

(No Model.)

J. S. PEIRCE,
RAILROAD RAIL FASTENER.

No. 464,180.

Patented Dec. 1, 1891.

Fig. 1.

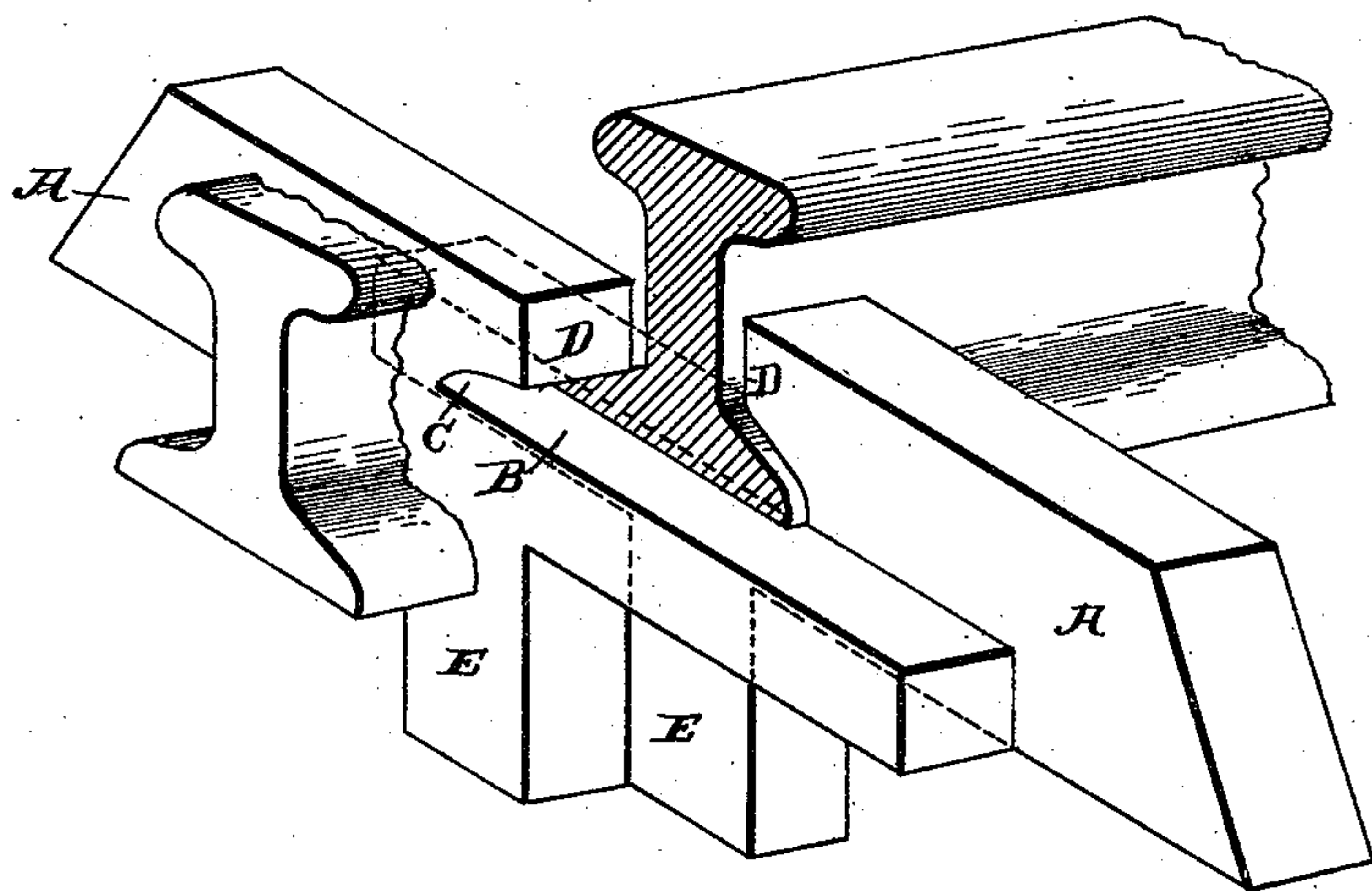


Fig. 2.

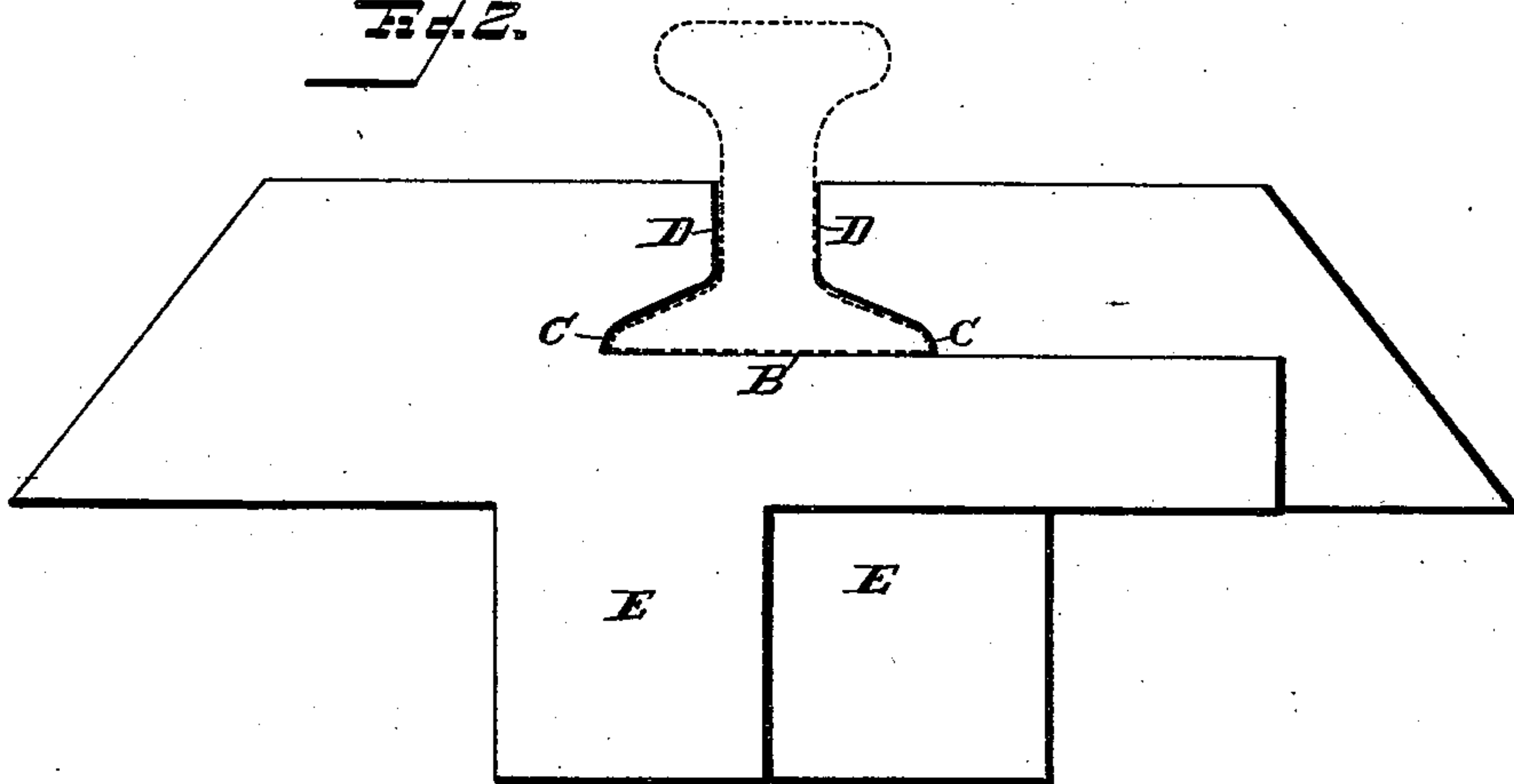
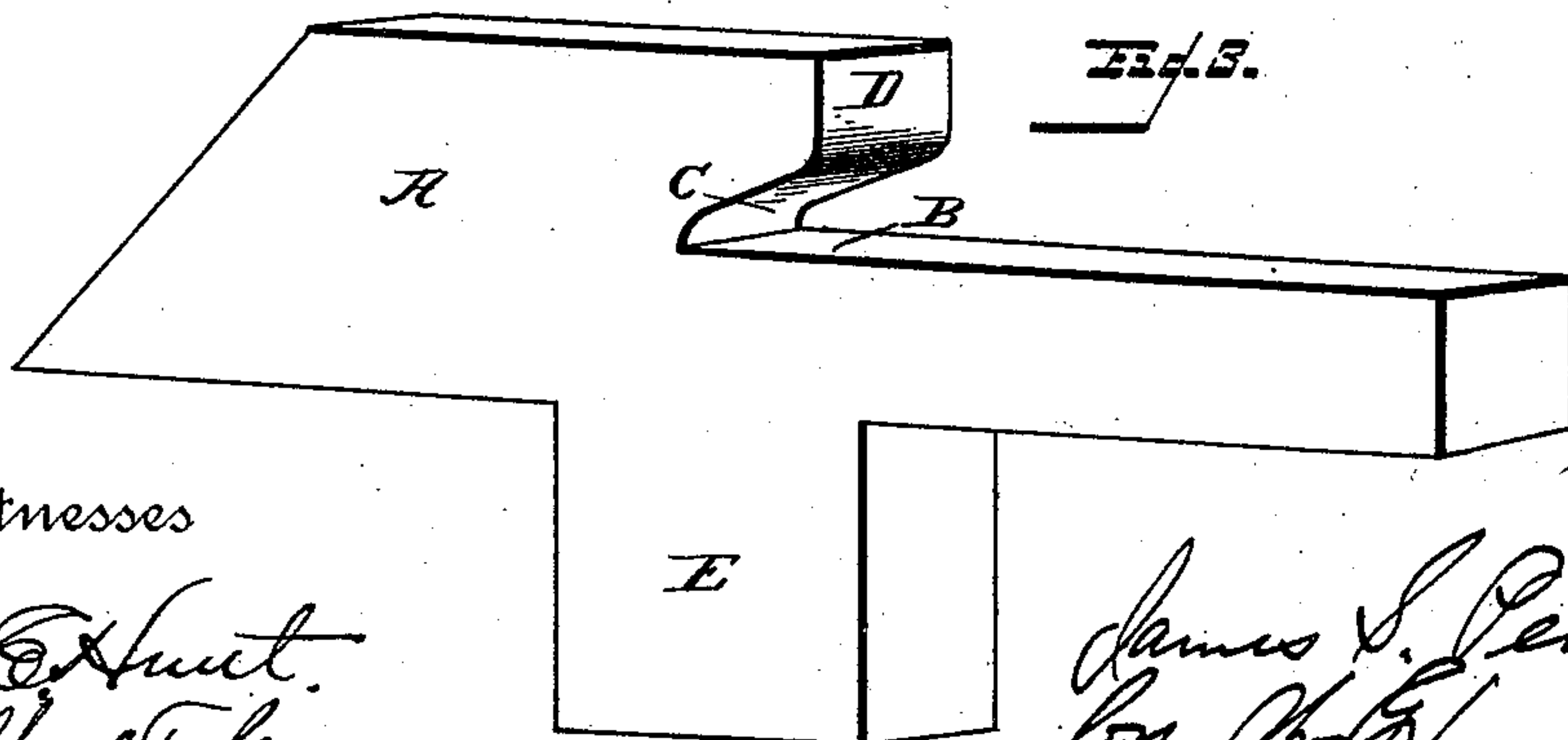


Fig. 3.



Witnesses

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RAILROAD-RAIL FASTENER.

SPECIFICATION forming part of Letters Patent No. 464,180, dated December 1, 1891.

Application filed July 6, 1891. Serial No. 398,546. (No model.)

To all whom it may concern:

Be it known that I, JAMES STANWOOD PEIRCE, a citizen of the United States, residing at Portsmouth, in the county of Rockingham and State of New Hampshire, have invented certain new and useful Improvements in Railroad-Rail Fasteners; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to railway-rail fasteners, and has for its object to construct the fastener so that the rail will rest thereon and be clamped between the two parts of the fastener, and thereby prevented from spreading, the fastening being embedded in the earth beneath and on the opposite sides of the rail.

The invention consists in the construction and the combination of parts hereinafter particularly described and claimed, reference being had to the accompanying drawings, forming a part hereof, and in which—

Figure 1 is a perspective of a section of rail, showing the manner of applying my invention. Fig. 2 is a front elevation of the two parts of the fastener laid side by side in operative position with rail removed. Fig. 3 is a perspective of one section of the fastener.

In the drawings, the letter A designates a block or bar formed with a seat B for the base of the rail, an inwardly-extending recess C to receive the laterally-extending portion of the base on one side of the rail, the bottom of said recess being flat and the top inclining to correspond with the top face of the base, and with an upright wall or shoulder D to bear against the web of the rail. The depth of the block or bar beneath the bottom of the base of the rail is such that it will set some distance down in the earth, so as to have a firm bearing that will prevent it from shifting or turning. In order to still further guard

against shifting of the block or bar, I provide it with a depending anchor E, which extends below the bottom proper of the block, preferably at or about its center. This anchor will extend down into an opening formed therefor in the ground, so that if there should be any tendency to push or turn the block it will be resisted not only by the bearing of the sides, ends, and bottom of the block against the earth, but also by the bearing of said anchor against the firm earth lying against all sides thereof. The rail-fastening is constructed of two of these blocks, each constructed as just described. The blocks or bars are applied so as to lie on opposite sides of the rail and to be side by side. When so applied, they clamp the rail on opposite sides and hold it securely against displacement without the use of spikes or other like fastenings.

The block can be made of iron or other metal, of fire-clay or earthy material suitable for the purpose, or any substance suitable for the purpose; but I prefer to make them of an artificial-stone composition composed of some good cement, two parts; clean silicious sand, two parts; gravel or rock or stone broken into small pieces, two parts; calcined lime, two parts; pulverized alum, one part, and silicate of soda or silicate of potash, one part, to which may be added porcelain, one part. The said ingredients are thoroughly mixed together, with water added, and then molded into the shape described.

The block or bar constructed as described and formed of the ingredients specified makes a strong and durable fastening for the rail, and it possesses the additional advantages of elasticity, stability, and economy, and increases in hardness and toughness from exposure and use instead of losing said qualities.

Having described my invention and set forth its merits, what I claim is—

1. The fastening for railroad-rails, composed of the two blocks set side by side and each formed with the seat extending under the rail, the recess receiving the laterally-extending

ing portion of the base of the rail, the shoulder or upright wall bearing against the web of the rail, and the anchor depending from the bottom of the block, substantially as and
5 for the purposes described.

2. The block or bar for forming a railroad-rail fastening, composed of cement, sand, gravel or broken stone, calcined lime, silicate of soda or potash, and formed with a seat B,

a recess C, and a shoulder or wall D, substantially as and for the purposes described.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES STANWOOD PEIRCE.

Witnesses:

DAN D. CALKINS,
A. G. AVERY.