Aug. 26, 1969 C. A. WHITAKER 3,463,145

ELECTRICALLY ACTIVATED THERAPEUTIC CHAIR

Filed Jan. 11, 1967

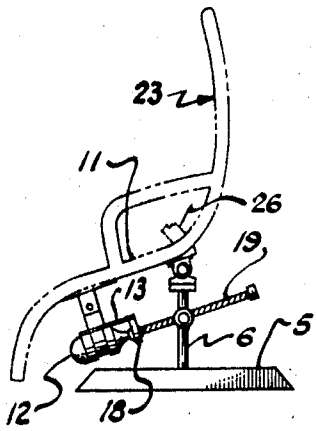


FIG. 1

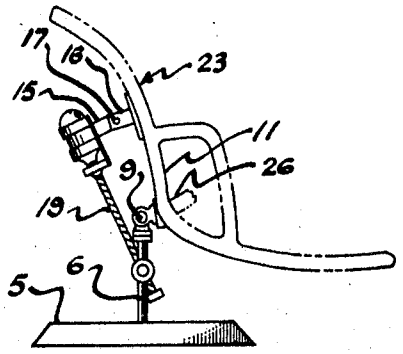


FIG. 2

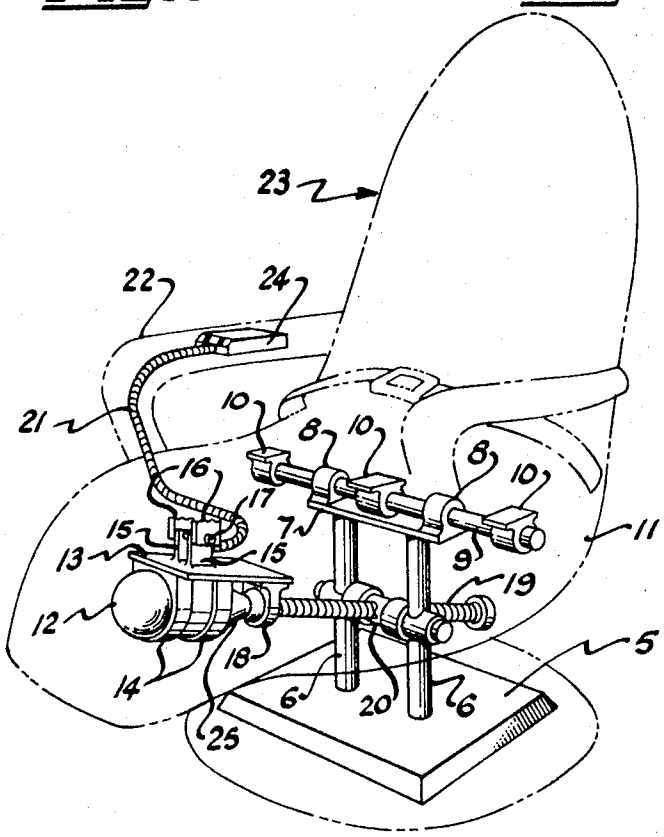


FIG. 3

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# ELECTRICALLY ACTIVATED THERAPEUTIC CHAIR

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U.S. Cl. 128—24 3 Claims

## ABSTRACT OF THE DISCLOSURE

A heavily padded chair that has a basic configuration of an ogee curve. The chair is mounted on a pair of spaced vertically disposed supports that arise from a suitable base. The aforesaid supports are so connected to the bottom of the chair that the chair may be moved from a near horizontal to a near vertical position when the controls located on one arm of the chair are operated. The controls activate an electric motor that is suitably connected to movement mechanism of the chair by means of a screw shaft.

This invention relates to therapeutics, particularly to a chair that is used for the relief of discomforts caused by disorders of the heart, and still more particularly to a chair that is electronically activated, as will hereinafter be described.

The principal object of this invention of an electrically activated therapeutic chair is to provide a chair that may quickly have its back lowered from a vertical to a near horizontal position and then brought back to a vertical position again in a predetermined time.

Another object of this invention is to provide an electrically activated therapeutic chair having a minimum amount of simple mechanism that can easily be reached for maintenance.

Still another object of this invention is to provide an electrically activated therapeutic chair having its entire structure supported by a single base, thereby permitting one to move the chair to any desired place within reach of a source of electricity.

Other and further objects and advantages of this invention will no doubt come to mind as the reading of the description of the construction of the chair proceeds and the accompanying drawing is examined.

In the drawing:

FIG. 1 is a left-hand side view of this invention in an upright position.

FIG. 2 is a left-hand side view of this chair whose body supporting structure has now been moved approximately ninety degrees, thus placing the back of the chair in a nearly horizontal position.

FIG. 3 is a pictorial view of this invention, the body structure being shown in phantom lines.

In the accompanying drawing, like parts of this invention are indicated by like reference numbers throughout the several views.

Looking first at FIGURE 2 of the accompanying drawing, it will be seen that this invention consists of a horizontally disposed base **5** from which rises vertically a pair of spaced supporting pipes or the like **6**. These spaced supporting pipes **6** have their upper end terminating in supporting the rectangular member **7** which supports the bearing blocks **8**. A shaft **9** rotatably passes through the two bearing blocks **8**. A trio of spaced bearing blocks **10** are mounted on the aforesaid shaft **9**, each bearing block **10** being secured to the underside of the seat **11** in any desired manner. A reversible electric motor **12** is swingably mounted on the underside of the aforesaid seat **11** by means of the supporting plate **13**, motor support straps **14**, lugs **15** and **16**, and the pin **17**. The aforesaid motor support plate **13** is provided with an upper-hung bearing **18** through which passes and supports one end of the screw shaft **19** that screws through the center of cylindrical member **20** that has each end mounted on one of the aforesaid supporting pipes **6** of this invention. An electric cable **21** extends from the aforesaid electric motor **12** up through the seat and arm **22** of the chair whose body, in its entirety, is characterized by the reference number **23** to terminate in the control box **24**. The electric cable, that leads from the electric motor **12** to any desired source of electric current, is not shown in any of the views of the accompanying drawing for reasons of clarity. Although not previously mentioned, the shaft of the electric motor **12** is provided with a suitable reduction gear before it is connected onto one end of the aforesaid screw shaft **19** that is located in the small end of the housing **25**. A seat belt **26** is suitably secured to the body of the chair, thereby completing the assembly of this invention.

This invention is subject to any changes and/or modifications one may care to make so long as the changes and/or modifications fall within the scope and intent of the appended claims.

The way in which this electrically activated therapeutic chair is used is obvious from examination of the accompanying drawing, particularly FIGURES 1 and 2. All one really has to do is to press or move the suitable button or lever in the control box **24** and the electric motor **12** will then rotate the screw shaft **19** which will either cause the chair **23** to swing forward, as shown in FIGURE 1 of the accompanying drawing, or, if the electric motor control for reverse direction is activated, the chair will swing backward, as is shown in FIGURE 2 of the drawing. The reason for this chair movement is that the aforesaid screw shaft **19** is threadably supported by the already mentioned cylindrical member **20**, as will be understood by anyone having even an elementary knowledge of mechanics. The aforesaid screw shaft **19** has one end connected to the bottom of the seat **11** of the chair **23** through the structure of the reversible electric motor **12** and its already described supporting structure.

For the benefit of those not having an elementary knowledge of therapeutics, it is herein pointed out that the principal of assisting the flow of blood in the body through the use of gravity is as old as man himself. A person sitting in this chair I have invented, a chair that I personally call a "Flow Activator," can readily control the flow of blood to his head or feet by tilting the chair as has previously herein been described. By proper use of the control box **24**, one can time the rhythm of the alternating direction of flow of blood toward either head or feet, thereby achieving the ultimate in circulatory effects. This stimulation of the blood is achieved with a minimum of effort on the part of the heart, thus there is little actual raise in blood pressure.

What I now claim as new and desire to protect by Letters Patent is:

**1.** An electrically activated therapeutic chair of the character described, having a horizontally disposed base supporting structure, a pair of spaced pipes rising vertical-

ly from the said base and secured thereto, a chair body having integral seat and back, means swingably securing the bottom of the seat to the upper ends of said pipes, an electric motor of the reversible type swingably secured to the underside and front portion of said seat, the electric motor having its shaft connected to one end of a screw shaft that screws through a cylindrical member that has each end swingably secured to said pipes.

2. The invention of claim 1, wherein one arm of the said chair is provided with a control box that is connected by an electric cable to the said electric motor which in turn is connected to any suitable source of electricity.



3. The invention of claim 2 wherein the said chair is heavily padded as well as being provided with a seat belt.

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L. W. TRAPP, Primary Examiner