

No. 777,493.

PATENTED DEC. 13, 1904.

H. B. BURKE.
METALLIC TIE AND RAIL FASTENER.

APPLICATION FILED AUG. 30, 1904.

NO MODEL.

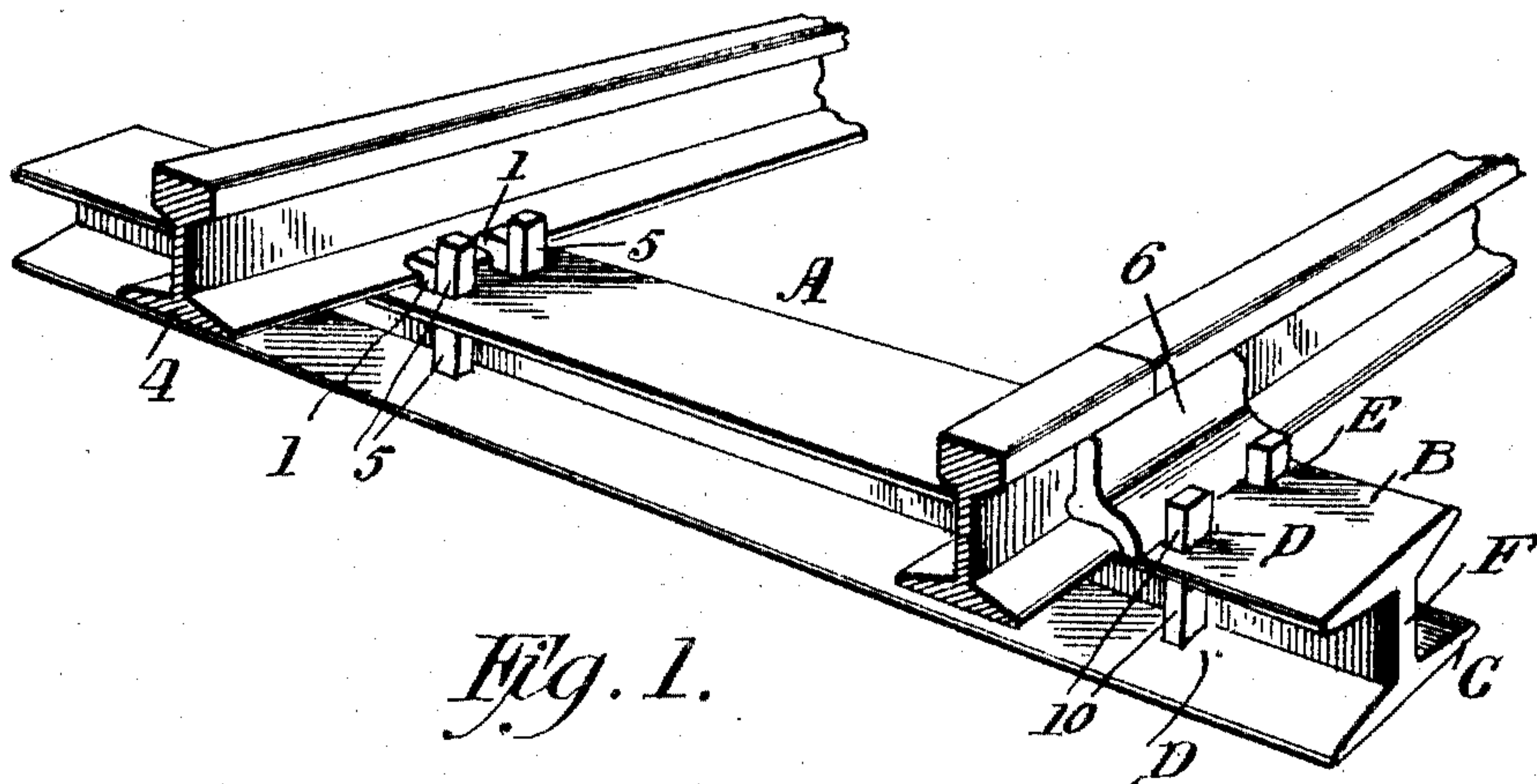


Fig. 1.

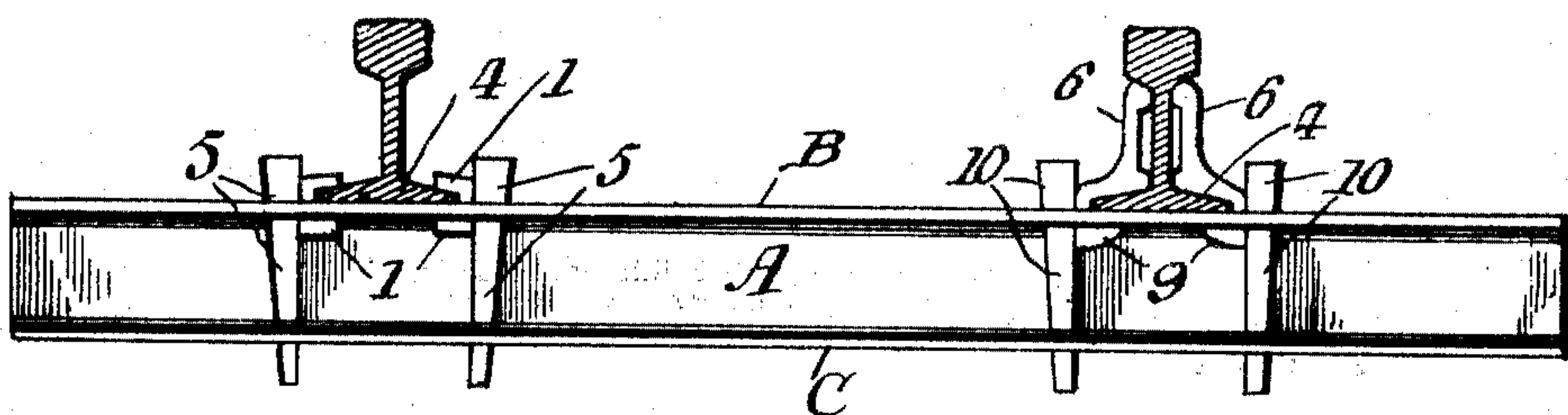


Fig. 2.

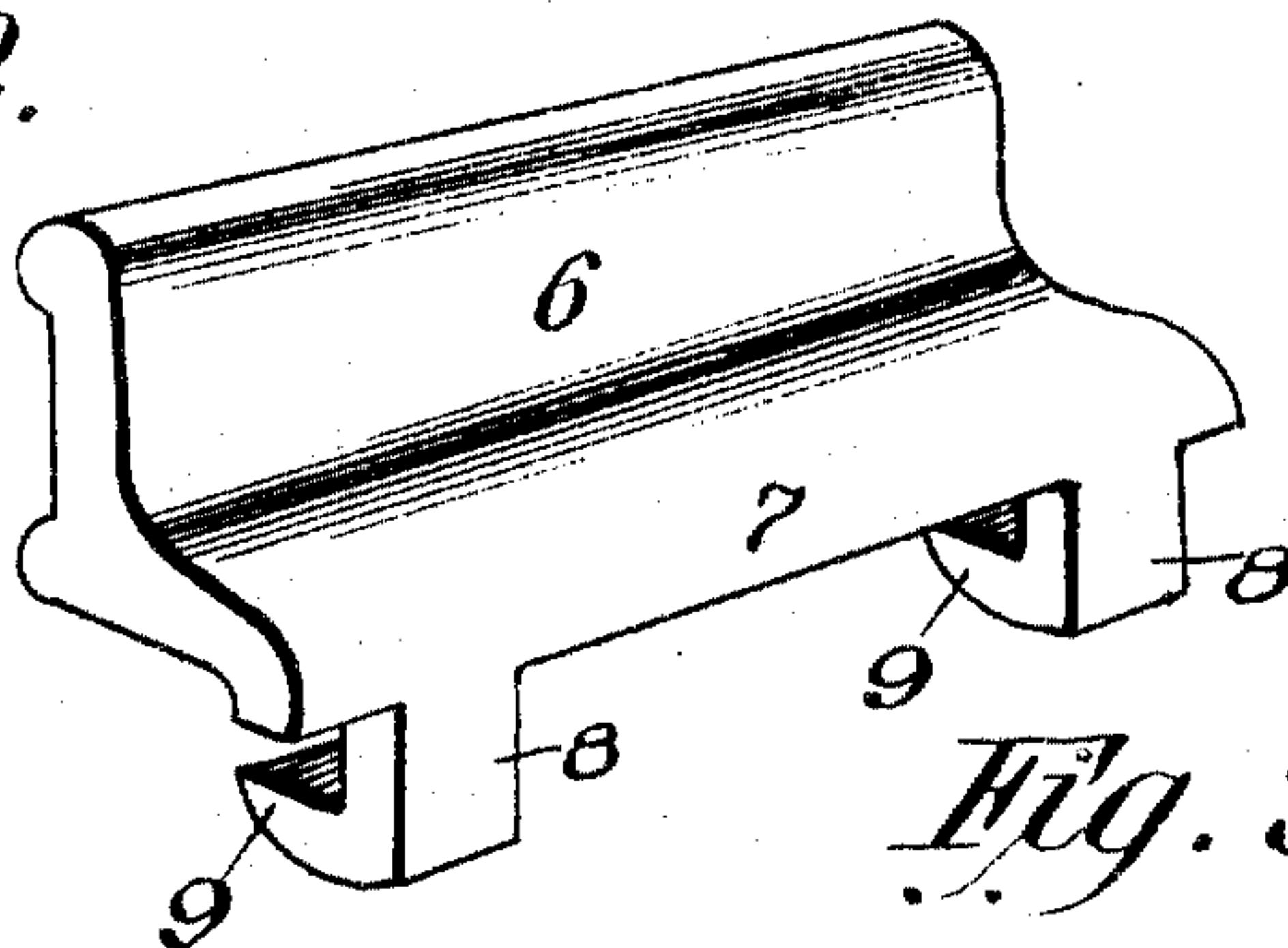


Fig. 3.

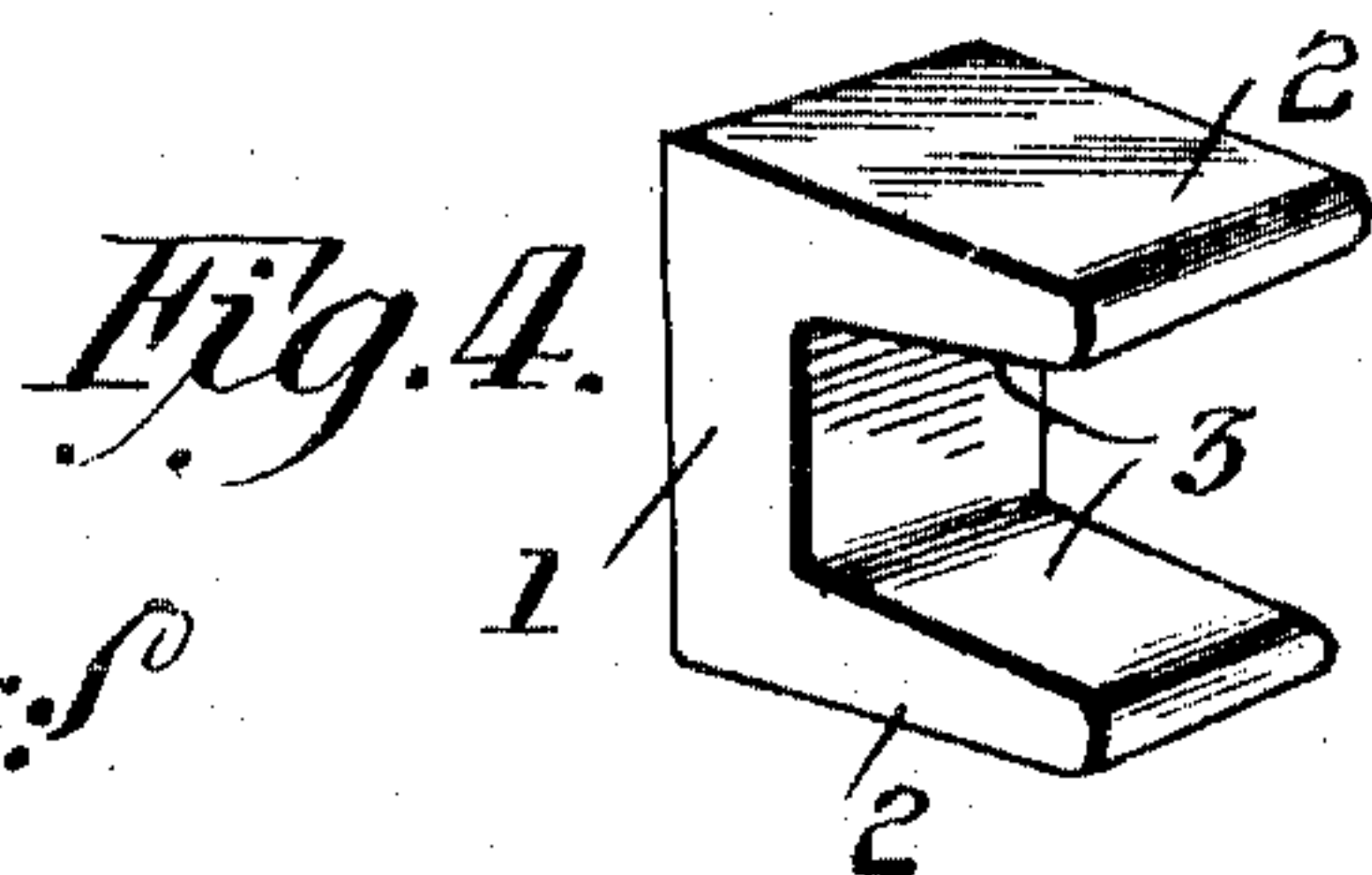


Fig. 4.

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UNITED STATES PATENT OFFICE.

HENRY B. BURKE, OF WINDBER, PENNSYLVANIA.

METALLIC TIE AND RAIL-FASTENER.

SPECIFICATION forming part of Letters Patent No. 777,493, dated December 13, 1904.

Application filed August 30, 1904. Serial No. 222,698. (No model.)

To all whom it may concern:

Be it known that I, HENRY B. BURKE, a citizen of the United States of America, residing at Windber, in the county of Somerset and State of Pennsylvania, have invented certain new and useful Improvements in Metallic Ties and Rail-Fasteners, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention has relation to metallic ties and rail-fasteners, and has for its object the provision of novel means for retaining rails upon metallic ties and the like.

15 Another object of this invention is to provide a novel form of metallic tie which can be readily rolled and will be comparatively inexpensive to manufacture, a construction being maintained which will be strong and durable and highly efficient to support the rails which are adapted to be placed thereon. I have provided novel means in connection with the metallic tie whereby a section of rail may be firmly clamped thereto, and where two rail-sections meet I have provided a novel form of fish-plate which is adapted to lock in engagement with the web portions of the rail and with the metallic tie.

20 In connection with the above construction I embody means whereby the rail-fasteners will protrude through the metallic tie and engage the ballast or road-bed of the railway system.

25 The invention as contemplated by me further resides in the novel construction, combination, and arrangement of parts, as will be hereinafter described in detail, and referring to the drawings accompanying this application like reference characters designate corresponding parts throughout the several views, in which—

30 Figure 1 is a perspective view of my improved metallic tie, showing rails secured thereto. Fig. 2 is a side elevation of my improved tie having two rails fastened thereon. Fig. 3 is a detail perspective view of one of the fish-plates employed in connection with my improved tie, and Fig. 4 is a detail perspective view of one of the rail-fasteners constructed in accordance with my invention.

35 In Fig. 1 of the drawings I have illustrated

a perspective view of my improved tie, and the tie, as designated by the reference character A, is of a substantially I shape in cross-section and is preferably made of such a material that the same can be easily rolled and then sheared into the desired lengths of ties required. The head B and the base C of the tie are provided with slots D and E, these slots being formed in the head and base of the tie adjacent to the web portion F of said tie. Four slots are formed in the head and the base of the tie, two slots being formed in transverse alinement to the tie, whereby when sections of rails are placed upon the head B of the tie two slots will be upon each side of the base of said rail-sections, and these slots are in vertical alinement with the slots of the base C of said tie.

40 The rail-fastener consists of a U-shaped clamp 1, the horizontal portions 2 2 having their confronting faces beveled, as indicated at 3. These clamps, as illustrated in Figs. 1 and 2 of the drawings, are adapted to be placed in these slots upon each side of the base 4 of a rail, and the inclined confronting faces 3 are adapted to engage the top surface of the base of the rail and the underneath face of the head B of the tie, and to secure said clamp within the slots D and E, I have provided the bars 5, which are wedge-shaped and are adapted to be driven into the slots D and E after the clamps have been moved over into engagement with the base 4 of the rail, the slots D and E being of a sufficient size to admit the horizontal portion of the clamps. As clearly shown in Fig. 2 of the drawings, the bars 5 5 when placed in the slots D and E of the tie A protrude through the base C thereof and engage in the ballast or road-bed supporting the ties.

45 Upon the opposite end of the tie to that just described (reference being had to Figs. 1 and 2 of the drawings) I have illustrated the rail-fastener employed when a joint between two rail-sections is formed, and to this end I employ two fish-plates 6 6, which are of the ordinary and well-known construction, with the exception that the edge 7 of the fish-plate is provided with depending L-shaped lugs 8 8, which have their horizontal portions 9 9 formed inwardly, and these horizontal por-

tions are made of a sufficient size to enter the slots D and E and when placed therein and moved over to engage the base of the rail and the web and head portions thereof bars 10 10, 5 identical in construction to the bars 5 5, are placed in the slots D and E, both of the head B and the base C of the tie A, and by the wedge shape of these bars the fish-plates may be secured in such a position upon the metallic tie A as to firmly hold and retain the ends 10 of the rails therein.

It will thus be seen from the foregoing description that novel means is provided both for retaining a rail-section upon the tie, also 15 the confronting ends of two rails which are to be joined together, and I do not care to limit myself to the specific number of rail-fasteners and wedge portions shown, but may employ a sufficient number to retain the rails upon 20 the tie and that the shape of said tie and the arrangement of the rail clamps or fasteners may be changed as will be permissible by the appended claims.

Having fully described my invention, what 25 I claim, and desire to secure by Letters Patent, is—

1. In a metallic tie and rail-fastener, a tie embodying a head and a base and a connecting-web, said head and base having openings 30 therethrough at each side of the web, clamps adapted to enter the openings in the head and engage the upper face of a rail-base and the under face of the tie-head, and wedge-shaped bars passed through the openings in both the 35 head and base of the tie and holding the clamps in engagement with the rail and tie, substantially as described.

2. In a metallic tie and rail-fastener, a tie embodying a head and a base and a connecting-web, said head and base having openings 40 therethrough at each side of the web, clamps adapted to enter certain of the openings in the head of the tie and to engage the upper face of a rail-base and the under face of the tie-head, fish-plates having clamping portions 45 adapted to enter other of the openings in the tie-head and to engage the upper face of a rail-base and the underneath face of the tie-head, and wedge-shaped bars passed through the openings in the tie-head and base and holding 50 said clamps and fish-plates in clamping position, substantially as described.

3. The combination with rails, of a metallic tie, said tie being of a substantially I shape, said tie having slots formed therein, fish-plates 55 adapted to be placed in said slots to engage said rails, and means for securing said fish-plates therein.

4. The combination with rails, of a metallic tie, said tie being of a substantially I shape, 60 the horizontal portions of said tie having slots formed therein, clamps adapted to be placed in said tie to engage the base of the rails, fish-plates adapted to be placed in said slots to engage said rails, wedge-shaped bars driven in 65 said slots to secure said clamps and fish-plates in engagement with said rails, substantially as described.

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

HENRY B. BURKE.

Witnesses:

HARRY SELL,
JAMES VENASCO.