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L. MARZOCCHI
FOLDING-FRAME CHAIR
Filed Oct. 18, 1963

3,269,767

FIG. 1

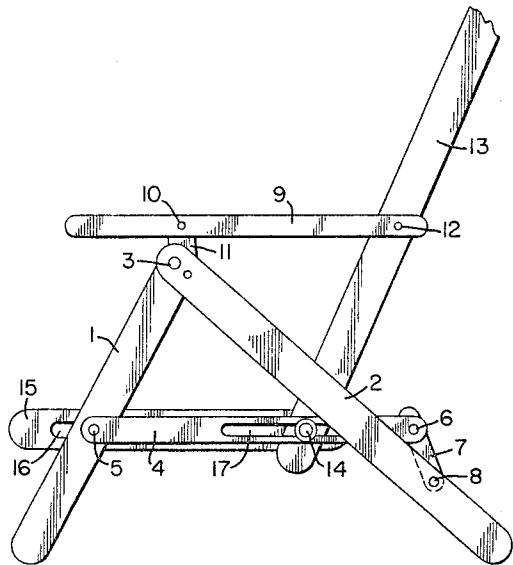
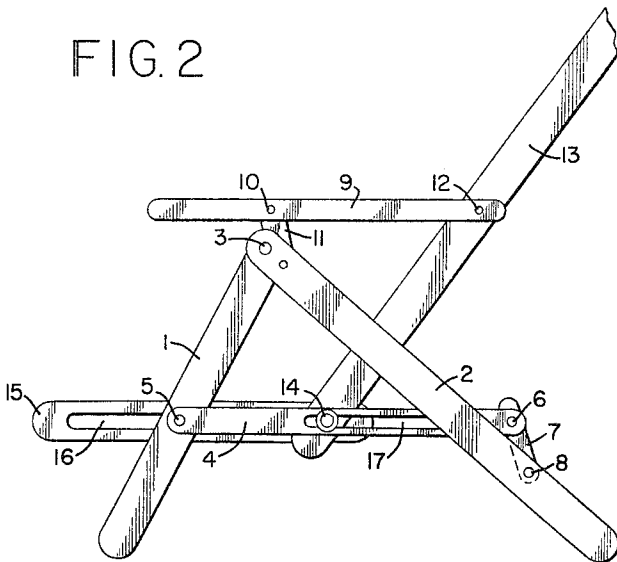


FIG. 2



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3,269,767 FOLDING-FRAME CHAIR

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1 Claim. (Cl. 297—29)

It is the object of the present invention to widely improve the system for adjusting the inclination of any known type of chair or deck chair, of upholstered easy chairs and the like.

It seems advisable to shortly describe this very common type of chair. Its frame, usually made of wood or metal, is generally featuring two front and two rear legs which, seen from their side, are describing an overturned V, as they are preferably connected to each other at their upper ends, while they are kept at a fixed distance from each other by means of a substantially horizontal cross bar fitted half way down, forming a solid triangle representing the side of the chair. The back of the chair is hinged to the rear end of its seat. The elbow rests are connecting an intermediate point of the back with the vertex of said triangle, usually fitted with the device for adjusting the inclination of the chair back. As a matter of fact the operator, by displacing the elbow rests backwards and forwards, is also inclining the back accordingly and will then fix it in the desired position. However, this known type of deck chair and the like is presenting some remarkable disadvantages as far as its adjustment is concerned. For instance, when moving the elbow rests forwards and backwards the operator is always obliged to fix them both in exactly the same position in order to avoid any displacements of one side towards the other, which would, of course, disconnect the frame. In order to obviate this inconvenience some manufacturers often adopted an adjusting lever with a semicircular movement to be fixed into its two final positions, but thus the intermediate positions are no longer possible, which is a new disadvantage, these intermediate positions being the most necessary.

By the present invention the above mentioned inconveniences are to be eliminated.

The main feature of the present invention is the possibility to obtain any displacement of the chair back without unduly engaging the operator and without setting notches involving the danger of a misplacement.

In a type of chair built up according to the present invention the elbow rests, instead of being displaceable forwards and backwards as usual, are fixed to the frame, while the seat may be displaced forwards and backwards. When moving the seat also the back is displaced accordingly, rotating around the point where the elbow rests are hinged to it. As the seat is no longer able to act as a spacer between the front and the rear legs, being obliged to move forwards and backwards in respect to the legs themselves, there is a special spacer connecting the front legs to the rear legs and keeping them in the right position to form the above mentioned triangle. While sliding back and forth the seat is subject to a remarkable friction as it is carrying the weight of the person sitting on it. Owing to this friction and resistance the seat will stop in any desired position without requiring any fixing device like notches, teeth or the like, thus eliminating the danger of a displacement of one side of the chair in respect to the other one. On the other side, should the resistance and friction not be the same at both sides of the chair, the solidity of the square and nondeformable seat frame will prevent any misplacement of the two sides of the chair. Finally, the operator is no longer compelled to carefully adjust the inclination of the chair back as he will automatically adjust it by simply changing the inclination of his own back. As for the folding of the chair

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no special description is necessary as it is carried out in the usual manner.

The above and other features will be more clearly understood from the following description of a merely indicative example of execution and from the enclosed drawing, where

FIG. 1 is a side view of the chair with its back in a fairly vertical position, and

FIG. 2 is showing the same chair with its back in a more inclined position.

Referring to the enclosed drawing, the chair is fitted with two front legs 1 and two rear legs 2, connected by means of pin 3. A spacer 4 between pins 5 and 6 keeps said front and rear legs apart, i.e. pin 6 is not hinged on the rear leg but in a lever 7 hinged on turn to the rear leg by means of a pin 8, the frame of this kind of chair usually being fitted with such a lever in view of the folding operation. Elbow rest 9 is fixed to the solid triangle forming the chair side by means of a pin 10 with the help of a connecting piece 11 fixed to the upper end of the rear leg. The rear end of elbow rest 9 is pivoted on back 13 by means of a pin 12, while the lower end of said back 13 is hinged on seat 15 by means of a pin 14. In order to allow the seat its to and fro movements it is fitted with a slot 16 along which pin 5 is free to slide back and forth, while pin 14 may slide in a slot 17 recessed into spacer 4. Said seat 15 and the weight of the person sitting on it is resting on front pin 5 and rear pin 14, while in the known chairs with a sliding seat, the latter is supported by the back of the chair and therefore following its displacements, so that when the back is tilting rearwards and its lower end lifted upwards the seat will be lifted at its rear end.

The details, dimensions, materials and shape of the chairs made according to the present invention may vary without surpassing the domain of the present invention.

I claim:

An improved folding-frame chair which comprises in combination:

- (a) front and rear legs arranged substantially into an overturned V, forming the side of the chair;
- (b) a pair of arm rests connected to the apex of said overturned V by means of hinged connectors and to the back of said chair at an intermediate height thereof by means of pins;
- (c) a seat supported by said legs at an intermediate height thereof and horizontally slidably adjustable to and fro on notchless and arresterless planes by the friction caused against said planes by the weight of the person sitting in said seat;
- (d) a tiltable back pivotably connected at an intermediate height to said arm rests and at the lower extremity to said seat by a pin; and
- (e) a pair of spacers coplanar with said seat, pivotably connected to said front legs and hinged to said rear legs, and having a slot along part of the long axis thereof, along which slot supportedly slides the pin connecting said seat to said lower extremity of said back, said spacers keeping said legs fixedly apart when said overturned V-frame is in open position.

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