

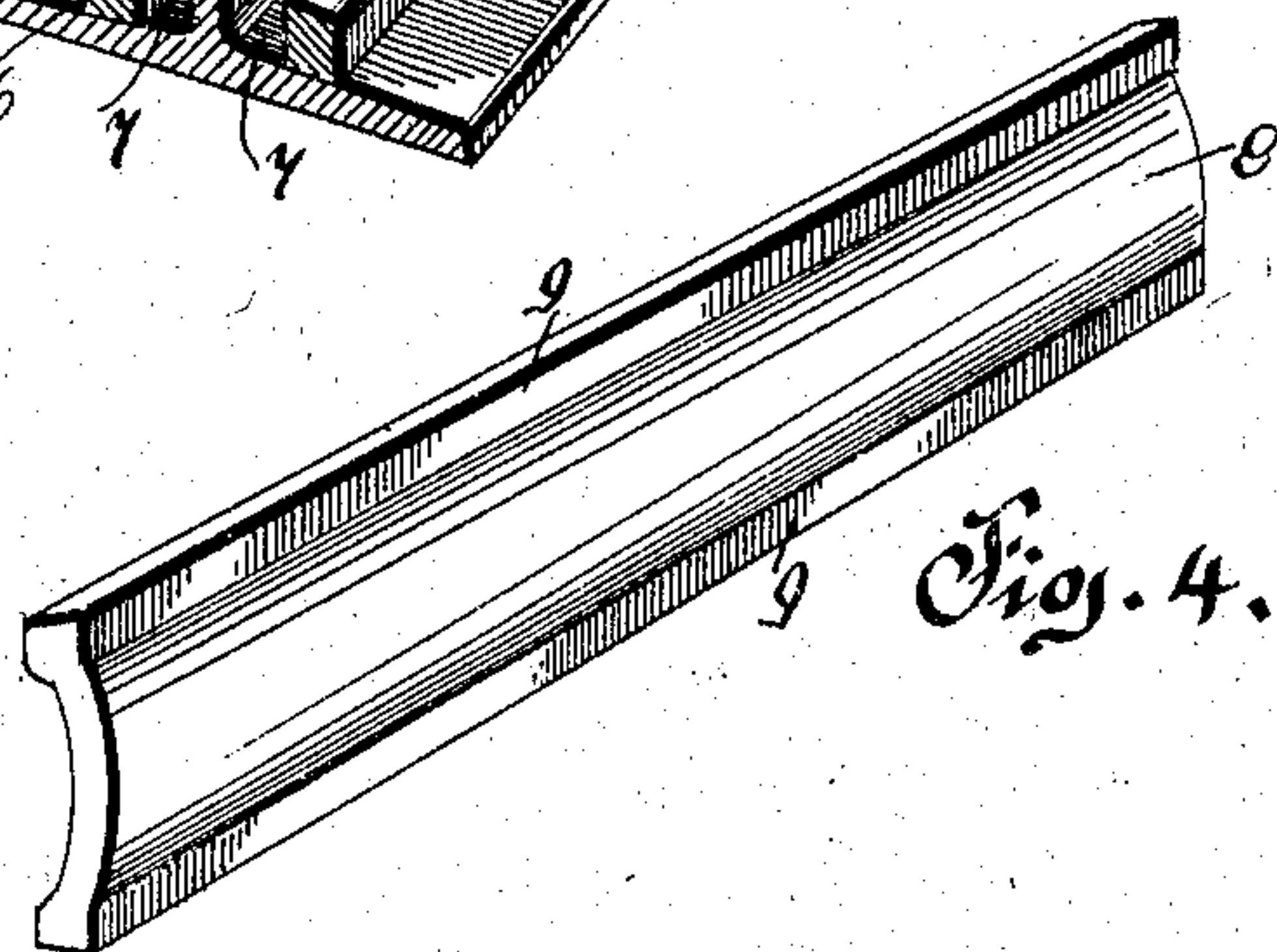
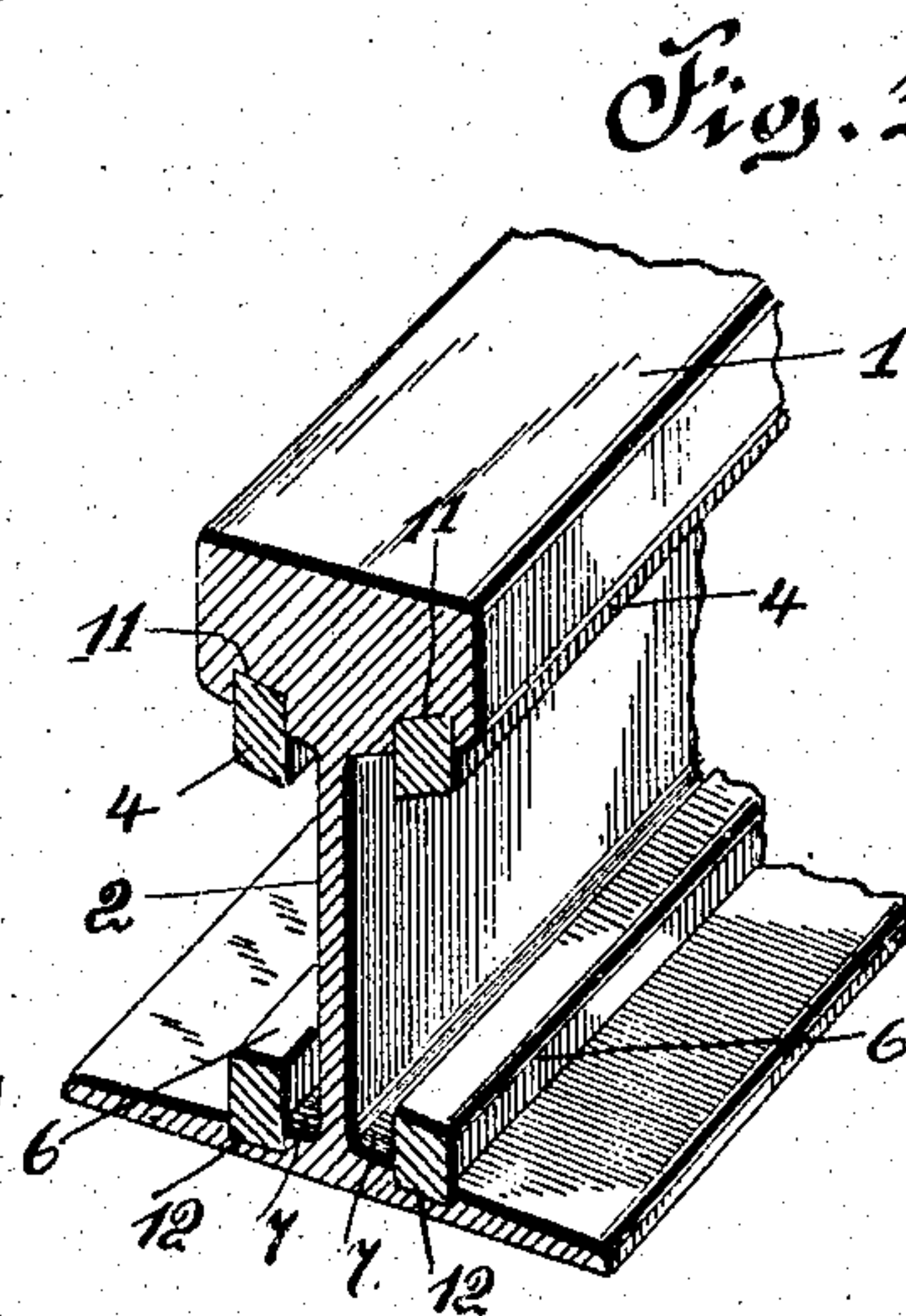
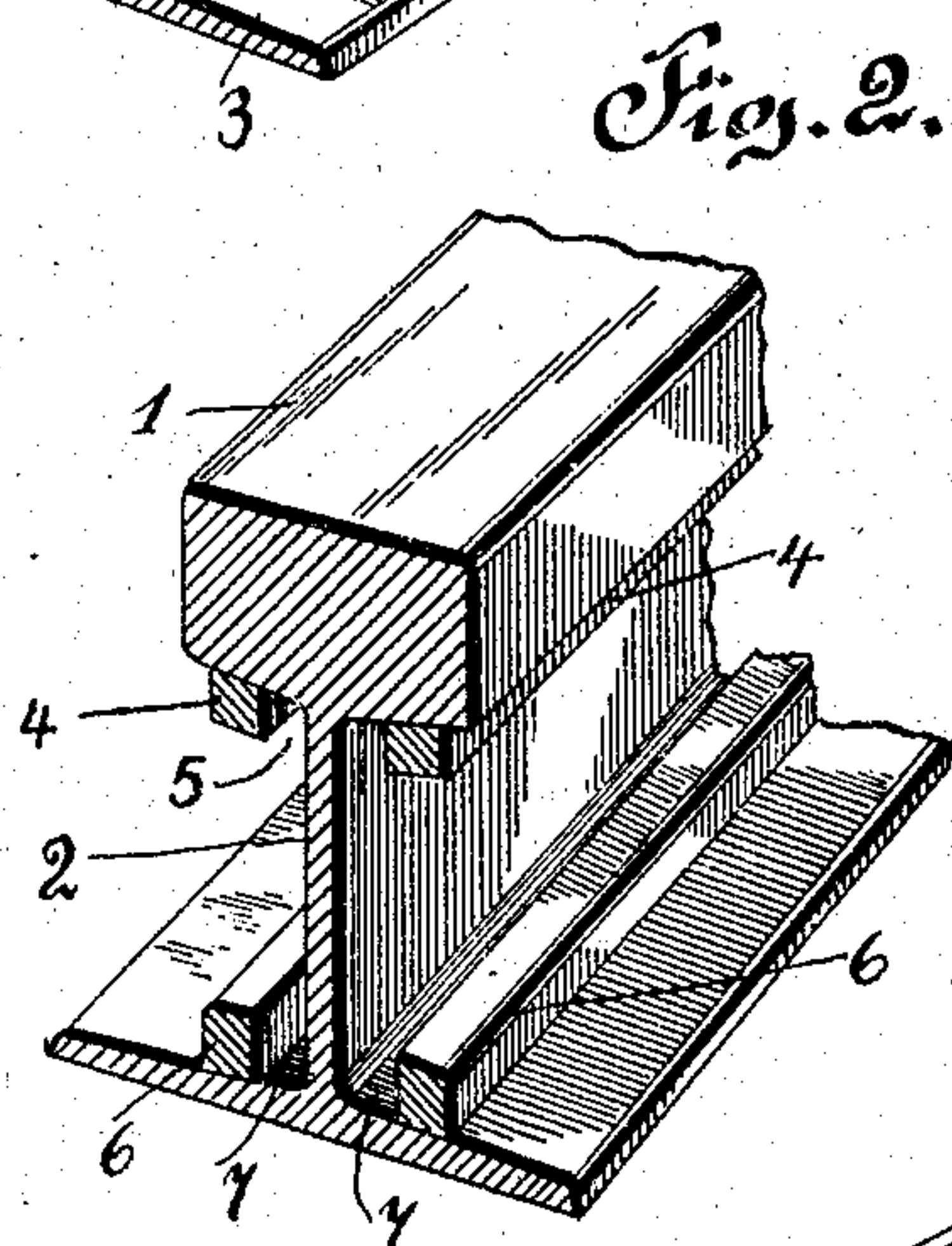
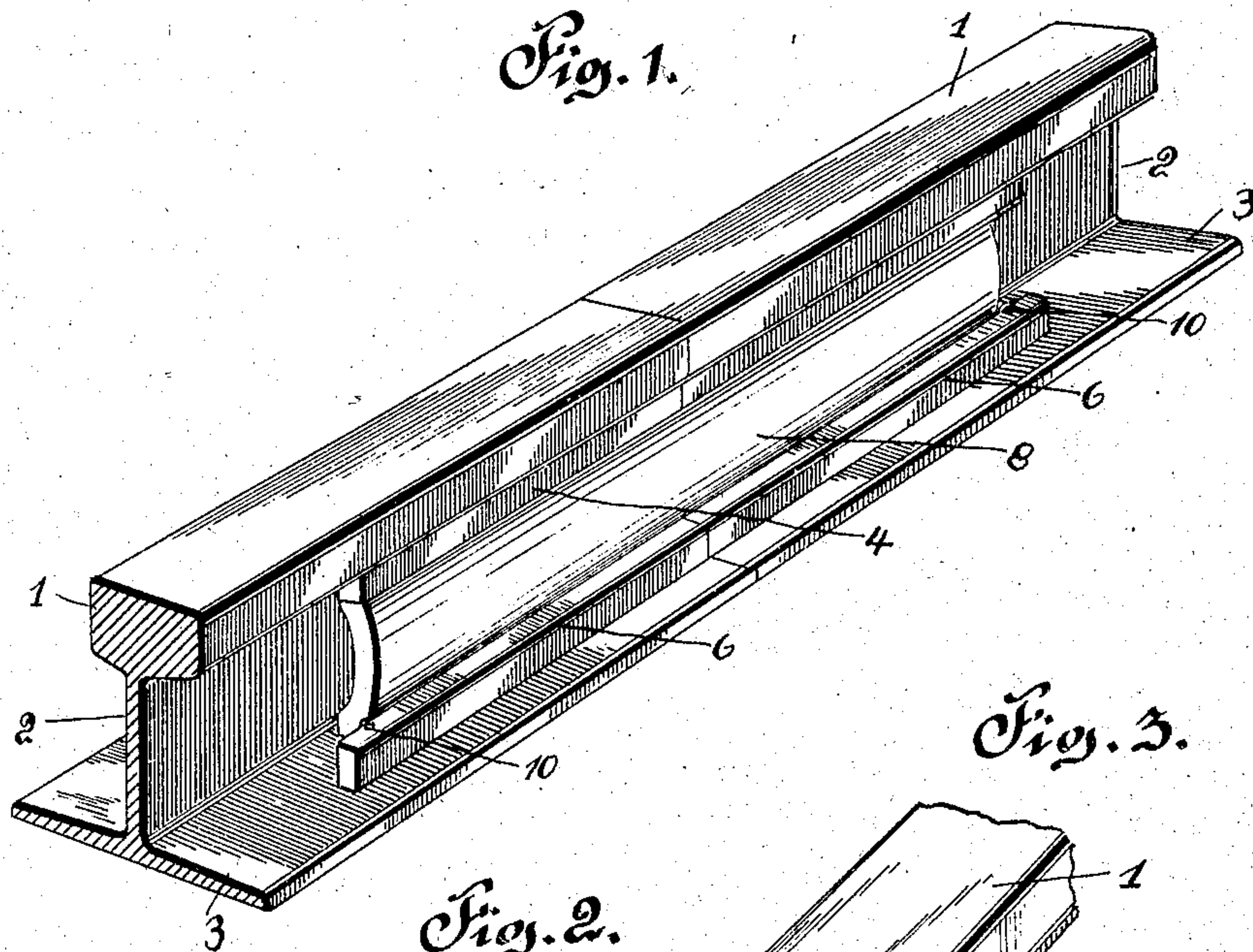
No. 791,804.

PATENTED JUNE 6, 1905.

L. S. & J. A. MELLINGER.

RAIL JOINT.

APPLICATION FILED MAR. 17, 1905.



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UNITED STATES PATENT OFFICE.

LOUIS S. MELLINGER AND JOSEPH A. MELLINGER, OF McKEESPORT,
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RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 791,804, dated June 6, 1905.

Application filed March 17, 1905. Serial No. 250,594.

To all whom it may concern:

Be it known that we, LOUIS S. MELLINGER and JOSEPH A. MELLINGER, citizens of the United States of America, residing at McKeesport, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has relation to rail-joints, and has for its object the provision of a rail-joint of novel construction wherein the usual fastening bolts and nuts are dispensed with and the necessity of weakening the web of the rail by piercing it for the passage of said bolts is obviated.

In carrying our invention into effect we electrically weld upon the lower surface of the head of the rail and upon the upper surface of the base of the same metallic bars, which are arranged parallel to the web and on both sides of the same, leaving channels between said bars and the web of the rail, and in these channels we place fish-plates and secure them in position by indenting the bars beyond the ends of the fish-plate, so as to form burs or projections that will prevent endwise movement of the fish-plates in either direction.

In the accompanying drawings, which illustrate our invention, and in which like numerals indicate like parts in the several sections, Figure 1 is a perspective view showing two abutting rail-sections provided with our improvements. Fig. 2 is a sectional perspective view of a part of one of the rail-sections. Fig. 3 is a similar view showing a modified form of our invention. Fig. 4 is a perspective view of a fish-plate which is employed in connection with the rail-sections shown in the other figures.

The rails, in so far as their size and form are concerned, are of the usual construction, being composed of the heads 1 1, the webs 2 2, and the bases 3 3. The construction of both the rail-sections when our improvements are applied is the same, and the description of one will therefore suffice for both.

Upon each side of the web 2 and on the

lower surface of the head 1 we arrange two straight, preferably square, bars of metal 4 4, these bars being located a short distance from the web 2, leaving channels 5 5 between the sides of the web and the inner sides of the bars 4 4. In order to secure the bars 4 4 to the head, we electrically weld them in position thereon. Upon the base of the rail and on each side of the web we arrange two bars 6 6, which are similar in all respects to the bars 4 4 and are secured upon the base in the same manner—that is, by electrically welding them in position—these bars 6 6 being located a short distance from the side of the web 2, leaving channels 7 7 between the said bars and the sides of the web. The fish-plate 8, which has square edges 9 9, is slid into the channels adjacent to the web, the inner surfaces of the edges 9 9 bearing against the side of the web and the outer surfaces of the square edges 9 9 bearing against the inner sides of the bars 4 4 7 7 and the plate when in position overlapping the joint formed by the meeting of the rail-sections. The fish-plate 8 is of less length than the combined length of the bars 4 and 6 of the two adjacent rail-sections, and in order to secure the plates 8 8, one of which is of course arranged at each side of the web of the rails, we slightly indent the inner upper corner of the lower plates 6 of each of the rail-sections, as indicated at 10 10, at the ends of the fish-plate by means of a punch or other suitable tool, this indentation forming burs or projections upon the bars 6 6 at the ends of the fish-plates, said burs or projections effectually preventing the fish-plates from moving lengthwise along the rails.

In the modification shown in Fig. 2 of the drawings the bars 4 6 are seated in longitudinally-disposed grooves 11 12, formed, respectively, in the heads and bases of the rail-sections, the bars in this form being also electrically welded to the rail.

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a rail-joint, the combination of rail-sections having bars electrically welded to the

lower surfaces of the heads of the rails, and bars electrically welded to the upper surfaces of the bases of the same, leaving channels between the web of the rail and the said bars, and fish-plates having their edges seated in said channels.

2. In a device of the character set forth, the combination of adjacent rail-sections having bars arranged parallel to the webs of said rail-sections, said bars being seated in grooves formed on the lower surfaces of the heads of the rail-sections and the upper surfaces of

the bases of the same, and fish-plates having their edges seated in the channels formed on each side of the web by said bars, said bars being electrically welded in said grooves. 15

In testimony whereof we affix our signatures in the presence of two witnesses.

LOUIS S. MELLINGER.
JOSEPH A. MELLINGER.

Witnesses:

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K. H. BUTLER.