

P.P.R. Hayden,
Making Railroad Chairs,
No. 8,631, Patented Jan. 6, 1852.

Fig. 1.

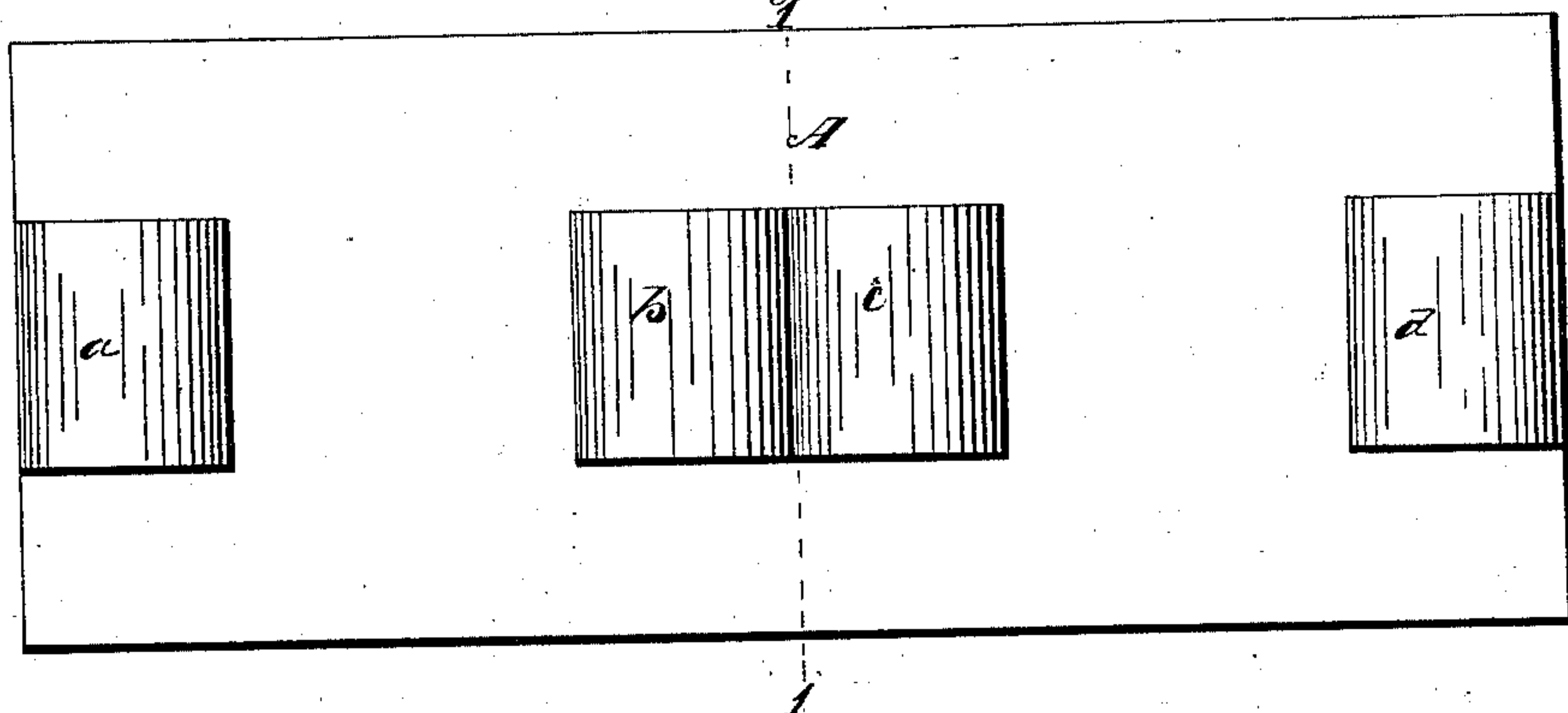


Fig. 2.

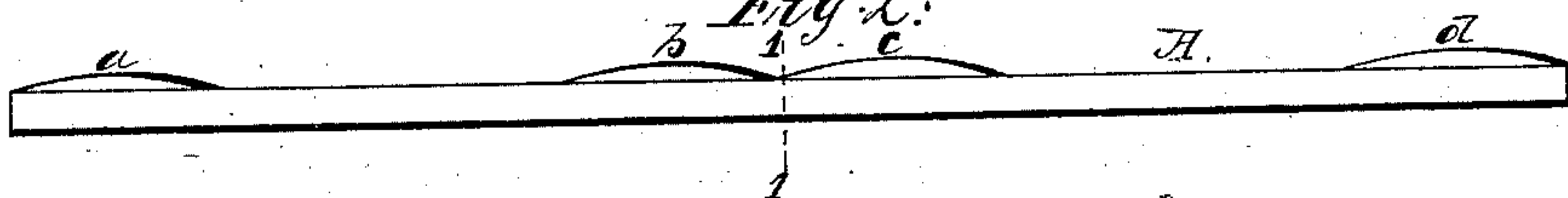


Fig. 3.

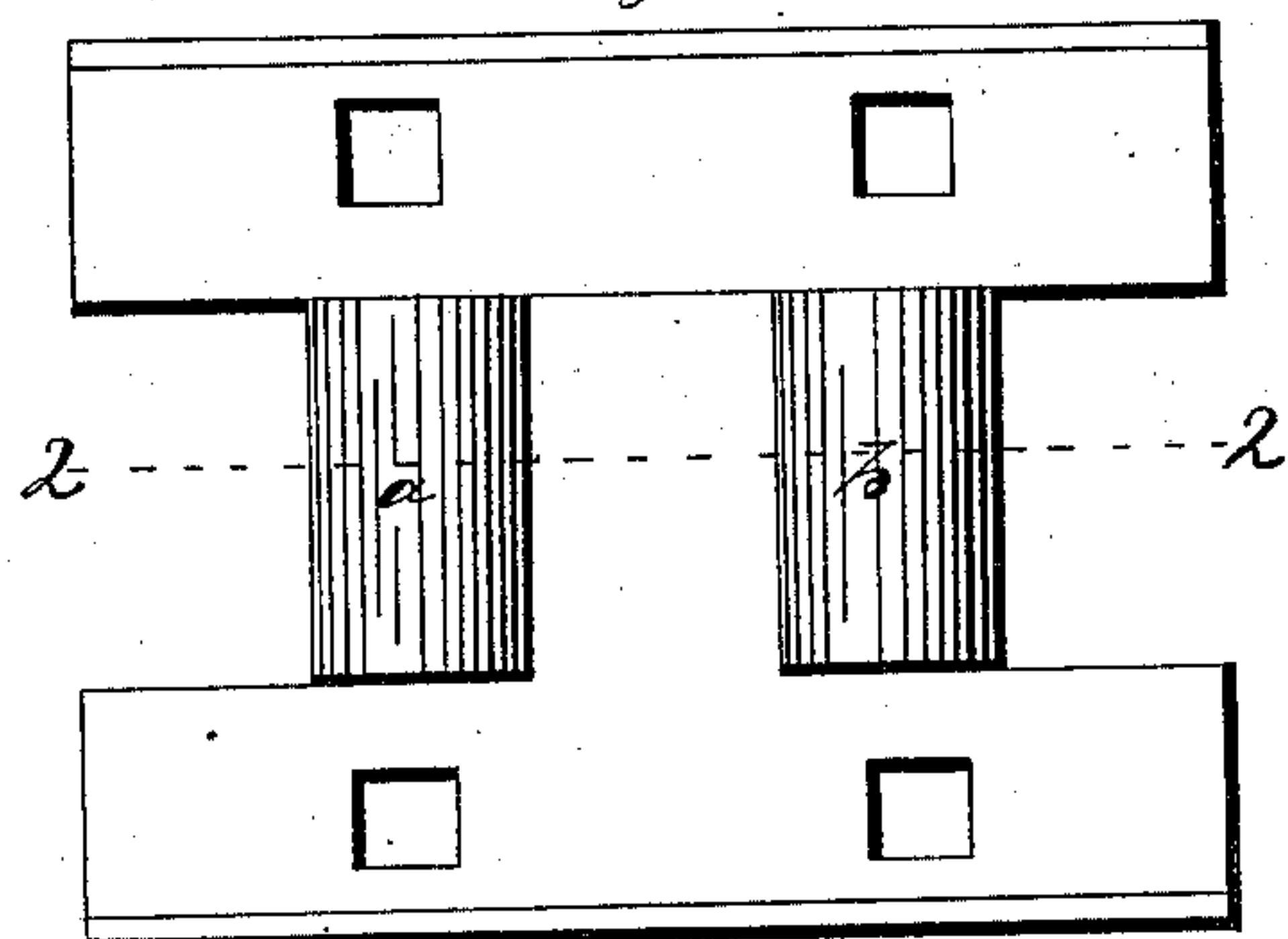


Fig. 4.



UNITED STATES PATENT OFFICE.

PETER P. R. HAYDEN, OF COLUMBUS, OHIO.

MANUFACTURE OF RAILROAD-CHAIRS.

Specification of Letters Patent No. 8,631, dated January 6, 1852.

To all whom it may concern:

Be it known that I, PETER P. R. HAYDEN, of Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Railroad-Chairs; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1, is a flat view of a portion of the bar or plate (as it issues from the rolls) out of which the chair is made. Fig. 2, is an edge view of the same. Fig. 3 is a top view of the chair in its finished state, and Fig. 4 is a sectional edge view of the same taken as indicated by the intersecting line 2 2, Fig. 3.

The same letters of reference denote corresponding parts throughout the several figures.

The nature of my invention consists in forming the chair out of wrought flat plate or bar iron made with convex raised surfaces therein, on its one side, which, when the bar is cut to the required length for the formation of a chair, serve to make the lips thicker at or near the roots, when cut and bent, without incurring any extra labor to give additional and requisite strength at those parts.

To enable others skilled in the art to make and use my invention I will proceed more fully to describe it.

A, (Figs. 1 and 2) is a portion of a wrought iron bar which may be of any convenient length and which at suitable distances apart, on its one side, is made with convex raised surfaces, *a, b, c, d*, in a central line lengthwise of the bar, the said surfaces, in the manufacture of the bar, adjoining one another in pairs as seen by *b, c* in the referred to figures; these several surfaces are produced by suitable indentations in the rolls which the bar passes through in its process of manufacture. A bar thus formed is then cut to the required length

for the formation of a chair as indicated by the line 1, 1, Figs. 1 and 2 and after being so cut, the lips *a, b*, Figs. 3 and 4 are sheared and bent in the usual or any suitable manner to the shape illustrated in the last mentioned figures which lips, serving to hold the rail and corresponding in appearance to those of the chairs now in use, are formed by the adjoining ones of either pair of the convex raised surfaces described, the convexity being on the outside in each lip and the flat portion of the bar forming the body or foundation surface of the chair; thus, it will be seen that the lips are not simply stronger than if made out of a bar of equal thickness throughout as at present, but that the greatest strength is given to them where, by the strain thrown upon them, most is required, viz. at or near the roots, which peculiarity is produced by the convex form of each raised surface referred to, and to effect which, with a bar of equal thickness throughout, a separate "upsetting" or "welding" process would be required, involving thereby extra expense and labor, or it would otherwise be requisite to form the chair and its lips out of thicker bar which would make the body heavier than required, so that, in either case, my improved chair shows a great economy and advantage.

The bolt or spike holes seen in the chair represented in Figs. 3 and 4 for securing the same to the longitudinal runners or cross sleepers are pierced, or punched out, as at present.

What I claim as my invention and desire to secure by Letters Patent, is—

Rolling iron plates for railroad chairs upon rollers so constructed that the portions intended to form the lips of the chair shall have a greater thickness than the rest of the plate substantially as herein set forth.

PETER P. R. HAYDEN.

Witnesses:

NATHAN BROOKS,
HENRY P. SMYTHE.