March 30, 1954 A. J. FIUMEDORO 2,673,736

HEALTH CHAIR CONSTRUCTION

Filed April 23, 1952

Fig. 1

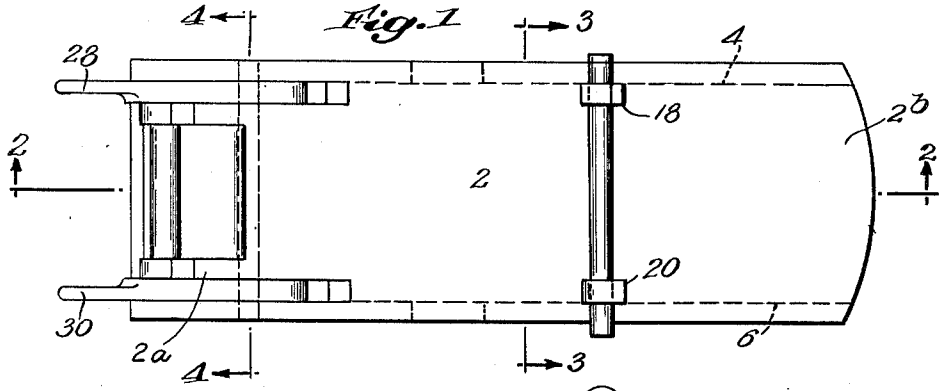


Fig. 2

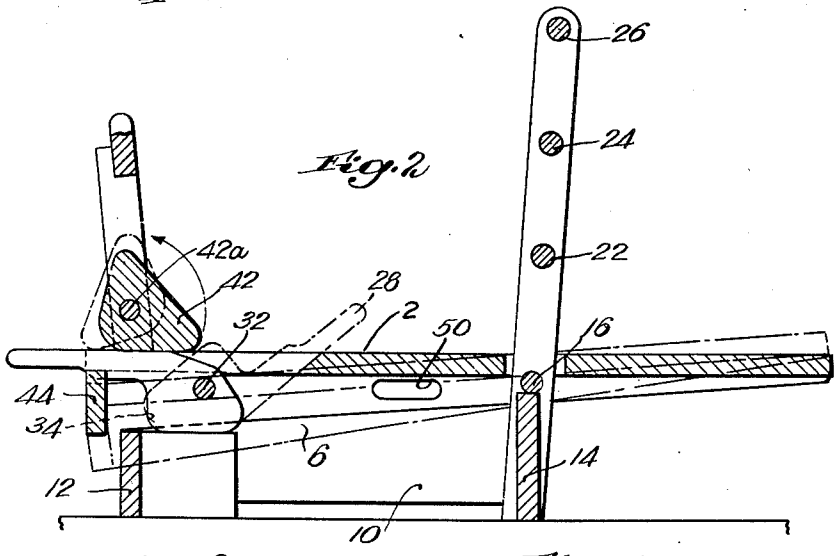


Fig. 3

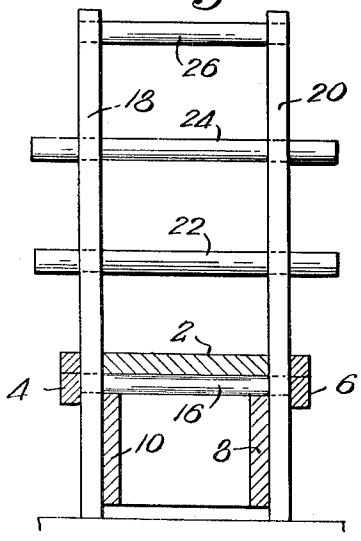
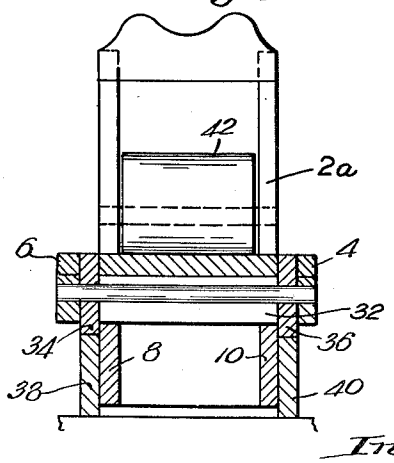


Fig. 4



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UNITED STATES PATENT OFFICE

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HEALTH CHAIR CONSTRUCTION

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7 Claims. (Cl. 272—58)

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This invention relates to an improved health chair construction of the type including a back rest and a supporting bed member for supporting the body in various exercising positions, as well as positions conducive to rest and relaxation.

In moving the body into positions which are known to induce relaxation and rest, it is well known that desirable results are obtained by locating the feet in various raised positions with respect to the rest of the body.

The present invention aims to devise an improved chair construction particularly directed to facilitating the location of the feet in any one of a number of raised positions while the remainder of the body is in a prone position. It is also an object of the invention to combine in a chair construction novel adjustability features for a body supporting element whereby a series of exercising positions may readily be assumed. Still another object of the invention is to devise a simple and easily operated adjustable chair structure which can be cheaply manufactured and conveniently assembled and used.

These and other objects and novel features will be more fully understood and appreciated from the following description of a preferred embodiment of the invention selected for purposes of illustration and shown in the accompanying drawings, in which:

Fig. 1 is a plan view showing the improved chair member of the invention;

Fig. 2 is a cross-section taken on the line 2—2 of Fig. 1;

Fig. 3 is a cross-section taken on the line 3—3 of Fig. 1; and

Fig. 4 is a cross-section taken on the line 4—4 of Fig. 1.

In the structure shown in the drawing, numeral 2 denotes a supporting bed member, preferably consisting of a flat rigid panel of wood or other desired material, arranged to provide a hard unyielding surface normally lying in a horizontal plane. The supporting bed member 2 is formed with a head portion 2*a* which is adapted to serve as a back rest, and a foot portion 2*b*, and is supported at two opposite sides by panels 4 and 6 which are of tapering shape, as suggested in Fig. 2.

A base section maintains the supporting bed member in a raised position, such as that shown in Fig. 2, and this base section includes a rectangular shaped frame or enclosure consisting of side walls 8 and 10 and end walls 12 and 14. These wall portions are solidly secured to one another by suitable fastenings such as screws, nails, or the like. It will be observed that the end wall 12 is of a lesser height than the end wall 14, as viewed in Fig. 2.

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At one side of the rectangular frame, and preferably supported on the upper edge of the end wall 14, is a shaft 16 which has pivotally supported at either end thereof the two side panels 4 and 6 of the supporting bed member. The shaft 16 also passes through two vertical frame pieces 18 and 20 which carry rungs, as 22, 24 and 26, occurring in spaced relation to comprise a ladder element. By means of this arrangement it will be seen that the supporting bed member 2 is free to pivot in a vertical direction about the shaft 16.

In accordance with the invention means are provided for allowing an operator, while reclining on the supporting bed member, to raise and lower the bed 2 and its head portion 2*a* by means of a pair of pivoted adjustment arms 28 and 30. These arms are solidly secured to a shaft 32 rotatably mounted through the side panels 4 and 6 at the points indicated in Fig. 2. The arms are formed at their ends with handle portions, as shown, and at opposite extremities of respective arms I have provided cam portions, as 34 and 36, one of which is more clearly shown in Fig. 2. These cam members 34 and 36 are adapted to engage against vertical supporting leg members 38 and 40 solidly secured to the side walls 8 and 10 of the base section. It will thus be seen, therefore, that by placing or positioning the arms 28 and 30 in either a forward position, such as that shown in Fig. 2, or in a fully lowered position, such as that shown in Fig. 1, the supporting bed member will normally occur in a true horizontally disposed position. However, the operator may, by rotating the arms through various intermediate positions, cause the head portion of the supporting bed member to be raised throughout an appreciable distance, thereby varying the angle of inclination at which the bed member is disposed. It will also be noted that with the arms in a position such as shown in dotted lines in Fig. 2, an operator may carry out the raising and lowering operation while resting on the bed member with the head portion 2*a* supporting the upper portion of the body. In an alternative position the operator may slide forwardly and assume a completely prone position and then reach backwardly and move the arms upwardly from the position shown in Fig. 1. These two types of exercise require the use of various muscles which can be desirably strengthened and stimulated thereby.

Cooperating with the head rest in carrying out

either one of these operations described is a pillow member indicated in the drawings by the numeral **42**. The pillow member is pivotally supported between the vertical supports of the head portion **2***a* on a shaft **42***a*, as shown in Fig. 2. This member is of a triangular shape, as viewed in cross-section and shown in Fig. 2 of the drawings, the effect of which is to provide variation in the angle of inclination at which the head and shoulders of the operator may be supported. The two positions of the rotatable pillow member are clearly shown, one being in the full line cross-sectional showing of Fig. 2 and the other being represented by the dotted line position indicated in Fig. 2.

It is pointed out that in order to maintain the supporting head portion **2***a*, as well as the bed member free to pivot with movement of the two arms and their cam portions, it is necessary to secure the two side panels together independently of the base section, and this is provided for by means of a cross piece **44** which is solidly secured between the ends of the side panels, and which is shaped to snugly receive at the upper edge thereof the two arms **28** and **30** when they are in the lowered position shown in Fig. 1. If desired, the cross piece **44** may be notched out to form shoulders on which the arms **28** and **30** may rest.

Further cooperating with the pivoting supporting bed member and the back rest is the ladder element already described, including the spaced rungs **22**, **24** and **26**, which are best shown in Fig. 3. The location of the ladder element is chosen with reference to the position of the back rest and pillow member so that the operator, while lying on his back with his head supported on the pillow member **42**, may engage the feet against the rungs and perform various desired exercises, or, the feet may be merely supported on any one of the rungs to provide a desired degree of elevation of the feet relative to the remainder of the body and head and thereby induce relaxation of the back and leg muscles.

It will be apparent that by adjusting the position of the head portion of the bed member, or by adjusting the position of the pillow member **42**, a series of exercising positions may be assumed while the feet are bearing against or resting upon any one of the rungs of the ladder element. Therefore, a unique and novel apparatus is provided for using many different muscles in the body, as well as facilitating a wide range of positions of rest with the body in an inclined position. The side panels **4** and **6** may also be formed with slots **50** to provide hand grips for holding the body while using the rungs.

While I have shown a preferred embodiment of the invention it should be understood that changes and modifications may be made in line with the scope of the appended claims.

Having thus described my invention, what I desire to claim as new is:

1. An improved chair construction comprising a base section, said base section including a rectangularly shaped frame having spaced-apart sides connected at the front and rear of the frame by end walls, vertical supporting legs attached externally of the said sides at the front and rear of the base section frame, a supporting bed member pivotally mounted above the base section at the front thereof, a pair of side rails attached at opposite edges of the supporting bed member, said side rails being located externally of the said supporting legs and in spaced relation to the sides of the frame, a shaft transversely disposed through the side rails, a pair of cam lever members pivotally received on the shaft and located between the side rails and the said sides of the base section, said cam members presenting cam surfaces adapted to rest upon the upper extremities of the supporting legs at the rear of the said frame and to adjustably support the bed member.

2. A structure as defined in claim 1, in which the cam lever members are formed with elongated handle portions projecting upwardly above the said bed member.

3. A structure as defined in claim 2, in which the elongated handle portions are recessed at their upper edges to produce an arm rest in one position of rotation thereof.

4. A structure as defined in claim 1, including a head portion comprising a pair of inclined support members rigidly secured to the bed member.

5. A structure as defined in claim 1, including a head portion rigidly secured to the bed member, said head portion including a pair of spaced-apart supports joined at their upper extremities, and an adjustable pillow member pivotally supported between the said spaced-apart supports.

6. A structure as defined in claim 1, including a head rest consisting of two spaced-apart inclined supports joined at their upper extremity, a shaft transversely disposed between the supports, a pillow member pivotally mounted on the shaft, said pillow member being substantially triangular in cross-section and constructed and arranged to provide varying positions of adjustment relative to the bed member.

7. A structure as defined in claim 1, in which the vertical supporting legs at the front of the frame extend upwardly above the bed member and a plurality of rung members transversely disposed between the upwardly projecting portions of the legs to comprise a ladder member.

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References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
329,653	Kitchen	Nov. 3, 1885
342,020	Kitchen	May 18, 1886
781,328	Brown	Jan. 31, 1905
1,539,214	Shockey	May 26, 1925
1,641,188	Mittag	Sept. 6, 1927
2,562,339	Socol	July 31, 1951

FOREIGN PATENTS

Number	Country	Date
358,890	Great Britain	Oct. 9, 1931