

(No Model.)

C. NETTER.
RAILROAD RAIL FASTENER.

No. 391,912.

Patented Oct. 30, 1888.

Fig. 1.

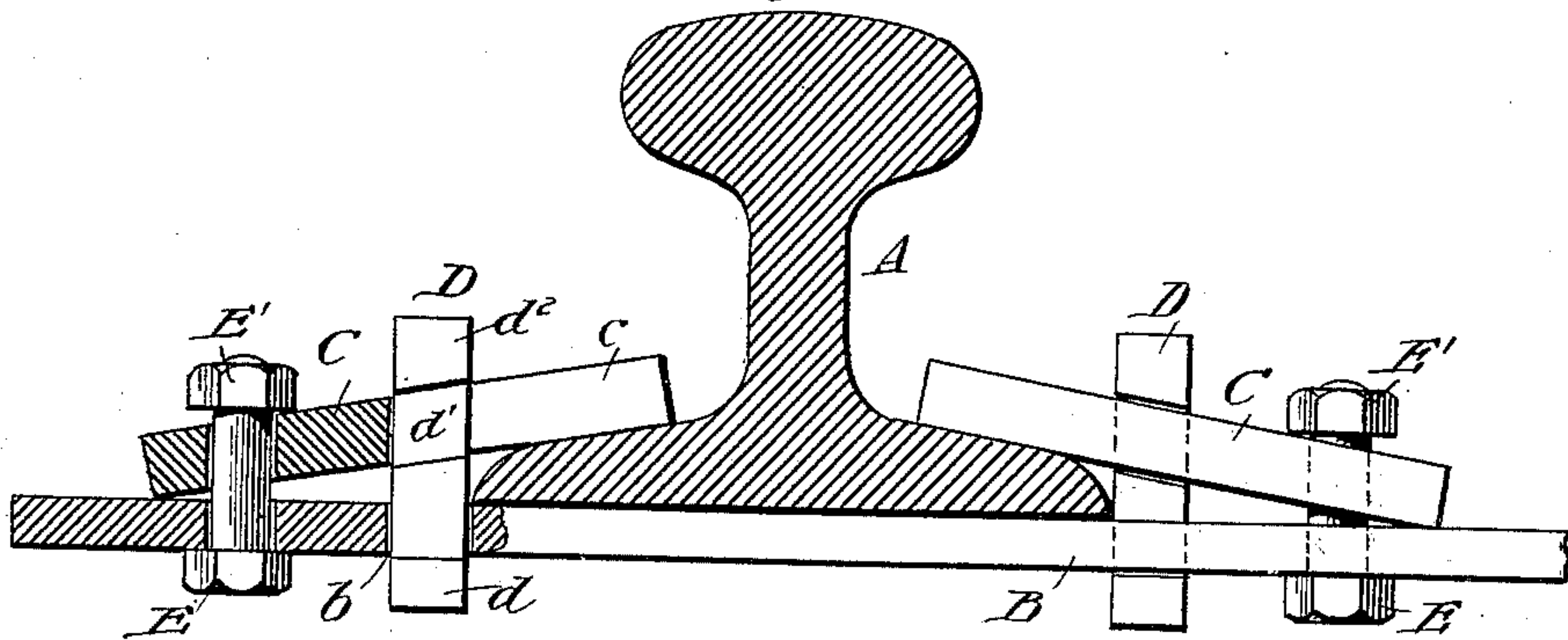


Fig. 2.

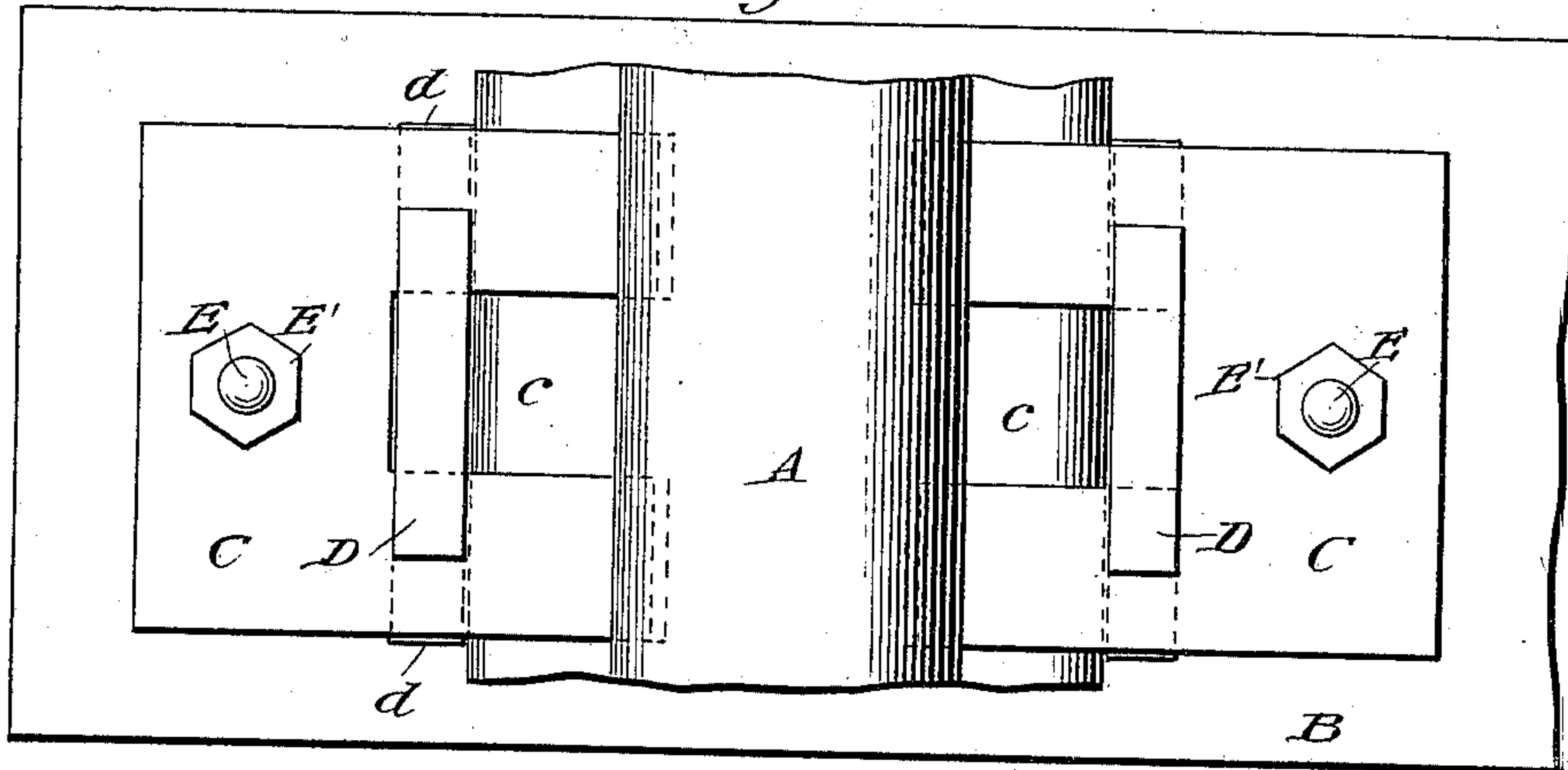


Fig. 3.

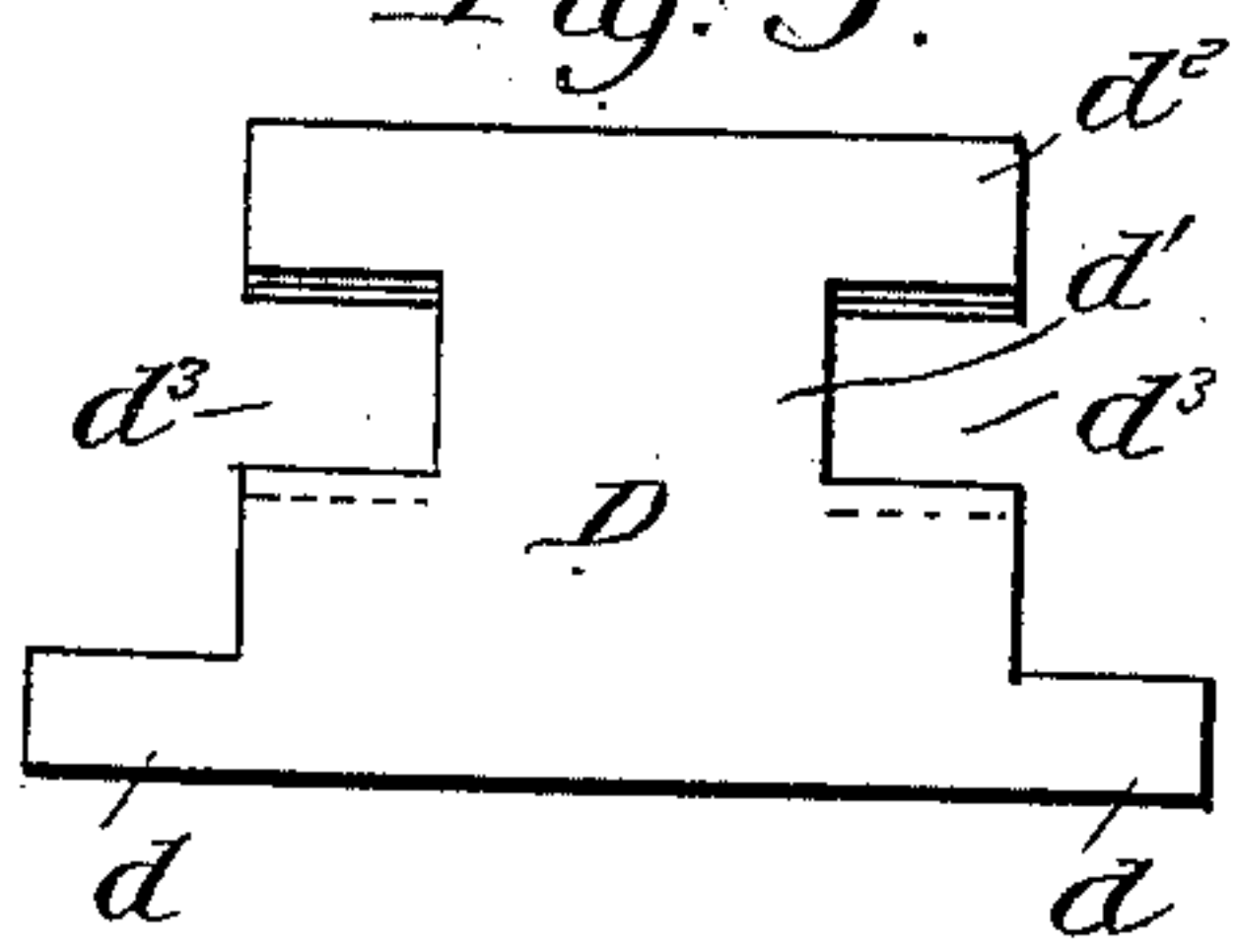


Fig. 4.

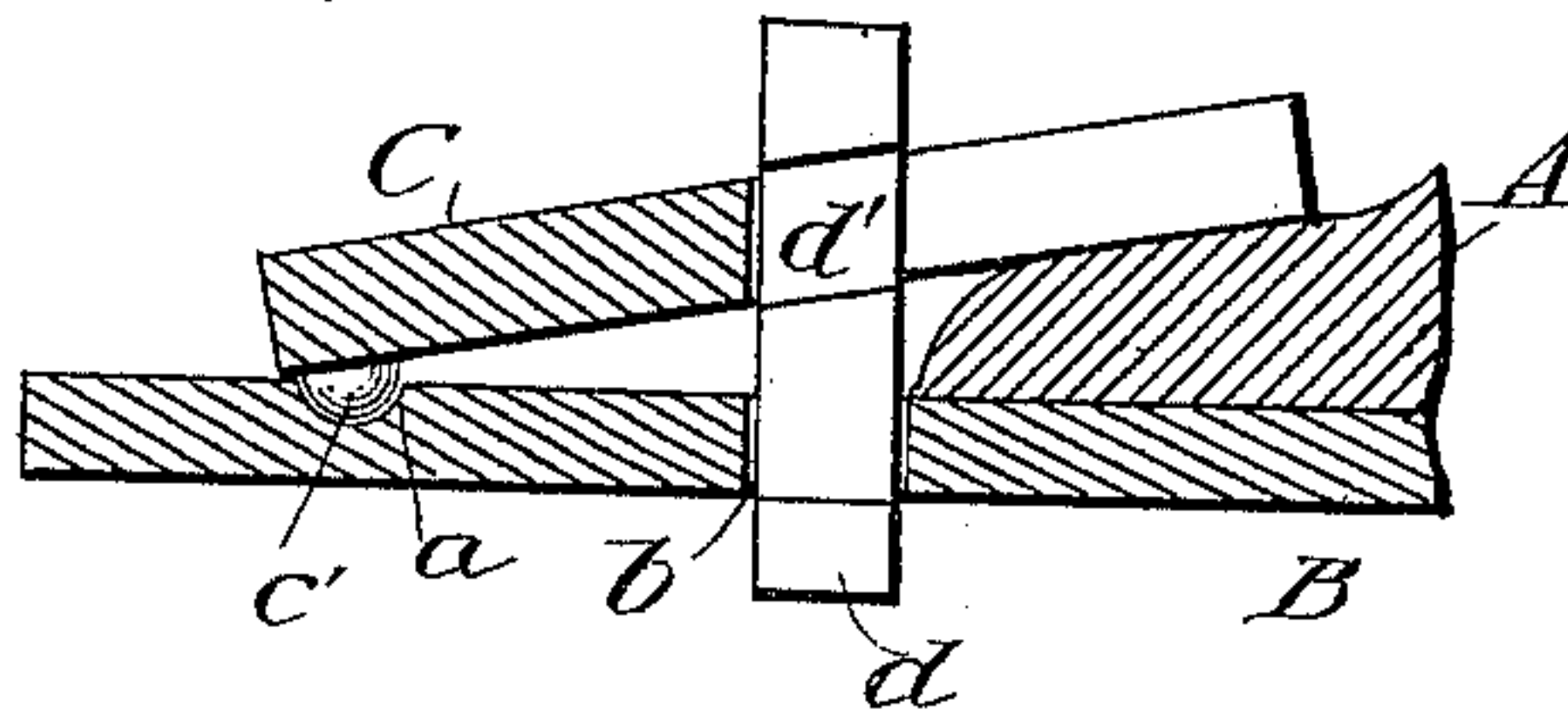
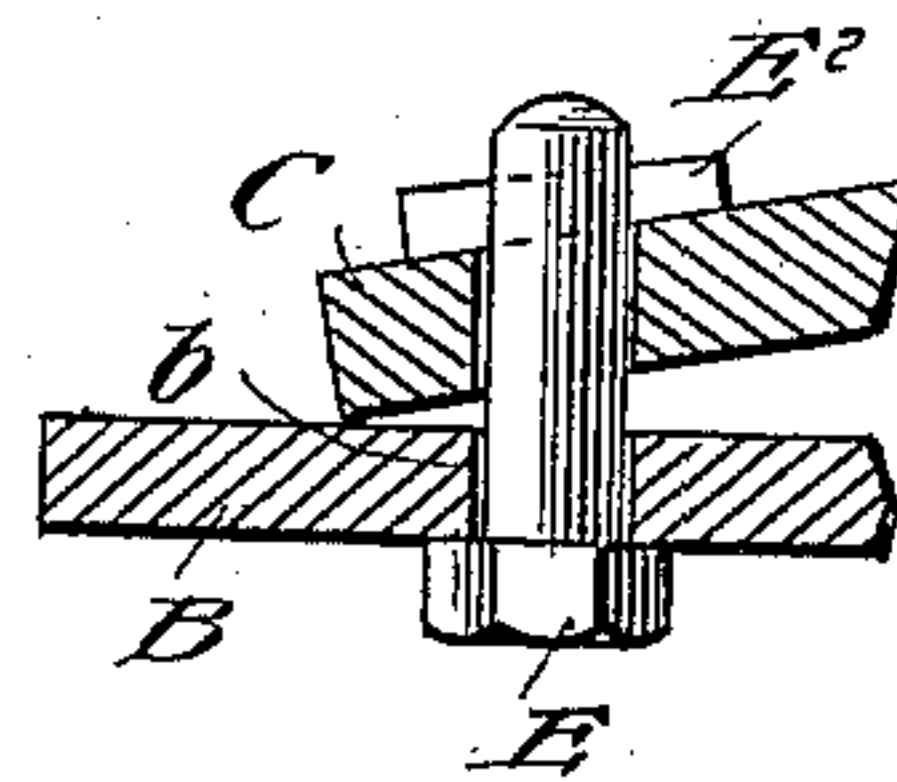


Fig. 5.



WITNESSES:

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RAILROAD-RAIL FASTENER.

SPECIFICATION forming part of Letters Patent No. 391,912, dated October 30, 1888.

Application filed June 21, 1888. Serial No. 277,798. (No model.)

To all whom it may concern:

Be it known that I, CHARLES NETTER, of the city, county, and State of New York, have invented a new and Improved Railroad-Rail Fastener, of which the following is a full, clear, and exact description.

The object of the invention is to produce a simple and efficient means of fastening railroad-rails to metallic or other ties.

The invention consists in the peculiar construction and arrangement of the parts, as will be hereinafter fully described, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is an end elevation, partly in section, of a rail held to a metallic tie in accordance with my invention. Fig. 2 is a plan view thereof. Fig. 3 is a side view of the keeper of my improved fastener; and Figs. 4 and 5 are partial end sections, illustrating modified means of locking the outer end of the clamp-plate.

Although in practice the fastening devices are to be applied at each side of the rail, it will suffice for the purposes of description to describe a single set only.

In the drawings, A represents a railroad-rail, and B a metallic railroad-tie, either or both of which may be of the ordinary or any approved construction.

In order to maintain the rail A in position on the tie B, I provide a clamp-plate, C, and a keeper, D, therefor of novel construction.

The clamp-plate C is preferably of approximately-square form or other form that will allow of its having a substantial bearing on the upper surface of the flange of the rail, and the said clamp-plate is formed with an opening or recess, *c*, in its inner side or side which bears on the rail-flange, the said recess extending a short distance into the plate.

The keeper D of the clamp-plate C is formed with an enlarged lower end, *d*, and a reduced portion or neck, *d'*, the latter forming also a head, *d''*, on the keeper, forming also the side recesses, *d'''*, the under surface of the head *d''* and the opposing surfaces of the body of the keeper, which form the upper and lower walls of the said recesses, being correspondingly inclined.

In applying the fastening devices the keeper D is passed upward through the tie B, through

a slot, *b*, formed therein, until the enlarged lower end, *d*, of the keeper comes to a bearing on the under side of the said tie at each side of the slot *b* thereof. The clamp-plate C is then forced onto the flange of the rail A, beneath the head *d''* of the keeper, the said keeper being received in the recess *c* of the clamp-plate. As the clamp-plate C is forced inward onto the rail-flange its outer end is caused to bear down hard onto the tie B. To prevent the return of the clamp-plate, any suitable positive connection or interlocking of the outer end thereof and the tie may be employed. In Figs. 1 and 2 this connection is effected by means of a bolt, E, and nut E', the bolt being passed through the tie and clamp-plate and the nut E' screwed onto its projecting upper end; or the bolt E may be fastened by means of a key or cotter, E², as in Fig. 5.

In Fig. 4 the displacement of the clamp-plate is prevented by forming the said plate and tie with a projection and a corresponding depression, respectively, or vice versa, the projection *c'* in the present instance being on the clamp-plate and the depression *a* being in the tie. With this construction, as the plate is forced inward, the projection *c'* thereof is sprung into the depression *a* of the tie, which resists all tendency of the clamp-plate to return.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A rail-fastener consisting, essentially, of a clamp-plate formed with a recess in one edge, and a keeper therefor formed with an enlarged lower end and a reduced portion below its upper end, substantially as described.

2. The combination, with a railroad rail and tie, of a clamp-plate bearing down at its inner end on the flange of the rail and locked to the tie at its outer end, and a keeper bearing by its integral enlarged lower end on the under surface of the tie and by its integral head on the upper surface of the clamp-plate, substantially as described.

3. The keeper formed with enlarged lower end and with inclined side recesses, in combination with the clamp-plate recessed in one edge, substantially as described.

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Witnesses:

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