

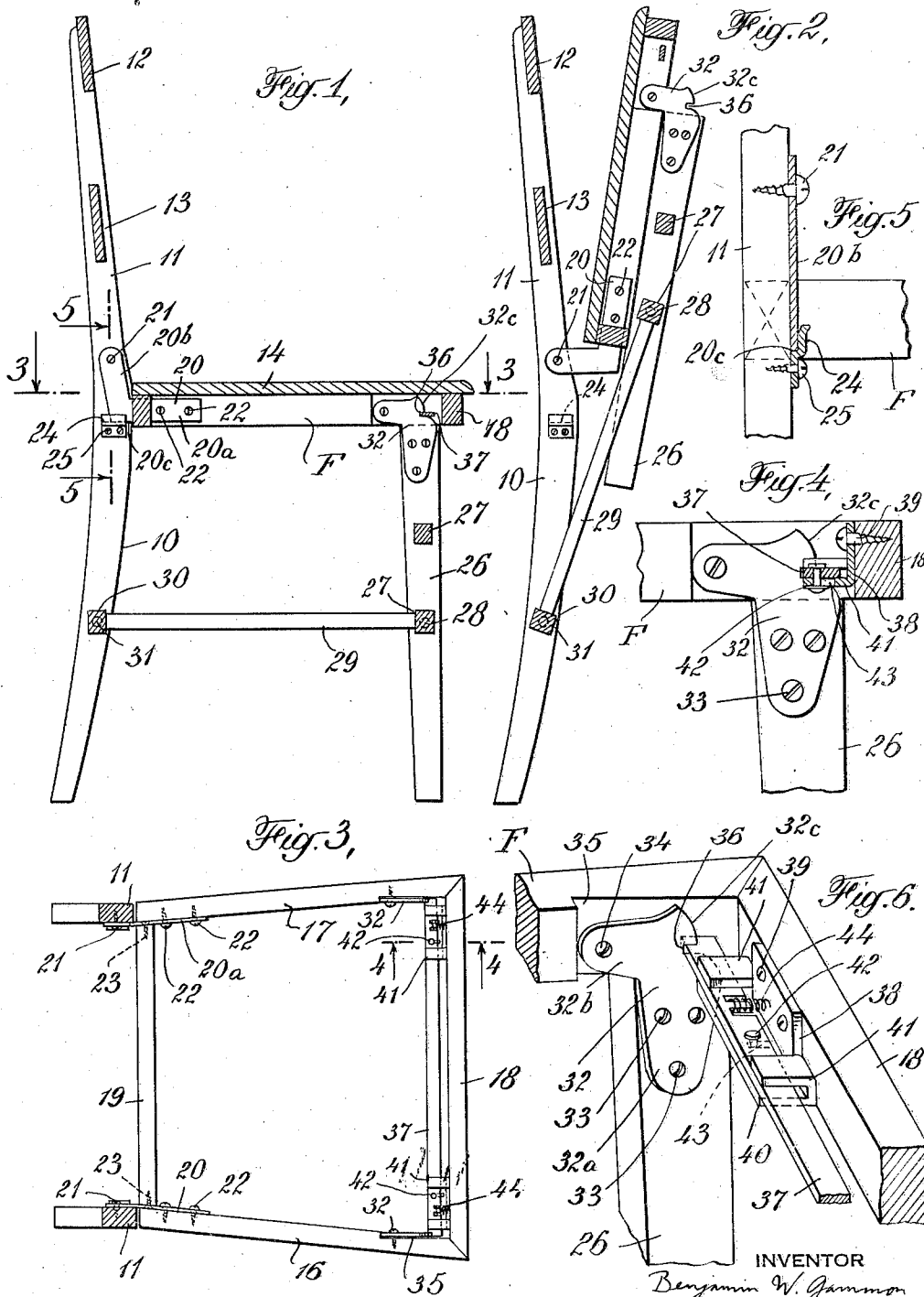
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B. W. GAMMON

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FOLDING CHAIR

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INVENTOR
Benjamin W. Gammon
BY
Perrin, Davis, Marvin & Edmunds
HIS ATTORNEYS

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FOLDING CHAIR

Benjamin W. Gammon, St. Albans, N. Y.

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1 Claim. (Cl. 155-141)

This invention relates to folding chairs and is more particularly concerned with a chair in which the seat frame and front legs fold up against a structure forming the back and rear legs.

The object of this invention is to provide a novel and simple means whereby the folding or unfolding of the chair may be accomplished with ease, and whereby the chair is automatically held in position when unfolded. Other objects of the invention include the provision of a folding chair which is light and strong, and which presents the appearance, when unfolded, of a rigid chair of conventional structure. The chair of this invention includes a combined back and rear leg member, a seat frame, front legs, and means for raising the seat frame and folding the front legs against the seat frame which rests against the back when folded.

For a better understanding of this invention, reference may be made to the drawing in which an embodiment thereof has been illustrated. In the drawing;

Figure 1 is a side elevational view in section showing the chair in open position;

Figure 2 is a similar view of the chair in closed position;

Figure 3 is a view taken along the line 3-3 of Figure 1;

Figure 4 is a view of a detail taken along the line 4-4 of Figure 3;

Figure 5 is a view taken along the line 5-5 of Figure 1; and

Figure 6 is a perspective view showing the locking member for the front leg structure.

The new chair, in the form illustrated in Figure 1, includes a pair of rear legs 10, preferably constructed so as to form also the back side members 11 of the chair. The back side members 11 may be connected by one or more transverse curved back-rests, and in the form shown in Figure 1, a back-rest 12 is placed at the top of the back side members 11, and another rest 13 extends between the back side members 11 approximately midway between the top back-rest 12 and the seat.

The seat 14 is supported by a seat frame F, preferably formed of wood. The seat frame F has side members 16 and 17 and front and back members designated respectively as 18 and 19.

Since in the construction of the disclosed embodiment, both the means by which the seat frame is raised and lowered and the locking mechanism are duplicated at each side of the chair, the structure at one side only will be de-

scribed in detail. The rear portion of the seat frame F is connected to the lower part of the back side member 11 by means of an L-shaped plate 20, preferably of metal, the lower portion 20a of which extends forwardly and is secured to the seat frame. The rear portion 20b of the plate 20 extends upwardly and is pivotally secured to the back member by suitable means such as the screw 21. In connecting the portion 20a of the plate to the seat frame F, extra strengthening or reinforcement of the seat frame is provided without the use of extra parts. For this purpose, the portion 20a is rigidly attached to the side frame member 17 by any suitable means, such as the wood screws 22, and is likewise rigidly connected to the rear frame member 19 as by a wood screw 23. With this construction, the side and rear frame members are rigidly held together and the reinforcement is obtained without additional cost in manufacture.

To provide for further rigidity when the chair is unfolded, abutment means 24 are fixed to the back side members 11 below the plate 20b by any suitable means, such as the wood screws 25. The abutment means 24 are preferably of metal, and are so shaped as to receive and support the lower edge 20c of the plate 20 when the chair is unfolded, as shown in Figure 5. Thus, the weight on the seat is supported by the abutments 24 as well as the pivot 21.

Front legs 26 are provided to support the front portion of the seat frame and these legs are connected to each other by means of a pair of braces 27, 28 extending between the front legs intermediate their ends. One of these braces 28 may be pivotally connected to the front legs, and fixed to one or more cross-braces 29 connected to a similar brace 30 pivotally connected between the rear legs 10 as shown at 31. When the chair is folded, the connected pivoted braces 28 and 30 on the front and rear legs move in unison with respect to the rest of the structure, as shown in Figure 2.

In order to connect the front legs 26 to the seat frame F, a locking hinge plate 32, preferably formed of metal and having a downwardly extending portion 32a, is secured to the inner surface and upper end of each of the front legs 26 by any desired means such as the screws 33. The upper portion 32b of the plate 32, which extends rearwardly, is pivoted to the side frame member 17 by a screw 34. The side frame members 16 and 17 may be cut away as at 35 in order to provide surfaces in the same plane as the inner faces of the front legs 26. The front face of the plate 55

32 is provided with a rounded surface 32c which terminates in a rearwardly extending notch 36. A flat metal bar 37 extends horizontally across the front of the seat frame F, and is secured to the inner face of the front member 18 by means of brackets 38 which are fixed to the member 18 by screws 39 or the like. The brackets 38 have rearwardly extending portions 40 upon which the bar 37 rests, and a plurality of integral U-shaped members 41 for maintaining the bar 37 in position. In order to permit limited movement of the bar 37, a rivet 42, fixed to the bar, extends through an elongated slot 43 in the bracket part 40. A coil spring 44, bearing against the vertical wall of the bracket 38 and fixed to the bar by suitable means, tends to force the bar 37 rearwardly, and into locking cooperation position with the notch 36 in the plate 32, as shown in Figure 6, when the chair is open.

In the operation of this folding chair, as the chair seat is swung downwardly in opening the chair, the bar 37 is moved forward against the action of the springs 44 by contact with the rounded surfaces 32c of the plates 32 above the notches 36. When the notches register with the bar 37, the springs 44 force the bar rearwardly into the notches, thus locking the seat frame F and the front legs in the open position. At the same time, when the seat is lowered, the lower edges 20c of the plates 20 are forced to the rear and into engagement with the abutment means 24.

To close the chair, the bar 37 is moved forward toward the front of the seat to release the cooperating ends of the bar from the notches 36,

and the seat is then lifted until it is upright. The front legs are carried upwardly by the seat, and when closed, the front legs rest against the seat frame in substantially a vertical position, as shown in Figure 2.

Due to its improved construction, this folding chair is strong and light. Because of its simplicity of construction, the chair is comparatively inexpensive to manufacture. The chair may be quickly and easily folded and unfolded without any undue effort.

I claim:

In a folding chair, in combination, a seat having a front edge, a pair of rigidly connected legs, angular plates having substantially vertical portions rigidly connected to the upper ends of the respective legs and substantially horizontal portions pivotally connected respectively to said seat adjacent the opposite ends of its front edge, said plates having rounded upper front edges with locking notches therein, a pair of brackets connected to said seat adjacent its front edge and having slots therein extending substantially parallel to said seat, a flat bar extending transversely of said seat in a plane substantially parallel thereto and slidably supported in the slots of said brackets, and spring means engaging said bar and urging the same away from the front edge of said seat, whereby the rearward edge of said bar adjacent the ends thereof engages and slides along said rounded edges of said angular plates and enters the locking notches of said plates when said connected legs are swung away from said seat.

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