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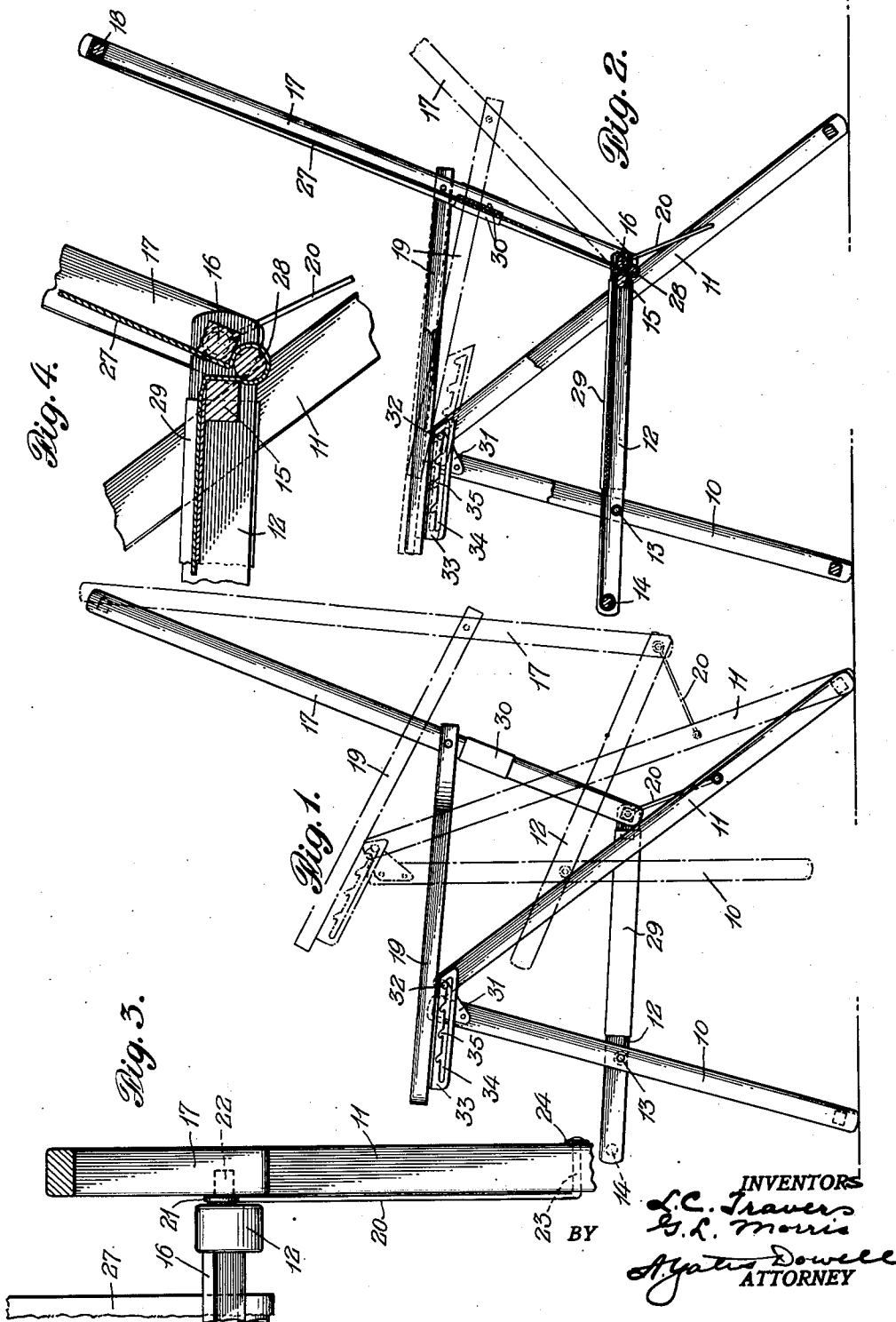
C. TRAVERS ET AL

2,072,075

FOLDING CHAIR

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L. C. TRAVERS ET AL

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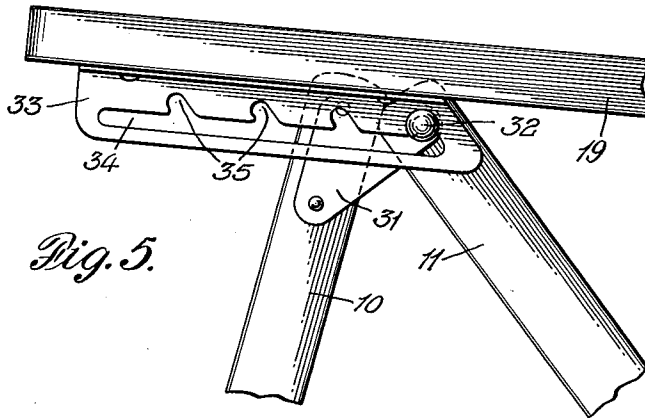


Fig. 5.

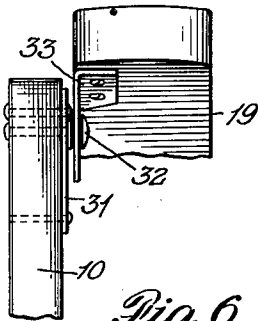


Fig. 6.

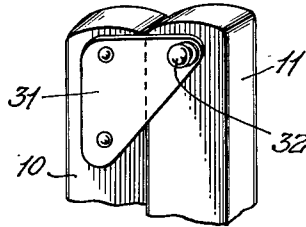


Fig. 7.

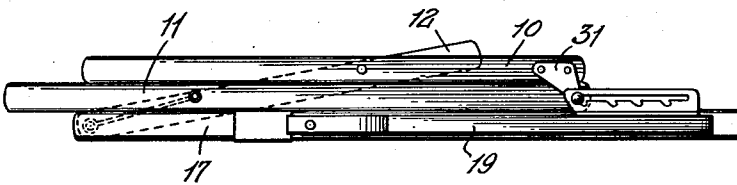


Fig. 8.

L. C. Travers
E. L. Morris
INVENTORS

BY

H. G. Souders
ATTORNEY

UNITED STATES PATENT OFFICE

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FOLDING CHAIR

Lewis C. Travers and George L. Morris, Gardner,
Mass., assignors to Mahoney Chair Company,
Gardner, Mass., a corporation of Massachu-
setts

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3 Claims. (Cl. 155—117)

This invention relates to folding or collapsible beach or steamer chairs, and it is an object of the invention to provide an improved chair of simple and durable construction, which can be unfolded or collapsed with facility, which is of a construction to afford comfort in use, and in which the back can be readily adjusted to the different postures of the occupant without getting out of the chair.

A further object of the invention is to provide a chair which when folded is of maximum compactness or a chair in which the legs, arm rests or other elements do not project materially beyond the back frame when the chair is folded.

Other objects and advantages of the invention will appear from the following description of the preferred embodiment thereof shown on the accompanying drawings, wherein

Fig. 1 is a side elevation of a chair illustrating one application of the invention, the manner of folding the chair being indicated in dotted lines;

Fig. 2, a longitudinal sectional view of the chair shown in Fig. 1;

Figs. 3 and 4, detail views upon an enlarged scale of portions of the seat and back frames, and the link member connecting the same to the leg frame;

Figs. 5, 6, and 7, similar views of the means for adjusting the back frame in relation to the seat; and

Fig. 8, a view of the folded chair.

Referring to Figs. 1 and 2 of the drawings, a chair embodying the invention may comprise two connected leg frames, one at each side of the chair, each leg frame having a front leg 10 and a rear leg 11 pivotally or movably secured together near their upper ends, a seat frame having a side rail 12 pivotally secured at 13 to each front leg 10 and cross bars 14, 15, and 16 extending between said side rails, a back frame having side rails 17 pivoted at their lower ends to the seat frame and a cross bar 18 connecting the upper ends of said side rails, and arm rests 19 pivoted at the rear ends thereof to the side rails 17 of the back frame and supported at or near their front ends by the leg frame.

The side rails 17 of the back frame are adapted to abut against the rear legs 11 as shown in Figs. 1, 3, and 4 when the chair is set up, the lower ends of said side rails being connected to said legs by the pivotal links 20 having a loop 21 at one end embracing a bar or trunnion 22 forming the pivotal connection between the seat frame and the side rails 17 of the back frame. The opposite ends of the links 20 are provided with a

lateral extension 23, as shown in Fig. 3, projecting through an aperture in each rear leg 11 and riveted over a washer 24 on the outside of the leg.

A simple and effective connection between the leg and seat frames is provided by the described links and associated elements but obviously the construction may be modified if desired without departing from the scope of the invention.

A strip of canvas 27 is secured at its ends to the front cross bar 14 of the seat frame and the upper cross bar 18 of the back frame and forms the seat and back portions of the chair. As shown, the portion of the canvas strip 27 adjacent the cross bars 15 and 16 is doubled and in the fold thus formed, after passing the same through the space between said bars, is inserted a wedge piece 28 which causes the strip 27 to bind and be tightly held against slipping when either the seat or back portion of the strip is subjected to strain, as by occupancy of the chair. On the other hand, the slack in either the seat or back portions of the strip may be taken up, if desired, since the wedge piece 28 is not fastened to the strip. The manner of attaching the strip 27 to the seat and back frames of the chair may also be modified in any suitable manner, and cross strips 29 and 30 of canvas may be provided as usual. For example, separate strips of flexible or other suitable material may be fastened to the seat and back frames to form the seat and back of the chair. The strips may be secured to their respective bars 12 and 17 by being looped, cemented or nailed thereto and when so secured they form a portion of the seat and back rest of the chair.

The legs 10 and 11 of the chair are fastened together at or near their upper ends by means of triangular plates 31 to provide a pivotal connection, as shown more clearly in Figs. 5, 6, and 7. The rear leg 11 is pivoted upon a pin or bolt 32 in the plate 31, said pin or bolt having a headed end projecting outwardly from the plate 31. Each arm rest 19 carries a ratchet plate 33 depending from the under side of the arm rest adjacent the plate 31 carried by the legs 10 and 11, the plates 31 and 33 substantially contacting to provide a braced, rigid construction. The ratchet plate 33 is provided with a longitudinal slot 34 having notches 35 adapted to receive the pin or bolt 32.

As shown in Figs. 2 and 5, the back of the chair may be adjusted by positioning the pin or bolt 32 in any one of the laterally spaced notches 35. The adjustment of the back of the chair may be effected by the occupant without getting

out of the chair, the arm rest and ratchet plate 33 being raised to disengage the pin 32 from one notch 35 and position the same in any of the other notches in accordance with the desired adjustment of the back of the chair. In this manner a simple and effective construction is provided that is inexpensive to manufacture without sacrificing the advantages of a strong and rugged construction.

The chair may be folded from the front of the chair by simply grasping the arm rests 19 and lifting the same, as indicated in dotted lines in Fig. 1. The front leg 10 folds backward against the rear leg 11 and the link member 20 turns about its axis in the rear leg to permit the back frame to fold against the rear legs 11 as shown in Fig. 8. It will be apparent that it is unnecessary to do more than simply raise the arm rests or pull forward upon the back frame to fold the chair. Also there is no possibility of the chair folding up when it is occupied since the weight of the occupant holds the back frame and links 20 in their proper positions and thus holds the legs 10 and 11 spread apart. It will be apparent also that the chair may be readily folded from behind the same by merely pushing the back frame forwardly and raising the front legs 10 off the ground. Further by reason of the link 20 and the pivotal connections between the respective parts of the chair, a short-fold chair is provided in which the legs do not project materially beyond the back frame in the folded position so that a particularly compact construction is produced.

The described construction is simple and relatively inexpensive by reason of the fact that all unnecessary auxiliary braces or tie rods have been eliminated while the chair is unusually strong and rigid when it is set up by reason of the mutual bracing between the leg frames, arm rests and the seat and back frames. The chair may be further provided with a foot rest or a canopy of the usual character, if desired.

It will be obvious to those skilled in the art that various changes may be made in our construction without departing from the spirit of the invention and therefore we do not limit ourselves to what is described in the specification and shown in the drawings, but only as indicated by the appended claims.

We claim:—

1. A folding chair comprising connected leg frames, one at each side of the chair, each leg frame including a front and a rear leg, means pivotally connecting the upper ends of the said legs permitting the legs and the arms to fold compactly together, a back, a seat pivotally connected at its rear to the lower extremity of the back and at its front to the intermediate portions of the front legs, side arm rests pivotally connected at their rear ends to the back and at their front ends each being provided with a de-

pending slotted ratchet plate, said connecting means for the upper ends of the legs including a laterally extending pivot which slidably engages in the slot of an adjacent ratchet plate and with the latter provides a slidably adjustable connection between the arm rests and leg frame, whereby the inclination of the back may be adjusted while the chair is occupied without affecting the relationship of the legs, the lower end of the back being supported by the rear legs of the leg frames when the chair is set up.

2. A folding chair comprising connected leg frames, one at each side of the chair, each leg frame including a front and rear leg and a connecting plate secured to the upper end of one leg and pivotally connected to the adjacent end of the other leg permitting said legs to fold in edge engagement against each other, a back, a seat pivotally connected at its rear to the lower extremity of the back and at its front to the intermediate portions of the front legs, side arm rests pivotally connected at their rear ends to the back and at their front ends each being provided with a depending slotted ratchet plate, said connecting plates each being provided with a laterally extending pivot slidably engaging in the slot of an adjacent ratchet plate providing a slidably adjustable connection between the arm rests and leg frames and whereby the inclination of the back may be adjusted while the chair is occupied without affecting the relationship of the legs, and a pivotal link connection between the lower end of the back and the rear legs of the leg frames, the lower end of the back being arranged to be supported by the rear legs of the leg frames when the chair is set up.

3. A folding chair comprising connected leg frames, one at each side of the chair, each leg frame including a front and a rear leg, a pivotal connection comprising a plate secured to the sides of the upper ends of the legs permitting the legs to fold compactly together, a back, a seat pivotally connected at its rear to the lower extremity of the back and at its front to the intermediate portions of the front legs, side arm rests pivotally connected at their rear ends to the back and at their front ends each being provided with a depending slotted ratchet plate, a laterally extending element mounted on the upper end of one of the legs at each side of the chair and slidably engaging the slot of an adjacent ratchet plate and with the latter providing a slidably adjustable connection between the arm rests and leg frame, whereby the inclination of the back may be adjusted while the chair is occupied without affecting the relationship of the legs, a pivotal link connection between the lower end of the back and rear legs, the lower end of the back being supported by the rear legs of the leg frames when the chair is set up.

LEWIS C. TRAVERS.
GEORGE L. MORRIS.