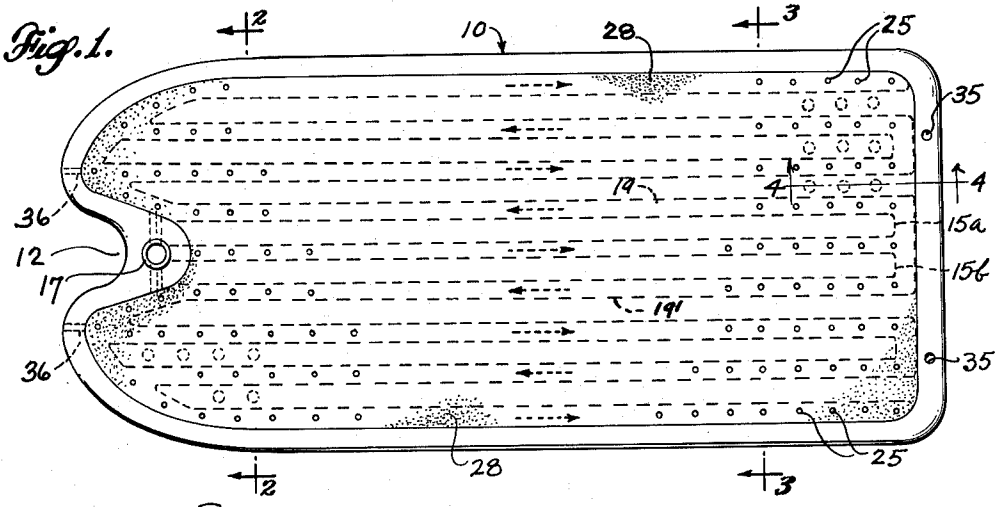
April 23, 1963 C. C. DUNKLE 3,086,517

HYDROTHERAPY PAD

Filed July 3, 1961

Fig. 1.



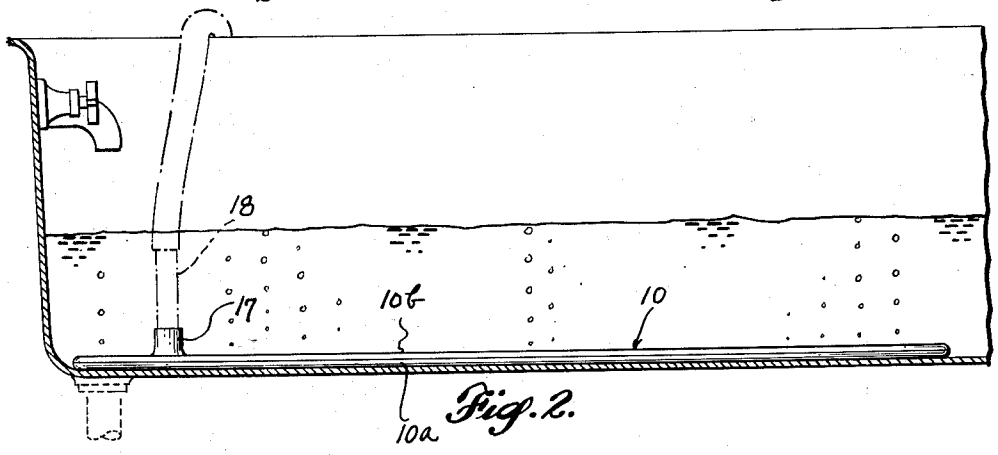
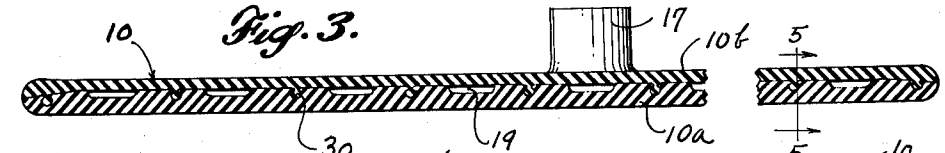


Fig. 2.

Fig. 3.



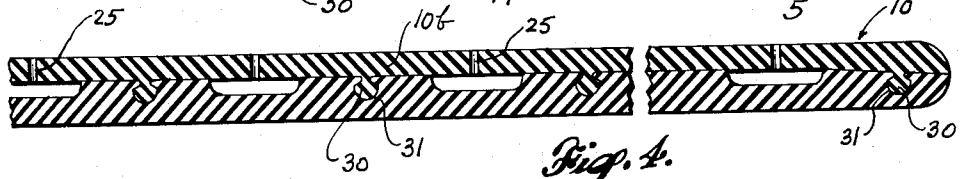


Fig. 4.

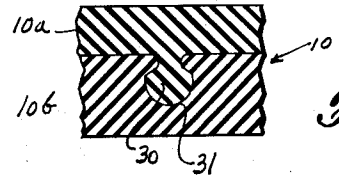


Fig. 5.

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HYDROTHERAPY PAD

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1 Claim. (Cl. 128—66)

This invention relates to improvements in what have been designated as "Hydrotherapy Pads." More particularly, it relates to hydrotherapy pads as designed for use in ordinary bath tubs for the giving of hydro-therapeutic treatments to tub users; this invention being in the nature of an improvement on those kinds or types of pads as disclosed, for example, in U.S. Patents Nos. 1,775,942; 1,699,198, now expired, and in the unexpired patents of Schwartz #2,793,640 and Munroe #2,921,579.

It is the principal object of the present invention to provide a pad for use in administering hydrotherapeutic treatments; said pad being comprised of two sheets or pads of rubber that are prepared and so joined, one upon the other, as to provide a series of air channels between them from which air, delivered into the channels under pressure, may be dissipated through a multiplicity of small ports or orifices in the top forming sheet of the pad to cause agitation of the bath water in the tub in which the pad may be immersed for the carrying out of the intended hydrotherapeutic treatment.

It is also an object of the present invention to provide a hydrotherapy pad of the above stated character that is free of all rigid and all metal frame forming or pad shaping parts that might be discomforting to a person lying or sitting on the pad as placed in a tub for its use and which pad will readily conform to the bottom of the tub and will cling thereto against any possibility of slippage.

Yet another object of the present invention resides in providing the present pad with a tubular neck portion providing a passage leading into the channel system of the pad; said neck portion being adapted for the reception of a hose or nozzle leading thereto from a source of air under pressure, thus to supply the pad with an adequate supply of air for bath water agitation.

Still further objects of the present invention reside in the manner of joining together the upper and lower sheets or pads of rubber forming the pad of this invention, and in the provision of interlocking parts thereon for their additional securement to insure the integrity of the joint.

Further objects and advantages of the invention reside in the details of construction and combination of parts embodied in the pad and in the mode of use of the pad as will hereinafter be described.

In accomplishing the above mentioned and other objects and advantages of the invention, I have provided the improved details of construction, the preferred forms of which are illustrated in the accompanying drawings, wherein:

FIG. 1 is a plan or top view of the hydrotherapeutic pad of the present invention.

FIG. 2 is a longitudinal sectional view of a bath tub showing the position of a pad as applied for use in the tub.

FIG. 3 is a cross-sectional view of the pad.

FIG. 4 is an enlarged, sectional detail taken on line 4—4 in FIG. 1.

FIG. 5 is an enlarged sectional detail taken on line 5—5 in FIG. 3.

Referring more in detail to the drawings: The pad **10** of the present invention is designed for use in a present day bath tub as a pad or mat on which a bather may sit or recline for a hydrotherapeutic treatment. Pads may be made in various dimensions and shapes as may be required to fit tubs of various lengths and widths, but normally would have an overall length of about 42 inches

and a width of about 18 inches and would be rounded at the corners of what is referred to as the "head end" and the opposite end would be rounded as necessary to best suit the shape of the tub in which the pad is to be applied. It is desirable also, that at one end the pad would be recessed, as at **12**, in order not to cover but to give ready access to the drain plug of the tub.

The pad, designated in its entirety by numeral **10**, preferably comprises a lower sheet **10***a* and an upper sheet **10***b* of soft flexible rubber; the top sheet preferably has a thickness of approximately 3/16 inch and the lower sheet preferably has a thickness of approximately 1/16 inch. The bottom sheet is formed in its top surface along its central longitudinal line with a shallow but relatively wide air channel which, at the recessed end of the pad connects directly with a tubular neck **17** that is formed with and projects upwardly from the top sheet **10***b* of the pad to receive the discharge end of an air supply hose or a nozzle, such as indicated in FIG. 2 by numeral **18**. Nozzle **18** may be supplied with air under pressure from the exhaust hose of a motor driven vacuum cleaner or the like, of any typical present day type or from any other suitable source of air under pressure. At the head end of the pad the central air channel branches in opposite lateral directions as at **15***a* and **15***b* in FIG. 1 and these join respectively with longitudinal channels **19—19′** that lead substantially to the opposite end of the pad and then reverse and continue in a succession of back and forth parallel channels to finally terminate at opposite sides of the head end of the pad. The terminal ends of the channels being closed.

The top sheet **10***b* of this pad is applied over the bottom sheet **10***a* and is cemented thereto thus between and along all of the air channels as molded or otherwise formed in the lower sheet. The top sheet is formed with small diameter air ports or orifices **25** that lead upwardly therethrough from the air channels at spaced intervals of about 1½ inches for the dissipation of air injected under pressure into the pad channels, as upwardly discharging air jets for effectively agitating the water that may be contained in the tub and overlying the pad.

In addition to the cementing together of the juxtaposed surfaces of the two sheets **10***a* and **10***b*, as above stated, they are additionally joined by a succession of knob-like protuberances **30** formed on the under surface of the top sheet **10***b* and which are pressed into sockets **31** formed to receive them in the top surface of the lower sheet; these interlocking parts being formed in rows extending to the full length of the pad between the longitudinal, parallel air channels.

To use the present pad, it is placed within the tub on the tub bottom, lengthwise thereof and air supply nozzle **18** fitted in neck **17**. Then the tub is filled to the desired depth with water of selected temperature. The person taking the treatment sits, reclines, or lies on the pad. Air is then supplied under pressure through hose or nozzle to the air channels and by its dissipation therefrom into the water through the multiplicity of air ports or orifices **25** causes the water to be effectively agitated thus to subject the user to the desired hydrotherapeutic treatment. Water turbulence or agitation is controlled by controlling air supply.

After use of the pad, it may be removed from the tub and may be held in suspension for the draining of water from its channels. For this purpose, the pad is provided at its head end with apertures as at **35** in FIG. 1 for application to suspending hooks thereto and at its opposite end has drain ports **36** leading from the lower ends of the air channels.

The particular material employed for the making of the pad may vary but it is preferred to employ a soft

pliable rubber. Pads may be made in various thicknesses, sizes and shapes. By use of the two sheets formed and joined as herein disclosed, provide a relatively simple mode of manufacture and assembly that effectively and adequately serves all the intended purposes of the pad.

It is desirable also that the top and bottom surfaces of the pad be stippled, as indicated at **28** in order to better prevent its slippage in the tub.

What I claim as new is:

A hydrotherapy pad for use in a bath tub, said pad comprising a top sheet and a bottom sheet of resilient and flexible rubber, said sheets being of substantially identical size and configuration, said bottom sheet including a plurality of laterally spaced and longitudinally extending interconnected air channels formed in the top surface thereof, said top and bottom sheets being joined about the periphery thereof and between said air channels in a cemented air sealed connection that maintains the individuality of said air channels, a plurality of snap fasteners formed on the adjacent surfaces of said sheets, said fasteners each comprising a ball shaped protuberance formed on the surface of one sheet and a ball received socket formed in alignment with the ball in the other sheet, a plurality of air discharge orifices formed in said top sheet above said channels and opening to the top surface thereof, means for supplying air, to said pad and means on the top sheet for connecting said pad to said air supplying means.

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