(No Model.) 2 Sheets—Sheet 1.

G. I. HASWELL.

COMBINED RECLINING AND FOLDING CHAIR.

No. 588,108. Patented Aug. 10, 1897.

Fig. 1.

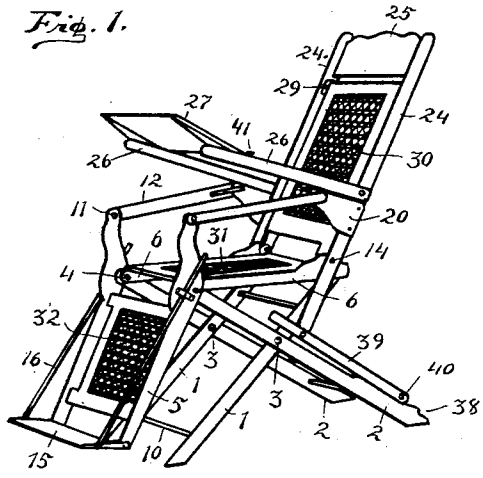
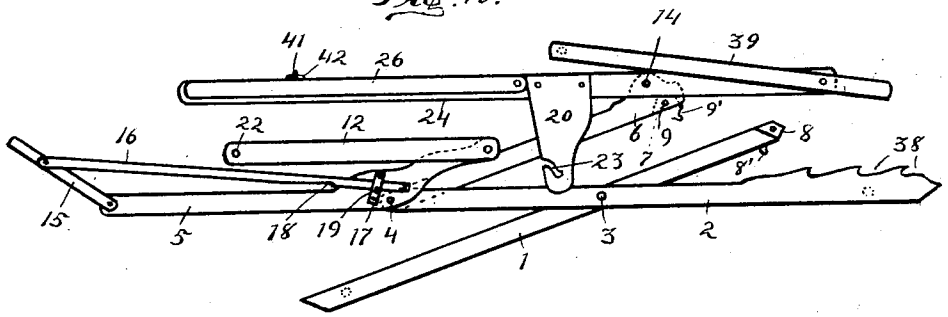


Fig. 2.



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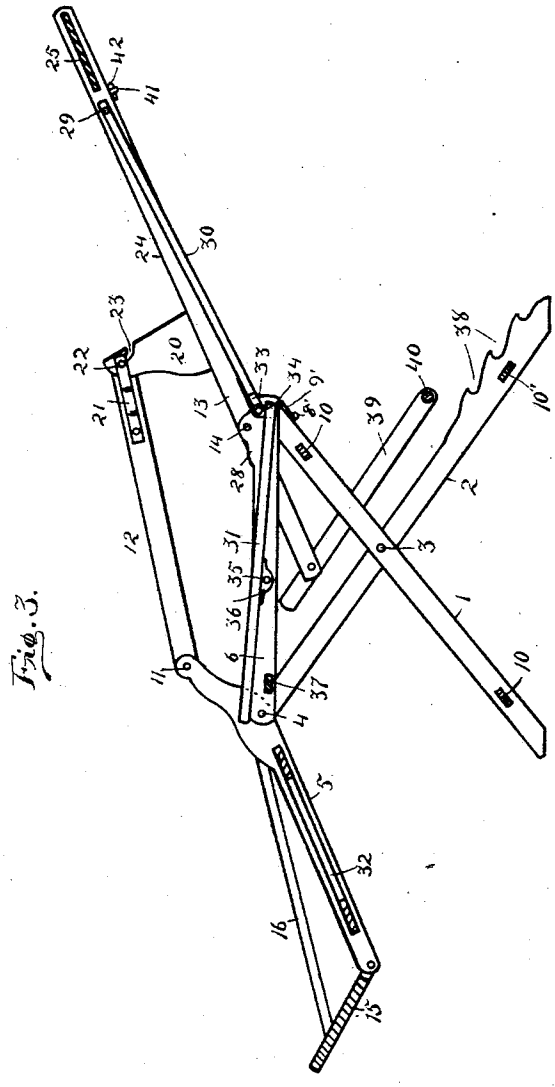


Fig. 3.

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UNITED STATES PATENT OFFICE.

GEORGE I. HASWELL, OF FORT WAYNE, INDIANA, ASSIGNOR TO THE HASWELL CHAIR AND MANUFACTURING COMPANY, OF SAME PLACE.

COMBINED RECLINING AND FOLDING CHAIR.

SPECIFICATION forming part of Letters Patent No. 588,108, dated August 10, 1897.

Application filed March 28, 1896. Renewed January 22, 1897. Serial No. 620,284. (No model.)

To all whom it may concern:

Be it known that I, GEORGE I. HASWELL, a citizen of the United States, residing at Fort Wayne, in the county of Allen and State of Indiana, have invented certain new and useful Improvements in a Combined Reclining and Folding Chair; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in chairs, and applies to that class of chairs designed to be adjusted to various positions, and also to that class adapted to be folded together for the purpose of storing and transporting.

The objects of my improvements are, first, to furnish a chair which may be readily adjusted to any desirable inclination by a simple movement of the occupant, and, second, to so construct the chair that it may be compactly folded.

The invention consists of the construction and novel combination of parts hereinafter described, pointed out in the appended claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view showing the chair slightly reclined and with the lap-board as it appears when used as a book-rest; Fig. 2, a side elevation showing the relative position of the several parts as they appear when nearing the complete folded position, and Fig. 3 a longitudinal section showing the tilting chair-bottom and the hinged back.

Referring now to the parts indicated by the numerals, 1 2 1 2 form the supporting-standards for the chair and are pivotally connected at their respective intersections near the middle of their lengths. Upon the upper ends of the standards 1 1 are formed tenons 8, which are adapted to be inserted and fit into mortises 7, cut into the under sides of the pieces 6 6, which form the sides of the chair-frame. These mortises are located near the rear extremities of the pieces 6 6, which are provided with perforations 9, which coincide with said mortises and also with similar perforations in the said tenons when the latter are inserted into the said mortises. Thus the standards 1 1 may be secured in position by inserting suitable pins into the perforations just described. Hooks 9', engaging staples 8', may be used instead of pins. The standards 2 2 are pivotally secured at their forward extremities to the forward ends of the side pieces 6 6 by means of the bolts or pivots 4 4.

The cross-pieces 10 10 connect the respective ends of the standards 1 1 and serve to strengthen them, and also cause them to act in unity when being folded. The lower ends of the standards 2 2 are provided with a similar cross-piece 10', which serves a like purpose.

The foot-rest pendants 5 5 are pivotally attached to the meeting ends of the standards 1 1 and side pieces 6 6, the pivots 4 4 serving to connect the three parts together. To the lower ends of the pendants is hinged the foot-rest 15. The adjusting-rods 16 16 are attached oppositely to the ends of the said foot-rest and extend upward through the guide-straps 17, secured, respectively, to the outer faces of the pendants. Notches 18 are made in the said adjusting-rods for the purpose of engaging the pins 19 and thereby sustaining the foot-rest in an elevated position. The upper ends of the pendants are curved upwardly and outwardly and form pivotal supports for the forward ends of the arm-rests 12 12.

Metallic straps 21 are secured to the inner faces of the arm-rests at their rear ends and are bent sufficiently to admit of the insertion of the brackets 20 between the said straps and the arm-rests to which they are secured. The pins 22 are adapted to engage the slots 23 in the brackets and thereby hold the arm-rests in position.

One of the special features of my invention is in the relative positions of the pivotal joints 11 and the pivots 4 and 22. It will be seen in Fig. 3 that the outward curvature of the upper portion of the pendants 5 5 prevents their jointed connections with the arm-rests 12 from coming in line with the pivots 4 and 22, and therefore "dead-center" is

avoided. This allows the chair to be stood erect or reclined by applying motion to any movable part of the chair.

The back-supporting standards 24 are pivoted to the raised blocks 28 on the rear ends of the side pieces 6 and extend downward about a quarter of their lengths. The upper ends of the said standards are connected by the board 25. This serves as a head-rest, and may be made attractive in appearance by ornamental carvings or cut to a unique pattern.

Beneath the head-rest is hinged the back 30 at its upper end by means of the laterally-projecting pivots 29, which play in perforated plates secured to the inner face of the standards 24, or the said pivots may rest in perforations made in the standards, the use of plates being preferable. The opposite end of the back is hinged to the rear end of the tilting seat 31 by means of any suitable pivotal connection.

In Fig. 3 is shown the seat and back connected by pivoted projecting ears 33 and 34, which are secured to the seat and back.

The tilting seat 31 is provided with perforated blocks 36, which are secured to the opposite under sides of the said seat. The rod 35 extends through the perforations in the said blocks, the ends terminating and resting in suitable bearings in the side pieces 6 6. The connection of the seat and back being lower than that of the standards 24 to the blocks 28 permits the seat to tilt backward and the back to sag downward when the chair is reclined. This is another special feature of my invention. The inclination of the seat causes the weight of the occupant's legs to rest upon the elevated forward part of the tilted seat and thereby relieving the feet of considerable weight.

The panel 32 is rigidly secured between and to the pendants 5 5. This serves as a rest for the lower extremities of the occupant when the chair is reclined and prevents the feet from sliding backward from the foot-rest.

A cross-piece 37, secured to the side pieces 6 6, sustains the forward end of the seat when level.

At the lower ends of the standards 24, in convenient reach of the occupant, hand-levers 39 are provided, which are connected at their ends by the cross-rod 40. When the chair is erected, the said rod gravitates into one of the several notches 38 at the lower ends of the supporting-legs 2 2, and will thus prevent the chair from again reclining until the rod has been removed therefrom, which may be done by the occupant while seated in the chair by pressing downward upon the free ends of the hand-levers 39.

Swinging arms 26 26 are provided for the purpose of supporting the lap-board 27. These are pivoted to the standards 24 24, just above the brackets 20, and are adapted to rest upon the upper faces of the said brackets. The lap-board 27 is removably attached to the extending arms by means of small hooks secured to the lap-board and fastening into eyes or staples 41, projecting from the said arms. When desired, the lap-board may be removed and the arms folded backward and secured to the standards 24 by means of small hooks which engage the staples above mentioned.

In Fig. 1 is shown the lap-board in use with the chair reclined. The swinging arms retain their relative position to the back regardless of the angle of inclination of the chair. When books or papers are placed upon the lap-board, the occupant may recline to any position desired and the book will always be within easy range of the eyes.

The lightness and portability of this chair make it desirable for use in camps and on shipboard, but it will also serve as an invalid-chair or for the parlor, as it can be made very attractive by upholstering the back, seat, and panel 32, or by using woven cane, as represented in Fig. 1.

When it is desired to fold the chair, the lap-board is first removed and the arms 26 secured to the standards 24. The arm-rests 12 are disengaged from the brackets 20 and folded, as shown in Fig. 2. The pendants are then raised and the back folded forward. The legs of the chair are folded by removing the standards 1 1 from their fastenings at 7. The entire framework may be pressed together. The chair is then a compact and portable body.

Having described my invention and the manner in which the same is used, what I claim as new, and desire to secure by Letters Patent, is—

1. In a combined reclining and folding chair, the combination of the folding supporting-standards 1 1 and 2 2; the side pieces 6 6 mounted thereon; the tilting seat having a pivotal support; the pivotally-mounted pendants 5 5 having the panel 32, the suspended adjustable foot-board 15 and the upwardly and outwardly curved supports for the arms 12 12; the arms pivoted to the said supports and having removable connections with the brackets 20 20; the standards 24 24 pivotally connected to the blocks 28 and supporting the head-rest 25 and brackets 20 20; the back 30 pivotally supported at its upper end between and to the standards 24 24 and hinged to the rear end of the tilting seat; the swinging arms 26 26 pivoted to the standards 24 24; the lap-board 27 removably mounted upon the said arms; and suitable hand-levers 39 39 pivoted to the depending ends of the standards 24 and connected by the rod 40, the said rod being adapted to engage the notches 38 in the standards 2 2, substantially as shown and described.

2. In a combined reclining and folding chair, in combination with the folding supporting standards or legs 1 1 and 2 2, of the pivotally-mounted tilting seat 31 having a hinged connection with the back 30; the back

30 depending from a pivotal support between the standards 24 24; the head-rest 25 mounted between the said standards; the standards 24 24 pivotally attached to the blocks 28 and having depending extensions and the slotted brackets 20 20; the hand-levers 39 39 pivotally connected to the extensions of the said standards and having a connecting cross-rod 40, the said rod being adapted to engage the notches 38 in the legs 2 2; the swinging arms 26 26; the lap-board 27 removably mounted upon the said arms; the pendants 5 5 depending from pivotal supports, and having the suspended adjustable foot-rest 15 and the upwardly and outwardly extending supports for the arms; the arms 12 12 pivotally mounted upon the said supports, and having a removable connection with the brackets 20 20, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE I. HASWELL.

Witnesses:
WILLIAM WISE,
S. M. HENCH.