2 Sheets—Sheet 1.

T. TOSTEVIN.

CHAIR.

No. 192,850. Patented July 10, 1877.

Fig. 1.

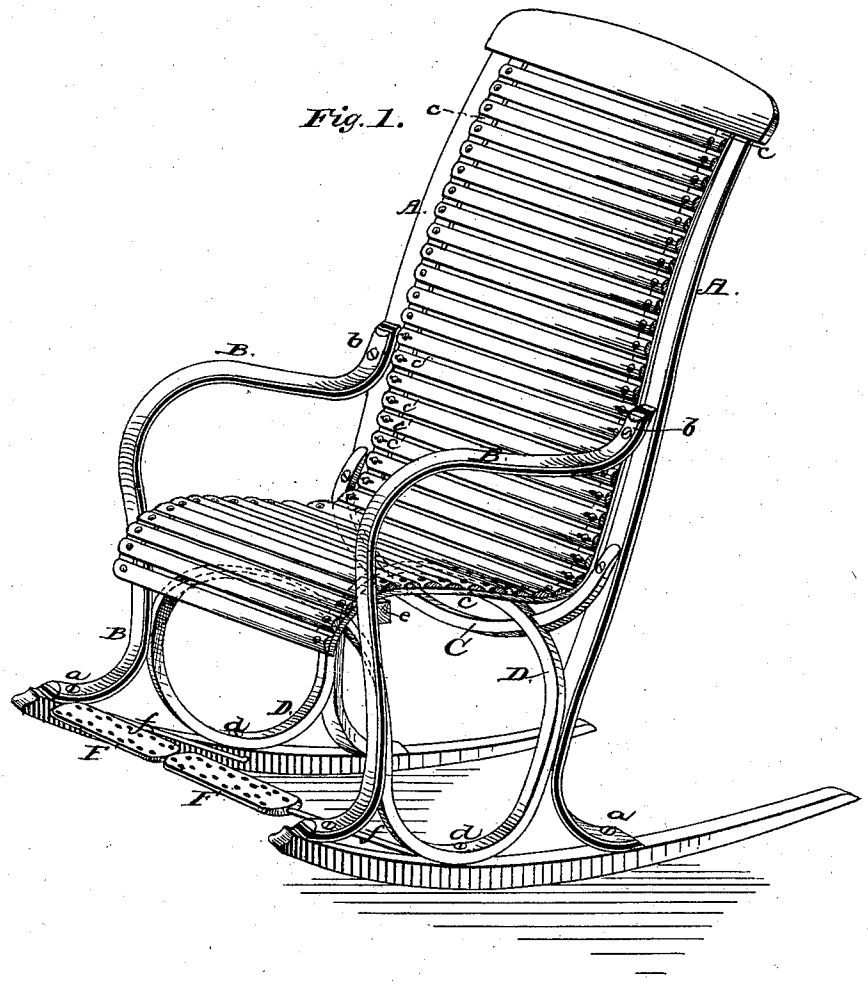
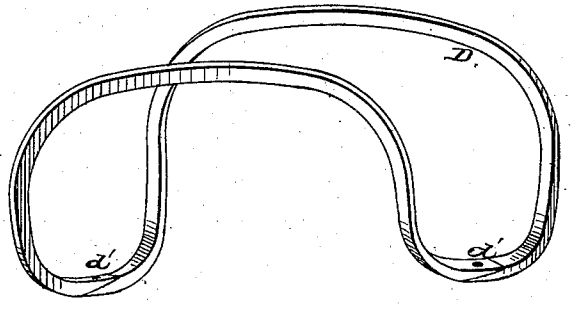


Fig. 2.



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2 Sheets—Sheet 2.

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Fig. 3.

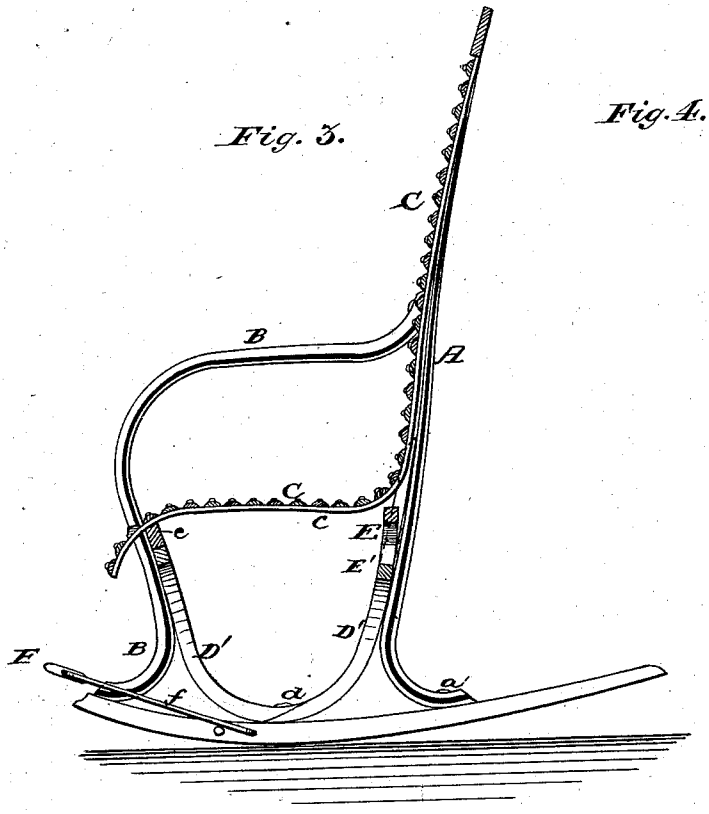


Fig. 4.

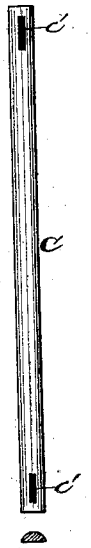
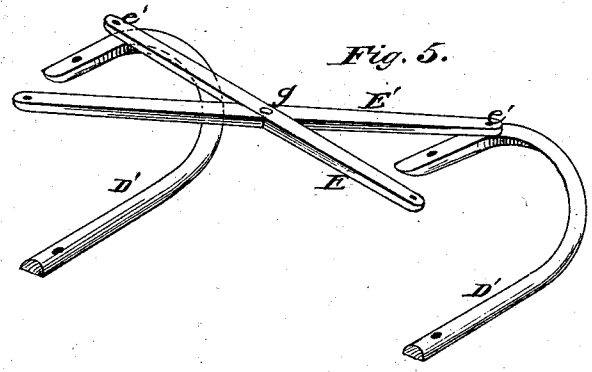


Fig. 5.



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UNITED STATES PATENT OFFICE.

THOMAS TOSTEVIN, OF COUNCIL BLUFFS, IOWA.

IMPROVEMENT IN CHAIRS.

Specification forming part of Letters Patent No. **192,850**, dated July 10, 1877; application filed May 24, 1877.

To all whom it may concern:

Be it known that I, THOMAS TOSTEVIN, of Council Bluffs, Iowa, have invented certain new and useful Improvements in Chairs, of which the following is a full and clear description, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view. Fig. 2 is a detail view of one of the parts detached. Fig. 3 is a vertical section of Fig. 1, taken through the center of the back and seat. Fig. 4 is a detail view, showing part of the seat or back; and Fig. 5 illustrates a modified form of the device shown in Fig. 2.

My invention consists in the construction and combination of parts hereinafter described, and pointed out in the claims.

The frame of my chair, aside from the braces, consists entirely of four pieces or strips of bent wood, A A, forming the side posts and back legs, and B B the arms and front legs. Each one of these parts I propose to construct of two, three, or more pieces or strips of wood, laid together and bent into the desired shape.

By this construction I obtain the great advantage that, as each strip bends separately, and can slide upon the others during the process of bending, all weakening of the parts is avoided at the points of curvature, since the strip upon the outer or convex face of each curve is not violently stretched, nor is the strip upon the inner or concave face of the curve violently compressed, as is usual in bending thick bars of wood. Thus, after the required shape is secured, I still retain the full strength and elasticity of each piece, and when they are united the whole is as strong as an unbent bar of the same size would be. Moreover, by varying the kind of wood in each strip, I obtain a highly-ornamental appearance.

The strips, when bent, may, if desired, be secured together by glue or otherwise.

Instead of the frame being made of separate strips, I may construct it of solid wood. In that case I may split or saw the ends of the legs, and bend one of the split pieces outward and the other inward, uniting them to the rocker by screws or any suitable means.

I am aware that a chair has been made by uniting broad sheets of veneer, of a width equal to the width of the chair itself, the compound sheet being bent into shape, and sawed or cut upon its edges to form an ornamental outline; but my single posts, made of narrow strips, separately bent, and then glued or otherwise united, is a different invention.

The strips A are bent at their lower ends on a sharp curve, and united to the rockers by a screw or screws, *a*. The arm-pieces B, also, are fastened both to the posts A and to the rockers in precisely the same way. This mode of fastening is of the utmost importance. It will be seen that the screw-bolts draw the broad flat face of each strip down against the part to which it is fastened, giving a wide base of support, avoiding all torsional strain, and causing the forces which tend to separate the parts to act in a line parallel with the axis of the screw. Thus no force, unless it is sufficient to drag the screw violently out of the wood, can loosen the parts. Besides, the peculiar shape of the parts gives to the frame the utmost elasticity; and, lastly, I construct a chair which can be taken to pieces in a moment. The posts or legs can be attached to rockers of any curvature, or to a flat base, without any alteration.

It will be seen that, instead of bending the extremity of the leg outward, as shown, I may separate the strips, and bend part of them outward and the others inward. In this way I may obtain even a stronger attachment than the other, obtaining the utmost breadth of the base of support. When this form of construction is adopted the several strips should be made somewhat thicker than is necessary in the form shown in the drawing.

These parts, which constitute the frame of the chair, I brace in the following way: A single strip, or, if desired, two strips, are bent into a double yoke, as seen in Fig. 2. This structure is placed beneath the seat, and secured to the rockers at *d*, and bolted or otherwise fastened to the front and back legs, as seen in Fig. 1. To the side posts A I fasten a bent cross-brace, G, which curves downward, crossing one part of the brace D, the two being gained or bolted together at the points where they meet.

I have illustrated a modified form of this

brace in Fig. 5, where, in place of the continuous strip, I use two U-shaped braces, connected by bars E E′, crossing each other diagonally, gained or bolted together at the central point *g*. This brace occupies the same position, very nearly, as the other, the parts D′ D′ being fastened to the rocker at *d*, and the ends to the rear and front legs on each side, the cross-bars E E′ being also united to the rear legs at their lower ends by one of the bolts which fasten the curved brace, as seen at *e′ e′*, Fig. 5. The upper ends are secured to the rear legs at a point nearly in the plane of the seat. By this construction I obtain a frame of great strength, suitable elasticity, easily and quickly taken apart, and of beautiful outlines and proportions.

The seat and back of my chair are formed in one continuous piece or strip. They are composed of thin narrow slats of wood, fastened by screws or nails to continuous curved elastic wooden strips, extending from the top rail of the back to the front edge of the seat. These strips are placed within the side posts, and side by side with them. They are fastened to the top rail of the back in any suitable manner, and drop, nearly parallel with the posts A, to the level of the seat, where they are bent forward nearly at right angles, passed over the supporting-bar *e*, to which they are secured, and allowed to project somewhat beyond said bar, being sharply curved downward to conceal the bar and form a smoothly-curved seat-front, avoiding the usual sharp edge. The slats supported by these strips are elastic, and I propose, where necessary, to form a slot in each end of as many of the slats as may be desired, passing a pin through the slot into the supporting-strip. When weight is placed upon them, causing the slats to bend downward, these slots will allow the ends of each slat to be drawn toward, or approach, each other, allowing a greater yield to the slats. This construction is shown in Fig. 4, which illustrates a single slat formed as described.

The seat or back may be made separately, instead of continuously, in the manner above described, to adapt them to be attached to chairs of ordinary construction.

To make my chair complete, I attach a pivoted foot-rest. (Shown in Figs. 1 and 3.) It consists of a single piece of Bessemer wire, pivoted to the inner faces of the rockers at each end, and having the two separate footboards F F′, through which the wire passes longitudinally, in such manner that the boards F F′ may turn upon said wire independently of each other; or, the wire may pass through staples on the back of each board. When not in use this rest may be turned up under the seat.

I do not claim, broadly, bending wood in separate strips and afterward uniting said strips together; nor do I claim, broadly, a chair seat or back composed of wooden slats, whether slotted or not; but

Having described my invention, what I do claim as new, and desire to secure by Letters Patent, is—

1. A chair, the parts composing the frame thereof being each composed of two, three, or more strips of wood, of the same or different varieties, bent simultaneously into the desired form, and united together in the manner shown and described.

2. In a chair or seat, the posts A and arm-pieces B, composed of several strips of the same or different varieties of wood, the strips composing each part being bent simultaneously into form and united together, as and for the purpose set forth.

3. The legs, front and rear, bent at their lower extremities outward, and united to the rockers or to the frame by a screw or bolt, *a*, or other suitable means, as and for the purpose set forth.

4. In combination with the frame A B, the brace D, united to said frame, as shown and described.

5. In a chair, the back and seat consisting of thin narrow slats C, supported at their ends upon continuous elastic wooden strips *c c* fastened to the top rail, and passing downward to the level of the seat, bent forward, and secured to the bar *e*, as set forth.

6. In combination with the continuous elastic wooden strips *c c*, the slats C, slotted at their ends, and secured to said strips by pins passing through said slots, as and for the purpose set forth.

7. In combination with the frame A B, the braces D′ D′, having cross-bars E E′, gained or bolted together at *g*, substantially as and for the purpose set forth.

8. The foot-rest, composed of the wire *f* and the separately-adjustable boards F F′, as and for the purpose set forth.

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