

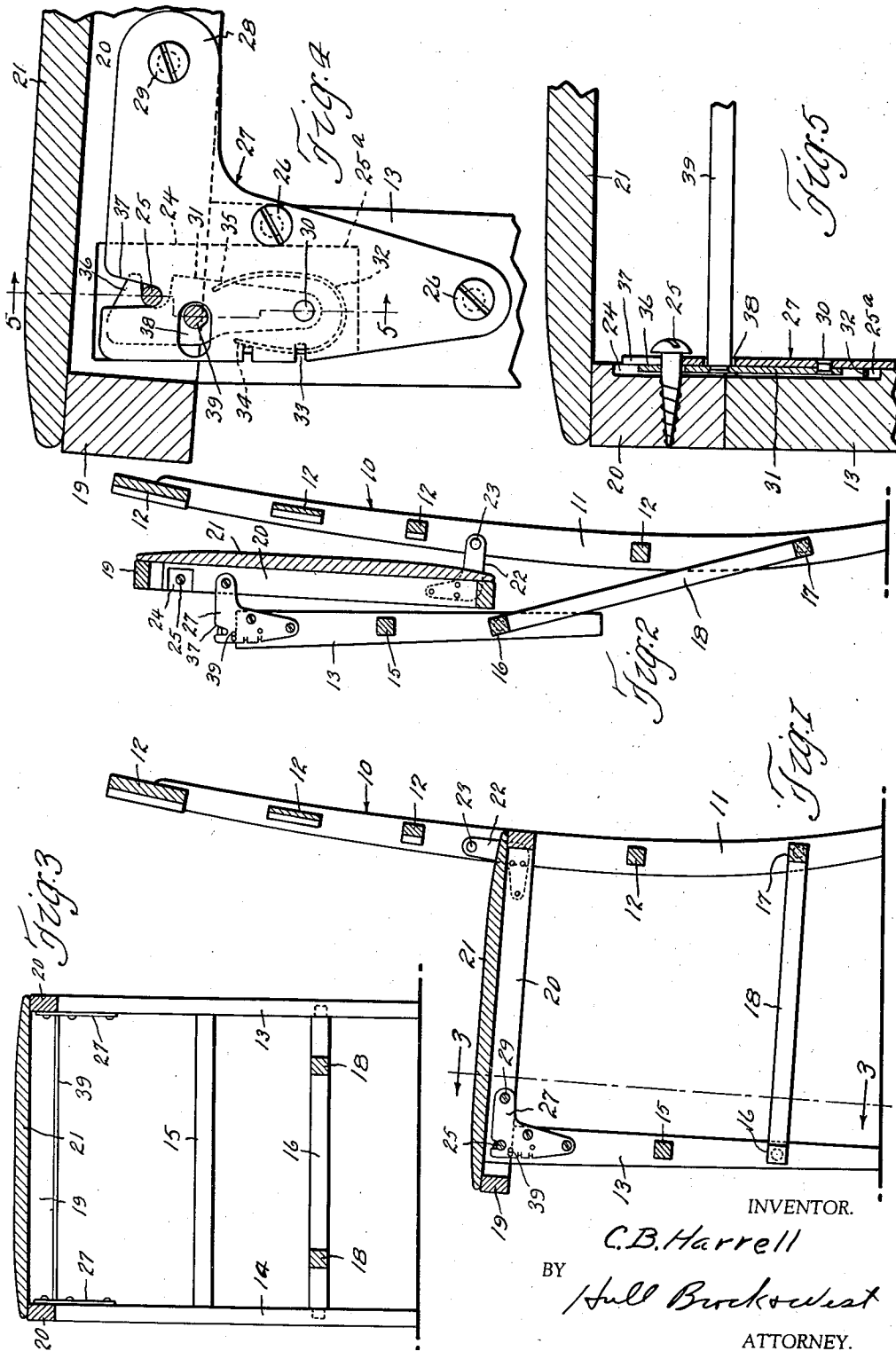
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C. B. HARRELL

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FOLDING CHAIR

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INVENTOR.

C.B. Harrell

BY

Hull Brockwest

ATTORNEY.

UNITED STATES PATENT OFFICE

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FOLDING CHAIR

Clenny B. Harrell, Metropolis, Ill.

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6 Claims. (Cl. 155—141)

This invention relates to a folding chair and has for its principal object to provide a simple and cheap folding chair construction which shall be at the same time durable, strong and convenient in operation.

A further object is to provide a novel form of latch construction for holding such folding chair in open position, permitting convenient operation of the same and at the same time forming a folding connection between the upper ends of the front legs and the seat frame.

A further object is to secure the advantages of cheapness residing in locating the movable latch elements on the chair legs in a latch mechanism of the type described.

A further object is to produce a construction in which sharp points or edges are readily avoided.

A still further object is to provide a latch construction which shall embody means serving to hold a fixed latch element in engagement with a rigid member, preferably a bracket plate pivotally connecting the front legs and the side elements of the seat frame, and more specifically to hold said latch element within a notch when the chair is in open position and to close the notch when the chair is in the folded position.

Other and more limited objects will be in part apparent and in part pointed out hereinafter in connection with the accompanying drawing wherein Fig. 1 is a central vertical section showing the chair in open position; Fig. 2 is a similar section showing it in folded position; Fig. 3 is a section corresponding substantially to the line 3—3 of Fig. 1; Fig. 4 is an enlarged fragmentary section showing the latch mechanism and adjacent portions of the chair and Fig. 5 is a section on the line 5—5 of Fig. 4.

In the drawing, the numeral 10 indicates generally a back frame comprising the rear legs and chair back formed as a unit and consisting of upright elements 11 and transverse elements 12. The front legs 13 and 14 are connected by a transverse member 15 and the front and rear legs are pivoted together adjacent the bottoms thereof by a pivoting front rung 16 and a pivoting back rung 17 connected by spaced elements 18 fixedly connected thereto. The seat frame is made up of a front seat frame element 19 and a single continuous U-shaped element 20 forming spaced side seat frame elements and back frame element which may be suitably joined at its ends to the front seat frame element 19. A chair seat 21 may be secured in any suitable manner to the seat frame. Adjacent the rear of said frame, the same is connected by suitable angle shaped plates 22,

which are fixed to the seat frame and pivoted as at 23, to the back frame 10.

Formed in the side seat frame elements 20 adjacent the front seat frame element 19 are shallow recesses 24 centrally of each of which is a screw 25 forming a fixed latch member. Registering with and in the plane with the recesses 24 are similar recesses 25a formed in the front legs. Secured by suitable screws 26 to the front legs 13 and 14 are hinge brackets in the shape of angular plates 27 which have rearwardly projecting portions 28 pivoted as at 29 to the side seat frame elements 20 at a point spaced back from the front seat frame element 19 and behind the screws 25. Pivoted to the plates 27 as indicated at 30 are detents 31 which are received in the recesses 24 and 25a. These detents are normally urged in clockwise direction as seen in Fig. 4 by leaf springs 32 which are suitably connected to the plates 27 at the points 33 and 34. The other ends of the springs 32 are received in notches in the detents 31, as indicated at 35. These detents are provided with cam surfaces 36 of sufficient slope that upon engagement with the screws 25, they will be pivoted against the action of the springs 32 in counterclockwise direction, thereby permitting the screws 25 to be received in notches 37 in the plates 27 without manual manipulation of the detents 31. It will be seen from the foregoing, that the plates 27 not only constitute hinge brackets for pivoting the front legs to the side elements but that they also serve, in connection with the detents 31 and the notches 37, as part of the latching means between the front legs and the seat frame.

The plates 27 are provided with slots 38 through which pass the ends of a rod 39 fixedly connected to both said detents and extending parallel to the element 19 whereby said detents may be operated together, it being only necessary for the operator to grasp the front seat frame element 19 and the rod 39 and squeeze them together in order to release the screws 25 from the slots 37 and the detents 31. The front legs 13 and 14 may engage against the seat frame elements 20 for a greater solidity.

While I have shown and described the present preferred embodiment of my invention, I wish it to be understood that the same may be realized in other forms and that I am not limited except 50 in accordance with the appended claims and the prior art.

Having thus described my invention, what I claim is:

1. In a folding chair, the combination of a 55

back, a seat frame pivoted thereto and including a pair of side elements, a pair of front leg elements, a bracket pivotally connecting each front leg element to a side frame element, a detent 5 movably carried by each element of one pair of said elements, a fixed latch member comprising a projection extending from and carried by each of the other of said pairs of elements and adapted when the chair is in open position to be brought 10 into operative engagement with the cooperating detent and to bear against a surface of the adjacent bracket, and means for operating said detents to unlatch the same from the said fixed latch members.

15 2. In a folding chair, the combination of a back, a seat frame pivoted to said back and including side elements, front legs, a bracket pivotally connecting each front leg to a side element, a detent mounted on each of said brackets, 20 fixed latch members comprising projections extending one from each of said side elements and adapted, when the chair is in open position, to be operatively engaged by said detents and to be held thereby in engagement with portions of said 25 brackets, respectively, and means for simultaneously operating said detents to unlatch the same from said fixed latch members.

3. In a folding chair, the combination of a back, a seat frame pivoted to said back and including side elements, front legs, a bracket pivotally connecting each front leg to a side element, a detent mounted on each of said brackets, fixed latch members comprising projections extending one from each of said side elements and adapted, 35 when the chair is in open position, to be operatively engaged by said detents, each of said detents having a cam surface adapted to engage a projection on the side element adjacent thereto thereby to force a portion of the bracket to which 40 the detent is pivoted toward said projection, and

means for operating said detents to unlatch the same from said fixed latch members.

4. In a folding chair, the combination of a back, a seat frame pivoted to said back and including side elements, front legs, brackets secured to said front legs and pivotally connecting the same to said side elements, a detent mounted on each of said brackets, fixed latch members comprising projections extending from said side elements and adapted, when the chair is in open 10 position, to be received beneath said detents, each of said brackets having a notch adapted and arranged to receive a projection therein, and means for simultaneously operating said detents to unlatch the same from said fixed latch members. 15

5. In a folding chair, the combination of a back, a seat frame pivoted to said back and including side elements, front legs, brackets secured to said front legs and pivotally connecting the same to said side elements, a detent pivotally 20 mounted on each of said brackets, fixed latch members comprising projections extending from said side elements and adapted, when the chair is in open position, to be received beneath said detents and to be held in engagement with portions of said brackets, respectively, a spring carried by each bracket and connected to the detent thereon and tending to move the same in a direction to engage said detent with a projection, 30 and an operating rod connecting and common to both detents for moving the same simultaneously out of engagement with the fixed latch members.

6. In the combination claimed in claim 5, the said detents being pivotally connected to the 35 outer sides of their respective brackets and the said brackets being provided with slots through which the said operating rod extends.

CLENNY B. HARRELL. 40