Feb. 17, 1959 J. M. GARCIA 2,873,793

FOLDING CHAIR

Filed June 4, 1957

Fig. 1.

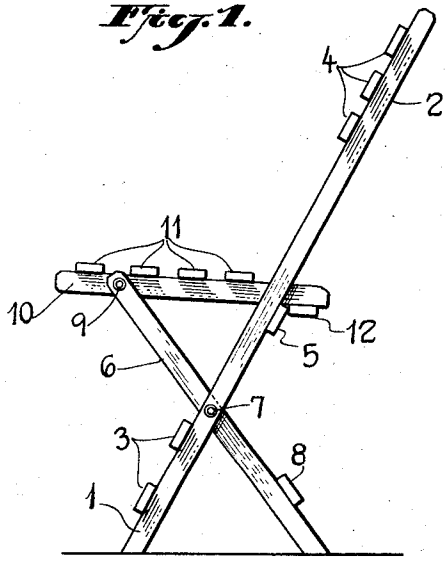


Fig. 2.

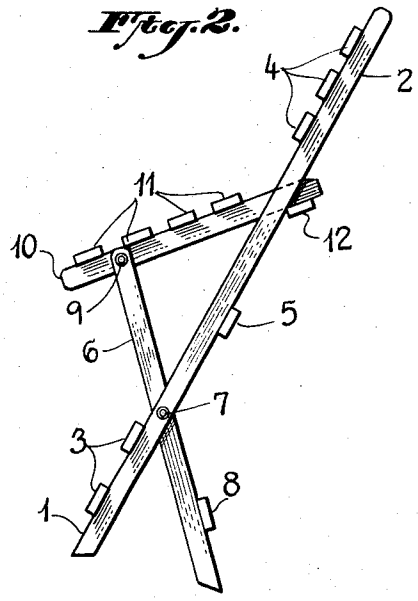


Fig. 3.

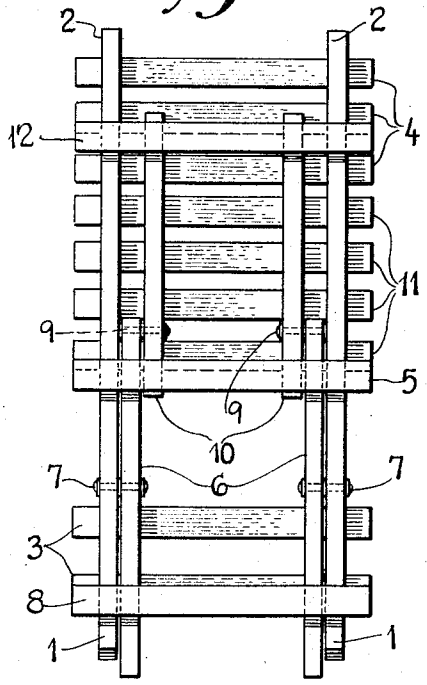
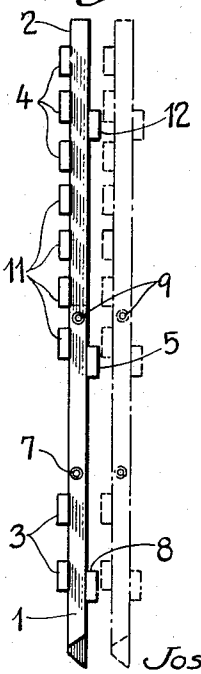


Fig. 4.



INVENTOR.
JOSE M. GARCIA.

BY Ward Neal Hamilton
Ernest Lee Thomson

ATTORNEYS.

United States Patent Office 2,873,793 Patented Feb. 17, 1959

2,873,793

FOLDING CHAIR

Jose M. Garcia, Cresskill, N. J.

Application June 4, 1957, Serial No. 663,500

2 Claims. (Cl. 155—143)

The invention relates to chairs of the folding type, and aims primarily to provide a chair which may be readily folded into a position in which the outer parts exposed at its opposite faces will lie in substantially parallel, closely adjacent planes, so that similar chairs may be stacked together for shipment or storage in a minimum of space and with less likelihood of shifting out of parallel, closely engaging relation, the structure being sturdy and resistant to distortion when in unfolded operative condition, and requiring only a minimum of metallic fittings or other specially shaped parts, so as to be exceedingly economical in cost. Further objects and advantages will be in part obvious and in part specifically referred to in the description hereinafter contained which taken in conjunction with the accompanying drawings, discloses a preferred form of chair constructed in accordance with the invention; the disclosure however is to be considered as merely illustrative of the invention in its broader aspects.

In the drawings:

Fig. 1 is a side elevation of a chair constructed in accordance with the invention, and shown in unfolded or operative position ready for use.

Fig. 2 is a view similar to Fig. 1 but showing the chair in partly folded condition.

Fig. 3 is a rear elevation showing the chair in completely folded position.

Fig. 4 is an edge view of the folded chair, looking from the right of Fig. 3 and showing in dotted lines a similar chair in juxtaposed relation thereto.

In its preferred form the chair comprises two leg members 1 which are extended upwardly as indicated at 2 to form supports for the back of the chair, these members being preferably simple strips of wood rectangular in cross section. Parallel cross pieces 3 are shown as extending between and fastened to the front faces of the leg members 1 to serve as braces, and similar cross pieces 4 are shown as extending between and fastened to the upper portions 2 of such members, to serve as the back of the chair against which the user may lean. A cross piece 5 extends between and is fastened to the rear faces of the intermediate portions of the members 1, to serve as a support and stop for the seat structure later more specifically referred to.

A second set of leg members 6 is provided, each member 6 being pivotally connected to its adjacent leg member 1, as indicated by the bolts 7. Preferably a cross piece 8 extends between and is fastened to the rear faces of the lower portions of the leg members 6 to serve as a brace, and also to assist in holding adjacent folded chairs in more properly stacked relation as later more specifically referred to.

The seat structure of the chair is pivotally connected to the upper end portions of the leg members 6. In the form shown this seat structure comprises rearwardly extending supporting members 10, the forward portions of which are pivotally connected to the upper end portions

of the respectively adjacent leg member 6 by bolts as indicated at 9, the seat proper being constituted by an appropriate member of cross pieces 11 which extend between and are fastened to the upper faces of the supporting members 10. Preferably the opposite end portions of the cross pieces 11 extend beyond the outside faces of the members 10. A cross piece 12 extends between and is fastened to the bottom faces of the supporting members 10 adjacent the rear ends thereof, and preferably the opposite ends of the cross piece 12 also extend beyond the outer side faces of the members 10.

It will be noted as shown in Figs. 1 and 2, that the leg members 1 extend upwardly between the rearward edge of the seat constituted by the cross pieces 11, and the forward face of the cross piece 12. In the unfolded position which the chair assumes when in use, the cross piece 12 engages behind the cross piece 5, and the rear ends of the supporting members 10 rest upon the cross piece 5 so that the latter serves as a support for the weight of the user. Also the cross pieces 5 and 12 serve as abutting stop members which prevent the seat structure from moving forwardly and collapsing the chair under the weight of the user.

When the chair is adjusted to folded position, the cross piece 12 will be lifted up out of engagement with the cross piece 5 as indicated in Fig. 2, and this upward movement will be continued until the parts reach the folded position shown in Figs. 3 and 4. Since the members 1, 2 are confined so to speak, between the rear edge of the seat constituted by the cross pieces 11 and the forward edge of the cross piece 12, during the movement of the parts to folded position the forward or rear faces of the members 1, 2 will serve as guides limiting the positions which the seat structure can assume during movement, until the parts reach the completely folded position shown in Fig. 4. In this position the cross pieces 11 will lie substantially in the same plane as the cross pieces 3 and 4, and the cross piece 12 will lie in the same plane as the cross pieces 5 and 8, the overall thickness so to speak of the folded chair being equal to the width of the members 1 plus the thickness of the cross pieces which lie on opposite faces of the leg members 1, 2. The thickness of the folded chair may be kept small, and as will be noted from Fig. 4, when similar chairs are juxtaposed, the adjacent chairs will readily lie flat against each other so that the assembled chairs are less likely to shift out of proper contacting relation to each other. When juxtaposed, the engaging surfaces of adjacent chairs will lie in parallel planes, so that the chairs may be readily held together to avoid shifting or rattling during shipment.

When the chair is to be adjusted from folded to unfolded position, the cross piece 12 may be grasped and pushed downwardly until the position shown in Fig. 1 is reached, the forward and rear surfaces of the members 1, 2 again serving as guides limiting the positions which the seat structure can assume during this movement.

All of the main parts may be constructed of wooden strips of simple shapes, which may be readily and economically cut and assembled. Only four special fittings are required as indicated at 7 and 9, and the resulting chair is decidedly rugged and resistant to distortion when in operating position.

While the invention has been disclosed as carried out by a chair structure of the above described specific form, it should be noted that changes may be made therein without departing from the invention in its broader aspects, within the scope of the appended claims.

What is claimed is:

1. A folding chair of the character described including a first set of spaced leg members which are extended

upwardly to form supports for the back of the chair, cross pieces extending between and connected to said members respectively at their upper and intermediate portions to constitute respectively a back for the chair at said upper portions and a support and stop at said intermediate portions for the seat structure hereinafter mentioned, a second set of leg members pivotally connected respectively to said first mentioned leg members, a seat structure having supporting members respectively pivotally connected at their forward portions to the upper end portions of said second mentioned leg members, cross pieces extending between and connected to said last mentioned supporting members respectively at their forward and rear portions to constitute respectively a seat, and a stop member engaging behind the second of the first above mentioned cross pieces when the chair is unfolded; said first mentioned support and stop being mounted on the rear faces of said first mentioned leg member so as to be rearwardly offset with respect thereto; said second mentioned stop member being mounted on the lower faces of said last mentioned supporting members so as to be downwardly offset with respect thereto when the chair is in unfolded position, said first mentioned leg members extending upwardly between the rear portion of said seat structure and second mentioned stop member, whereby when the chair is adjusted from unfolded to folded position with all of the above mentioned leg members in substantially parallel coplanar relation, said second mentioned stop member assumes a position offset with respect to said leg members in substantial correspondence with the offset position of said first mentioned support and stop with respect to said leg members.

2. A folding chair of the character described including a first set of spaced leg members which are extended upwardly to form supports for the back of the chair, spaced cross pieces extending between and mounted upon the forward faces of said members to constitute a back for the chair, a further cross piece extending between and mounted upon the rear faces of said members at their intermediate portions to constitute a support and stop for the seat structure hereinafter mentioned, a second set of leg members pivotally connected respectively to said first mentioned leg members, a cross piece extending between and mounted upon the rear faces of the lower portions of said second mentioned leg members to constitute a brace member rearwardly offset with respect to said second mentioned leg members, a seat structure comprising spaced rearwardly extending supporting members respectively pivotally connected at their forward portions to the upper end portions of said second mentioned leg members, cross pieces extending between and mounted upon the upper faces of said last mentioned supporting members to constitute a seat, a further cross piece extending between and mounted upon the lower faces of said last mentioned supporting members to constitute a stop member, the rear portion of the seat and said cross piece which constitutes a stop member both having opposite end portions which respectively overlap the forward and rear faces of the first mentioned leg members, said first mentioned leg members extending upwardly between the rear portions of said seat and said last mentioned stop member, whereby as the chair is adjusted between folded and unfolded position, the rear portion of the seat and said last mentioned stop member in conjunction with the forward and rear faces of said first mentioned members restrain the above mentioned parts to move between a folded position in which said seat lies substantially in the same plane as the back of the chair and said first mentioned brace member and said stop members lie substantially in the same plane rearwardly offset with respect to said leg members; and an unfolded position in which the rear portion of said seat structure rests upon the above mentioned cross piece at the intermediate portions of said first mentioned leg members, and said second mentioned stop member engages behind said last mentioned cross piece.

References Cited in the file of this patent

UNITED STATES PATENTS

63,897	Howarth	Apr. 16, 1867

FOREIGN PATENTS

21,028	Great Britain	Oct. 20, 1899
507,809	France	July 5, 1920
103,187	Switzerland	Feb. 1, 1924
748,751	France	Apr. 25, 1933