

L. HEYWOOD & G. A. WATKINS.
Chair Seat and Back.

No. 215,923.

Patented May 27, 1879.

Fig: 1.

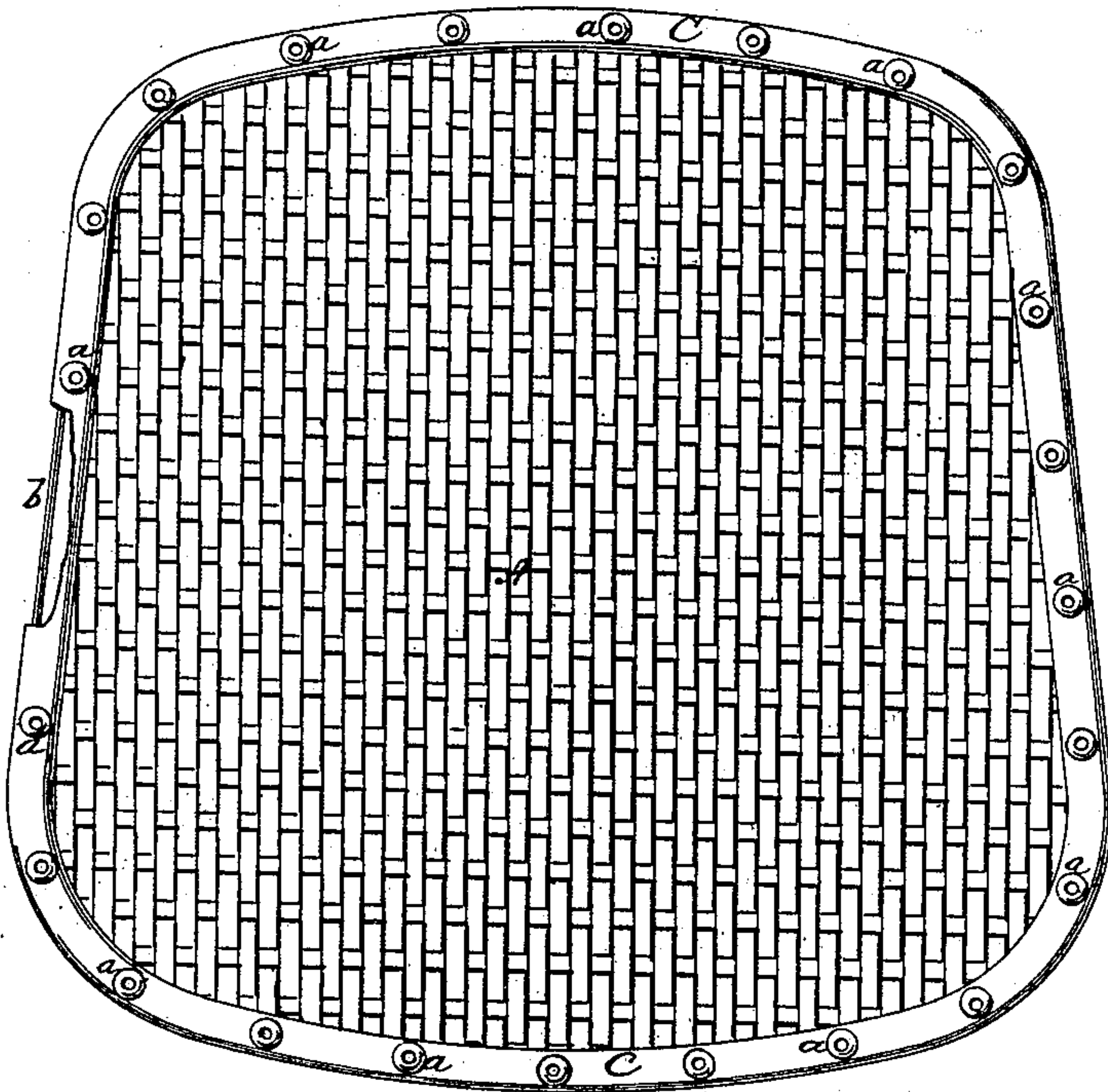


Fig: 2.

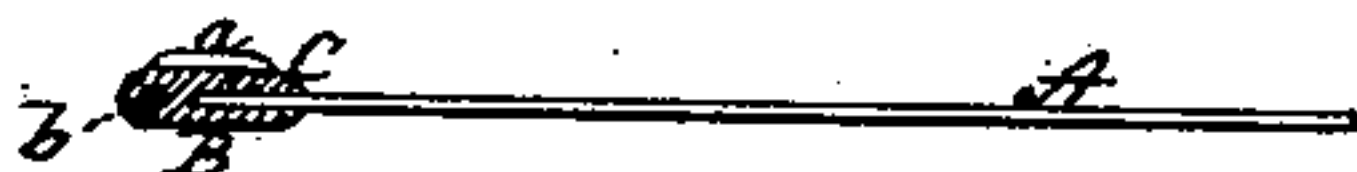
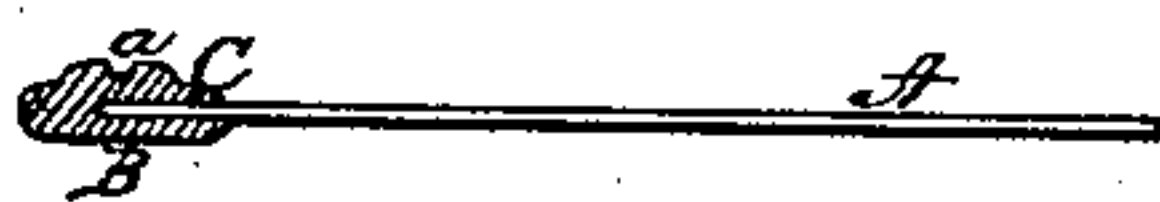


Fig: 3.



Witnesses:

Chas. Viola.
H. L. Wattenberg

Inventors:

Levi Heywood and
Gardner A. Watkins
Per *J. M. Pym*
att'y

UNITED STATES PATENT OFFICE

LEVI HEYWOOD AND GARDNER A. WATKINS, OF GARDNER, MASSACHUSETTS, ASSIGNORS TO HEYWOOD BROTHERS & CO., OF SAME PLACE.

IMPROVEMENT IN CHAIR SEAT AND BACK.

Specification forming part of Letters Patent No. **215,923**, dated May 27, 1879; application filed March 10, 1879.

To all whom it may concern:

Be it known that we, LEVI HEYWOOD and GARDNER A. WATKINS, of Gardner, in the county of Worcester and State of Massachusetts, have invented a new and Improved Chair Seat or Back, &c.; and that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making part of this specification.

This invention is in the nature of an improvement in chair seats, backs, &c.; and the invention consists in a chair seat or back constructed of woven cane or similar material cut to any desired size and form, and with its edge protected from fraying by a binding or inclosing frame of gutta-percha or other plastic and flexible material.

In the accompanying sheet of drawings, Figure 1 is a plan or top view of seat partly broken away, showing an encircling wire. Fig. 2 is a cross-section of same, and Fig. 3 a cross-section without encircling wire.

Similar letters of reference indicate like parts in the several figures.

A represents the seat of a chair, made of woven cane-strands or other similar material, and cut to the shape and size desired. After the woven fabric is cut, a strip of gutta-percha, B, of the requisite length, width, and thickness, is placed in the bed of an iron mold, which mold should be of a shape corresponding to that of the chair-seat. The woven fabric A is then placed within this mold and on the strip of gutta-percha, and a second strip of gutta-percha, C, is then laid around the upper margin of the woven fabric, so as to encircle it. The gutta-percha being in this way applied, the top of the mold having a suitably-formed channel or design made in it is then placed over the chair-seat within the mold, the channel or other design in the cover of the mold resting upon the gutta-percha strip C, placed around the upper marginal surface of the woven fabric. The cover of the mold being tightly clamped in position and heat applied, the strips of gutta-percha on the under and upper surface of the woven fabric are forced together at their outer edge, and

also through the interstices of the woven strands, and when cooled the woven fabric will be found to have its edge entirely surrounded and inclosed by a margin of gutta-percha, which constitutes a continuous frame, cementing the woven strands at the edges of the seat firmly together and preventing their raveling, and at the same time affording a firm margin or binding through which the seat may be nailed to the seat-frame.

Instead of using gutta-percha for this purpose, any other suitable plastic substance may be used, such as papier-maché, rawhide, or cements, any of which may be applied in a fluid or semi-fluid or plastic state, and afterward become hardened when dried or heated.

Besides the advantage of preventing the edge of the woven fabric from raveling out, and affording a strong margin by which the seat may be attached to its frame, the inclosing margin is ornamental, making a neat finish, is water-proof, and therefore not disturbed by moisture. It is flexible and will not break or flake off, and it may have imparted to it any desired color.

The cover or other part of the mold which is to give form to the inclosing material may have any design cast or engraved upon it, particularly bosses *a*, forming substantially eye-lets to re-enforce the holes through which the nails are to pass to secure the seat to the frame, and thereby add to their strength, firmness, and durability.

If additional strength is desired, besides the gutta-percha inclosing margin, a wire, *b*, may encircle the edge of the chair-seat. This wire should be applied so that it will come between the upper and lower inclosing-strips of gutta-percha or other substance, and it should be outside the line of nail-holes, and the wire may be in one continuous strip, or in sections around the seat. When the two strips of gutta-percha, &c., are united and forced together, as before stated, the wire is covered and hidden from sight, and yet it adds greatly to the strength of the seat at its margin, since it is firmly cemented and united to the woven fabric and to the gutta-percha, &c., itself, and cannot become detached with ordinary wear and use, and yet at the same time it affords a

substantial guard, which will prevent the chair-seat from being drawn or torn from the nails that confine the seat to the seat-frame.

It is obvious that besides the seats of chairs, &c., the backs of chairs, settees, &c.—in fact any woven fabric for any purpose—may be similarly inclosed and protected at its edge and margin, in the manner hereinbefore described.

Having now described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A woven or other chair seat or back fabric with its edge inclosed and surrounded by a margin of gutta-percha, papier-maché, or other plastic substance, substantially as and for the purpose described.

2. A chair-bottom with a molded margin or binding of plastic material having bosses *a* formed thereon and pierced with nail-holes, substantially as and for the purpose described.

3. In a chair-bottom with a molded margin or binding of plastic material, the following elements in combination—viz., woven cane-strands *A*, wire marginal guard *b*, and plastic and molded margin *B*, substantially as shown and described.

LEVI HEYWOOD.

GARDNER A. WATKINS.

Witnesses:

FRANCIS RICHARDSON,

LUCY A. TURNEY.