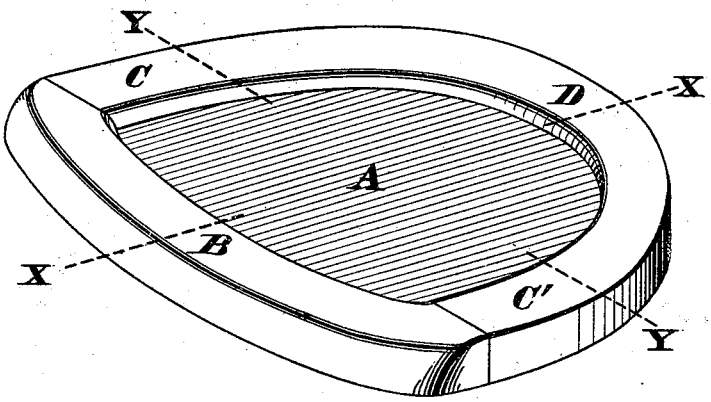
J. M. WATERS.

PANELED CHAIR-SEAT.

No. 186,644. Patented Jan. 23, 1877.

FIG. 1.



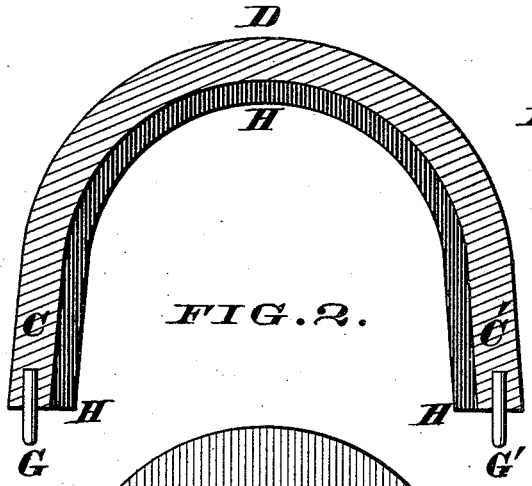




FIG. 2.

FIG. 3.

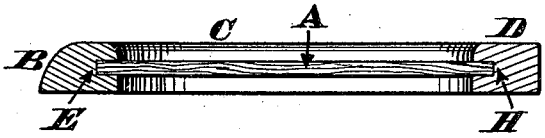



FIG. 4.

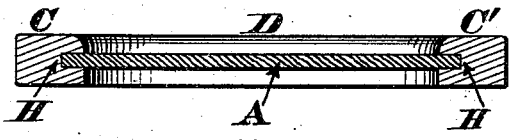
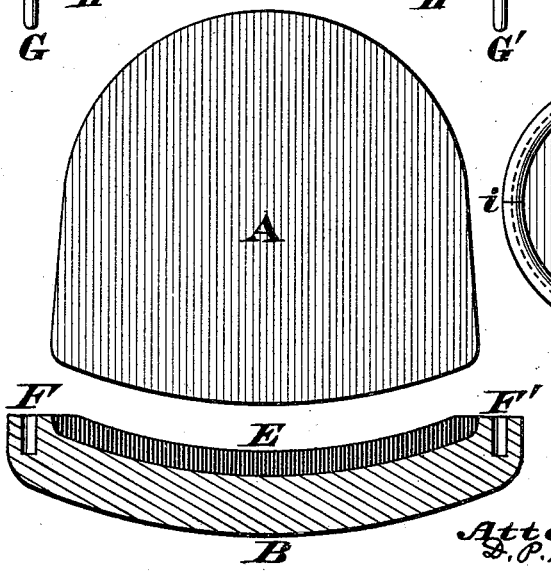
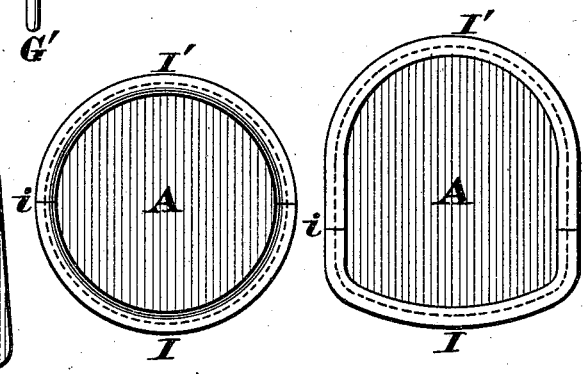



FIG. 5.




J. M. Waters.
by Jas. H. Leayman
his Attorney.

Attest.
S. P. Kennedy
J. Robinson.

# UNITED STATES PATENT OFFICE.

JABEZ M. WATERS, OF CINCINNATI, OHIO.

## IMPROVEMENT IN PANELED CHAIR-SEATS.

Specification forming part of Letters Patent No. **186,644**, dated January 23, 1877; application filed January 5, 1877.

*To all whom it may concern:*

Be it known that I, JABEZ M. WATERS, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Paneled Chair-Seat, which improvement is fully set forth in the following specification and accompanying drawing, in which latter—

Figure 1 is a perspective view of my paneled chair-seat. Fig. 2 is a plan of the various parts of the seat detached from each other, the two members of the inclosing rim being sectioned. Fig. 3 is a longitudinal section of the seat at the line X X. Fig. 4 is a transverse section of the same at the line Y Y, and Fig. 5 represents two modifications of the invention.

My chair-seat consists, essentially, of a single piece of wood, which, although comparatively thin, is nevertheless sufficiently rigid or non-elastic to prevent it springing, and thereby becoming detached from the rim or frame surrounding said seat.

The inclosing frame just alluded to is preferably made out of but two pieces of stuff, either bent or sawed to the proper shape, and provided on their inner sides or peripheries with a suitable groove, that receives the margin of the seat proper.

Owing to the peculiar location of this groove, the seat proper is so disposed as to serve as a panel with reference to the external rim, as hereinafter more fully explained.

The seat proper, A, consists of a single piece of wood of any suitable kind, and it is cut so as to correspond in shape with the inclosing rim or frame. This wooden seat is made comparatively thin, but not so thin as to be yielding or elastic, as any elasticity of the same would detract from the durability and utility of the device. The rigid seat is applied to a surrounding frame or rim, which is of relatively greater thickness than the panel A, said frame being preferably composed of two separate and distinct members, B and C C′ D.

Of these two separate members of the frame, the part B constitutes the front of the same, and said front is generally sawed to the desired shape, although it is evident it may be readily bent, if desired.

This front member of the rim is provided on its rear side with a groove, E, that may be concentric with said rear side, or the groove may be perfectly straight, in which case the front edge of seat A must be shaped accordingly; or the front edges of seat A and groove E can be made of any other convenient form. The rim-front B is pierced with two or more sockets, F F′, to receive dowel-pins G G′, projecting horizontally from the ends of the other member of the inclosing rim.

This other member of the two-part rim consists of side pieces C C′ and a back, D, which sides and back are preferably a single piece of wood bent to the required shape. The inner edge or periphery of this part of the inclosing frame is furnished with a continuous groove, H, adapted to receive both of the side edges, and also the rear edge of rigid seat A. This continuous groove H unites with the one E, both being situated in the same horizontal plane, and owing to the location of said grooves, seat A assumes the relation of a panel with reference to its inclosing frame or rim.

This paneled construction is a great advantage, peculiar to my chair-seat, as the member A may be composed of a rare and expensive article, such as rosewood or mahogany, &c., while the inclosing frame may be formed out of maple, or oak, or hickory, or any other cheap domestic stuff; or this rigid member A may consist of a base of poplar, or pine, or bass wood, veneered to suit the demands of trade. The surrounding frame thus serves as a guard to protect the finished panel A from injury during transportation, while the diversified colors of seat A and rim B C C′ D add materially to the appearance of the chair. Furthermore, this inclosing frame protects the margin of the veneered seat from atmospherical changes, and, therefore, there is no chance for the costly veneering to separate from the more common base to which it is applied. But the principal advantage due to my improved seat is, that the rigid panel A cannot, by any possible use, bend or yield, and thereby disengage itself from the inclosing frame; and, furthermore, this unyield-

ing panel resists any tendency of the sides C C′ to spring toward each other when the frame shrinks in seasoning.

I am aware of the fact that it is not new to construct chair-seats of a series of elastic strips or slats secured in a grooved frame or rim; but such seats are defective, because slats are nor rigid enough to resist the shrinkage of the inclosing rim. Consequently, when such shrinkage takes place, the elastic slats are bent or buckled to such a degree as to render the seat uncomfortable for occupancy.

Another disadvantage is, that these elastic slats will sag down with constant use, and thereby draw the ends of said strips out of the groove. The slats will bend or warp in unequal degrees when the chairs are placed in damp rooms.

I am also aware of the fact that it is not new to apply a solid or rigid seat to the upper surface of a frame or rim; but this construction is defective, because the seat is exposed, and, not being protected by the frame, it is liable to become injured during transportation, it being understood that such seats are usually shipped in a "knock-down" condition.

I have described my inclosing frame as consisting preferably of only two pieces; but said frame may be made of three or more parts, and its contour may be varied to suit circumstances.

Modifications of the contour of the frame are seen in Fig. 5, in which illustration the two-part frame I I′ is shown as united together at *i*.

In some cases it may be desirable to ship the component members of the seat separately, in which event the front and rear ends of panel A may be strengthened by means of thin strips of wood inserted in horizontal kerfs in said front and rear edges. This expedient will prevent any warping of the panels previous to their application to the rims. Finally, screws or bands, or any other appropriate retaining devices, may be employed, instead of the dowels G G′, for uniting the component members of the rim or frame securely together.

I claim as my invention—

A paneled chair-seat consisting of a rigid or non-elastic bottom, A, whose margin is completely surrounded and secured in the continuous groove E H of an inclosing frame or rim, which latter is composed of two or more sections united together, substantially as herein described and set forth.

In testimony of which invention I hereunto set my hand.

JABEZ M. WATERS.

Witnesses:

JAMES H. LAYMAN,

D. P. KENNEDY.