SEAT CONSTRUCTION FOR FOLDING CHAIRS

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

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The present invention relates to seat construction for folding chairs or stools and more particularly to a construction adaptable to stools of the type shown in United States Patents, Nos. 1,215,659 and 1,314,657, to prevent sagging of the seat portion. In the present construction, the divided seat shown in the patents is made of sections which overlap along the transverse center line, thus providing a stiffer central portion, with sufficient resiliency to give under use but to return to its normal flat position when not in use.

To the accomplishment of the foregoing and related ends, said invention, then, consists of the means hereinafter fully described and particularly pointed out in the claims.

The annexed drawing and the following description set forth in detail certain mechanism embodying the invention, such disclosed means constituting, however, but one of various mechanical forms in which the principle of the invention may be used.

In said annexed drawing:

1. Fig. 1 is a perspective view of a stool embodying the present seat construction; Fig. 2 is a top plan view of the stool; Fig. 3 is a section on the line 3—3 of Fig. 2; and Figs. 4 and 5 are sections on the lines 4—4 and 5—5 respectively of Fig. 2.

The present stool or chair is of the type shown in United States Patents 1,184,657 and 1,215,659 in which there is provided a folding support made up of four trapezoidal supporting members 3, having their narrow sides hinged together at the middle of the support 4 and providing two side rails 5 to which the seat members are secured. The seat members 6 are also trapezoidal in shape and are hinged together at the center along the longitudinal or front to back center line of the chair or stool.

These two seat members 6 are similar, each consisting of two trapezoidal shaped sheets 7 and 8 which overlap each other along the transverse center line of the chair. Each upper sheet 7 has its end 10 looped around its side rail 5 and beveled upon itself and similarly each under sheet 8 is secured to its side rail by a looped portion 11.

The overlapping center portions 12 of each pair of seat members are cut back so as not to engage the side rails. The two halves of the seat are hinged together at the center by three loop hinges 15, the center hinge 15a being the width of the overlapping center portion 12. Each top sheet 7 has its end 20 looped around the hinge rod and doubled under the cut off end of the under sheet 8, rivets or eyelets 17 being passed through such two sheets 7 and 8 and end 20 to secure the same together. At the outer end the overlapped portions of sheets 7 and 8 are similarly tied together by means of rivets or eyelets 18.

The front and back sides of sheets 7 and 8 are similarly connected to the opposite members by the loop hinges 15, the ends 30 of the members being doubled under and riveted to the sheets proper. The single thickness parallelogram portions of the seat members are preferably punched with apertures 25 to tighten the chair or stool but the overlapping portions 12 are preferably not punched as it has been found that this stiffens the seat and prevents sagging.

In the original forms as shown in the United States patents previously mentioned, the single thickness seats sagged badly and took a permanent set but in the present form with the overlapping center portions, the sagging has been substantially eliminated without increasing the weight of the seat. In fact, it has been found feasible to use lighter gauge metal thus lightening the entire structure.

Other modes of applying the principle of the invention may be employed instead of the one explained, change being made as regards the mechanism herein disclosed, provided the means stated by any of the following claims or the equivalent of such stated means be employed.

I therefore particularly point out and distinctly claim as my invention:

1. A seat construction for folding chairs, consisting of side support members, and pairs of sheet metal seat members, the members of each pair overlapping along the transverse center portion of the seat and being hinged
to the corresponding pair along the longitudinal center line of the seat.

2. A seat construction for folding chairs, consisting of side support members, and two pairs of sheet metal seat members, each pair forming one-half of the seat and being hinged to the other pair along the longitudinal center line of the seat, the members of each pair being secured to the support members and overlapping each other over the transverse center line of the seat.

3. A seat construction for folding chairs, consisting of side support members, and two pairs of sheet metal seat members, each pair forming one-half of the seat and being hinged to the other pair along the longitudinal center line of the seat, the members of each pair being secured to the support members and overlapping each other over the transverse center line of the seat to form a double portion along the center to prevent sagging.

4. A seat construction for folding chairs, consisting of side support members, and two pairs of sheet metal seat members, each pair forming one-half of the seat and being hinged to the other pair along the longitudinal center line of the seat, the members of each pair being secured to the support members and overlapping each other over the transverse center line of the seat to form a double portion along the center to prevent sagging, the overlapping center portion being unsecured to the support members.

Signed by me this 29th day of June, 1929.

BENJAMIN DELAND.