

B. OHNIMUS.

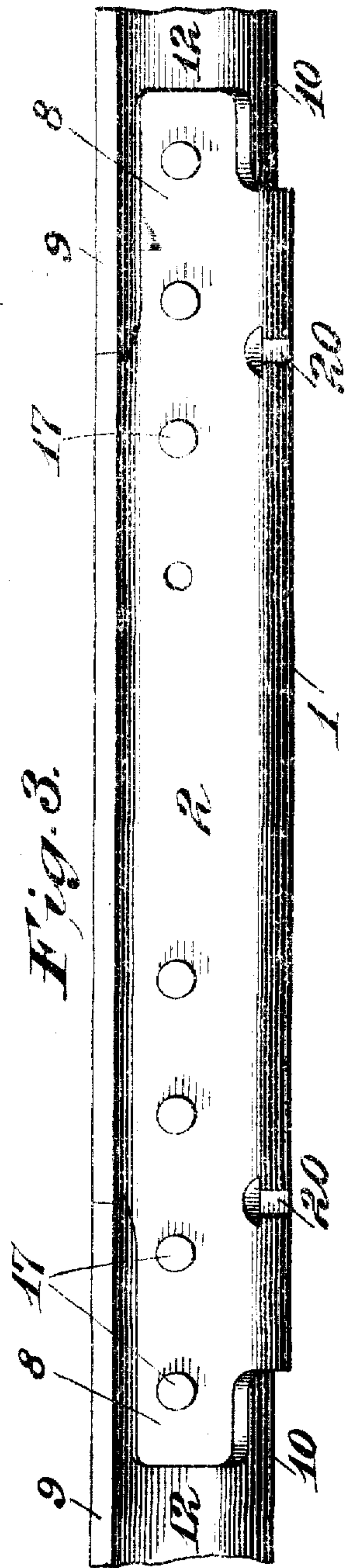
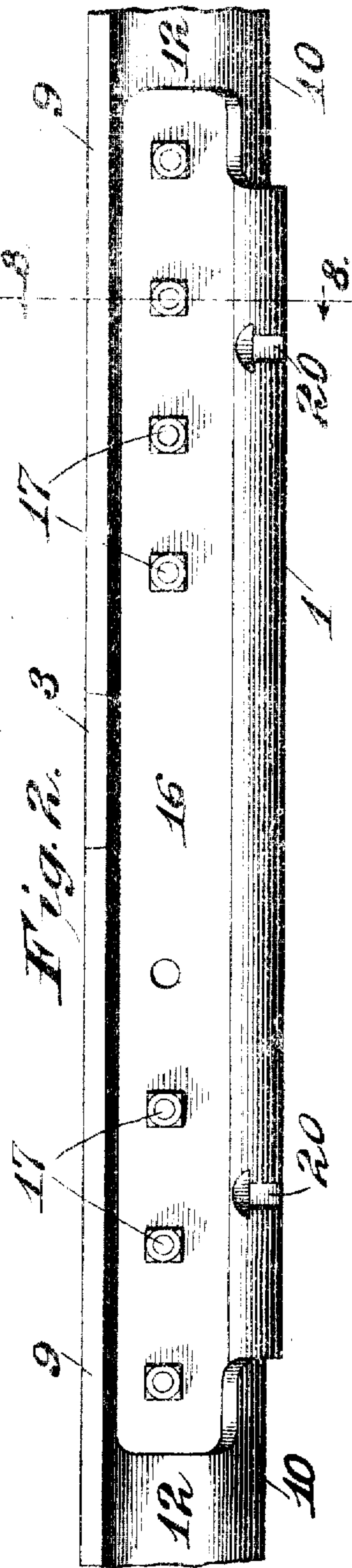
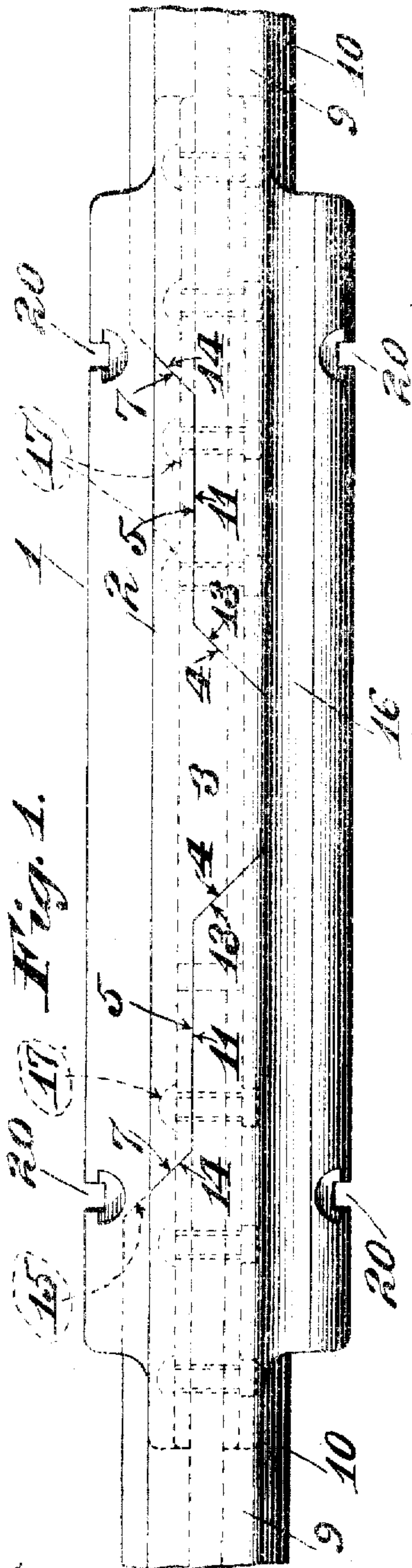
RAIL JOINT.

APPLICATION FILED JAN. 11, 1908.

904,802.

Patented Nov. 24, 1908.

2 SHEETS--SHEET 1.



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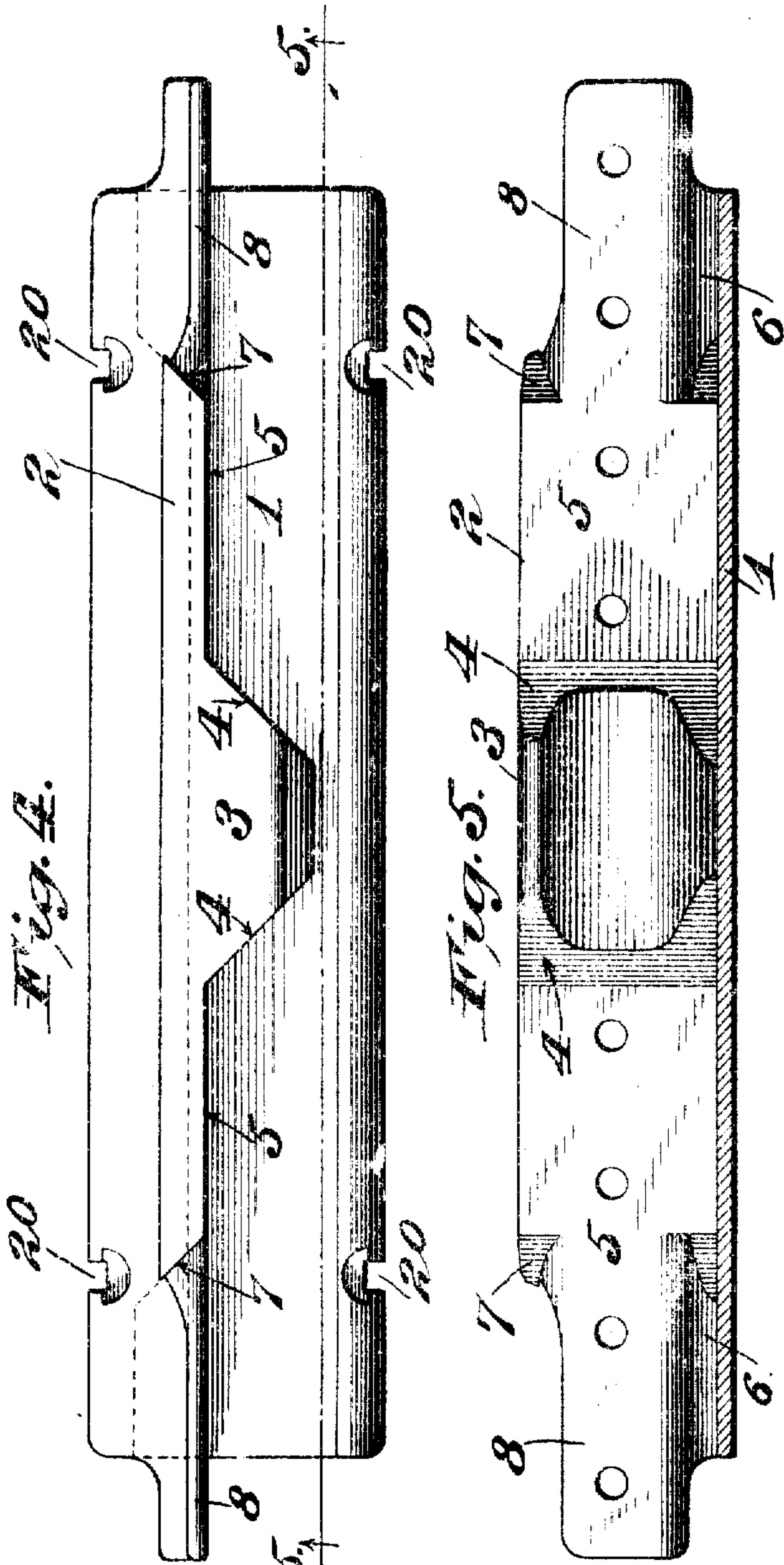
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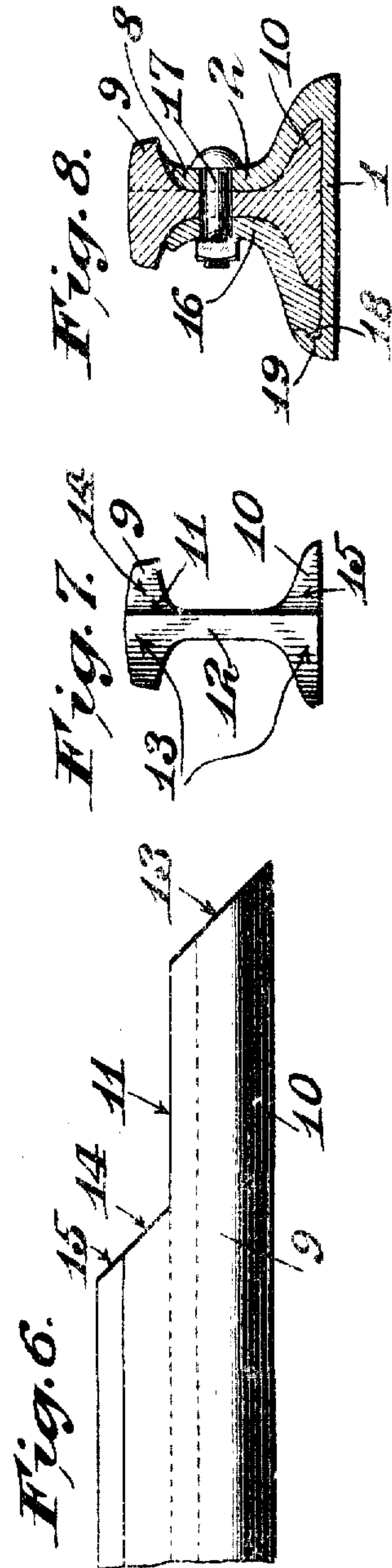
Patented Nov. 24, 1908.

2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

BARNEY OHNIMUS, OF ST. LOUIS, MISSOURI.

RAIL-JOINT.

No. 904,802.

Specification of Letters Patent.

Patented Nov. 24, 1908.

Application filed January 11, 1908. Serial No. 410,391.

To all whom it may concern:

Be it known that I, BARNEY OHNIMUS, a subject of the Emperor of Germany, residing at the city of St. Louis, State of Missouri, have invented a certain new and useful Improvement in Rail-Joints, of which the following is a specification, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top plan view of my improved rail-joint; Fig. 2 is an elevational view of one side of the same; Fig. 3 is an elevational view of the opposite side thereof; Fig. 4 is a top plan view of the rail-support or chair; Fig. 5 is a longitudinal sectional view on the line 5—5, Fig. 4; Fig. 6 is a fragmentary plan view of the end portion of a rail adapted to fit in my improved rail-support or chair; Fig. 7 is an end view of said rail; and Fig. 8 is a cross-sectional view on the line 8—8, Fig. 2.

This invention relates to a certain new and useful improvement in rail joints, the object being to provide a construction whereby the ends of the rails are prevented from being hammered or becoming worn and "low joints" are avoided.

With this object in view, my invention consists in the novel construction, arrangement, and combination of the several parts, all as will hereinafter be described and afterwards pointed out in the claims.

In the drawings, 1 indicates the base-plate of the rail-chair or support, said chair or support being preferably of a length sufficient to span the usual space between two cross-ties of a railroad. The plate 1 has an up-standing portion of web 2, the middle portion 3 thereof being shaped to conform to the cross-section of the rail to be used therewith. At each side of said portion 3, the web 2 is cut-away or beveled, as at 4, at an angle of about 45°, and from the base of said beveled portions 4 and extending for some little distance are flat faces 5, the running edge or top flange portion of the flat faces 5 being of a width equal to the width of the top flange of a rail to one side of the web thereof. At the ends of the base-plate 1 and at the base of said web 2, are undercut recesses or pockets 6 for receiving the lower base flange of the cooperating rail, and the upper edge or running flange of the web 2 is again cut-away or beveled, as at 7, in alignment with the forward ends of the pockets 6, thereby providing a tongue portion 8 project-

ing a short distance beyond the end of the base-plate 1, said tongue 8 being adapted to fit against the web portion of a rail between the upper and lower flanges thereof, see Fig. 3.

At the ends, the upper and lower flanges 9 and 10 of the cooperating rails are cut-away at one side to provide a flat face 11 flush with the web 12 of the rails, the flat faces 11 being adapted when in use with my said rail-chair or support to fit against the flat faces 5 of said web 2. The ends of said rails are beveled, as at 13, to fit against the beveled portions 4 of said web 2, and the said upper and lower flanges of said rails are further provided with beveled portions 14 and 15, respectively, so that said upper flange will fit against the beveled portion 7 of said web and the said lower flange may fit within the said pocket 6 at the base of said web 2.

16 indicates an interlocking-tie or fish-plate, which is shaped to the contour of one side of the cooperating rail, see Fig. 8, so as, when in use, to fit snugly thereagainst. The said plate 16 is of a length preferably equal to the length of the web 2 and is provided near its ends with perforations or holes in alinement with corresponding holes through the cooperating rail and web 2 for receiving the securing-bolts 17. The plate 16 at its lower edge is provided with a longitudinal rib or flange 18, which is adapted to fit in a longitudinal groove or pocket 19 provided therefor along one side of the base plate 1, see particularly Fig. 8.

In manufacturing my said rail-chair or support, the width of the said base plate 1 is preferably made just wide enough so that the cooperating rails may be easily swung into position, or out of position whenever necessary, without interfering with, or knocking against, said flange 19. In assembling the parts of the joint together, the cooperating rails are swung into position, the lower base flange 15 entering the pockets 6 and the flat faces 11 and beveled ends 13 and 14 thereof fitting smoothly against the flat faces 5 and beveled edges 4 and 7, respectively, of said web 2. The tie-plate 16 is then swung downwardly into position, the flange 18 entering the groove 19 and the body portion thereof fitting smoothly and snugly against the web of said rail, see particularly Fig. 8, the securing-bolts 17 passing through the tie-plate 16, the web 12 of

the rail, and the web 2, firmly holding the parts together. If desired, the base-plate 1 may be provided with the notches 20 at its side edges, to receive the usual securing spikes which are driven into the cross-ties. As is obvious, the parts may be easily separated, and new rails placed in position for use whenever desired or necessary. The side of the top flange of the rails and rail-support shown in Fig. 3 is preferably arranged as the running-edge when attached to the cross-ties of the road, and the pressure thereon being downward and outward also assists in holding the parts firmly and strongly together. The rail-chair or support, consisting of the base-plate 1 and web 2, may be made in one integral casting or forging, or the parts thereof may be made separately and held together by various means, and it will be readily seen that the ends of the rails, which rest upon the base-plate 1 and are firmly secured to the web 2 and tie-plate 16, are strongly supported in position, the running edge is smooth and even, the ends of the rails are prevented from becoming worn or being hammered down, and low joints are avoided.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. In a rail joint, the combination with a connecting-member, said member consisting of a base-plate and an upstanding web integral therewith, one side of said web having the contour of one side of a rail and the middle portion of said web being shaped to conform to the cross-section of the rail and said web being provided on its opposite side and to each side of said middle portion with flat faces; of rails provided with flat faces to one side of the web thereof and adapted to rest upon said base-plate and cooperate with said upstanding web thereof, the combined tread of the meeting ends of said rails and upstanding web being equal to and coincident with the tread of the rails and of said middle portion of said web; substantially as described.

2. In a rail-joint, the combination with a connecting-member, said member consisting of a base-plate and an upstanding web thereon, one side of said web having the contour of one side of a rail and the middle portion of said web being shaped to conform to the cross-section of the rail and said web being provided on its opposite side and to each side of said middle portion with flat faces, the top surface or tread of said latter portions of said web having substantially the width and conforming to the tread of the rail to one side of the web thereof, of rails provided with flat faces to one side of the web thereof and adapted to rest upon said base-plate and cooperate with said upstanding web thereon, the combined tread of the

meeting ends of said rails and upstanding web being equal to and coincident with the entire tread of the rails and of said middle portion of said web; substantially as described.

3. In a rail-joint, the combination with a connecting-member, said member consisting of a base-plate and an upstanding web thereon, the middle portion of said web being shaped to conform to the cross-section of a rail and said web being provided on one side and to each side of said middle portion with flat faces, of rails provided at their ends and to one side of the web thereof with flat faces, said rails being adapted to rest upon said base-plate and cooperate with said upstanding web, the combined tread of the meeting ends of said rails and upstanding web being equal to and coincident with the entire tread of the rails and of said middle portion, a tie-plate adapted to fit said rails and said middle portion of said web between the top and bottom flanges thereof, and means for securing said tie-plate, rails, and web together; substantially as described.

4. In a rail-joint, a supporting base-plate, an upstanding web thereon and integral therewith, the middle portion of said web being shaped to conform to the cross-section of a rail, flat faces on one side of said web and to each side of said middle portion thereof, rails provided with flat faces to one side of the web thereof and adapted to rest upon said base-plate and cooperate with said upstanding web thereof, the combined tread of the meeting ends of said rails and upstanding web being equal to and coincident with the entire tread of the rails and of said middle portion of said web, a projecting tongue at each end of said upstanding web and adapted to snugly engage the ends of said rails between the top and bottom flanges thereof, a tie-plate adapted to snugly engage the opposite side of said rails and the middle portion of said web between the top and bottom flanges thereof, pockets at the ends of said base-plate for receiving the base-flange of said rails, and bolts passing through said tie-plate, rails, and web for holding the same together; substantially as described.

5. A connecting member for rail joints, the same consisting of a base-plate and an upstanding web formed integral therewith, one side of said web having the contour of one side of a rail and the middle portion of said web being shaped to conform to the cross-section of the rail, the opposite side of said web and to each side of said middle portion being provided with lateral and longitudinal flat faces, the top surface or tread of said web to each side of said middle portion thereof conforming to and having substantially the width of the tread of a rail to one side of the web thereof; substantially as described.

6. In a rail-joint, a supporting base-plate 1, an upstanding web 2 at one side of said base-plate and formed integrally therewith, the middle portion 3 of said web being
5 shaped to conform to the cross-section of a rail, beveled faces 4 on said web at each side of said middle portion, flat faces 5 on said web extending for some little distance on each side of said middle portion from the
10 base of said beveled faces 4, beveled faces 7 on said web at the ends of said flat-faces 5, rails adapted to rest on said base-plate and being beveled and cut-away longitudinally at their ends to provide beveled and flat
15 faces for coöperating with said beveled and flat faces on said web, a tongue at each end

of said web and engaging said rails between the top and bottom flanges thereof, a tie-plate engaging the opposite side of said rails and web and fitting snugly between the top 20 and bottom flanges thereof, pockets 6 at the ends of said base-plate for receiving the base flange of said rails, and bolts passing through said tie-plate, rails, and web for holding the same together; substantially as described. 25

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

BARNEY OHNIMUS.

Witnesses:

ADOLPH SCHERER,
SHEPARD R. EVANS.