

E. D. MANN.
Railroad-Chairs.

No. 135,230.

Patented Jan. 28, 1873.

Fig. 1.

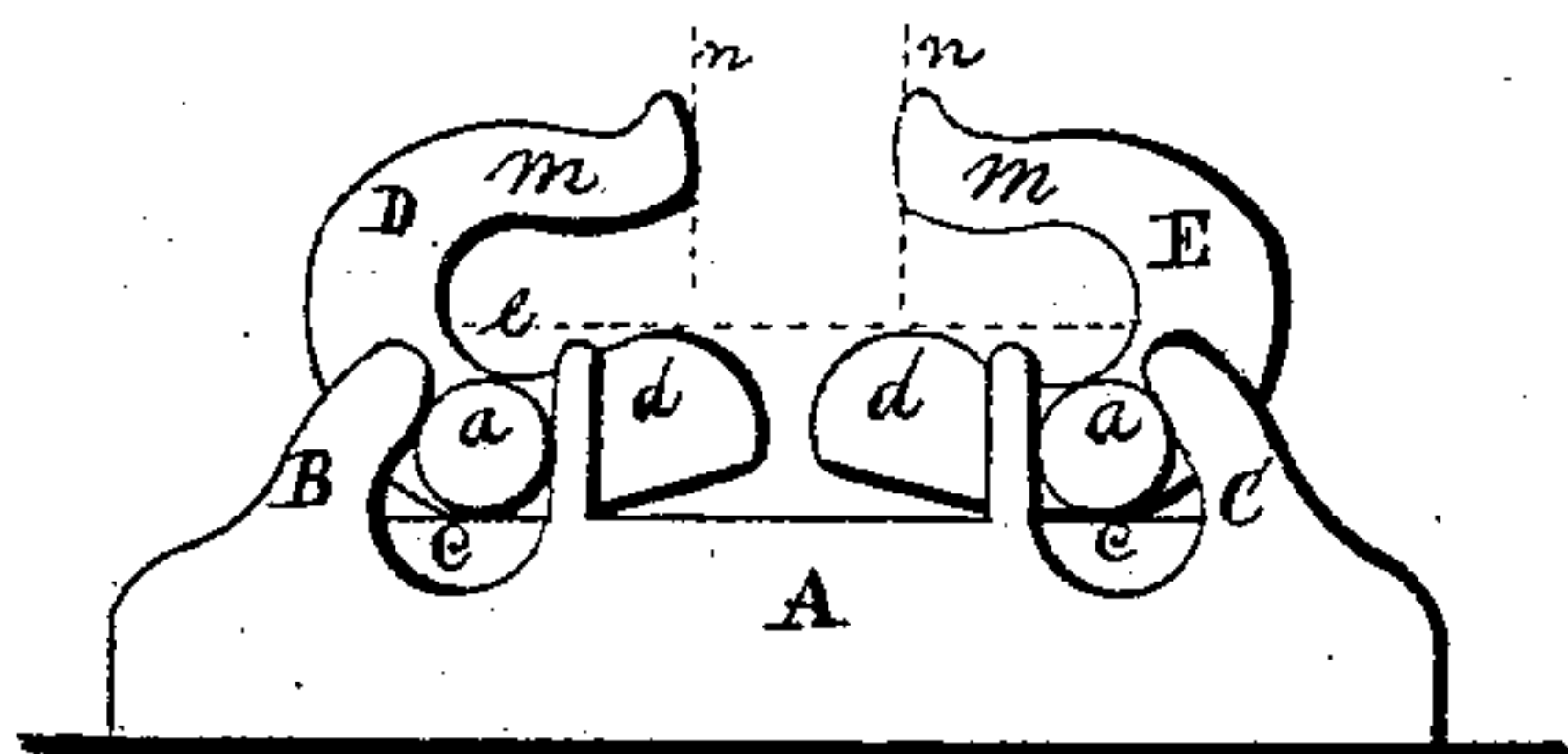


Fig. 2.

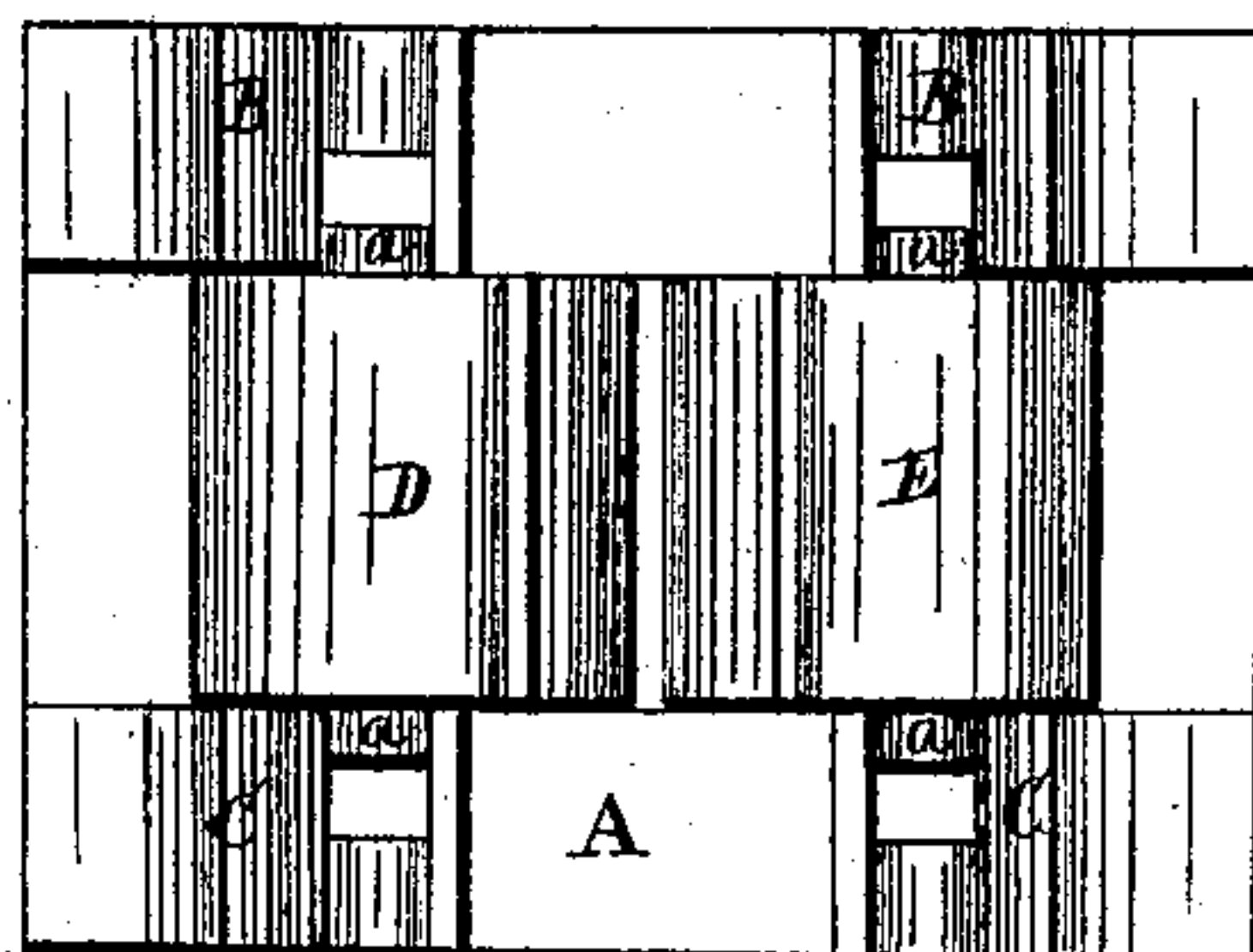


Fig. 3.

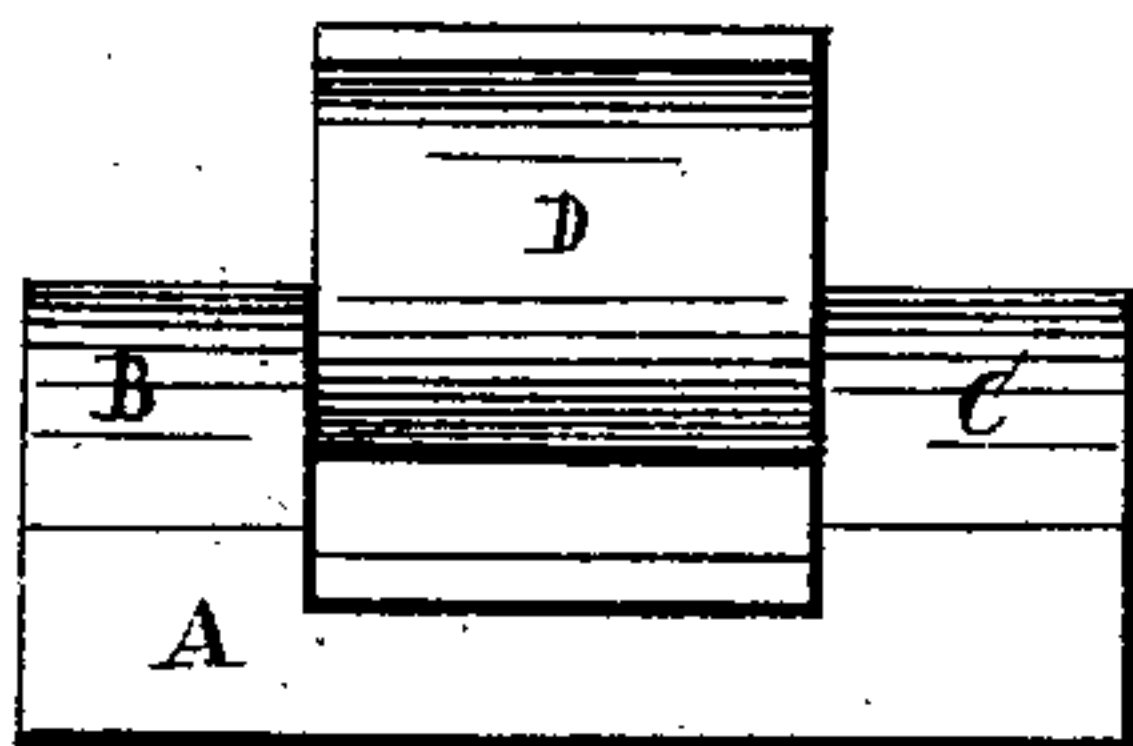


Fig. 4.

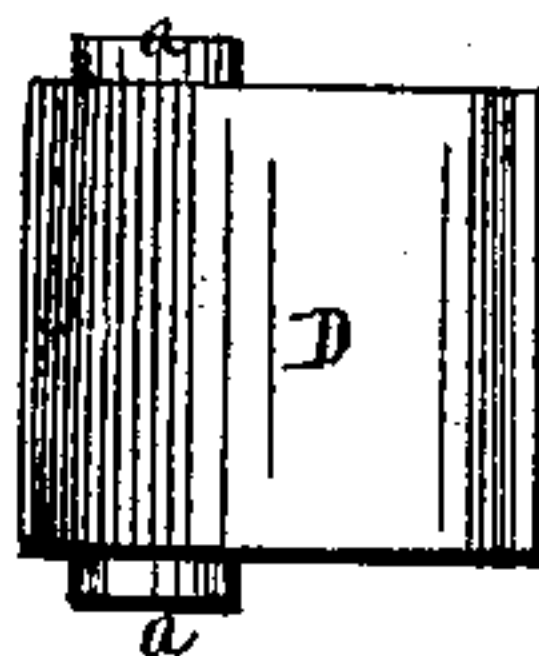


Fig. 5.



Fig. 6.



Fig. 7.



Witnesses.

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UNITED STATES PATENT OFFICE.

EUGENE D. MANN, OF ELYRIA, OHIO.

IMPROVEMENT IN RAILROAD-CHAIRS.

Specification forming part of Letters Patent No. 135,230, dated January 28, 1873.

To all whom it may concern:

Be it known that I, EUGENE D. MANN, of Elyria, in the county of Lorain, State of Ohio, have invented certain new and useful Improvements in Railway Chairs and Clamps Combined, of which the following is a full and complete description:

Figure 1 is an end view of the chair and clamp. Fig. 2 is a plan view. Fig. 3 is a side view. Figs. 4, 5, 6, and 7 are detached sections.

Like letters of reference refer to like parts in the several views.

The nature of this invention relates to a combined chair and clamp; and the object of the same is to hold the ends of the rails down upon the ties, and also to secure them against lateral displacement by clamping them between two movable jaws pivoted in the bed of the chair, one on each side of the rail. Of the above-said invention the following is a more full and complete description:

A, Fig. 1, is the bed of the chair referred to, and which represents an end view. Said bed consists of a broad flat plate of iron, provided with two pairs of stays, B C, one on each corner of the plate, and arranged in relation to each other as shown in Fig. 2. D E is a pair of clamps, each of which is provided with a pair of trunnions or pivots, *a*, Figs. 4 and 7; said figures represent detached views of the clamps. The trunnions or pivots have their bearings in the cheeks of the stays B C, above referred to, and when in place have a relation to each other as shown in Figs. 1 and 2. The trunnions are cushioned up by having interposed between them and the bed or seat rubber blocks *c c*, Fig. 1, upon which they immediately rest, as shown in the drawing.

The practical operation of the above combined chair and clamp is as follows: The bed A is secured to the ties by being spiked there-

to in the ordinary way, or by any other substantial means. The ends of the rails are then inserted in the clamps, so that the foot thereof shall rest upon the lower part *d*, Fig. 1, as indicated by the dotted lines *e*, thereby bringing the web of the rail between the upper approximating ends *m*, as indicated by the dotted lines *n*, which represent the web or neck of the rail.

It will be obvious that by this device the rails are not only held securely down upon the chair, and consequently upon the ties, but that they are also prevented from lateral displacement by the ends *m* of the clamp, which are held firmly and pressed against the sides or neck of the rail in consequence of the weight thereof resting upon the lower ends *d*, thereby exerting a lever force or pressure on each side, and which pressure is directly in proportion to the weight imposed upon the rails.

By the use of this device the splice-plates and bolts in use for securing the rails are dispensed with. The rubber cushions *c* inserted under the trunnions prevent them from the hard percussive contact with the seat in which they are held; hence the train will run easier and with less noise and wear than it would without such cushions or packings.

Claim.

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

The clamps D E, constructed with the pivots *a* and clamping portions *m*, and forming the broad seat *d* for the rail, and the chair A B C and cushion *c c*, the several parts being combined and arranged substantially as and for the purpose herein set forth.

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Witnesses:

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