

(No Model.)

2 Sheets—Sheet 1.

W. H. TUTTLE.
COMBINATION CHAIR.

No. 478,662.

Patented July 12, 1892.

Fig. 2.

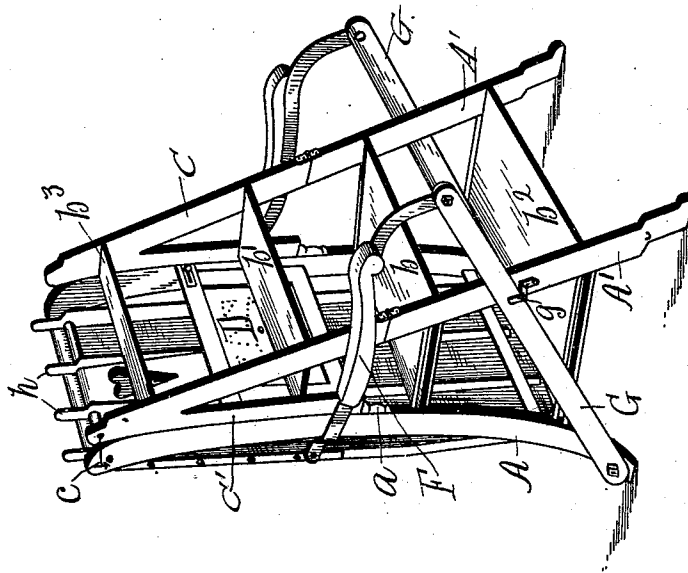
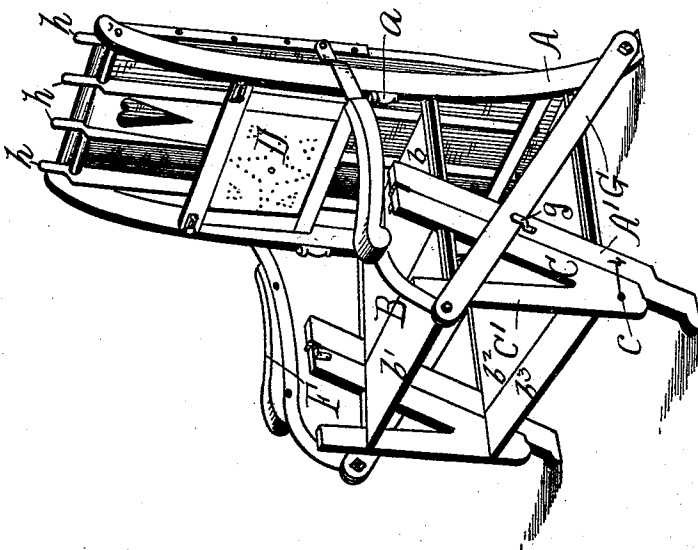


Fig. 1.



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Fig. 4.

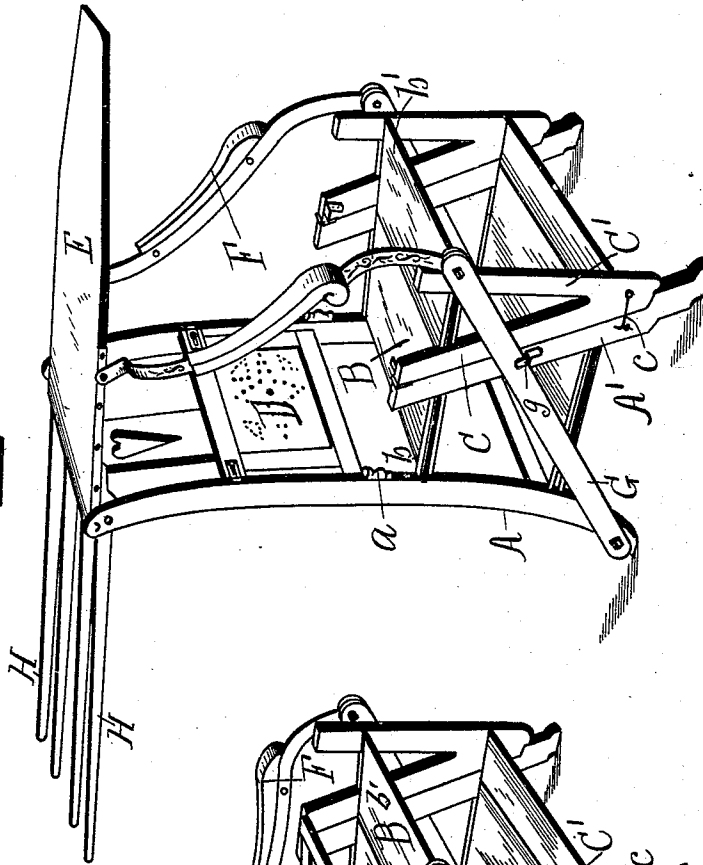
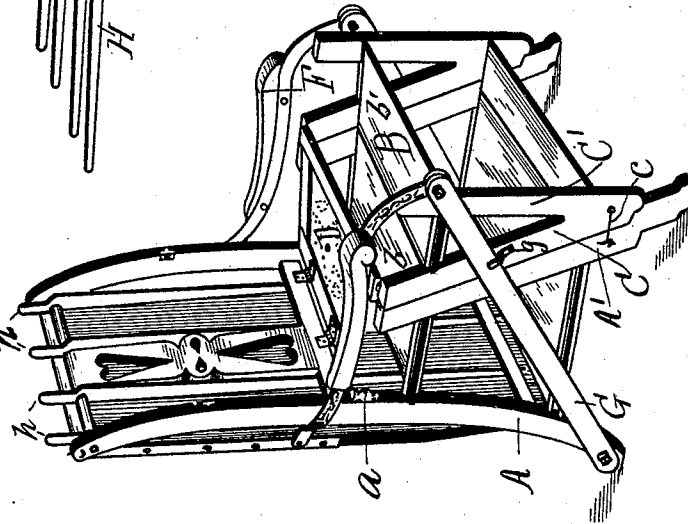


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM H. TUTTLE, OF DETROIT, MICHIGAN.

COMBINATION-CHAIR.

SPECIFICATION forming part of Letters Patent No. 478,662, dated July 12, 1892.

Application filed September 24, 1891. Serial No. 406,690. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. TUTTLE, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Combination-Chairs; and I 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 pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention has for its object the production of a combination-chair so constructed that it is capable of being arranged for a library-chair, a step-ladder, and an ironing table or board.

In its essential features it consists of a frame with arms occupying a position substantially the same as those in an ordinary arm-chair, and having a portion of the frame adapted to swing up for a step-ladder, and arranged to provide four steps. To the frame is pivoted an ironing-board, preferably, so that it will hang back of the chair when not in use. This board is also pivoted to one end of the arms, so that they may form a support for one end of the board when in use. In combination with the board I use a series of fingers adapted to take a horizontal position when the board is swung into position for use, and thus provide a clothes-rack.

In the drawings, Figure 1 is a view showing my invention as a library-chair. Fig. 2 is a view showing the chair arranged for a step-ladder. Fig. 3 is a view showing it arranged as a child's high chair. Fig. 4 is a view showing it arranged as an ironing board or table.

The frame proper consists of the rear posts A, formed substantially like those in an ordinary chair, and the forward posts A', having the lower end set forward at about the usual distance from the rear post, but inclined backward so that its top is about one-half the distance of that at the bottom, or that of the top of an ordinary chair-leg. These front legs or posts I extend above the seat B, and to the top I hinge the post C, which, in connection with the post C', forms the side supports for the upper portion of the step-ladder, as hereinafter described. The rear portion b of the seat is supported by the frames A and A',

while the forward portion b' is supported on the frames C and C'. When the upper step-ladder portion, consisting of the posts C and C', are swung upward and into the position shown in Fig. 2, by reason of the posts A' extending above the seat, the forward portion b' of the seat of the chair is elevated into the position shown in Fig. 2, so that the portion b of the seat becomes a second step for the step-ladder, and the portion b' a third step. While the cross-frames b² and b³ were joined beneath the seat when in position as a library-chair, when swung into position for a step-ladder the portion b² forms the first step of the step-ladder, and the portion b³ the fourth step. The upper step-ladder portion when swung upward into position rests against the upper portion of the upright standards A, and the upper end of the standard C', now being inverted, becomes the lower end of the inner standard of the ladder-support, and rests on brackets a in the standard A, which receives the thrust of the ladder, supporting it and making it perfectly safe.

On the side of the standard C', I pivot the hooks c, which, when the frame is in position for a library-chair, is hooked below in a ring set in the outside of the standard A', and when in position as a ladder hooked in a similar hook or ring in the upper end of the standard A.

The back portion D of the chair is pivoted at either the top or the bottom, as preferred, between the back-standards A and is adapted to be swung outward into a horizontal position, as shown in Fig. 3, and form a child's high chair. I prefer to have this portion form a panel with the lower edge several inches above the seat of the chair and pivoted at this edge, so that it may be swung downward into its horizontal position and rest at the front end on the upper end of the standard C.

In combination with the chair, as heretofore described, I use an ironing board or table E, which I pivot, preferably, at one end between the upper ends of the vertical standards A, so that it is permitted to hang vertically along the back of the chair and to be raised and swung over into a horizontal position above and in front of the chair, as shown in Fig. 4.

Each arm F is connected by a link at its front end to the upper end of the link G, that

reaches diagonally downward across the main frame-work, and is pivoted at the lower end to the standard A. The link G normally and usually rests in a brace or bracket *g*, that is secured to the standard C; but its forward end is free to rise to permit the proper movement of the arm F when the ironing-table E is turned from its vertical to its horizontal position. The rear end of each arm F is linked to the side of the ironing-board, the lengths of the various connecting parts—the link G, the arm F, and the two short links between F and G and F and E—being so proportioned that the arm F takes nearly a horizontal position when the ironing-board E is vertical and a more upright position when the ironing-board is swung to a horizontal, so that the arm F forms in one position the arm proper of a chair and in another position the supporting-leg of a table. When the ironing-board is swung to a horizontal position, it carries with it the rear end of the arm F and lifts the entire arm F upward, lifting the rear end, however, more than the forward end. The forward end of the link G is also lifted upward and backward; but as the ironing-board E reaches the end of its movement the arm F and the forward end of the link G drop downward and the link G comes to rest in its supporting-bracket *g*, and the arm F is now in its second or vertical position. The board E in its present position may be used for any purpose to which a table is adapted. As shown in the drawings, it is especially adapted to be used as an ironing-board.

On a rod between the upper portions of the standards A, I pivot a series of long fingers H, adapted to hang down behind the chair and underneath the ironing-board. These fingers have a portion *h* projecting above the pivot, so that when the ironing-board is swung into its horizontal position it rests on the upper ends *h* and elevates the fingers into a horizontal position back of the chair, as shown in Fig. 4, where they may be used as a clothes-rack or as a support for other articles. By the use of this construction the fingers automatically take their position when the board is swung into its position.

I am aware that combination-chairs adapted to form a step-ladder have been used; but I am not aware that a construction has been used in which the free portion of the frame adapted to be swung upward into position for a step-ladder has been pivoted above the seat, so as to form an additional step when the free portion is elevated. This I accomplish by extending the standards upward and pivoting them as I have shown and described.

What I claim is—

1. In a combination-chair, a frame having its front legs extending above the plane of the seat and supporting the inner half of the seat, and auxiliary frames hinged at the top of said legs and supporting the forward por-

tion of the seat and adapted to swing said portion above the seat, substantially as and for the purposes described.

2. In a combination-chair, a frame having its front legs extending above the plane of the seat and supporting the inner half of the seat, and auxiliary frames hinged at the top to the top of said legs and supporting the forward portion of the seat and adapted to swing up and form a step-ladder, and brackets adapted to receive the thrust of the upper portion of the ladder, substantially as described.

3. The combination, with a chair-frame, of a table hinged at one end to the top of the frame of said chair, a link hinged to said chair-frame near the bottom, a chair-arm connected by short links to said table and to the said first-mentioned link, the said table being adapted to hang in a vertical position behind the chair-frame and to swing from such vertical position to a horizontal position over the chair-seat and the said arm being adapted to swing with said table from a horizontal to an upright position and to form in its upright position a support for the table, substantially as and for the purpose specified.

4. In combination with a chair, a table pivoted at one end to the top of the back of the frame of said chair, arms pivoted to said table at one end and to swinging bars at the opposite end and adapted to form vertical supports for said table when swung in a horizontal position, substantially as described.

5. In combination with a chair, a table pivoted at one end to the top of the frame of said chair, hanging normally back of said chair and adapted to be swung into a horizontal position above said chair, fingers pivoted to said chair-frame and provided with extensions *h*, said fingers hanging normally parallel with said table, said extensions extending above the pivot of said table, whereby the said table is adapted when swung into its horizontal position above said chair to carry the said extensions into a horizontal position and to support said fingers in a horizontal position, substantially as described.

6. The combination, with a chair-frame, of a table hinged to said chair-frame, fingers pivoted to said chair-frame and adapted to hang normally in a vertical position between the chair-frame and the table, the said fingers being provided with upward-extending portions *h*, adapted to be brought under the table when the table assumes a horizontal position and to coact with the supporting-pivot and the table in forming a secure support for the said fingers, substantially as and for the purpose specified.

In testimony whereof I sign this specification in the presence of two witnesses.

WILLIAM H. TUTTLE.

Witnesses:

CHARLES H. FISK,
MARION A. REEVE.