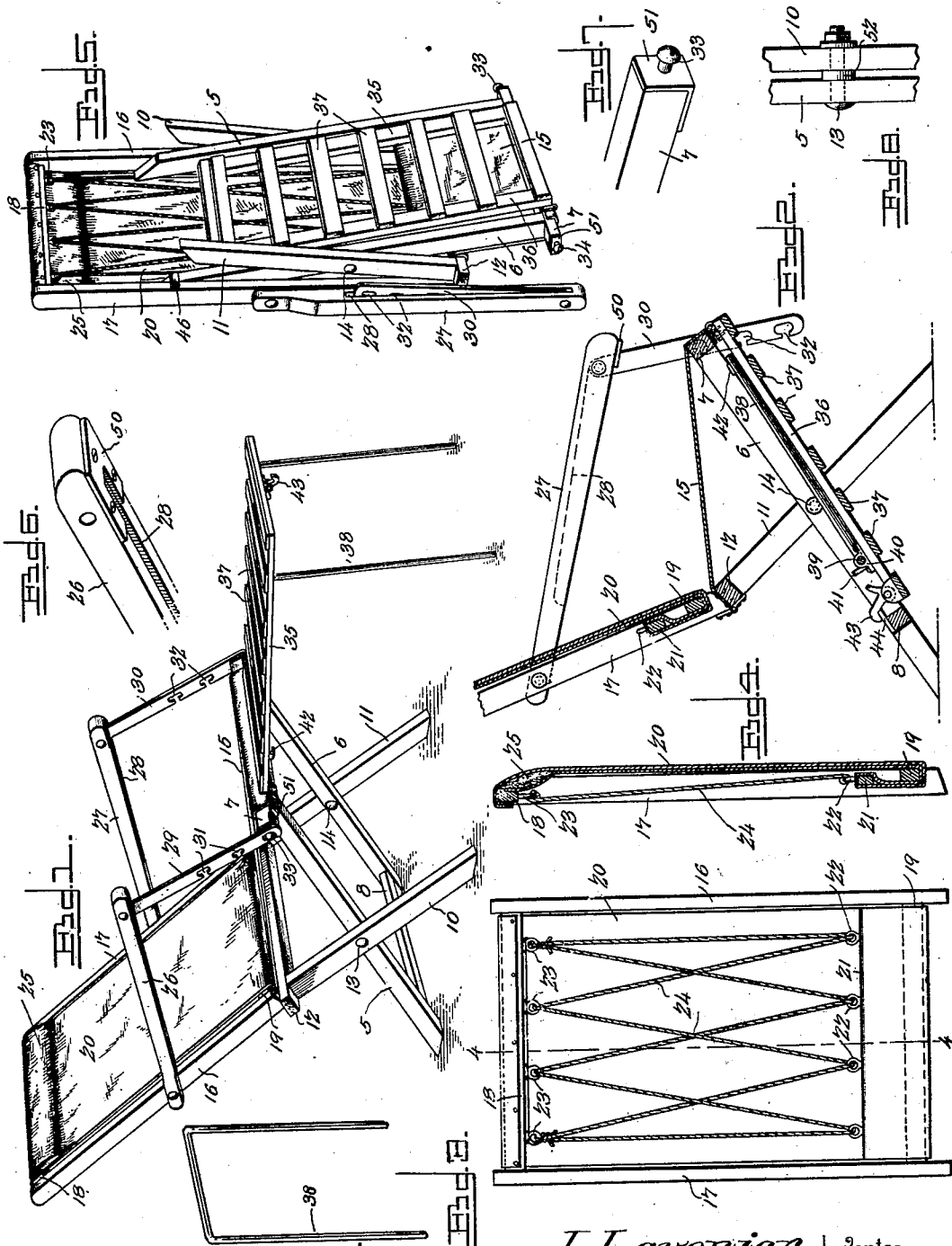


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Patented Jan. 29, 1901.

L. LAVONIER.
FOLDING CHAIR.
(Application filed July 21, 1900.)

(No Model.)



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UNITED STATES PATENT OFFICE.

LOUIS LAVONIER, OF OSWEGO, NEW YORK.

FOLDING CHAIR.

SPECIFICATION forming part of Letters Patent No. 666,681, dated January 29, 1901.

Application filed July 21, 1900. Serial No. 24,437. (No model.)

To all whom it may concern:

Be it known that I, LOUIS LAVONIER, a citizen of the United States, residing at Oswego, in the county of Oswego and State of New York, have invented a new and useful Folding Chair, of which the following is a specification.

This invention relates to chairs in general, and more particularly to the class of folding chairs comprising a frame and fabric, one object of the invention being to provide a construction wherein the pivoted back may be held at various angles to the seat and in which the foot-rest may be rigidly supported in its operative position and may be folded to lie under the chair-seat and in line with the front supports, a further object of the invention being to provide for maintaining proper tension of the fabric filling of the back of the chair.

Further objects and advantages of the invention will be evident from the following description.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a perspective view showing the complete chair set up with the back in an inclined position and the foot-rest in place. Fig. 2 is a vertical section taken through the seat and back of the chair, a portion of the back being broken away to permit a showing on a large scale. Fig. 3 is a rear elevation of the back and showing the means for varying the tension of the back fabric. Fig. 4 is a central section of Fig. 3 on line 4 4. Fig. 5 is a perspective view showing the chair in its folded position. Fig. 6 is a perspective view of the outer end of the arm with its wear-plate. Fig. 7 is a perspective view showing the end of a cross-piece and plate. Fig. 8 shows the arrangement of a spacing-washer, and Fig. 9 is a detail perspective view of the support for the foot-rest.

Referring now to the drawings, the chair of the present invention consists of a front supporting-frame, including legs 5 and 6, which are connected at their upper ends by a cross-piece 7, said legs being connected also at a point above their lower ends by a cross-piece 8. A rear supporting-frame includes legs 10 and 11, disposed parallel and

connected at their upper ends by a cross-piece 12, and the legs 10 and 11, which are disposed exterior to the legs 5 and 6 and against the outer faces thereof, are pivotally connected with said legs 5 and 6 through the medium of pivot-bolts 13 and 14, as shown.

A fabric seat 15 is secured at its ends to the cross-pieces 7 and 12 and acts to hold the two supporting-frames at the proper angle to each other, this portion of the chair being in the nature of the usual camp-stool.

The back of the chair includes side pieces 16 and 17, having a connecting cross-piece 18 just below their upper ends and having also a second cross-piece 19 just above their lower ends, and the side pieces 16 and 17 are hinged to the cross-piece 12, so that they will lie at all times in the planes of the legs 10 and 11 and may be pivotally moved with respect to the seat of the chair.

The frame of the chair-back has a filling 20, of fabric, one end of which is tacked or otherwise firmly secured to the upper cross-piece 18 at its rear face and is then taken upwardly, over, and downwardly from the cross-piece 19, and then around and under the lower cross-piece 19, the lower end of the fabric containing a strip 21. The fabric 20 is doubled, as shown, and the strip 21 is disposed between the layers of the fabric, which form a pocket to receive the strip. In the strip 21 is inserted a series of screw-eyes 22 at regular intervals, and corresponding screw-eyes 23 are engaged with the cross-piece 18. A cord 24 is laced back and forth through these screw-eyes, and thus by tightening the cord the lower end of the fabric may be drawn upwardly and the proper tension given to the fabric.

It will be noted that the two layers of fabric are continued over the upper cross-piece 18, and between the layers adjacent to said cross-piece is placed a filling 25, of cotton, hair, or other cushioning material, to form a head-rest, the fabric being stitched transversely below this filling to prevent displacement thereof.

In order to hold the hinged or pivoted back at different angles to the chair-seat, the arms 26 and 27 are utilized, these arms being pivoted to the sides of the frame of the back. In the under sides of the arms and extending rearwardly from points adjacent the front

ends thereof are formed slots, (shown in dotted lines at 28 in Fig. 2,) and in these slots and at the forward ends thereof are pivoted irons 29 and 30, which are adapted to fold to lie entirely within the slots and to be unfolded to lie at various angles to the arms. In the rear edges of the irons 29 and 30 are formed slots 31 and 32, which are broadened beyond the edges of the irons to form recesses, and these recesses are adapted to interchangeably receive headed pins or screws 33 and 34, engaged with the ends of the cross-piece 7, and thus hold the arms at different elevations. During this position of the irons they engage the forward ends of the slots of the arms, so that the angle between each arm and the iron pivoted thereto cannot increase and the back is held in position so that it cannot move backwardly or downwardly.

A foot or leg rest is provided and includes parallel side pieces 35 and 36, connected by means of cross-slats 37, the resultant frame being hinged to the cross-piece 7 of the front supporting-frame. The front end of this leg or foot rest is supported by a U-shaped rod or bar 38, the web 39 of which is pivotally mounted in blocks 40 upon the side pieces 35 and 36 of the leg-rest, pivotal movement of this bar or rod being limited in one direction by a stop 41. The bar or rod 38 is of more or less springy material and is adapted to be folded to lie against the under side of the foot or leg rest, said rod being held in its folded position by springing one end thereof under a clip 42 upon the side piece 35. When the foot or leg rest is inoperative, it is moved pivotally to lie parallel with and adjacent to the plane of the front supporting-frame and is held in this position by a spring-latch 43, mounted upon the outermost cross-slat 37 and positioned to engage over the latch-plate 44 upon the cross-piece 8.

In Fig. 6 of the drawings there is shown the arrangement of a slotted wear-plate 50 upon the under side of the arm of the chair, each arm being provided with one of these plates. The wear-plates receive the irons 29 and 30 in their slots when said irons are in their active positions, and by taking the strain they prevent splitting of the arms.

In order to prevent splitting of the cross-piece 7 by the wedging action of the screws 33, engaged therewith, an angle-plate 51 is fixed to each end of the cross-piece and has its foot disposed against the end of the cross-piece, the foot having a perforation through which is passed the screw 33.

Upon the pivots 13 and 14 of the legs and between the mutually-adjacent legs are disposed washers 52, which act to hold the legs out of direct contact, and thus permit ready pivotal movement of the legs.

With this construction it will be seen that the chair may be adjusted to conform to different conditions of use. When the chair is to be folded, the foot-rest is folded into the inoperative position above described and the

irons 30 and 31 are disengaged from the screws 33, after which the irons are folded to lie in the slots of the arms. The seat-supporting frames are then moved pivotally together in the usual manner, and the back-frame is moved to lie against the legs of the front supporting-frame, the extremities of the legs of the rear supporting-frame lying between the sides of the back-frame, as shown in Fig. 5, a turn-button 46 upon the back-frame being turned to engage over a leg of the rear supporting-frame to hold it in this position. The arms are folded to lie in the plane of the back.

It will of course be understood that in practice various modifications of the construction shown may be made and that any suitable materials and proportions may be used for the various parts without departing from the spirit of the invention.

What is claimed is—

1. A chair comprising a seat portion provided with legs, a back hinged to the seat, arms pivoted to the back and provided with slots, irons pivoted in the slots and adapted to fold thereinto, plates secured to the under sides of the arms and having slots to receive the irons when in their unfolded positions and limit the pivotal movement thereof, said irons having notches therein, and pins upon the seat for engagement by the notches of the irons interchangeably to vary the angle between the back and seat.

2. A folding chair comprising a seat and a back, a front seat-supporting frame extending rearwardly, a back seat-supporting frame extending forwardly and pivoted to the first-named frame, said frames being crossed, a cross-piece connecting the legs of the front supporting-frame adjacent to the rear ends thereof and provided with a keeper, a foot-rest hinged to the front supporting-frame, a support pivoted to the foot-rest and adapted to fold thereagainst, said rest being adapted to lie against the front supporting-frame and through the rear supporting-frame when folded, and a latch carried by the foot-rest for engagement with said keeper to hold the foot-rest in its folded position.

3. A folding chair comprising a seat and a back having hinge connection, arms pivoted to the back, irons pivoted to the arms and having bodily movement with respect to the seat, stops upon the arms for limiting the pivotal movement of the irons with respect thereto, notches in the irons, and pins carried by the seat for engagement by the notches interchangeably to hold the back at various angles to the seat.

4. A chair including a seat having supporting-frame, and a foot-rest comprising a frame hinged with respect to the seat and adapted to be folded against a supporting-frame, a catch carried by the rest for engagement with the supporting-frame to hold the rest folded, a U-shaped supporting-rod having its web pivoted to the rest, said rod being of spring

material, and a clip upon the rest, said rod being adapted to fold against the rest and spring under the clip.

5 A piece of furniture including a frame comprising side pieces and cross-bars, a double fabric attached at one end to a cross-bar and having a second cross-bar disposed between the layers of the fabric at the bight, eyes connected with the first cross-bar, eyes
10 having stems engaged with the second bar through the bight of the fabric and cords laced through the eyes to vary the tension of the fabric.

6. A piece of furniture comprising a frame including side pieces and cross-bars, a double fabric attached to one of the cross-bars, the opposite end of the fabric being taken around the second cross-bar, a strip between the layers of the fabric at said opposite end and
15 having eyes engaged therewith, eyes carried by the first cross-bar, a cord passed through the eyes to vary the tension of the fabric,

and a cushioning material disposed between the layers of fabric adjacent the first-named cross-piece.

7. A chair comprising a front seat-supporting frame extending downwardly and rearwardly, a rear seat-supporting frame extending downwardly and forwardly, said frames being crossed and having a seat connected
25 with their upper portions, and a foot-rest hinged to the forward portion of the front seat-supporting frame and adapted to fold through the rear frame to lie against the front frame, and means for holding the rest
30 in position against the front frame. 35

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

LOUIS LAVONIER.

Witnesses:

E. B. POWELL,
JAMES O'GRADY.