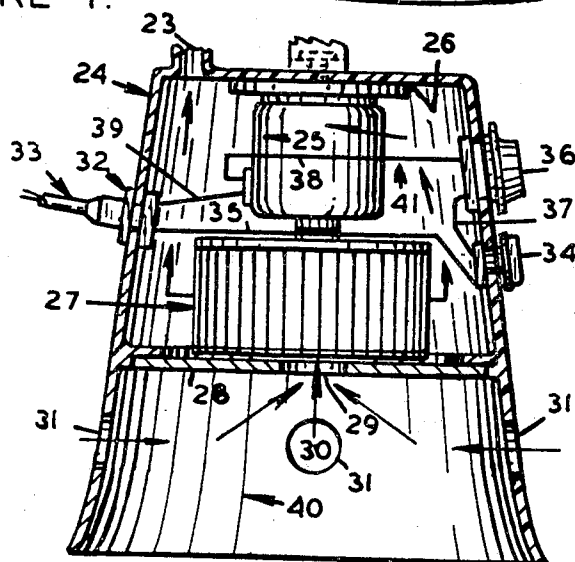


FIGURE 2.

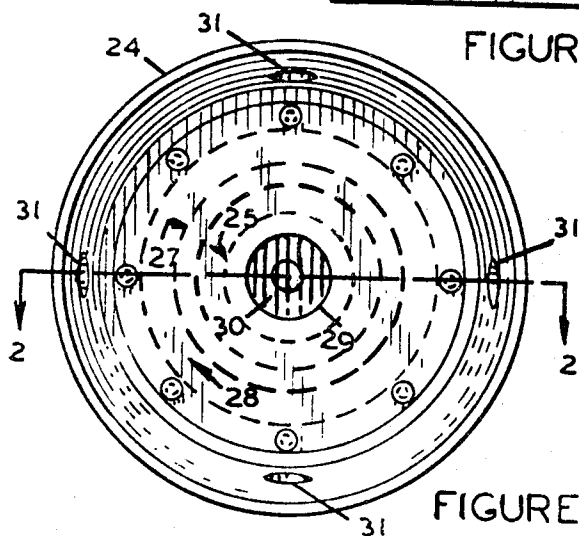


FIGURE 3.

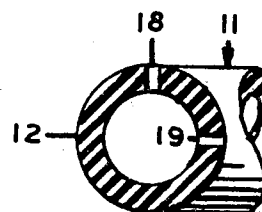


FIGURE 4.

INVENTOR
CURTIS M. VAUGHAN
BY *Marion B. Davis*
ATTORNEY

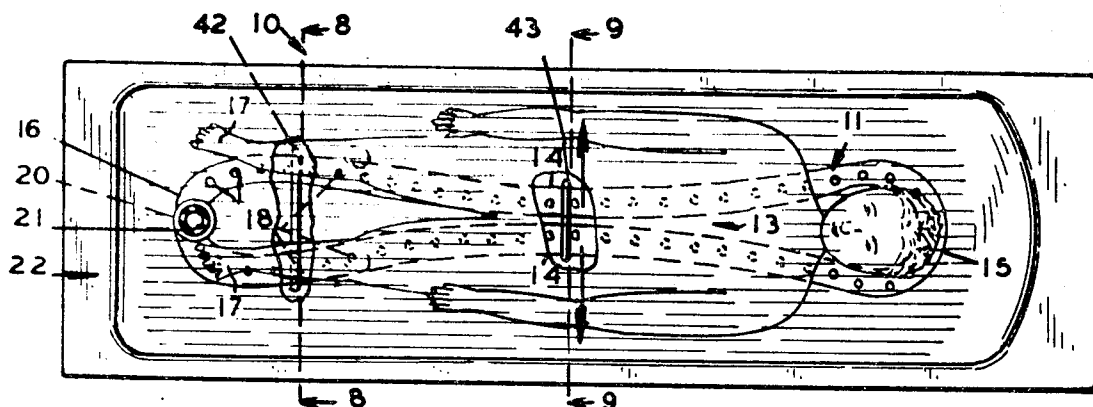


FIGURE 5.

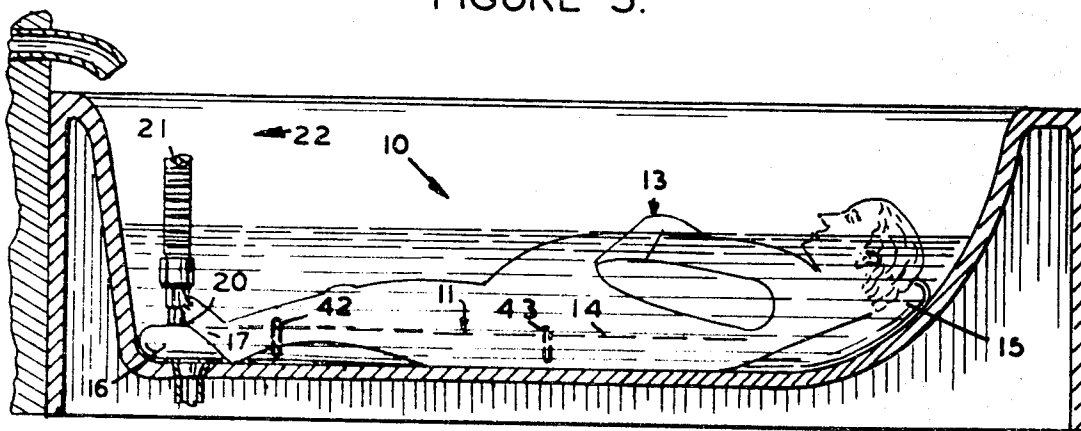


FIGURE 6.

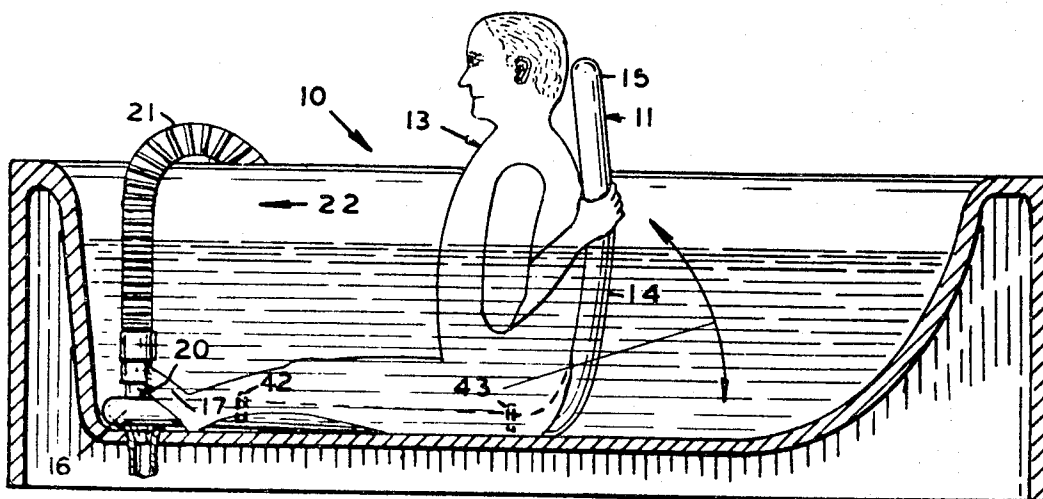


FIGURE 7.

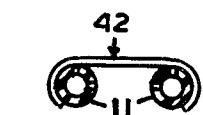


FIGURE 8.

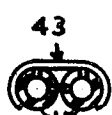


FIGURE 9.

INVENTOR
CURTIS M. VAUGHAN
BY *Marvin B. Davis*
ATTORNEY

AGITATOR FOR A THERAPY BATH

This application is a continuation in part of my abandoned patent application Ser. No. 861,234 filed Sept. 26, 1969.

BACKGROUND OF INVENTION

This invention relates to an agitator for a therapy bath.

Heretofore: Stiff pipes or soft thin wall tubes; with interior weights; and perforations were used for therapy baths. The stiff pipes were limited to certain specific portions of the body of a person and the soft thin wall tubes would collapse with small radius bends.

SUMMARY OF THE INVENTION

The improvement in this invention is to provide a flexible hose with outlet holes spaced along the normal upper and inward portions of the wall thereof; the flexible hose being sufficiently flexible that a person may bend it to various shapes around his body or under his body while lying in and maneuvering his body in a body of water. Tie members of soft metal rod shape are used for retaining the hose portions in position especially close together. The thick wall of the flexible hose will not collapse under the weight of his body or small radius return bends; and a means for generating air pressure to flow through the flexible hose and mentioned holes while being under the mentioned body of water. A person may bend a portion of the flexible hose to conform with his body in rising or sitting positions while a portion of his body is in the body of water.

The object of the invention is to force water with air against the body portions of a person for therapeutic purposes.

This means, or motor-blower, or air pressure is mounted in a plastic housing that normally rests on a floor usually next to a bath tub. All controls and exposed screws are non-conductors of electricity. Air inlets and a discharge outlet in the housing conduct air through an extra flexible hose being connected between the discharge opening of the motor-blower housing and the inlet of the flexible hose to maintain pressure and air flow therein against a normal depth body of bath water.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a view illustrating a perspective of the agitator motor-blower housing, extra flexible hose, and a thick wall flexible hose. An electric plug and wire are shown for connection to a source of electrical motive force current. A switch and variable resistance controls are shown mounted on the housing for regulating the speed of the motor-blower within the housing. Rows of holes are shown spaced along the normal upward and inward wall portions of the flexible hose.

FIG. 2 is a view in section taken on lines 2—2 of FIG. 3.

FIG. 3 is an inverted view of the motor-blower housing.

FIG. 4 is an enlarged view illustrating a section of the thick wall flexible hose. A hole is shown in the upward wall portion and a hole is shown in the inward wall portion of the hose. However these holes may be staggered in spacing when desired.

FIG. 5 is a view illustrating a plan of a bath tub with a person lying in a body of water on the improved thick wall non-collapsible flexible hose with the opposite

portions of the hose pulled close together under his back. A short radius bend portion of hose is shown under his head and the opposite short radius bend portions are shown under his feet. Tie members of soft metal rod shape are used for retaining the hose portions in position especially close together. The arrows indicate that the portions of flexible hose under his back may be moved outwardly or spread to a desired width by the person lying thereon. A section of the extra flexible hose is shown connected into the thick wall non-collapsible flexible hose.

FIG. 6 is a view showing a longitudinal section in elevation of a bath tub with a person lying in water on the thick wall non-collapsible flexible hose. The thick wall non-collapsible flexible hose extends generally from head to feet of a person and does not collapse under his weight or small radius bends. An extra flexible hose is connected into the bend under the person's feet.

FIG. 7 is a view similar to FIG. 6 with the exception that a person is shown alternately sitting and lying in the water as indicated by the arrow shown. A person is illustrated lifting the thick wall flexible hose portion to shape with his body as he is rising toward a sitting position. Tie members of soft metal rod shape are used for retaining the hose portions in position especially close together.

FIG. 8 is a sectional view taken on lines 8—8 of FIG. 5.

FIG. 9 is a sectional view taken on lines 9—9 of FIG. 5.

DETAILED DESCRIPTION

My improved agitator 10 for a therapy bath has a flexible hose 11 with a normally continuous circle like length. The flexible hose 11 is preferably made of a very thick wall rubber 12 that will support the weight of a person 13. The rubber 12 of hose 11 does withstand air pressure when in hot water.

The flexible hose 11 is sufficiently flexible because there is no fabric reinforcement. The flexible hose 11 is sufficiently flexible to have opposite sections or portions 14 thereof manually moved close together as illustrated in FIG. 5. Tie members 42 and 43 are preferably made of soft metal that can be bent to and retain their intended shape. The end portions of tie rods 42 and 43 are hook shaped to conform to the curvature of the section of hose 11 to retain and hold the position of the hose when desired.

The thick wall flexible hose 11 has a general length of a person with return curved end portions 15 and 16 located at the head and feet of a person 13; when the opposite portions 14 are manually pulled or pushed together and held in position by tie members 42 and 43.

The thick wall flexible hose 11 has a row of outlet jet holes 18 continuously spaced along the normal upward portion thereof. The thick wall flexible hose 11 has a row of outlet jet holes 19 continuously spaced along the inward portion thereof.

The flexible hose 11 has an inlet connection 20 located preferably toward the feet 17 of a person 13.

An extra flexible hose 21 usually of thin wall preferably reinforced with an imbedded coil spring and of standard manufacture is connected to the inlet connection 20; and extends a sufficient length to pass over a bath tub 22; and the opposite end thereof is connected to a housing outlet connection 23. The housing 24 is of

general bell shape and normally rests on a floor or other surface not shown.

An electric motor 25 is secured to the inward top portion 26 of the housing 24; and projects downward coupled to a blower 27.

A normally horizontal partition 28 is spaced just below the blower 27 and has an air inlet hole 29 centered with the blower intake portion 30. Air inlet holes or openings 31 in the housing 24 allow air to pass through hole 29 to the blower 27, and then under blower pressure to outlet opening connection 23.

An electric socket 32 receives an extension electrical conductor 33 from a convenient source of electric motive force. A switch 34 is connected to the socket 32 by the electrical conductor 35. A variable electric resistance 36 is located on the bell shaped housing 24. The variable resistance 36 is connected to the switch 34 by electric conductor 37; and to the electric motor 25 by electrical conductor 38. The electric motor 25 is connected to electric socket 32 by electric conductor 39 to complete the electric motive force circuit for control of the electric motor 25.

There is a sufficient air chamber 40 located below the partition 28; and a sufficient air chamber 41 is located above the partition 28 for the blower 27 to force air under pressure into the outlet connection 23.

It is obvious that a person desiring an agitator therapy bath; may place the thick wall flexible hose 11 in a bath with heated water with a temperature to suit the occasion. Place the motor-blower housing 24 on a floor. Connect the extra flexible hose between the outlet connection 23 and inlet connection 20. Connect one end

of the extension cord conductor 33 to socket 32 and the opposite end thereof to a source of electric motive force; and the bath is ready for the person.

A person may lie on the thick wall flexible hose 11 in any desired position and move the flexible hose 11 with his body in various curvature positions. When the body is lying on some of the jet holes 18 the water is agitated with the air from jet holes 19. The arrows shown in FIG. 5 indicate that the portions 14 of the hose 11 be moved outward and inward as desired by the person 13 when the tie members 42 and 43 are omitted.

I claim:

1. An agitator for a therapy bath for conducting air under pressure, with water around jet holes in a hose, while a person is lying in variable positions on the hose in a body of water; the agitator comprising in combination:

- a. a non-collapsible thick wall flexible hose;
- b. said flexible hose having a sufficient continuous length to be shaped at will by a person ranging from a circle like shape to manually bending opposite portions of the flexible hose close together;
- c. tie members with hooked shaped end portions, said tie members retaining the mentioned portions of non-collapsible thick wall hose pulled close together;
- d. said flexible hose having outlet jet holes therein;
- e. and means to operatively maintain an air pressure flow in said flexible hose and through outlet jet holes therein.

* * * * *

35

40

45

50

55

60

65