Nov. 6, 1934. E. B. MORGAN 1,979,563

CHAIR SEAT

Filed Aug. 7, 1933 2 Sheets-Sheet 1

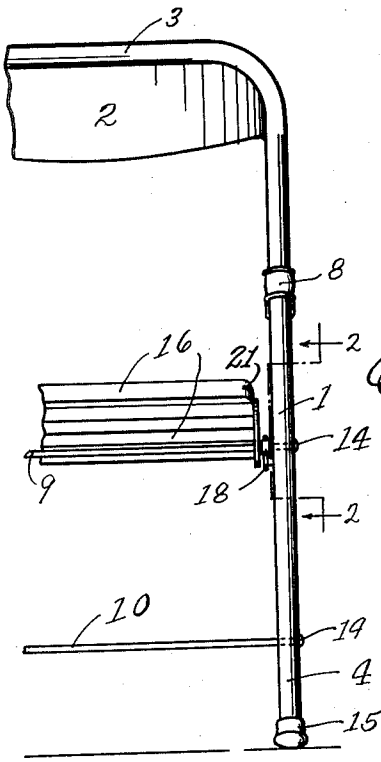


Fig. 1

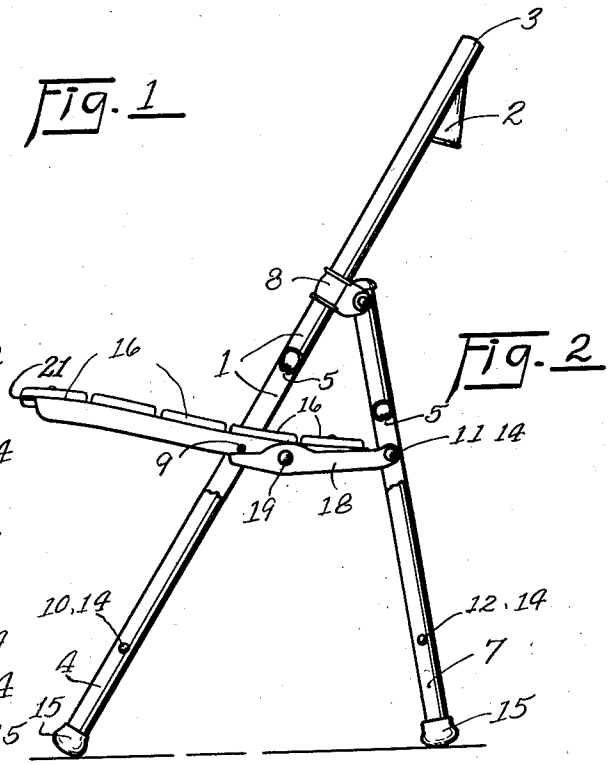


Fig. 2

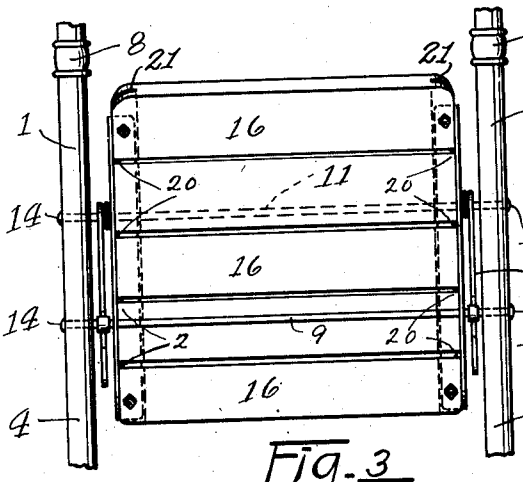


Fig. 3

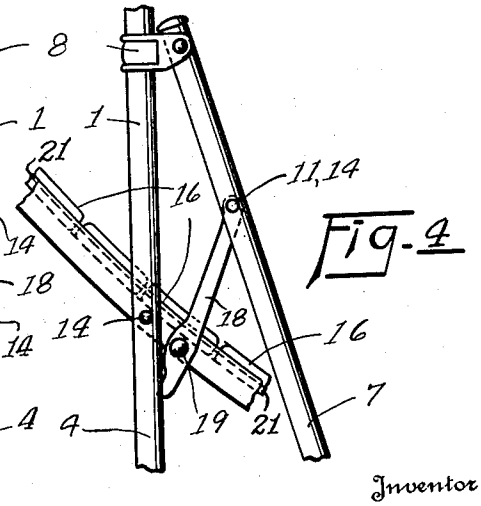


Fig. 4

Witness:
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CHAIR SEAT

Filed Aug. 7, 1933 2 Sheets-Sheet 2

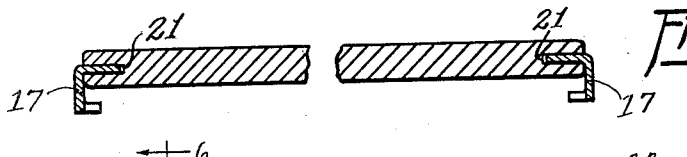
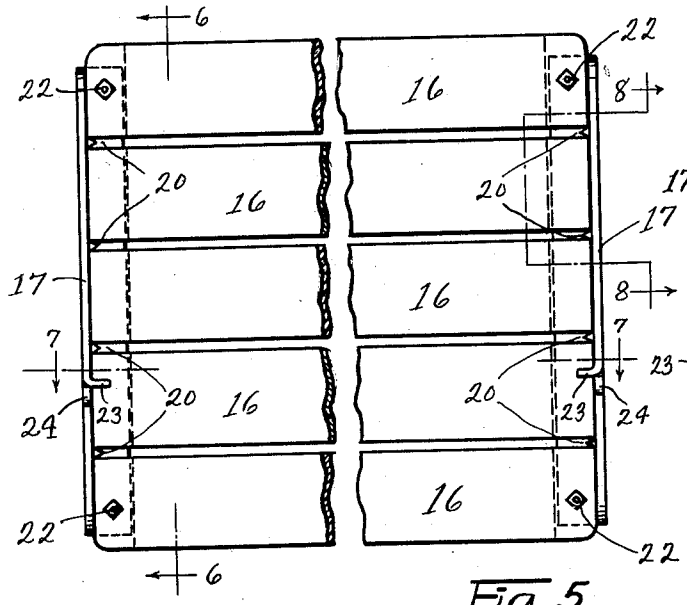


Fig. 7



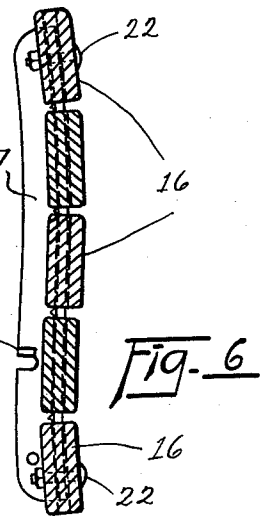


Fig. 6

Fig. 5

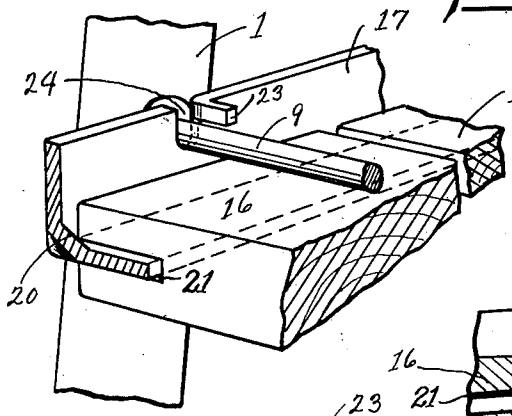


Fig. 10

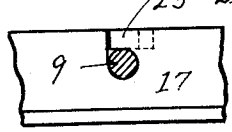
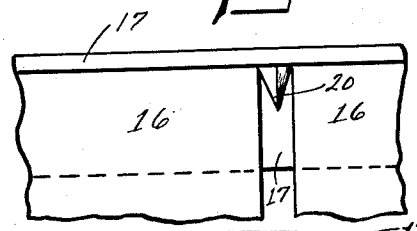


Fig. 11

Fig. 9



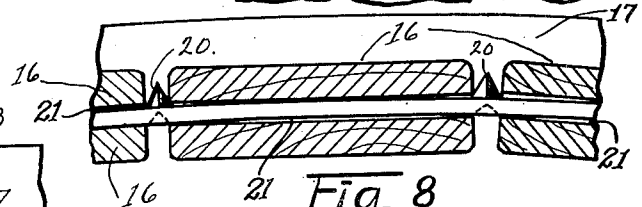


Fig. 8

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Patented Nov. 6, 1934 1,979,563

UNITED STATES PATENT OFFICE

1,979,563

CHAIR SEAT

Erving B. Morgan, Grand Rapids, Mich., assignor to American Seating Company, Grand Rapids, Mich., a corporation of New Jersey

Application August 7, 1933, Serial No. 683,931

2 Claims. (Cl. 155—178)

The present invention relates to chair seats and more particularly to outdoor seats for folding chairs of the general character illustrated and described in application for patent by Ralph K. Merrill for "Folding chairs", filed March 29, 1933, Serial No. 663,253, finally allowed June 6, 1933, and assigned to my assignee, which has matured into Patent #1,939,596.

The main objects of the invention are to provide a chair seat particularly adapted for use in conjunction with a chair intended for outdoor use; to provide such a seat adapted to be subjected to heat of the sun, rain and the elements generally; to provide such a chair seat built in a manner to provide for expansion and drainage of water in wet weather and shrinkage in dry weather; and, to provide such a chair seat which may be economically manufactured, conveniently assembled and painted, and which is rugged and sturdy in construction.

An illustrative embodiment is shown in the accompanying drawings, wherein:

Figure 1 is a fragmentary front elevational view of a folding chair in its unfolded position and employing the chair seat of the instant invention;

Figure 2 is a side elevational view of the chair in its unfolded position, parts of the tubular frame thereof being broken away on line 2—2 of Figure 1 and showing a tubular form of the frame in cross section;

Figure 3 is a fragmentary front elevational view showing the bottom of the chair seat when the chair is in its folded position;

Figure 4 is a fragmentary side elevational view of the chair frame and its seat in partly folded position;

Figure 5 is an enlarged fragmentary bottom plan view of the chair seat per se;

Figure 6 is a sectional view thereof on line 6—6 of Figure 5;

Figure 7 is a sectional view thereof on line 7—7 of Figure 5;

Figure 8 is an enlarged sectional view on line 8—8 of Figure 5;

Figure 9 is a fragmentary top plan view of portions of two of the seat members supported in spaced relation by an embossed transverse angle iron;

Figure 10 is a fragmentary perspective view of a bottom portion of the seat showing an assembly step in which it is secured to the tubular frame work of the chair; and

Figure 11 is a fragmentary view showing the convenient manner in which the seat is ultimately secured to a seat supporting rod reinforcing the tubular frame of the chair.

Referring to the drawings in which like parts are designated by the same numerals in the several views, the chair seat hereinafter more particularly described is here shown as used in conjunction with a folding chair which generally comprises a U-shaped tubular metal frame 1 forming a support for a back 2, preferably of sheet metal and positioned below the horizontally disposed medial portion 3 of the frame and suitably secured thereto and to the opposite vertically disposed portions thereof which form spaced front legs 4. The tubular frame member may be generally triangularly formed in cross section from sheet metal stock with is longitudinal edges flanged inwardly to form a finished and reinforcing seam 5, as best shown in Figure 2.

A pair of tubular metal spaced rear legs 7, formed in the same manner as the frame member is formed, are each pivotally connected to a yoke or saddle 8 which embraces and is secured to each side of the frame member, as shown in Figures 1 and 2.

The lower ends of the frame member which form the front legs 4 of the chair and the rear legs 7 thereof are provided with horizontally disposed reinforcing or strengthening rods 9, 10, 11 and 12 whose outer ends pierce the seams of said legs on their inner sides and extend through to the outsides of the legs where their respective ends are riveted to form heads 14. Each of the supporting legs are provided with noiseless feet caps 15 of rubber or any other suitable material.

A plurality of spaced seat members 16 are rigidly secured to seat supports 17, the seat supports being pivotally mounted upon the rod 9 interjacent the front legs of the chair, all as hereinafter more particularly described, and a pair of links 18 pivotally mounted upon the rod 11 on the opposite inside surfaces of the rear legs of the chair and also pivotally mounted to the seat supporting members 17 by means of the pivot pins 19, project or extend forwardly under the rod 9, as best shown in Figure 2, to maintain the seat in a substantially horizontal plane when it is in its folded position.

The spaced seat supports 17, here shown as of angle iron construction, are each provided with spaced raised or embossed portions 20 along one edge of their respective lengths and here shown as adjacent the angle as perhaps best shown in Figure 10, and the plurality of seat members 16, preferably of wood, are each provided at their opposite ends with slots 21 for embracing the seat

supports interjacent the spaced raised portions 20 which retain the seat members in spaced relation, as best shown in Figure 8. The slots 21 of the seat members 16 are preferably of a width substantially equal to the width of the seat supports so that when the seat members 16 are assembled with their seat supports as by driving them into place, a tight fit is insured. Each outside seat member may if desired be secured to its seat supports as by the carriage bolts and their nuts 22. While the structure herein shown and described is that of a chair seat, it will be understood that the invention is applicable to benches, platforms for outdoor use, etc.

The seat may be secured to the chair frame in any suitable manner but the method herein disclosed is by blanking and angularly bending a tongue portion 23 from each of the seat supports to form a slot 24. The transverse rod 9 may then be inserted in each of the slots thus formed as best shown in Figure 10 and the tongue may then be re-bent as best shown in Figure 11.

It will thus be seen that a chair seat or the like, particularly adapted for use out of doors has been herein shown and described since the seat members are spacedly secured to their seat supports in a novel manner permitting expansion and drainage of water in wet weather and shrinkage in dry weather. Novel means providing for economical manufacture, convenience of assembly and painting of the chair seat as by dipping have likewise been illustrated and described and chairs of the character herein shown are rugged and sturdy in construction.

While but one specific embodiment of this invention has been herein shown and described, it will be understood that numerous details of the construction shown may be altered or omitted without departing from the spirit of this invention as defined by the following claims.

I claim:

1. In a structure of the class described, a pair of spaced angle iron seat supports each having spaced raised portions along their respective lengths adjacent the angle, and a plurality of transverse seat members whose opposite ends are provided with slots embracing the seat supports interjacent the spaced raised portions.

2. In a chair seat, a pair of spaced angle iron seat supports each having spaced raised portions along their respective lengths adjacent the angle, a plurality of transverse seat members whose opposite ends are provided with slots embracing the seat supports interjacent the spaced raised portions, and means for securing each of the outside seat members to the angle iron seat supports.

ERVING B. MORGAN.