

(No Model.)

H. E. FORD.

RAILROAD RAIL AND CHAIR AND PROCESS OF UNITING SAME.

No. 495,967.

Patented Apr. 25, 1893.

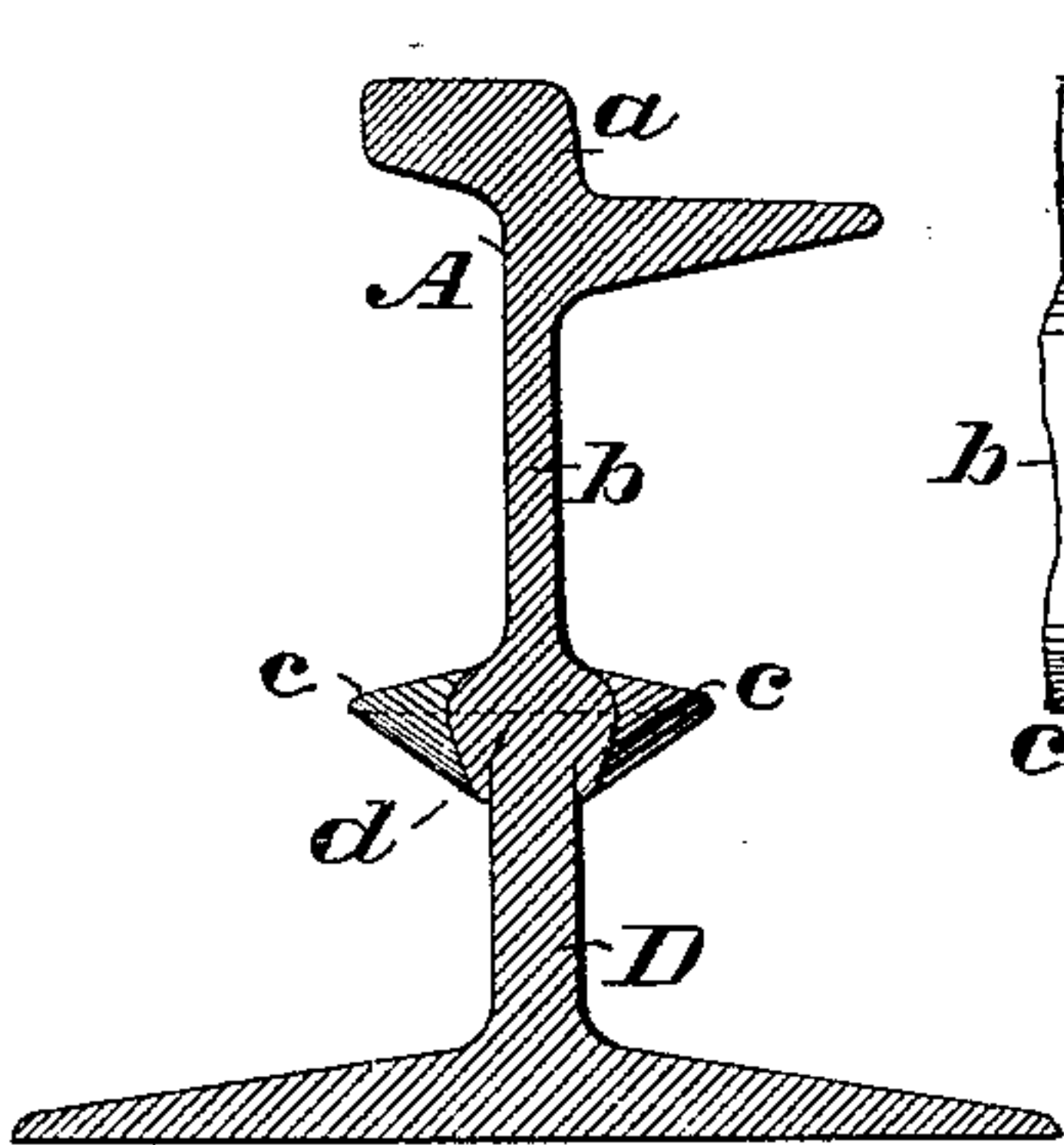


Fig. 1.

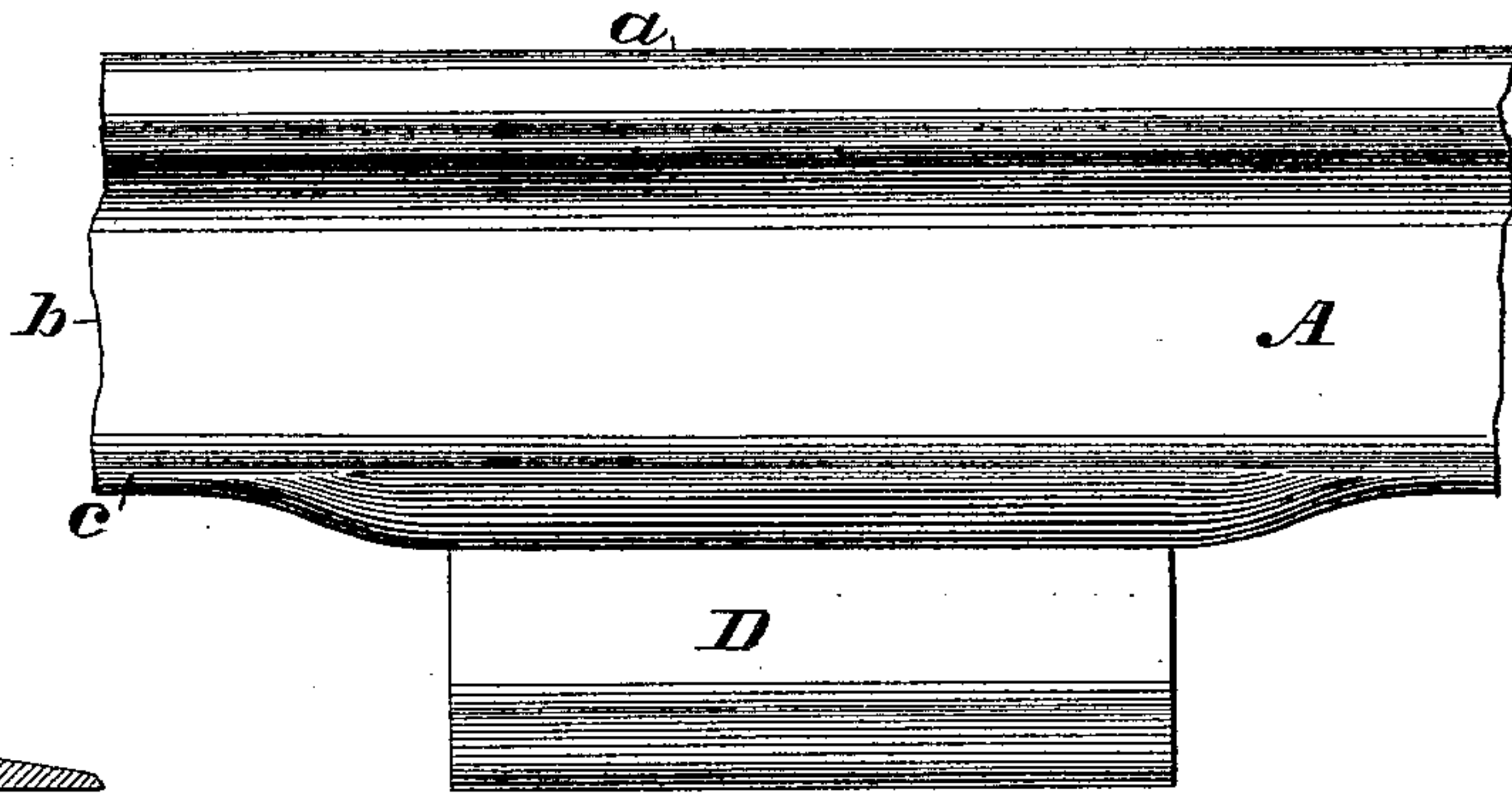


Fig. 2.

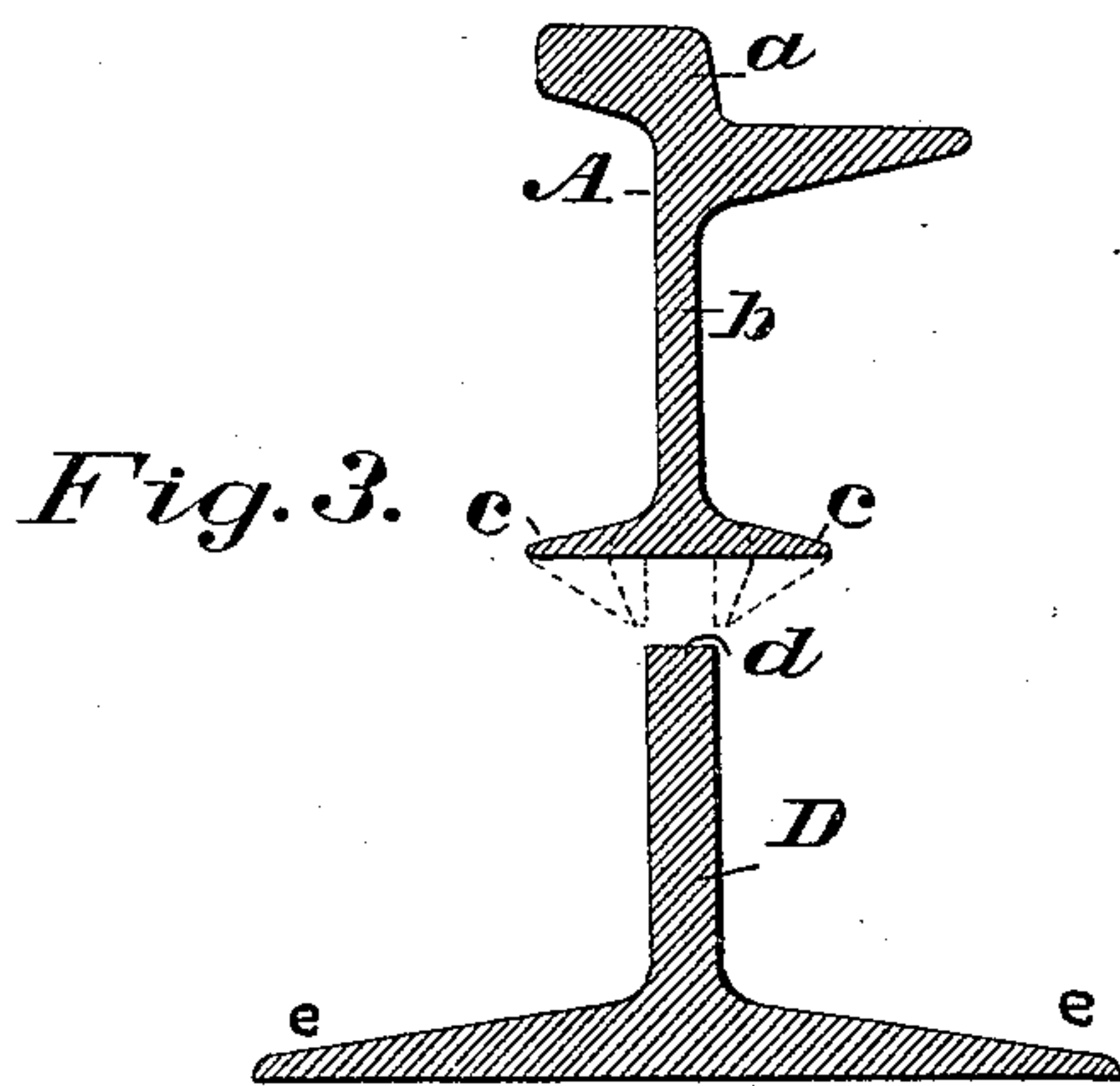


Fig. 3.

WITNESSES:

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UNITED STATES PATENT OFFICE.

HAMILTON E. FORD, OF JOHNSTOWN, PENNSYLVANIA, ASSIGNOR TO THE
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RAILROAD RAIL AND CHAIR AND PROCESS OF UNITING SAME.

SPECIFICATION forming part of Letters Patent No. 495,967, dated April 25, 1893.

Application filed April 27, 1892. Renewed March 10, 1893. Serial No. 465,436. (No model.)

To all whom it may concern:

Be it known that I, HAMILTON E. FORD, of Johnstown, in the county of Cambria and State of Pennsylvania, have invented a new and useful Railroad Rail and Chair and Process of Uniting the Same, which invention is fully set forth and illustrated in the following specification and accompanying drawings.

The object of this invention is to secure to a chair a common form of rail having lower flanges, so that the rail and chair will form an integral structure.

The invention will first be described in detail and then particularly set forth in the claims.

In the accompanying drawings, Figure 1 shows the complete rail and chair in cross-section. Fig. 2 is a side-elevation of Fig. 1. Fig. 3 shows the rail and chair separate from each other.

In said figures the several parts are respectively indicated by reference letters as follows:—

The letter A indicates a railroad rail of common form having a head *a*, web *b*, and horizontal lower flanges *c* at the bottom of said web.

The letter D indicates a chair having base-flanges *e* and a web *d*.

The process of uniting the rail and chair is as follows:—The rail and chair having been first rolled or otherwise formed, the top of the web *d* of the chair is abutted to the bottom of the rail, preferably directly under the web *b*, and the rail and chair are then welded together or otherwise integrally-united at said abutting point. The horizontal flanges *c*, of the rail are then bent downward and inward (as shown in Figs. 1 and 2 and in dotted lines in Fig. 3) so as to clamp the head of the chair, thus inclosing the welded joint with said flanges.

By means of this invention, economical use may be made of common forms of merchantable articles, without the necessity of rolling special shapes.

It is obvious that the shapes of the upper portion of the rail and the lower portion of the chair may be varied without departing from my invention.

Having thus fully described my said invention, I claim—

1. The combination with a girder-rail having horizontal lower flanges, of a chair integrally-united to said rail, said flanges being bent downward and compressed upon the point of union of rail and chair.

2. The combination with a girder-rail having horizontal lower flanges, of a chair welded to said rail, said flanges being bent downward and compressed upon the welded joint.

3. The combination with a girder-rail having horizontal lower flanges, of a chair having a vertical web integrally-united to said rail, said flanges being bent downward and compressed upon the point of union of rail and chair.

4. The combination with a girder-rail having horizontal lower flanges, of a chair having a vertical web welded to said rail, said flanges being bent downward and compressed upon the welded joint.

5. The process herein described, consisting in first forming a girder-rail with a web and horizontal lower flanges and a chair with an upwardly-extending web; then welding said chair-web to the rail in line with the web of the rail; and then bending the lower flanges of said rail downward and compressing the same upon the welded joint.

HAMILTON E. FORD.

Witnesses:

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