H. A. MOORE.

Chair-Seat.

No. 161,699. Patented April 6, 1875.

Fig. 1.

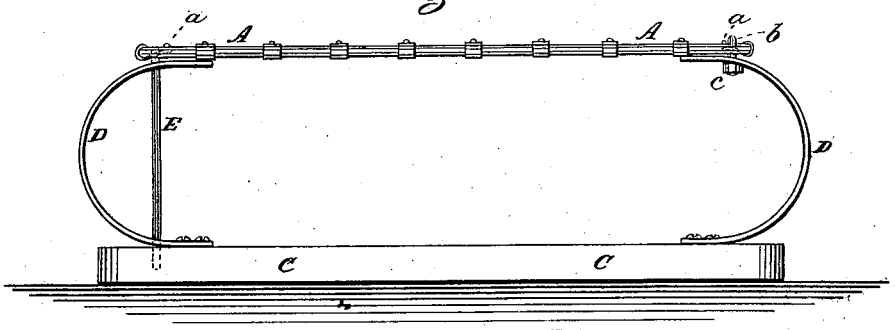


Fig. 2.

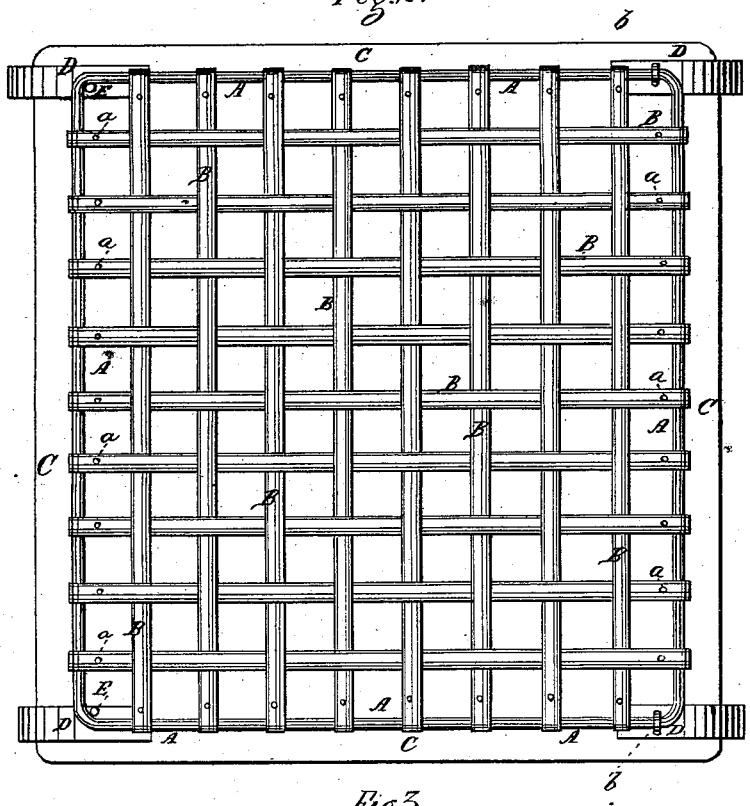
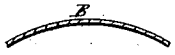


Fig. 3.



Witnesses.

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Wm. R. Whitney

Inventor.

Henry A. Moore
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atty

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UNITED STATES PATENT OFFICE.

HENRY A. MOORE, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN CHAIR-SEATS.

Specification forming part of Letters Patent No. **161,699**, dated April 6, 1875; application filed August 22, 1874.

To all whom it may concern:

Be it known that I, HENRY A. MOORE, of Brooklyn, in the county of Kings and State of New York, have invented certain Improvements in Chair-Seats, &c., of which the following is a specification:

This invention comprises a novel combination of parts, whereby is provided a chair-seat having great strength, permanence, and elasticity, and in which the tendency to lateral displacement experienced with many of the elastic chair-seats of ordinary construction is effectually avoided.

Figure 1 is a side or edge view, and Fig. 2 a plan view, of a chair-seat made according to my invention. Fig. 3 is a transverse sectional view on a greatly enlarged scale of one of the ridged straps used in the construction of the web of the seat.

A is a circumferential rim, made of round iron rod, welded together at the ends, and forming a rectangular frame. B are steel straps, of, say, one-fourth of an inch in width, and ridged or concavo-convex in their cross-section, as shown in Fig. 3. These straps are interlaced to form a web with rectangular meshes, as represented in Fig. 2, their rounded or convex surfaces uppermost, and their ends bent over and around the rim A, and fastened at points within the rim by rivets *a*. C is a rectangular frame of wood or other suitable material, of the same or somewhat greater horizontal diameter in either direction than the rim A. At each corner of this is fixed a leaf-spring, D, of arc or semicircular form. Upon the bowed upper ends of these springs are placed the corners of the rim A, carrying the web formed of straps B, as hereinbefore described. Two of the springs D are provided with clamping-hooks C, which are tightened by nuts *c*, (screwed upon the threaded shanks of the hooks,) to firmly hold the rim to the springs. The remaining springs D have each a vertical stem, E, passing through slots formed in them, and projecting upward within the rim A, and in contact with the inner edge thereof, the said stems being thus provided to act as guides to prevent the rim from slipping away from the springs, the stems at the same time permitting the play of the springs when the same are compressed by superincumbent pressure upon the web of the seat.

The ridged or concavo-convex form given transversely to the straps B materially increases the strength and elasticity thereof in proportion to their weight, or, in other words, to the quantity of metal comprised in them. The web being firmly riveted to the rim, and the latter resting upon the strong but yielding arc-shaped springs, great strength and durability are given to the whole, while at the same time the elasticity of the web and of the springs gives the requisite yielding character to the seat when subjected to weight or superincumbent pressure. The web, as well as the other portions of the seat, may be covered or upholstered in any suitable way.

The invention may be used for ordinary chairs, and also for seats for railway-cars, for lounges, and for footstools, which latter, used in railway traveling, will deaden the effect upon the passenger of jar and concussion.

What I claim as my invention is—

The chair-seat constructed with the continuous metallic rim A, the interlaced metal straps B, folded over the said rim, and attached thereto, the arc-shaped springs D, and the vertical guide-stems E, the whole combined and arranged substantially as herein set forth.

HENRY A. MOORE.

Witnesses:

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