Sept. 23, 1930. J. WEINEGEL 1,776,402

CHAIR

Filed July 29, 1927

Fig. 1,

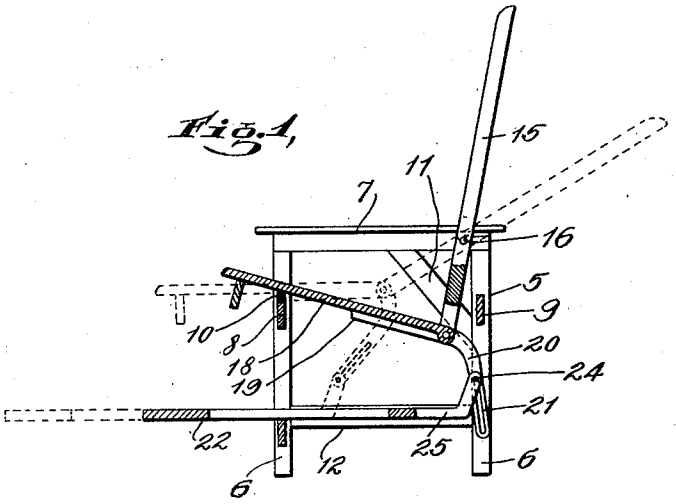


Fig. 2,

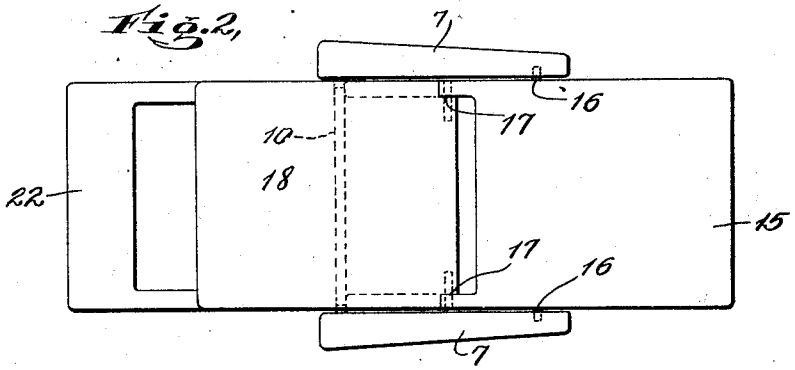


Fig. 3,

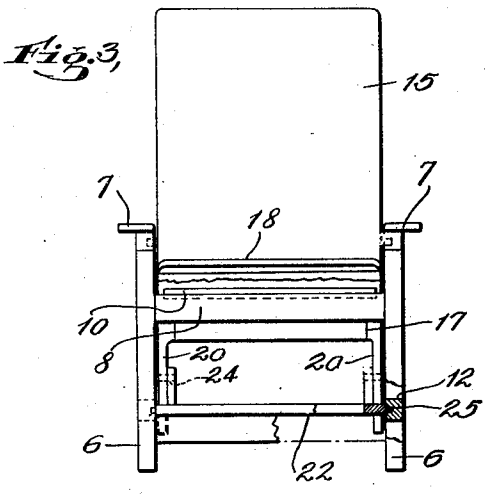
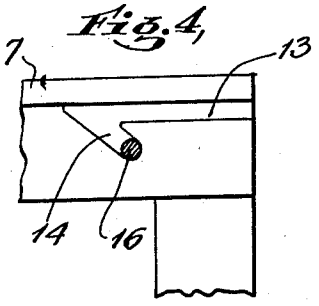


Fig. 4,



INVENTOR
John Weinegel
BY
Samuel E. Thompson
ATTORNEY

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UNITED STATES PATENT OFFICE

JOHN WEINEGEL, OF PATCHOGUE, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO PERFECT E. Z. CHAIR CORPORATION, OF NEW YORK, N. Y., A CORPORATION OF DELAWARE

CHAIR

Application filed July 29, 1927. Serial No. 209,221.

This invention relates to chairs and particularly to devices of this class employing movable chair elements; and the object of the invention is to provide movably coupled seat and back rest members supported in connection with the chair in the chair structure in such manner as to automatically move from a sitting position of the chair and back rest elements to a reclining position, and vice versa, in the movement of the body of the person sitting in said chair; a further object being to provide a foot rest member coupled and movable with said seat and back rest member and adapted to be extended with reference to the chair structure when the seat and back rest members are moved into a reclining position; and with these and other objects in view, the invention consists in a device of the class and for the purpose specified, which is simple in construction, efficient in use, and which is constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which:—

Fig. 1 is a sectional view through a chair made according to my invention, and indicating the method of its use.

Fig. 2 is a plan view of the structure shown in Fig. 1 in an extended position.

Fig. 3 is a front view of the chair as seen in Fig. 1; and,

Fig. 4 is an enlarged detail view of a part of the construction.

In the accompanying drawing, I have shown for the purpose of illustrating one method of carrying my invention into effect, a chair frame or body 5 consisting of four corner leg portions 6, the tops of said leg portions at each side of the chair being connected by arm portions 7. Said legs are joined by front and rear brace bars or rails 8 and 9, the bar 8 having a roller supported in its upper end as seen at 10. The arms 7 are also braced to the rear legs by a rail 11 to form a sturdy stationary chair body, and the lower portions of the side legs 6 are also coupled together by rails 12, one of which is shown in section in Fig. 3 of the drawing. The inner faces of the rear end portions of the arm members, are provided with grooves 13 which open outwardly through the rear ends of said arm members, and the rear ends of said grooves are offset downwardly and backwardly as seen at 14 in Fig. 4 of the drawing. In practice, I provide a back rest member 15, the offset side edges of which are provided adjacent the lower ends of said back rest member, with projecting pins 16, adapted to enter the grooves 13—14 to pivotally support said back rest member in connection with the body portion of the chair.

Pivoted to the lower end of the back rest member 15 as seen at 17 is a seat member 18 which rests upon the roller 10 of the rail 8 and is adapted to move forwardly and backwardly over said roller in the movement of the seat member and back rest member into vertical and reclining positions as indicated in full and dotted lines in Fig. 1 of the drawing. The outward movement of the seat member 18 in the movement of the same and back rest into a reclining position is limited by shoulders 19 on the underface of the seat member as clearly seen in Fig. 1 of the drawing.

The member 15 carries at its lower end and opposite sides, two curved and downwardly extending arms 20 having elongated slots 21. The inner end of a foot rest member 22 is provided with arms 23 having pins 24 operating in the elongated apertures 21 of the arms 20. The foot rest member is preferably keyed to the rails 12 as seen at 25, note Fig. 3 of the drawing. It will be noted that when the seat and back rest are in the position shown in Fig. 1 of the drawing, the foot rest is in its innermost position, but in the movement of the back rest and seat member to reclining position, the foot rest is extended outwardly into the position indicated in dotted lines in Fig. 1 and shown in full lines in Fig. 2.

The normal position of the chair is that shown in full lines in Fig. 1 of the drawing. In this position, the seat member 18 is inclined forwardly and upwardly, and the back

rest 15 is inclined backwardly to a slight extent. In the operation of sitting in the chair, if it is desired to sit upright, the seat and back rest will assume the full line position, but if it is desired to recline to a slight extent or to full extent, all that is necessary in accomplishing this result, is for the operator to recline backwardly by the exertion of slight pressure of the shoulders or back of the body on the back rest. In this operation, the seat member 18 automatically moves upwardly, and if desired, the seat and back rest may be extended to a reclining position to form literally a bed, it being understood that the seat and back rest as well as the body of the chair proper may be constructed of any desired material such as is common in the construction of upholstered chairs, or if desired may be constructed in the manner of a camp chair with flexible seat and back rest portions, or cushions may be supported in connection with the seat and back rest which is otherwise of solid construction. It will be understood that the illustration in the accompanying drawing merely represents one method of carrying my invention into effect, and the type of chair selected is merely for simplification in illustration and disclosure.

It will be understood that my invention is not necessarily limited to the structural details herein shown and described, and various changes therein and modifications thereof, may be made within the scope of the appended claims without departing from the spirit of my invention or sacrificing its advantages.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

The combination with a chair having front and rear pairs of supporting legs, a normally inclined tiltable and slidably supported seat, and a pivoted back rest controlling the movements of said seat, of spaced parallel brace rails connecting the front and rear legs and longitudinally grooved, a foot rest movable between said legs and including spaced parallel members having their inner extremities offset upwardly, a pair of arms carried by the opposed side edges of the seat and having rearwardly and downwardly curved portions, slot and pin connections between said offset extremities and the curved portions of said arms, whereby the foot rest is reciprocated incident to the movements of said seat, and said parallel members of the foot rest being slidable in the grooves of said rails, to maintain the foot rest in a true horizontal plane independently of the angular positions assumed by the seat, and parallel with the seat when the latter is extended to the limit of its forward adjustment.

In testimony that I claim the foregoing as my invention I have signed my name this 21st day of July, 1927.

JOHN WEINEGEL.