July 25, 1950 F. C. MAURER 2,516,712

RECLINING CHAIR WITH STATIONARY ARMS

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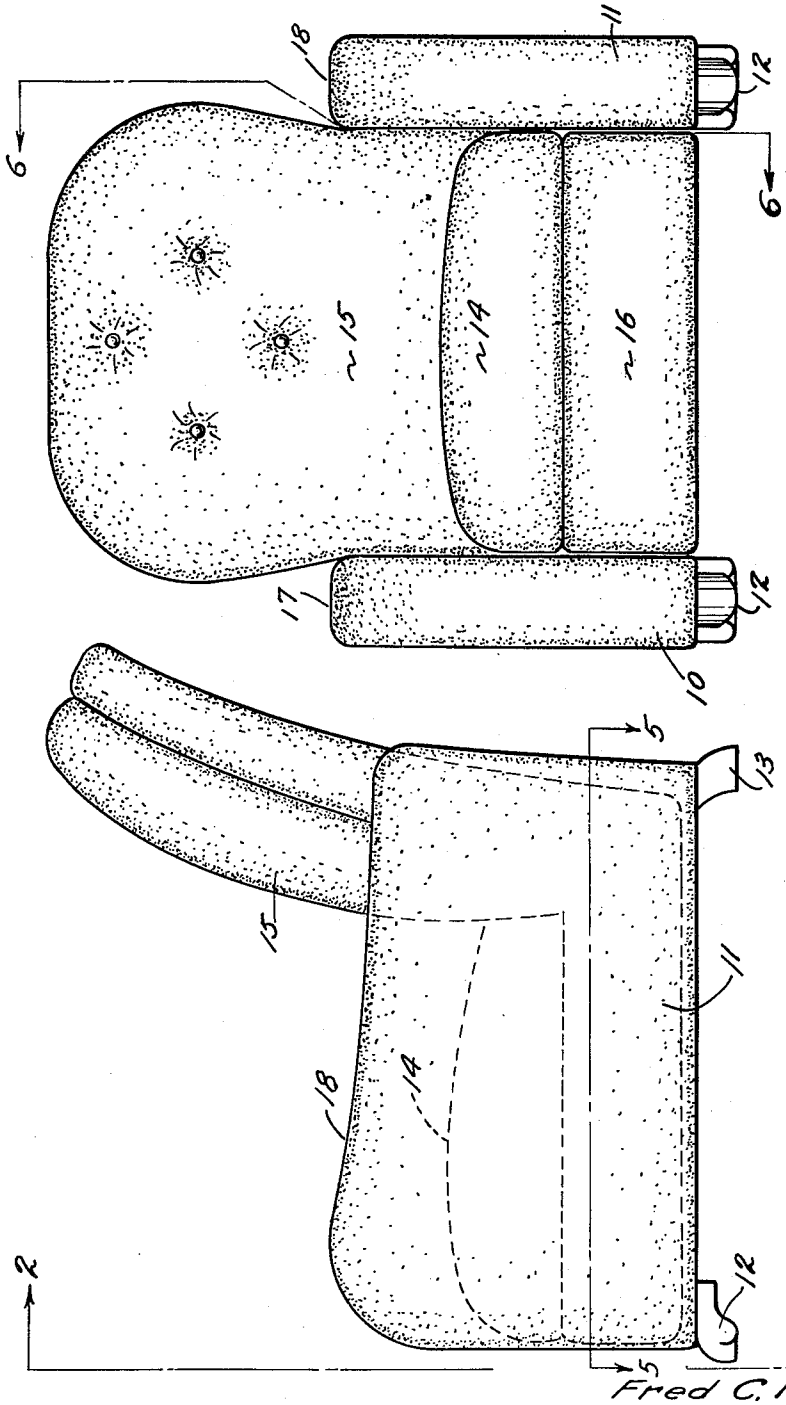


FIG. 2.

FIG. 1.

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FIG. 4.

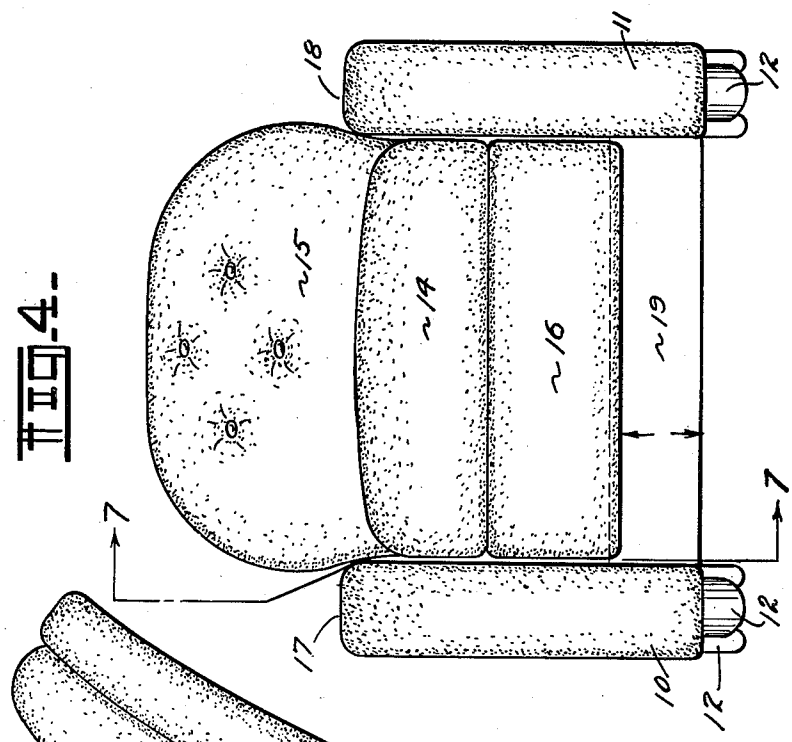
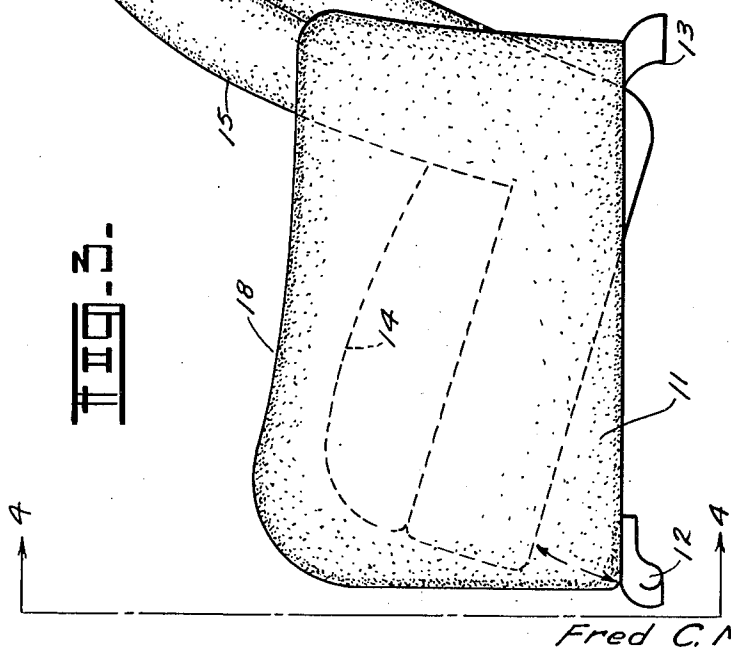


FIG. 5.



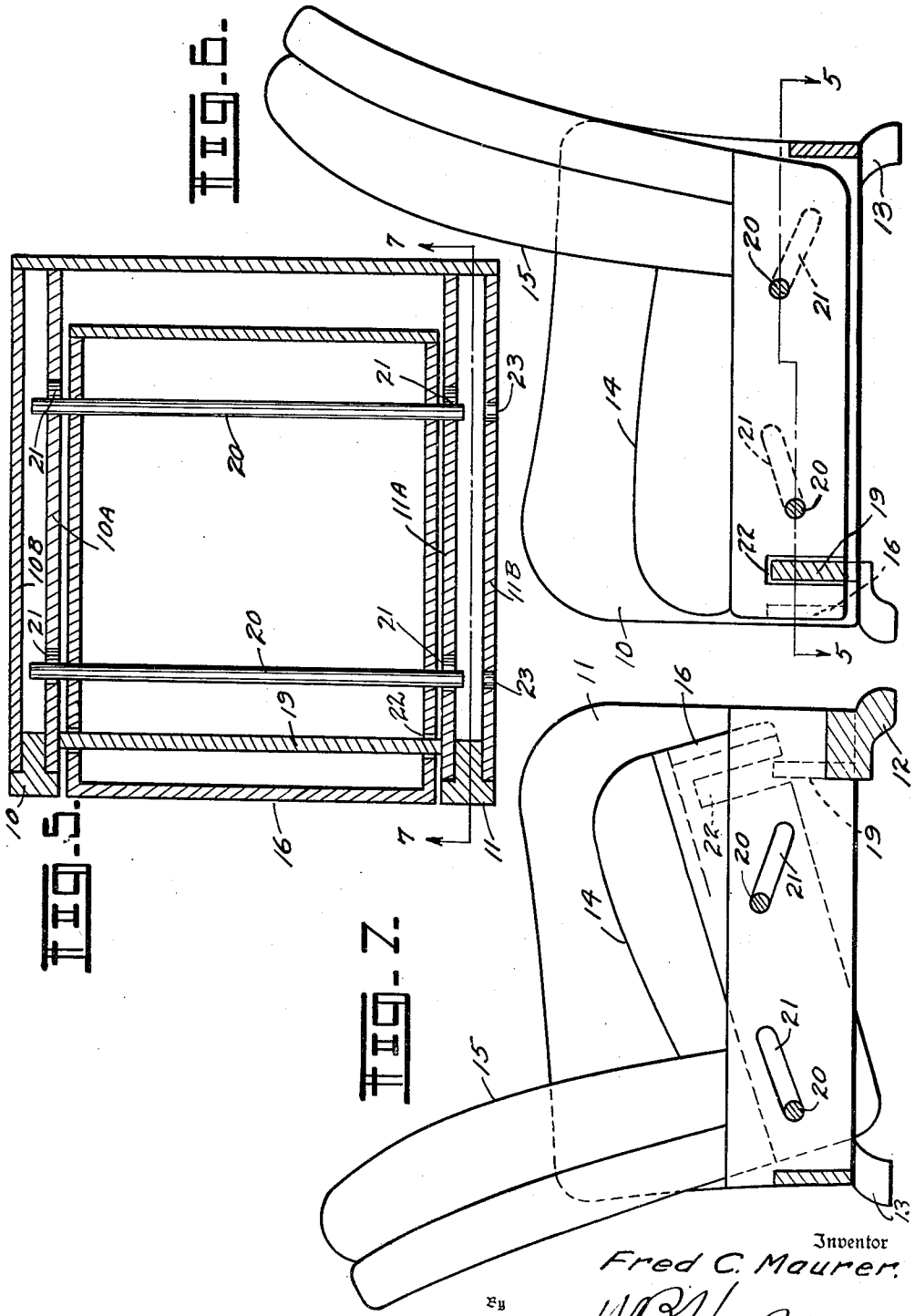
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UNITED STATES PATENT OFFICE

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RECLINING CHAIR WITH STATIONARY ARMS

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7 Claims. (Cl. 155—116)

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This invention relates to reclining chairs and more particularly to reclining chairs having stationary arm constructions.

The principal object of the invention is the provision of a reclining chair having stationary arm constructions.

A further object of the invention is the provision of a combined chair frame and arm construction supporting a chair seat and back unit for reclining movement with respect thereto.

A still further object of the invention is the provision of a reclining chair having fixed arms and means supporting the said reclining chair for movement between the said fixed arms.

A still further object of the invention is the provision of a reclining chair assembly having fixed arms and means engageable between the chair assembly and the arms for locking the chair assembly in fixed position.

The reclining chair shown and described herein has been designed to form a more comfortable and attractive form of reclining chair than has heretofore been known. It is well known that many reclining chairs have been made and marketed which comprised a complete chair assembly including seat, back and arm constructions formed in an integral unit and the whole of which was positioned on a base for movement with respect thereto and usually to permit tilting the chair backward from its usual upright position.

It is also known that reclining chairs have been formed in which fixed arms were employed and in which a fixed seat portion was positioned and the back of a chair so arranged as to be movable thereby permitting it to be tilted backwardly to form a reclining surface. These types of chairs known in the art have been uncomfortable and awkward in use and often of unsightly appearance.

These objections in this general type of chair construction have been overcome in the chair herein disclosed in that it presents an attractive over-all appearance in either upright or reclining position. It is so formed that the positioning of the seat and back portion of the chair may be changed without altering the positioning of the arms and for this reason the arms may be used by the person seated in the chair in tilting the chair to a desired position.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

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The invention is illustrated in the accompanying drawing, wherein:

Figure 1 is a side elevation of the chair in upright position.

Figure 2 is a front elevation of the chair in upright position.

Figure 3 is a side elevation of the chair in reclining position.

Figure 4 is a front elevation of the chair in reclining position.

Figure 5 is a horizontal cross section taken on line 5—5 of Figure 1.

Figure 6 is a vertical section taken on line 6—6 of Figure 2.

Figure 7 is a vertical section of the reclining chair taken on line 7—7 of Figure 4. The section is also indicated on line 7—7 of Figure 5.

By referring to the drawings and Figures 1 and 2 in particular it will be seen that a chair has been disclosed which includes a pair of arms 10 and 11 spaced apart and forming a base which is supported on legs 12 and 13. Seat and back portions 14 and 15, respectively, are integrally formed on a secondary base which is movably positioned with respect to the arms 10 and 11. In Figure 2 of the drawings the front portion of the secondary base is illustrated and indicated by the numeral 16. It will be observed that the upper portions of the arms 10 and 11 are curved as indicated by the numerals 17 and 18. It will be obvious to those skilled in the art that the seat portion 14 and the back portion 15 are of inner spring upholstered construction and that the arms 10 and 11 are upholstered to present an attractive appearance.

By referring now to Figures 3 and 4 of the drawings it will be seen that the integrally formed seat and back units 14 and 15 are shown in tilted or reclining position with respect to the arms 10 and 11 and the base which separates the arms 10 and 11 and forms a unit therewith. In Figure 4 the base separating the arms 10 and 11 may be seen and particularly a cross piece thereof indicated by the numeral 19. It will be observed that the cross piece 19 of the base is spaced inwardly with respect to the front portions of the arms 10 and 11.

In order that the integrally formed seat and back portions 14 and 15 may be moved with respect to the arms 10 and 11 and the base 19, means is provided for positioning the seat and back portions 14 and 15 on the arm and base por-

tions 10, 11 and 19 and comprises a pair of rods 20 positioned transversely of the secondary base 16 so that their outermost ends extend beyond the sides of the secondary base 16 which supports the integrally formed seat 14 and back 15 and the ends of the rods 20 engage oppositely disposed pairs of diagonally positioned slots 21 which are formed in the lower vertical sections of the arms 10 and 11 as best shown in Figures 5, 6 and 7 of the drawings.

By referring to Figures 5, 6 and 7 of the drawings it will be seen that the arms 10 and 11 each comprise a double walled structure, the inner walls being indicated by the numerals 10A and 11A, respectively, and the outer walls by the numerals 10B and 11B, respectively. The diagonal slots 21 are formed in the inner walls 10A and 11A, respectively. It will thus be seen that the outer walls 10B and 11B, respectively, serve to enclose the operating mechanism of the chair and therefore provide suitable means upon which upholstery materials may be positioned as in finishing the outer sides of the arms 10 and 11.

By referring to Figures 6 and 7 of the drawings it will be observed that the rectangularly positioned slots 21 are oppositely disposed with respect to one another and so formed that when the seat and back portions 14 and 15 of the chair are in upright position, as shown in Figure 6, the rods 20 are each in the foremost portions of the slots 21 thereby limiting the forward movement of the unit comprising the seat and back portion 14 and 15.

In Figure 7 of the drawings the unit forming the seat and back portion 14 and 15 is shown in position and it will be seen that the transversely positioned rods 20 have moved to the rearmost portions of the slots 21 thereby limiting the movement in this direction. It will also be seen that the arms 10 and 11 remain stationary at all times and that a person sitting in the chair may push against the arms in tilting the chair forward. This makes possible a convenient chair operating action as in most reclining chairs heretofore known in the art the person sitting in the chair has to operate the chair by foot pressure against the supporting surface or floor upon which the chair was positioned. When the seat portions of such reclining chairs tilted backwardly and forwardly it was often impossible for the user of the chair to reach the floor and was thereby incapable of further operating the chair or returning it to normal upright position.

By referring again to Figures 2 and 4 of the drawings it will be seen that the construction of the reclining chair shown and described herein is such that an attractive appearance is presented at all times regardless of whether or not the chair is in upright or tilted position. This is emphasized in the front appearance of the chair in that the front legs 12 remain stationary on the floor and the arms 10 and 11 remain stationary when the chair seat and back portion 14 and 15 is tilted. When the tilting action occurs, the front base 16 of the secondary base rises with the seat portion 14 and exposes the cross piece 19 of the main base to view, which cross piece 19 is preferably upholstered in the same material as that applied to the arms 10 and 11 and the chair seat 14 and back 15. Thus, whether the chair is tilted or in upright position, an attractive appearance is presented from the front and the side as no portion of the chair seemingly leaves the floor and the normal horizontal lines of the base remain the same. This action is further illustrated in Figures 6 and 7, and it will be noted by referring thereto that the secondary base 16 supporting the seat 14 and back 15 is slotted as indicated by the numeral 22 to enable it to pass downwardly over the upstanding cross piece 19 of the base. As this cross piece 19 is located only slightly inwardly from the front piece 16, the raising or lowering of the front piece 16 is not particularly noticeable.

Thus the chair avoids the common fault of appearing to be unsupported when in tilted position.

In assembling the reclining chair, the seat 14 and back 15 formed on the secondary base 16 is positioned between the arms 10 and 11 and within the area defined thereby, and the cross pieces spacing the same, which form the main base of the chair, and the rods 20 are inserted transversely of the assembled unit by way of a pair of openings 23 formed in the outer wall 11B. The openings 23 are covered when the chair is upholstered. For shipping purposes the chair may be made and the rods 20 moved sidewardly so that the ends thereof, as best shown in Figure 5 of the drawings, engage the openings 23 and thereby hold the chair in locked upright position.

It will thus be seen that a simply constructed, efficiently operating reclining chair has been disclosed in which the arm portions are used to form parts of a stationary base which positions a unit forming seat and back portions. The seat and back portion is movably postioned on the arm and base portion of the chair by reason of the transversely positioned rods 20 slidably engaging the diagonally positioned slots 21 as heretofore described which provides a four-point supporting construction for the seat and back portion and thereby equally and safely distributes the weight of the chair and its user on the main base and at the same time enables the user to tilt the chair by pressure applied to the arms 10 and 11 thereof. In side elevation the chair presents an attractive appearance in either upright or tilted position as the main side arm portions of the chair remain stationary and in front view the provision of the upholstered cross piece 19 lying immediately behind the seat and back portion secondary base 16 is exposed in direct ratio to the upward tilting of the seat and back portion and the secondary base 16 thereby enabling the chair to retain its normal low horizontal lines with respect to the supporting surface.

The chair comprises an improvement over that shown in the patent to Olschlager et al., No. 2,137,923 issued November 22, 1938.

Having thus described my invention, what I claim is:

1. In a reclining chair a seat and back unit and means for supporting the same in tiltable relation to a supporting surface, the said supporting means comprising a base relatively wider than the said seat and back unit and including vertical side sections having slots formed therein at an inclination and in oppositely disposed relation, and the said seat and back unit having sidewardly projecting means engaging the said slots, the said sidewardly projecting means being movable transversely of the said seat and back unit, and the said vertical side sections having secondary openings therein for registry with the said movable projections so as to enable the said seat and back unit to be locked in stationary position with respect to the said base.

2. In a reclining chair a seat and back unit and means for supporting the same in tiltable relation to a supporting surface, the said supporting means comprising a base relatively wider

than the said seat and back unit and including vertical side sections having slots formed therein at an inclination and in oppositely disposed relation, and the said seat and back unit having sidewardly projecting means engaging the said slots, the said sidewardly projecting means being movable transversely of the said seat and back unit, and the said vertical side sections having secondary openings therein for registry with the said movable projections so as to enable the said seat and back unit to be locked in stationary position with respect to the said base, and chair arms formed on the said vertical side sections of the said base.

3. A reclining chair comprising a base having stationary arm constructions at each side thereof, the said stationary arm constructions including doubled wall sections, the inner walls of the said doubled wall sections having two pairs of oppositely disposed inclined slots formed therein, a seat and a back unit positioned between the said arms and movably mounted with respect thereto by means of two rods positioned through the said seat and back unit and extending beyond the sides thereof and engaging the said slots, openings formed in the outer walls in at least one of the said arms and in registry with the said slots and for the reception of the said rods for locking the said seat and back unit in stationary relation to the said base.

4. A reclining chair having stationary arms and comprising a base carrying said arms in spaced relation, a secondary base having side walls and carrying a seat and back unit, means positioning the said secondary base for movement with respect to the said arms and base, said means comprising slots formed in the said arms at inclinations corresponding to spaced sections of a common convex radius, and rods positioned transversely in the said secondary base and extending beyond the side walls thereof and engaging the said slots whereby the said seat and back unit may be moved to simultaneously elevate the front thereof and lower the back thereof.

5. A reclining chair including a base having arms affixed at its sides and oppositely disposed slots formed in the inner surfaces of the said arms at oppositely disposed inclinations corresponding to the spaced sections of a common convex radius, and a seat and back unit having side walls positioned between the said arms, transverse rods in the seat and back unit projecting beyond the walls on the seat and back unit engaging the slots for movement therein so as to slideably mount the seat and back unit on the base and arms whereby the seat and back unit may be moved to simultaneously elevate the front thereof and lower the back thereof.

6. In a reclining chair a seat and back unit having side walls and means for supporting the same in tiltable relation to a supporting surface, the said supporting means comprising a base and arm unit relatively wider than the said seat and back unit and including spaced vertical side sections each having two slots formed therein in spaced relation and each slot inclined inwardly and upwardly in oppositely disposed relation, and the said seat and back unit having transverse rods projecting beyond the walls and engaging the said slots whereby the said seat and back unit may be moved to simultaneously elevate the front thereof and lower the back thereof.

7. In a reclining chair a seat and back unit having side walls and means for supporting the same in tiltable relation to a supporting surface, the said supporting means comprising a base relatively wider than the said seat and back unit and including spaced vertical side sections each having a pair of slots formed therein, the innermost adjacent ends of the slots lying on a horizontal plane higher than the horizontal plane of the outermost ends of the said slots, the said seat and back unit having transverse rods projecting beyond the walls and engaging the said slots whereby the said seat and back unit may be moved to simultaneously elevate the front thereof and lower the back thereof, and chair arms formed on the said vertical side sections of the said base.

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