

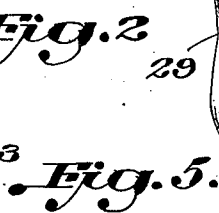
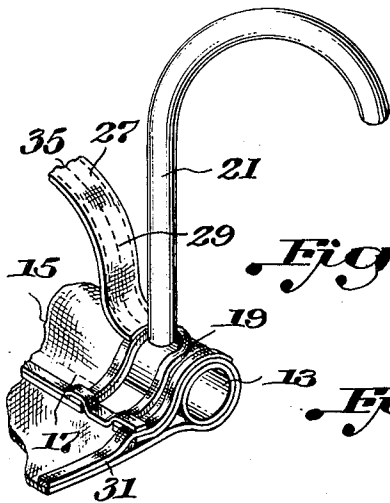
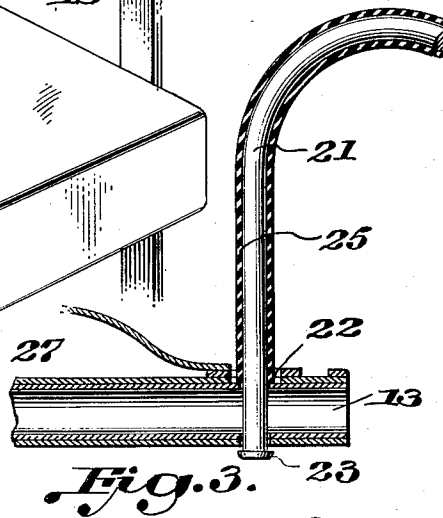
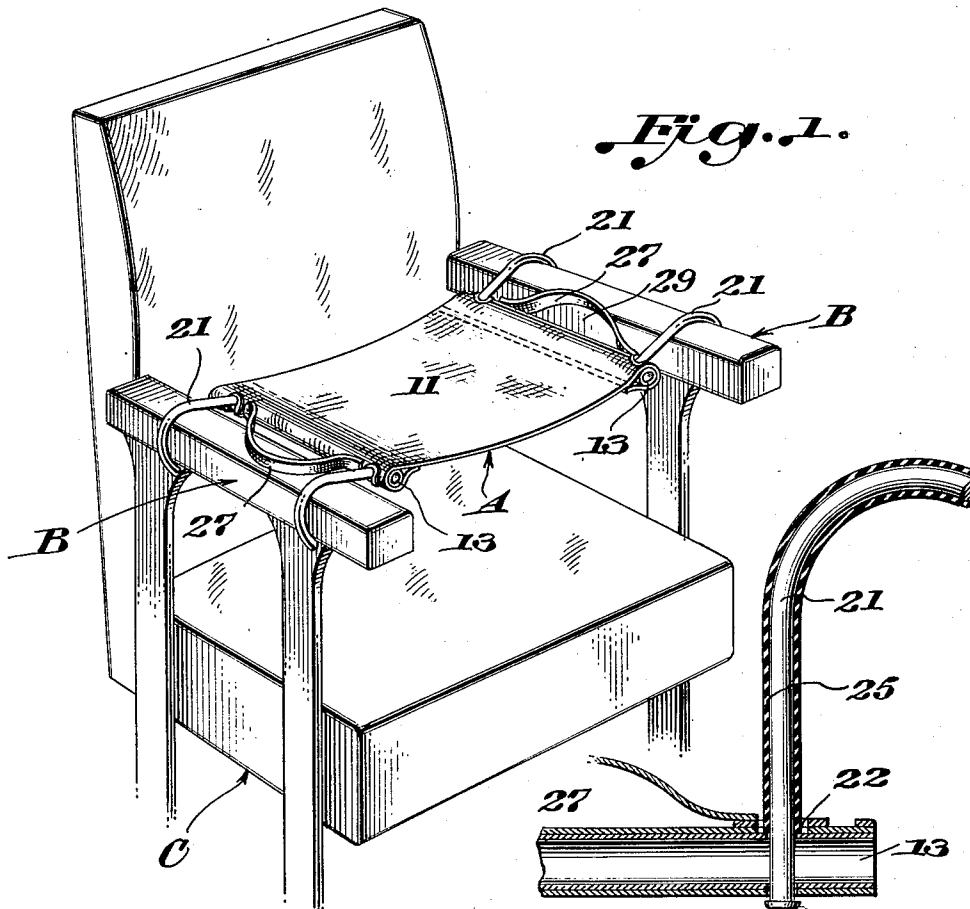
Nov. 14, 1950

S. J. GILLIS ET AL
FOLDING SEAT

2,530,239

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2 Sheets-Sheet 1



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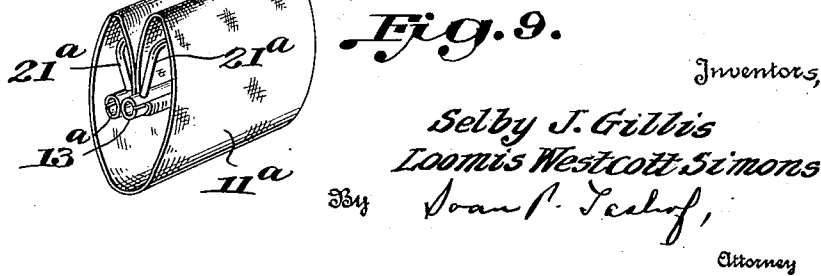
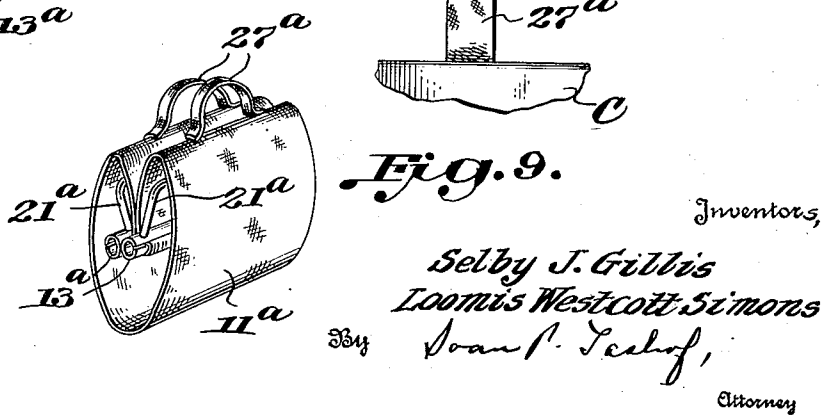
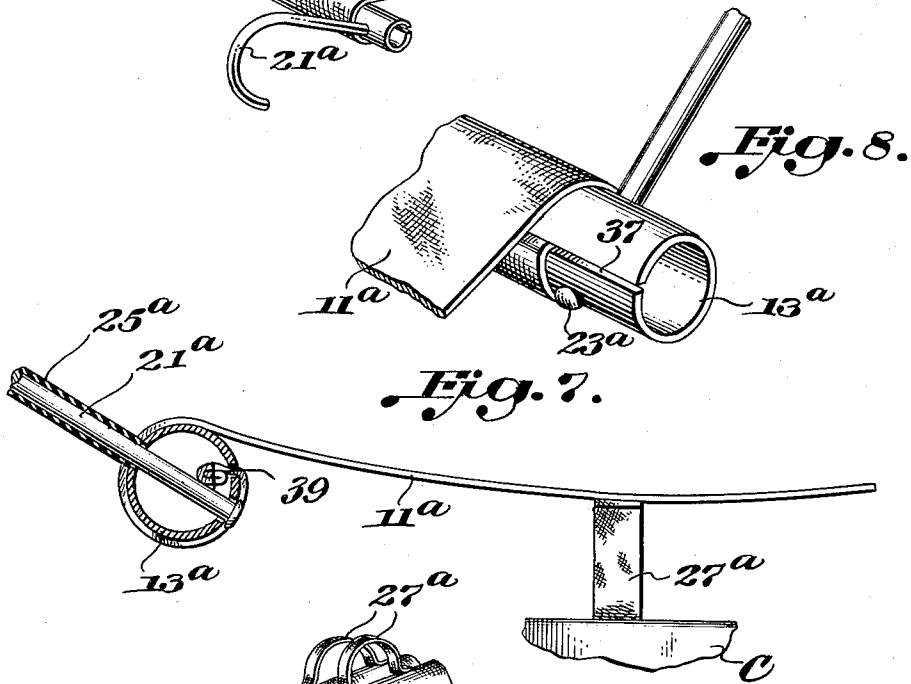
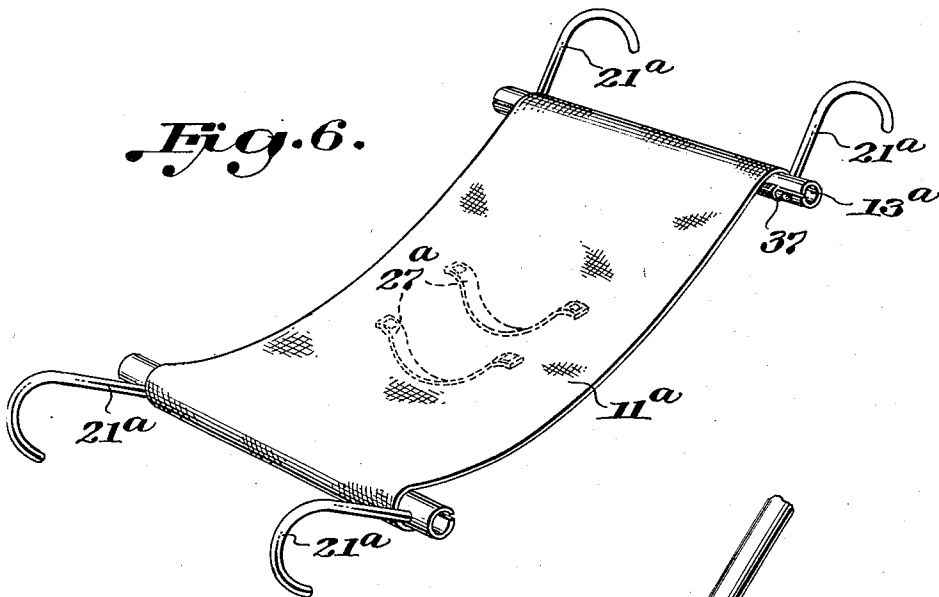
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2 Sheets-Sheet 2



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FOLDING SEAT

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9 Claims. (Cl. 155—131)

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The present invention relates to an improved construction of a foldable or collapsible auxiliary seat designed especially for the use of infants and small children, it being of a type adapted to be suspended from the arms or sides of a regular or conventional seat or chair.

Auxiliary seats of this general type are well known in the art, and are widely employed to give a "high chair" effect for infants and small children to give them an elevated seat for viewing motion picture productions, or for any other desired circumstances.

The present construction offers desirable advantages over previous types of structures of this category, such as, for example, in the ease in which it may be positioned for use, the flexibility of its construction enabling it to be folded very compactly for carrying, its strength of assembly, and its ease and low cost of production.

These and further objects and advantages will become apparent as the description proceeds, and the features of novelty will be pointed out in particularity in the appended claims.

The invention will be understood more readily from the accompanying drawings, wherein

Fig. 1 is a perspective view of the auxiliary seat of the present invention, the seat being shown mounted on the arms of a conventional type of chair;

Fig. 2 is an enlarged detailed perspective of one end of the auxiliary seat of the present invention showing details of the construction of the mounting assemblies for the seat;

Fig. 3 is a fragmentary sectional elevation through a portion of one of the suspension hooks and mounting assembly;

Fig. 4 is a perspective view of the improved seat of the present invention showing the first step in the folding or collapsing of the seat for carriage;

Fig. 5 is a perspective view showing the seat fully folded or collapsed and ready for carrying;

Fig. 6 is a perspective view of a modified form of the seat of the present invention in extended position;

Fig. 7 is a fragmentary sectional elevation showing details of the modified mounting assembly, and that of the attachment of the seat fabric and mounting hooks, the view also showing the position assumed by one of the carrying handles when the seat is extended;

Fig. 8 is a fragmentary view of the mounting assemblies of the modification shown in Fig. 4;

Fig. 9 is a perspective view of the modified form of the seat shown in Fig. 6, but in fully folded or collapsed position for carrying.

Referring more particularly to the drawings, and first the modification shown in Figs. 1 through 5, reference character A represents generally the improved auxiliary seat of the present invention, which is shown as being attached to and suspended from, the arms B of a conventional chair C.

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The seat assembly A, of the present invention, comprises a flexible seat-web portion 11, which may be made of canvas or other stout fabric, and which is wrapped at its ends around rigid end reinforcement bars 13, 13, which are shown as being hollow bars or rods, so as to form an apron portion 15, which portion is stitched to the body or the seat-web portion 11, as is indicated at 17. The ends of the seat-web portion 11 are cut adjacent to each corner so as to form slotted recesses 19 for the reception of suspension hooks 21, two of which are provided for each end of the seat-web portion 11, equally spaced from the ends of the reinforcing tubular bars 13 for equal distribution of the weight of the seat assembly when in use. The hooks 21 are inserted in the end tubular bars 13 through holes 22 provided therefor in the bars 13 and are held in place by an enlarged head 23 on the ends of the hooks, which heads are formed by riveting the ends of the shanks of the hooks 21. The hooks 21 are turnably received in the holes 22 so that the hooks may be turned or pivoted freely in the holes. A resilient, cushioning cover 25 is provided for the hooks, which inhibit scratching or marring of the chair arms B when the seat of the invention is in use. The free-turning mounting of the hooks 21 is illustrated in Fig. 4 and enables the flat-folding or collapsing of the seat for carrying it, as illustrated in Fig. 5.

The seat assembly of the present invention is provided with carrying handles 27 secured to the seat web portion 11 intermediate each end pair of hooks, and extending longitudinally along the end tubes 13. These handles 27 conveniently are made of the same material as the seat portion 11 and are of equal length, which is sufficient to form handle hooks 29 when the ends of the handles are stitched on to the seat fabric, which are brought together for ready grasping when the seat is folded, as shown in Fig. 5. The handle members 27 are made of any suitable material, either canvas, or leather, and are adapted to be brought together for ready grasping with one hand, when the seat is folded.

In order to fold the seat assembly, the end tubes are turned until the hooks 21 are extending inwardly relative to the seat web 11 and the hooks are rotated in the tubes until the hooks of each pair are positioned towards each other, and the seat 11 is folded across the middle, which brings the end tubes and handle portions in registry so that the handles can be grasped readily in one hand for carrying the seat.

In making the seat assembly, the end bars 13 are made of equal length and equal diameter and the fabric of the seat 11 with the slots 19 therein, is loosely wrapped around the end tubular bars 13 and stitched along the length of the resulting apron as shown at 17. The hooks 21 are inserted in the end bars 13 and riveted in the bars before the seat member is applied to the said end bars, the slots 19 receiving the

hooks before the stitching is made. The recesses or slots 19 permit free turning of the tubular end bars, and the hooks through a 180 degree arc in a plane perpendicular to the plane of the seat 11, the seat web 11 being maintained against longitudinal folding by the rigid end bars 13. The hooks freely pivot in the tubular bars 13 through 360 degrees arcs and act also as retaining members for preventing the tubular bars 13 from slipping out of place from the seat web 11. Bindings 31 are provided along the edges of the seat fabric and assist in retaining the seat 11 on the tubes 13. These handles 27 are reinforced by longitudinal stitching 35 as shown on the drawing.

While the end members 13 are illustrated as being tubular members composed of a suitable light metal, such as aluminum, these members obviously may be solid wooden rods, or tubular members with closed ends, but the provision of closure caps is not necessary.

In the modification of Figs. 6 through 9, the seat 11a is wrapped around the end tubular members 13a which are slit, as shown at 37, for the reception of the fabric web of the seat, the fabric being folded and stitched as indicated at 39 for preventing the fabric web being pulled out of the slot 37. Hooks 21a, similar to hooks 21 of the previously described modification, are turnably mounted in the tubular members 13a and retained by the heads 23a. A resilient cushion 25a is provided for the hooks 23a. A pair of equal handle members 27a is provided in this modification, being stitched to the fabric of the seat intermediate the ends in spaced parallel relation, so that when the seat is folded for carrying, as in Fig. 9, the handles 27a are brought together as shown, for ready grasping.

In the modification shown in Figs. 6 through 9, the length of the seat may be adjusted by rotating the hooks 21a at either end around the longitudinal axis of the slotted tubes 21a thereby winding the web of the seat fabric around the tubes.

From the foregoing, it will be seen that in both of the illustrated forms of the invention, there are provided a substantially rectangular fabric web which forms the seat itself; a reinforcing member at each end of the web, which members are rigid and extend completely across the width of the seat web, or project there-beyond (Figs. 6 through 9), the web being secured to these reinforcing members (tubes, bars, rods, or the like), each of the rigid members pivotally mounting therein suspension hooks, there being such a hook adjacent to each end of both rigid reinforcing, so that there is a pair of such hooks at each end of the seat-web.

In the form of the invention shown in Figs. 1 through 5, the rigid end reinforcing tubular bar members 13 may be replaced by solid wooden or metal bars or rods as has been mentioned above; and the fabric of the seat-web extends beyond the end hooks; which are received in the cut-out recesses formed for the reception thereof in the body of the seat web; and in this modification, each of the handles 27 is secured to the fabric of the seat-web along the reinforcing or stiffening bars intermediate the hooks of each end pair thereof. The fabric-web of the seat is retained on the end bars by the stitching 17 and cooperation of the sides of the slots 19 but the fabric-web of the seat is not directly connected to the end bars. The end hooks are intermediate the longitudinal sides of the fabric-web of the seat.

In the modification shown in Figs. 6 through 9, the fabric web of the seat is secured directly to the end rods and is intermediate the hooks. The slotted tubes 13a may be replaced with wooden or metal bars or rods, and the ends of the fabric web of the seat secured by tacking or cementing in to the bars or rods. The fastening of the handle members to the fabric intermediate the ends as shown in Fig. 6 permits the length of the seat to be adjusted, as stated above, by making a revolution or so around either or both of the end reinforcing members, thus regulating the sag of the fabric when the folding seat is attached to arms of chairs or between chairs such as cross aisles, when such spacing may involve wide variations or distances, thus enabling the seat sag to be regulated. Additionally, the handle members 27a being on the underside of the fabric web of the seat 11a, as shown in Figs. 6 through 7, may serve to support the seat 11a if desired to serve in this manner by engaging a conventional chair seat, thus distributing weight on the seat-web 11a between the handle members and the end bars 13a.

When the tubular end bars 13a of the modification shown in Figs. 6 through 9 are replaced by solid rods or bars, as mentioned above, the seat-web 11a may be secured in a manner similar to that shown in Fig. 8, but with the slit 37 extending all the way through the solid rods or bars, as will be apparent.

It will be seen, therefore, that while the foregoing description and the accompanying drawings illustrate forms of the invention that are simple and easy to construct, it will be apparent that various structural details may be modified as may be required to meet particular details of production and use; and, consequently, it will be understood that it is intended and desired to embrace within the scope of this invention such modification and changes as may be necessary to adapt it to varying conditions and uses, as defined in the following claims.

What is claimed is:

1. A portable seat assembly adapted to be suspended from the arms or sides of a conventional chair to serve as an auxiliary seat, which comprises a flexible seat web having end and side edge portions, rigid means transversely extending across the seat-web for rigidly holding the seat-web against longitudinal flexure, means for mounting the seat-web on the said transverse means, and suspension hooks mounted in the said transverse means, there being a hook adjacent to each lateral edge of the seat-web, said hook members being mounted to be turned from an extended operating position to a retracted inoperative position flat against the seat-web and entirely between the lateral edges of the seat-web.

2. A portable seat assembly adapted to be suspended from the arms or sides of a conventional chair to serve as an auxiliary seat, which comprises a flexible seat web having end and side portions, rigid transverse bars extending across the seat-web for rigidly holding the seat-web against longitudinal flexure, the said seat-web being wrapped itself around the said transverse bars, means extending transversely across the seat-web on the wrapped portion for holding the said transverse bars against longitudinal displacement relative to the seat-web, the said seat-web being provided with corresponding cut-out slot portions adjacent the lateral sides of the seat-web adjacent to each end thereof, and suspension hooks turnably mounted in the transverse bars and received in the cut-out slot portions.

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3. A portable seat assembly adapted to be suspended from the arms or sides of a conventional chair to serve as an auxiliary seat, which comprises a flexible seat-web of substantially rectangular configuration, reinforcing stiffening bars for the seat-web extending transversely thereof, a bar being at each end of the seat-web and extending transversely across the seat-web, each end of the seat-web being secured directly to its bar, whereby the seat-web may be adjusted as to length by rotation of either bar with a winding of the seat-web thereon, suspension hooks on the said bars adjacent to each end thereof, the seat-web being intermediate the hooks on each bar, and rivet connections between the hooks and the bars for preventing displacement of the hooks from the bars while enabling the hooks to rotate freely relative to the bars in a direction perpendicular to the longitudinal axis of the bars.

4. A portable seat assembly adapted to be suspended from the arms or sides of a conventional chair to serve as an auxiliary seat, which comprises a flexible seat-web of substantially rectangular configuration, reinforcing stiffening bars for the seat-web extending transversely thereof, a bar being at each end of the seat-web and projecting beyond the sides of the seat-web, means securing each end of the seat-web directly to its bar, whereby the seat-web may be adjusted as to length by rotation of either bar with a winding of the seat-web thereon, said seat-web being adapted to have handle members secured thereto intermediate the ends thereof and in a direction transversely of the seat-web, whereby upon folding of the seat-web, transversely for carrying the seat assembly, the handle members are adapted to be brought into contiguous parallel position, suspension hooks mounted on each of the said bars adjacent to each end thereof, the seat-web being intermediate the hooks on each bar, and rivet connections between the hooks and the bars for preventing displacement of the hooks from the bars, while enabling the hooks to rotate freely relative to the bars in a direction perpendicular to the longitudinal axis of the bars, the said handle members being adapted to engage a seat of a chair when the said seat-web is suspended by the hooks from the arms or sides of the chair, the handle members thereby defining reinforcing supports for the seat-web intermediate the hooks, the said stiffening bars enabling ready transverse flat folding of the seat-web.

5. A portable auxiliary seat assembly adapted to be suspended from the sides of a conventional chair, comprising a flexible seat-web of substantially rectangular configuration, a reinforcing bar at each end of the seat-web and extending transversely thereof, each end of the seat-web being loosely looped around its bar and secured to the adjacent portion of the seat-web to form a loop, each bar being freely turnable in its respective loop, said seat-web being provided with elongated laterally disposed recesses at each side of the seat-web and over each of the bars, suspension hooks mounted in said bars and extending through each of said recesses, and rivet mountings at the end of each of the hooks preventing displacement of the hooks from said bars while enabling free rotation of the hooks in the bars.

6. A portable auxiliary seat assembly adapted to be suspended from the sides of a conventional chair comprising a flexible seat-web having end and side portions, a reinforcing bar at each end

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of the seat-web and extending transversely thereof, means for rotatively holding said bars at the respective ends of the seat-web, and suspension hooks mounted on said rotatable bars to rotate therewith to a position where said hooks are closely adjacent one of the faces of the seat-web.

7. A portable auxiliary seat assembly adapted to be suspended from the sides of a conventional chair comprising a flexible seat-web having end and side portions, a reinforcing bar at each end of the seat-web and extending transversely thereof, means for rotatably holding bars at the respective ends of the seat-web, the latter being provided with recesses laterally disposed at each side thereof and over each of said bars, and suspension hooks mounted in said bars and extending through each of said recesses, said recesses being of a size which permits the hooks to be rotated with the rotation of a rotatable bar to a position where the hooks are closely adjacent one of the faces of the seat-web.

8. A portable auxiliary seat assembly adapted to be suspended from the sides of a conventional chair comprising a flexible seat-web of substantially rectangular configuration, a reinforcing bar at each end of the seat-web and extending transversely thereof, each end of the seat-web being loosely looped around its bar and secured to the adjacent portion of the seat-web to form a loop, each bar being freely turnable in its respective loop, said seat web being provided with elongated laterally disposed recesses at each side of the seat-web and over each of the bars, suspension hooks mounted in said bars and extending through each of said recesses, means on each end of said hooks for preventing displacement of each of said hooks from its respective bar while enabling free rotation of each hook in its respective bars.

9. A portable auxiliary seat assembly adapted to be suspended from the sides of a conventional chair comprising a flexible seat-web having end and side portions, a reinforcing bar at each end of the seat-web and extending transversely thereof, each end of the seat-web being loosely looped around its respective bar and secured to the adjacent portion of the seat-web to form a loop-holding means for each of said bars, the latter being freely rotatable in said loop-holding means, said seat-web being provided with recesses laterally disposed at each side of the seat-web and over each of said bars, suspension hooks mounted in said bars and extending through each of said recesses, the latter being of a size which permits the suspension hooks to rotate with the rotation of the rotatable bars to a position where the hooks are closely adjacent one of the faces of the seat-web.

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LOOMIS WESTCOTT SIMONS.

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