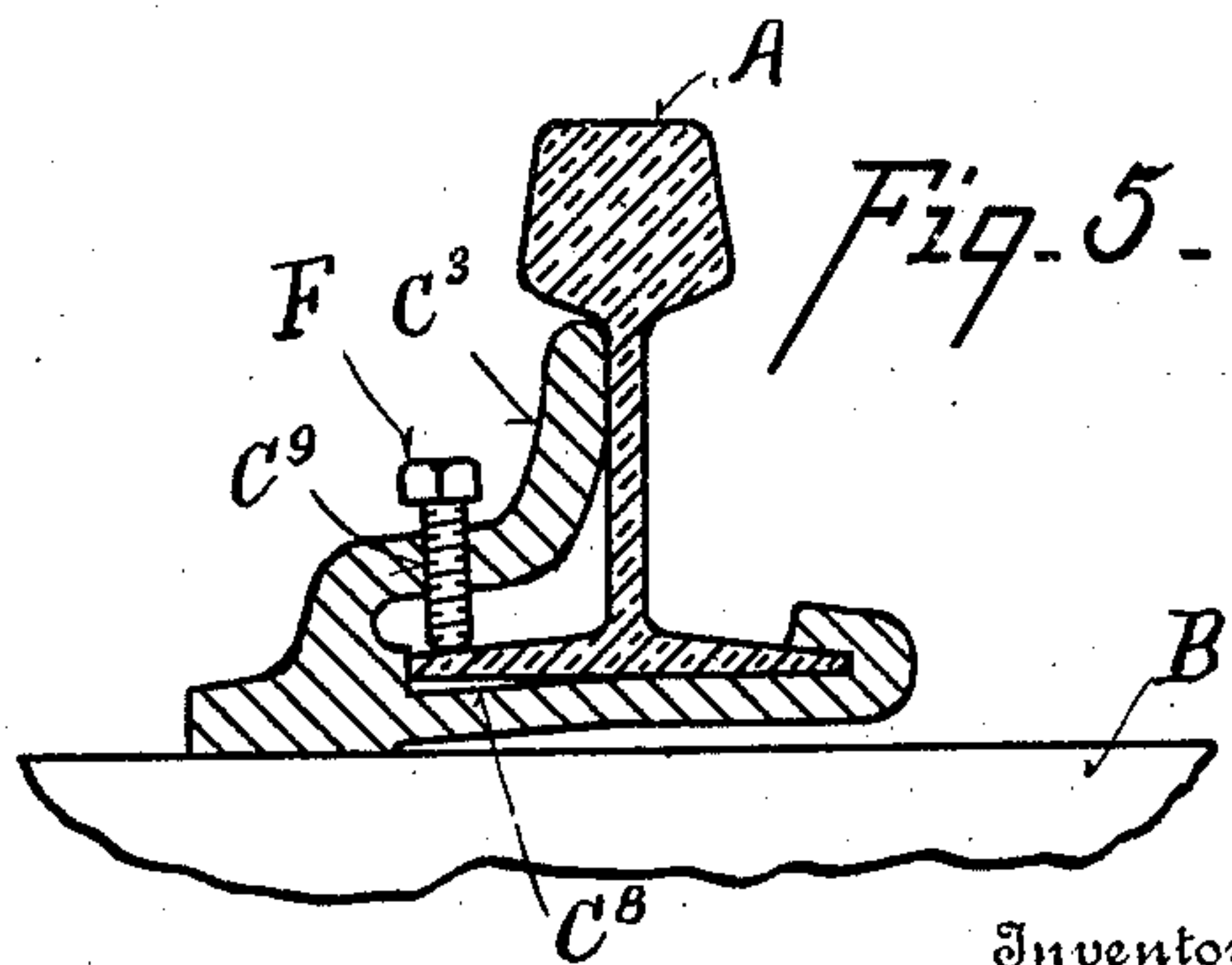
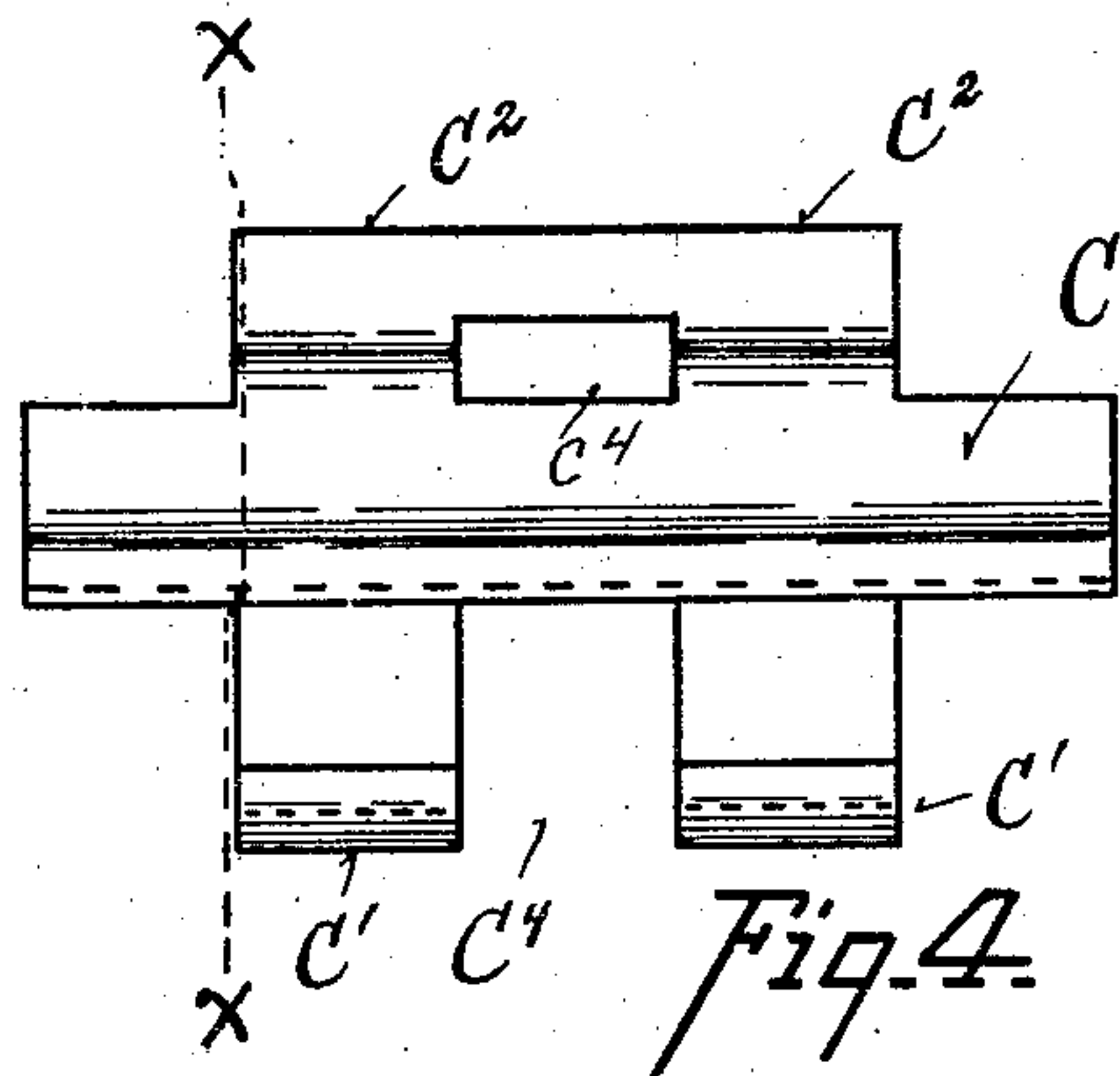
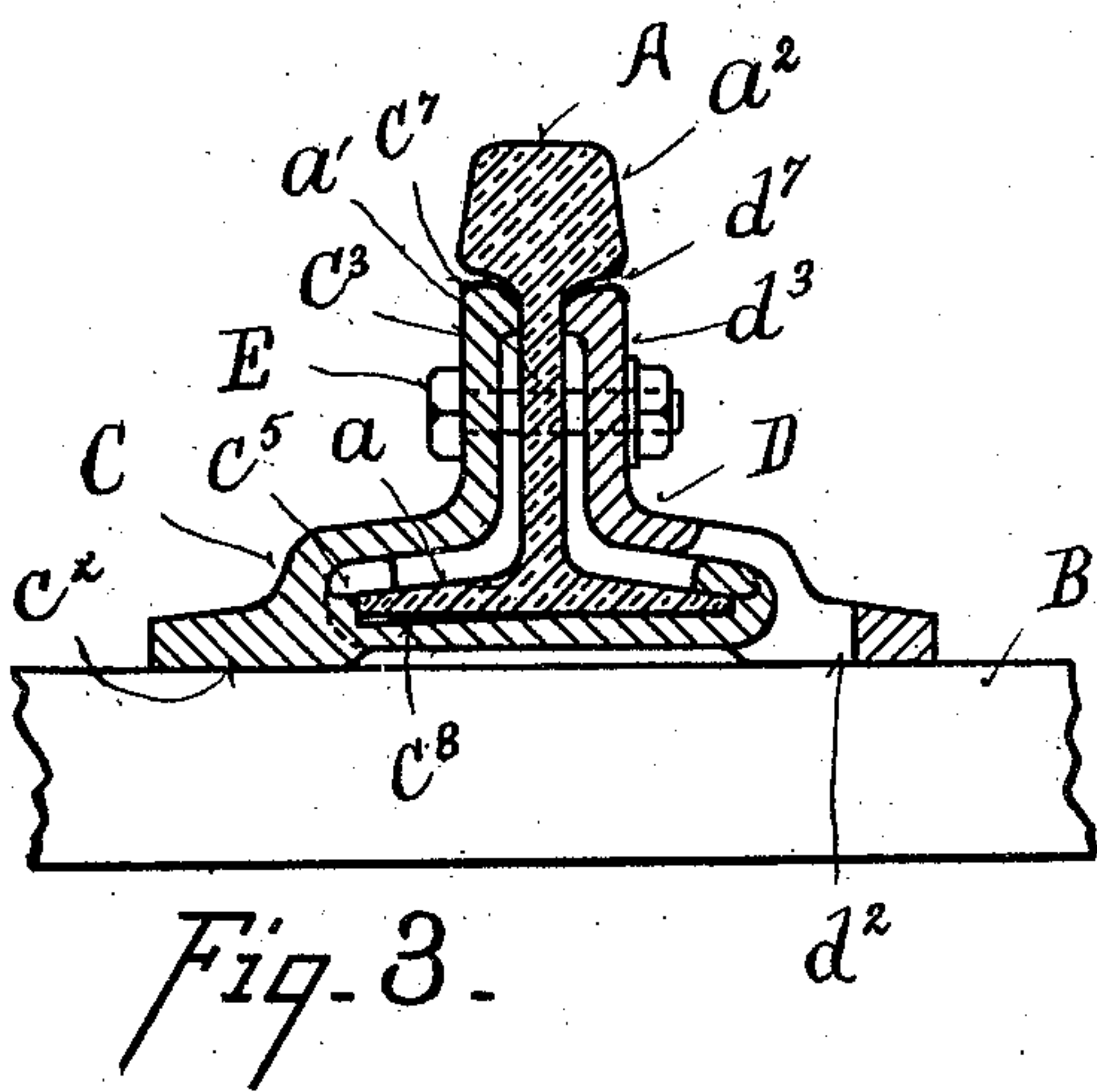
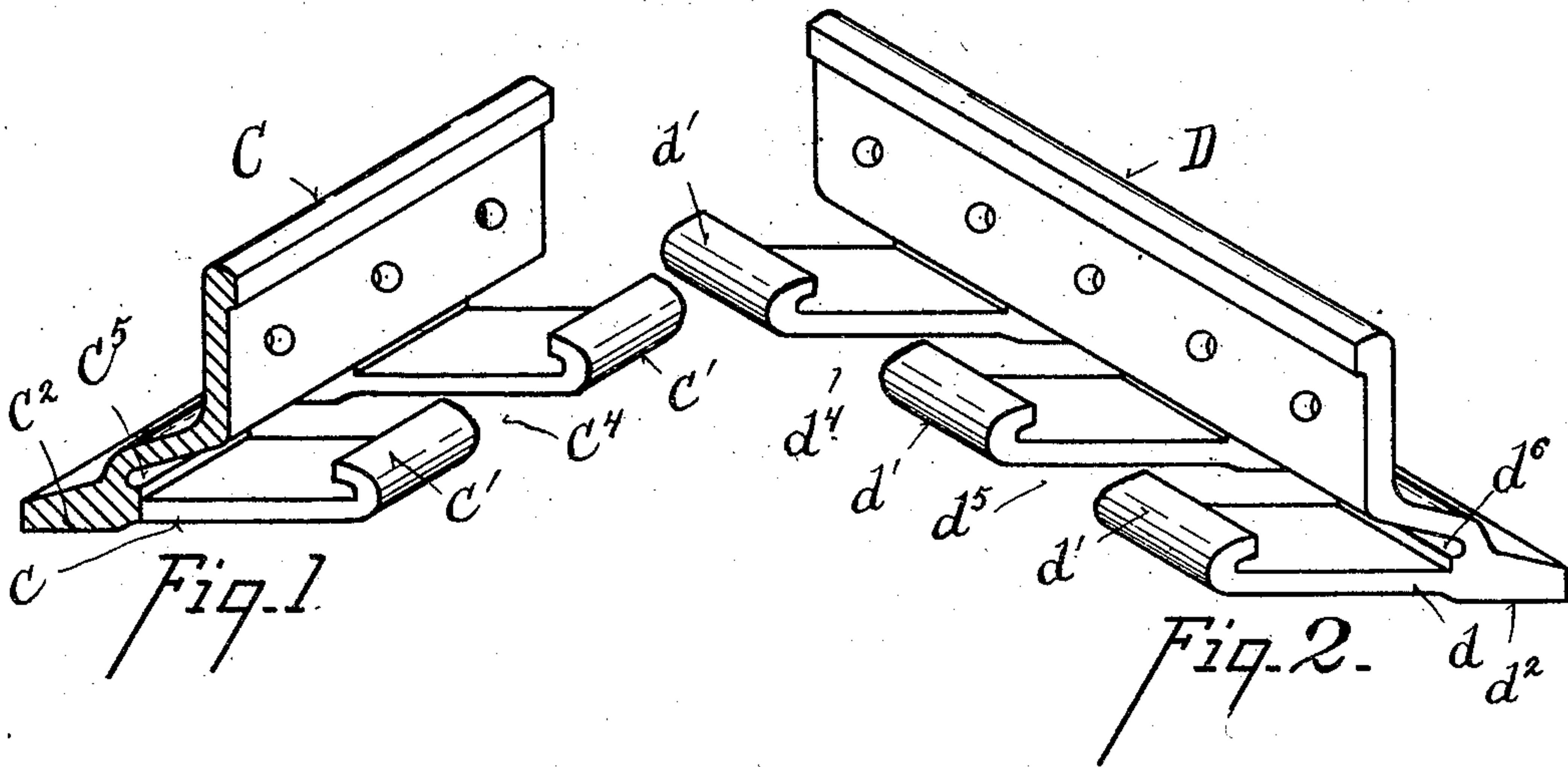


No. 891,288.

PATENTED JUNE 23, 1908.

J. PAWOLOWSKI.  
FISH PLATE.

APPLICATION FILED SEPT. 24, 1906.



Witnesses  
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# UNITED STATES PATENT OFFICE.

JACOB PAWOLOWSKI, OF CINCINNATI, OHIO.

## FISH-PLATE.

No. 891,288.

Specification of Letters Patent.

Patented June 23, 1908.

Application filed September 24, 1906. Serial No. 336,075.

*To all whom it may concern:*

Be it known that I, JACOB PAWOLOWSKI, a citizen of the United States of America, and resident of Cincinnati, county of Hamilton, State of Ohio, have invented certain new and useful Improvements in Fish-Plates, of which the following is a specification.

The object of my invention is a fish-plate, which is drawn tightly against the connected rails by the weight of a load upon them, thereby bringing them into true alinement. This object is attained by the means described in the specification and illustrated in the accompanying drawings, in which

Figure 1 is a perspective view of one member of my fish-plate, the end of the fish-plate being shown cut off upon line  $x-x$  of Fig. 4. Fig. 2 is a perspective view of the other member of the fish-plate. Fig. 3 is a sectional view of rail, and the fish-plate embodying my invention. Fig. 4 is a plan view of the member shown in Fig. 1. Fig. 5 is a sectional view of a modified form.

Referring to the parts: Rail, A, and ties, B, are of ordinary construction. The members, C and D, of my fish-plate contain the following elements, a base,  $c$  and  $d$ , to pass beneath the rail, A, a gripping hook,  $c'$ ,  $d'$ , for engaging opposite edges of the rail base,  $a$ , fulcrum feet,  $c^2$ ,  $d^2$ , for resting upon the ties, B, and pressure plates,  $c^3$ ,  $d^3$ , for bearing against the web,  $a'$ , of the rail.

The base,  $d$ , of member, D, is cut out at  $d^4$ , and  $d^5$ , and the base,  $c$ , is cut out at  $c^4$ , so that the base,  $c$ , may interlock with the base,  $d$ , the central portion of the base,  $d$ , passing into the opening,  $c^4$ , and the base,  $c'$ , passing into the opening,  $d^4$ ,  $d^5$ . Bases,  $c$ ,  $d$ , have their inner faces cut away from the horizontal adjacent the feet,  $c^2$ , as shown at,  $c^8$ , in Fig. 3 and Fig. 5. The feet,  $c^2$ , and  $d^2$ , project a little below the base,  $c$ , and  $d$ , so that the feet,  $c^2$ ,  $d^2$ , alone contact the ties, B, the feet,  $c^2$ ,  $d^2$ , receiving spikes for securing the members, C, D, to the ties.

To facilitate the placing of the base,  $a$ , into the jaws  $c'$ , and  $d'$ , both of the pressure plates  $c^3$ ,  $d^3$ , have grooves,  $c^5$ , and  $d^6$ , formed in them. Pressure plates,  $c^3$  and  $d^3$ , have heads,  $c^7$  and  $d^7$ , which terminate a short distance below the tread,  $a^2$ , of the rail. Each pressure plate has a portion formed preferably vertical beneath the heads,  $c^7$  and  $d^7$ , which is perforated to pass bolts, E.

In placing the members, C and D, upon the rail ends, one edge of the foot,  $a$ , is placed in

the grooves,  $c^5$  or  $d^6$ , until the opposite edge is passed into the hook,  $c'$ , or  $d'$ , and then the members are pushed upon the rail, so that it occupies the position shown in Fig. 3. The bolts are then secured in place.

When a weight is brought to bear upon the tread,  $a^2$ , it causes the central part of the bases,  $c$ ,  $d$ , to be somewhat depressed, thus turning the members, C, D, of the fish-plate about their feet,  $c^2$ ,  $d^2$ , as fulcrums, causing a pressure of the plates,  $c^3$ ,  $d^3$ , to bear firmly against the webs,  $a'$ , of the abutting rails, the cut away portions adjacent to the feet,  $c^2$ ,  $d^2$ , as shown at  $c^8$ , in Fig. 3, permitting this movement, thus drawing the rails truly into alinement, and holding them thus firmly alined.

In the modification shown in Fig. 5, the wall,  $c^3$ , has no horizontal perforations for the bolts, E, but has a vertical perforation,  $c^9$ , to receive a set-screw, F, which may be made to bear against the foot of the rail after it has been inserted in place, so as to fasten the fish-plate upon the rail. The member, D, would have a similar construction.

What I claim is:

1. A fish plate consisting of plates upon opposite sides of the rails to be joined, each plate comprising a flat foot resting upon the ties outside the line of the rail flanges, a member offset from the foot and out of contact with the ties and extending from the foot beneath the rail flanges and a member extending from the foot upward and bearing against the webs of the rails near the rail heads.

2. A fish plate consisting of plates upon opposite sides of the rails to be joined, each plate comprising a foot resting upon the ties outside the line of the rail flanges, a member out of contact with the ties extending from the foot beneath the rail flanges and having its free end hooked over the rail flanges, and a member extending from the foot upward and bearing against the webs of the rails.

3. A fish plate consisting of plates upon opposite sides of the rails, each plate comprising a foot resting upon the ties at one side of the rail, a series of members adapted to interlock with corresponding members on the opposite plate, said members being out of contact with the ties and having their extended ends hooked over the flanges of the meeting rails, and a member extending upward from said foot and bearing against the webs of the rails.

4. A fish-plate consisting of two members having bases to pass beneath the rail, gripping hooks at one edge of the bases for engaging the opposite edges of the rail base, fulcrum feet at the other edge of the bases to bear upon the ties, and curved pressure plates to bear against the opposite sides of

the webs of the rails and having vertical perforations to receive set-screws.

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Witnesses:

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