

Oct. 29, 1963

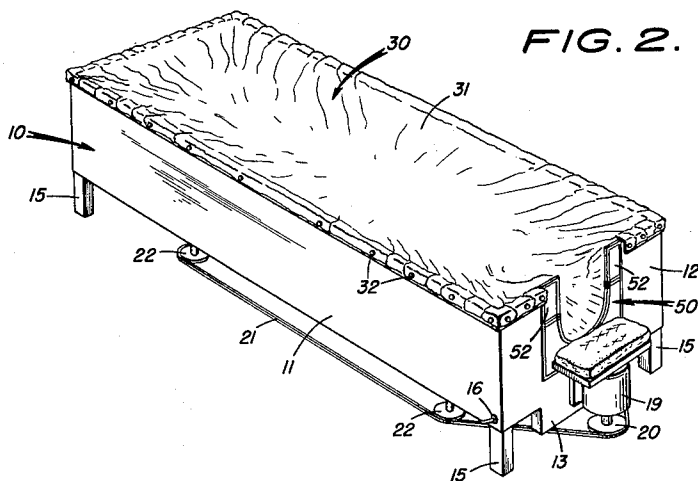
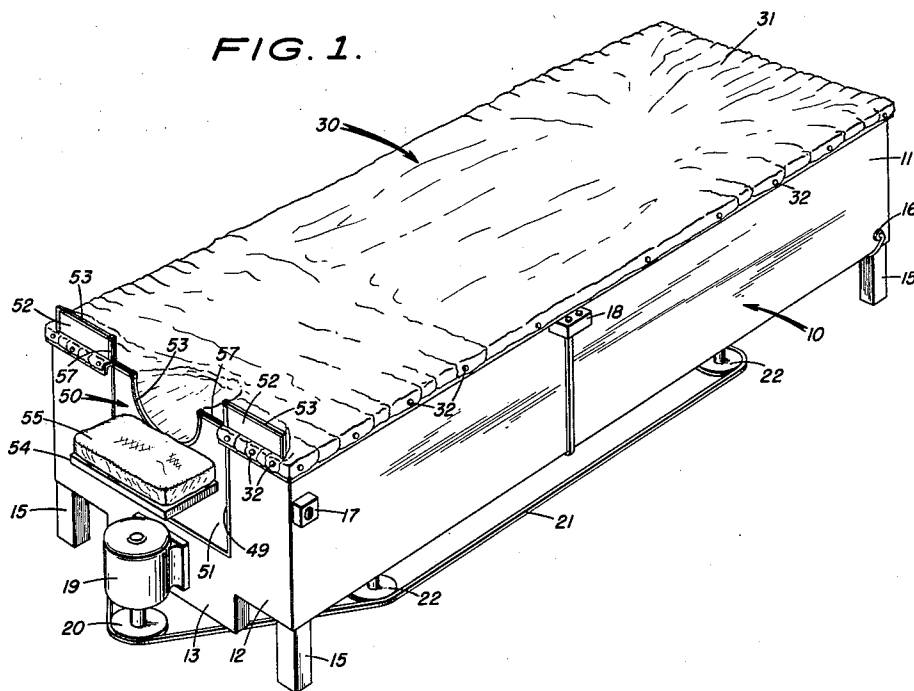
B. I. KING

3,108,293

RELAXING COUCH

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3 Sheets-Sheet 1



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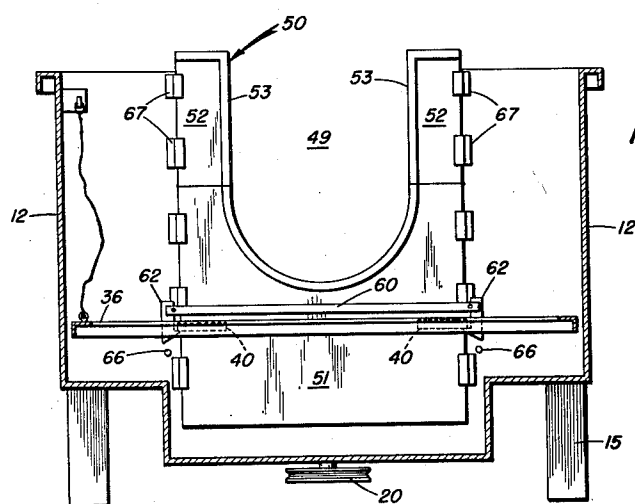
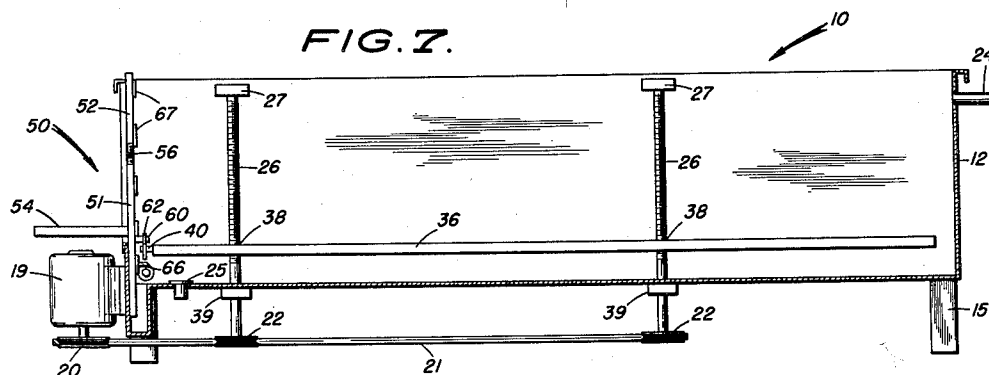
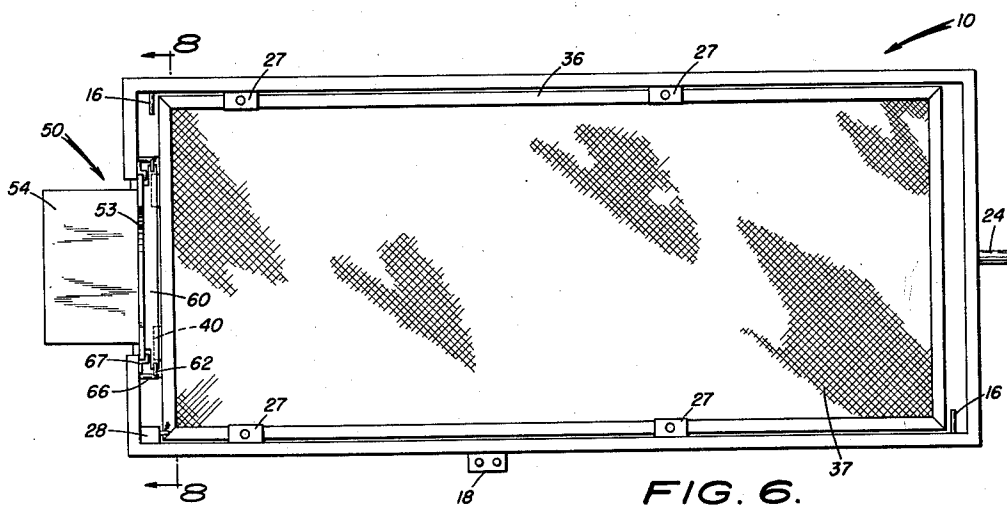
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3 Sheets-Sheet 3



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RELAXING COUCH

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6 Claims. (Cl. 5—348)

This invention relates generally to bed apparatus, and more particularly it pertains to a fluid-buoyed body-supporting contour couch.

Buoyancy provides the ultimate in distribution of support to the body of a person. With pressure due to weight equalized over all parts of the body and loss of weight due to immersion, the greatest state of relaxation is possible.

It is an object of this invention, therefore, to provide a couch for relaxing a person by receiving his weight over a large portion of his body.

Another object of this invention is to provide a fluid-filled mattress which supports the body independently of the head.

Another object of this invention is to provide an adjustable head rest for a fluid mattress bed which will lower the head to a plane beneath that of the buoying fluid surface.

Still another object of this invention is to provide a fluid-tight sliding neck notch in a body supporting fluid tank.

And yet another object of this invention is to provide an elevator for positioning the body into contact with buoying means.

Another object of this invention is to provide means for forming a cavity in a fluid in which the human body can restfully repose without direct contact with the fluid.

To provide a warming arrangement which contacts a large part of the body, is another object of this invention.

These and other objects and attendant advantages of this invention will become more readily apparent and understood from the following detailed specification and accompanying drawings in which:

FIG. 1 is a perspective view of a couch embodying features of this invention;

FIG. 2 is another perspective view, somewhat reduced in size, of the couch of FIG. 1 viewed at a different angle and shown in lowered position;

FIG. 3 is an exploded perspective view of a sheet, cushion, and elevator;

FIG. 4 is a perspective view of the tank with body support components removed;

FIG. 5 is an enlarged detail perspective view of a head piece;

FIG. 6 is a plan view of a couch tank with elevator and head piece in place;

FIG. 7 is a vertical section taken lengthwise of the tank with the elevator removed; and

FIG. 8 is a vertical section taken across the width of the tank near the head piece.

Referring now to the details of the drawings, the novel couch of this invention is designated generally by reference numeral 10. As shown in FIGS. 1, 2 and 4, the couch 10 consists of a top 30 loosely secured over a fluid tight tank having two sides 11, a pair of ends 12, and a bottom 14 made large enough to amply contain the body of a reclined person.

Legs 15 are provided for support at the four corners, and a neck notch or cut-out 49 is made at one of the ends 12. Against this same end 12, the bottom 14 is provided with a recess 13.

The inside face of this particular end 12 is provided with a gasket 23 which extends about the periphery of the cut-out 49. Connections 16 for electric power are

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shown symbolically, and it should be understood these lead conventionally to a thermostat 17 and pushbuttons 18 for controlling, respectively, heater emersion coils, not shown, and a reversible motor 19.

5 The motor 19 is mounted vertically on one end 12, with its drive pulley 20 being located downwardly and below the bottom 14. Two jack screws 26 are journaled in bearing blocks 27 against the inner face of each tank side 11. These jack screws 26 extend through fluid-tight thrust bearings 39 in the tank bottom 14.

10 The protruding lower ends of the jack screws 26 are provided with grooved pulleys 22 so as to rotate in unison when driven by a drive belt 21 which extends around the pulleys 22 and motor drive pulley 20.

15 A rectangular metal frame platform-like elevator 36 is supported by and moved vertically by these jack screws 26 which pass through threaded apertures 38 in its sides. The elevator 36 otherwise comprises a metal mesh supporting surface 37, as shown best in FIGS. 3, 6, and 7.

20 A vertical sliding head piece 50 hermetically closes off the notch or cut-out 49 so that the couch 10 can be nearly filled with water. An inlet pipe 24 and a drain 25 are provided for adjusting the water level.

25 The head piece 50 comprises a yoke plate 51 and a shelf-like head rest 54. Each end of a cross piece 60 carries a catch 62 pivoted on pins 64. The points 63 of these catches 62 are positioned for engaging with a pair of blocks 40 on the end of elevator 36 so as to carry the head piece 50 along with it.

30 A pair of catch releasing pegs 66 are provided to cam the catches 63 outwardly and disengage the head piece 50 from the elevator 36 part way down its path of travel. The head piece 50 then floats independently in its guide brackets 67 and recess 13, and the platform 36 lowers to tank bottom 14 alone.

35 Both upstanding arms 52 of the yoke plate 51 have butt hinges 56 and can fold outwardly as shown in FIG. 1 when the head piece 50 is up. When the head piece 50 lowers as in FIG. 2, the arms 52 reposition themselves vertically.

40 Although not shown in FIGS. 5 and 8, a waterproof flannelette surface plastic sheet 31 of couch top 30 is secured to and follows the yoke contour of plate 51 including a re-entry fold into the hinged joint portions thereof. At this location resilient seal strips 57 are provided. Channel strips 53 lined with rubber are advantageous for holding the sheet 31 smoothly in position and hermetically tight.

45 Elsewhere the sheet 31 as shown in FIGS. 1 and 2 is provided with snap fasteners 32 which engage their opposite halves all along the top edges of tank sides 11 and ends 12.

50 When the elevator 36 is up, a person reclining on sheet 31 of the couch top 30 is supported by an underlying cushion 34 of porous foam rubber or the like on top of the metal mesh supporting surface 37.

55 When the elevator 36 lowers, it pulls the longitudinal center of the sheet 31 distending it downwardly by means of tabs 33 extending through slits 35 and snap-secured to the supporting surface 37. The water is thus caviated and the body of the person becomes comfortably buoyed therein without actually contacting the water directly. His head, resting on a pillow 55, lowers and then floats with head piece 50 when the elevator 36 disengages as has been related.

60 The sheet 31 contacts a large portion of the body of a person, thus providing a comfortable distributed support unattainable in another manner, and the excellent heat transfer from the warmed water thereunder provides excellent thermal therapeutic value.

65 Obviously many modifications and variations of the

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present invention are possible in light of the above teachings. It is therefore, to be understood that within the scope of the appended claims the invention may be practiced otherwise than as specifically described.

What is claimed is:

1. A relaxing couch, comprising, structure defining an elongated shaped tank, fluid in said tank, a fluid impermeable body supporting and enveloping sheet positioned upon said fluid and secured to the top periphery of said tank structure to form a contour couch for supporting the body of a person, means including a sliding head piece extensible in one end of said tank below the level of said fluid, gasket means secured to said head piece and said sheet to retain said fluid in said tank, and means including an elevator immersed in said fluid and extensible below the surface thereof for initially receiving the weight of said person when reclined on said sheet and for committing the weight of said person to said fluid to be buoyed thereby without contacting the person.

2. The relaxing couch of claim 1, wherein the upper portion of said head piece is hinged to fold over upon the lower portion thereof when said upper portion is extended above the level of fluid in said tank.

3. A relaxing couch, comprising, structure defining an elongated shaped tank, fluid in said tank, an enveloping sheet, a fluid impermeable body supporting said enveloping sheet positioned upon said fluid and secured to the top periphery of said tank structure to form a contour couch for supporting the body of a person, means including an elevator immersed in said fluid and extensible below the surface thereof for initially receiving the weight of said person when reclined on said sheet and for committing the weight of said person to said fluid to be buoyed thereby without contacting the person, means including a sliding head piece extensible in one end of

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said tank below the level of said fluid, fastening means connecting said sliding head piece with said elevator so as to be extensible therewith, and gasket means secured to said head piece and said sheet to retain said fluid in said tank.

4. The relaxing couch of claim 3, and in addition means to automatically disengage said fastening means during downward movement of said elevator.

5. A relaxing couch, comprising, structure defining an elongated shaped tank, fluid in said tank, an enveloping sheet, a fluid impermeable body supporting said enveloping sheet positioned upon said fluid and secured to the top periphery of said tank structure to form a contour couch for supporting the body of a person, means including an elevator immersed in said fluid and extensible below the surface thereof for initially receiving the weight of said person when reclined on said sheet and for committing the weight of said person to said fluid to be buoyed thereby without contacting the person, means to connect a portion of said sheet to said elevator so that at least said portion of said sheet is extensible therewith, means including a sliding head piece extensible in one end of said tank below the level of said fluid, fastening means detachably connecting said sliding head piece with said elevator so as to be extensible therewith, and gasket means secured to said head piece and said sheet to retain said fluid in said tank.

6. The relaxing couch of claim 5, and in addition means to automatically detach said fastening means during downward movement of said elevator.

References Cited in the file of this patent

UNITED STATES PATENTS

1,263,611	Scroggin	Apr. 23, 1918
1,943,888	Ewald	Jan. 16, 1934
3,041,631	Fogle	July 3, 1962