

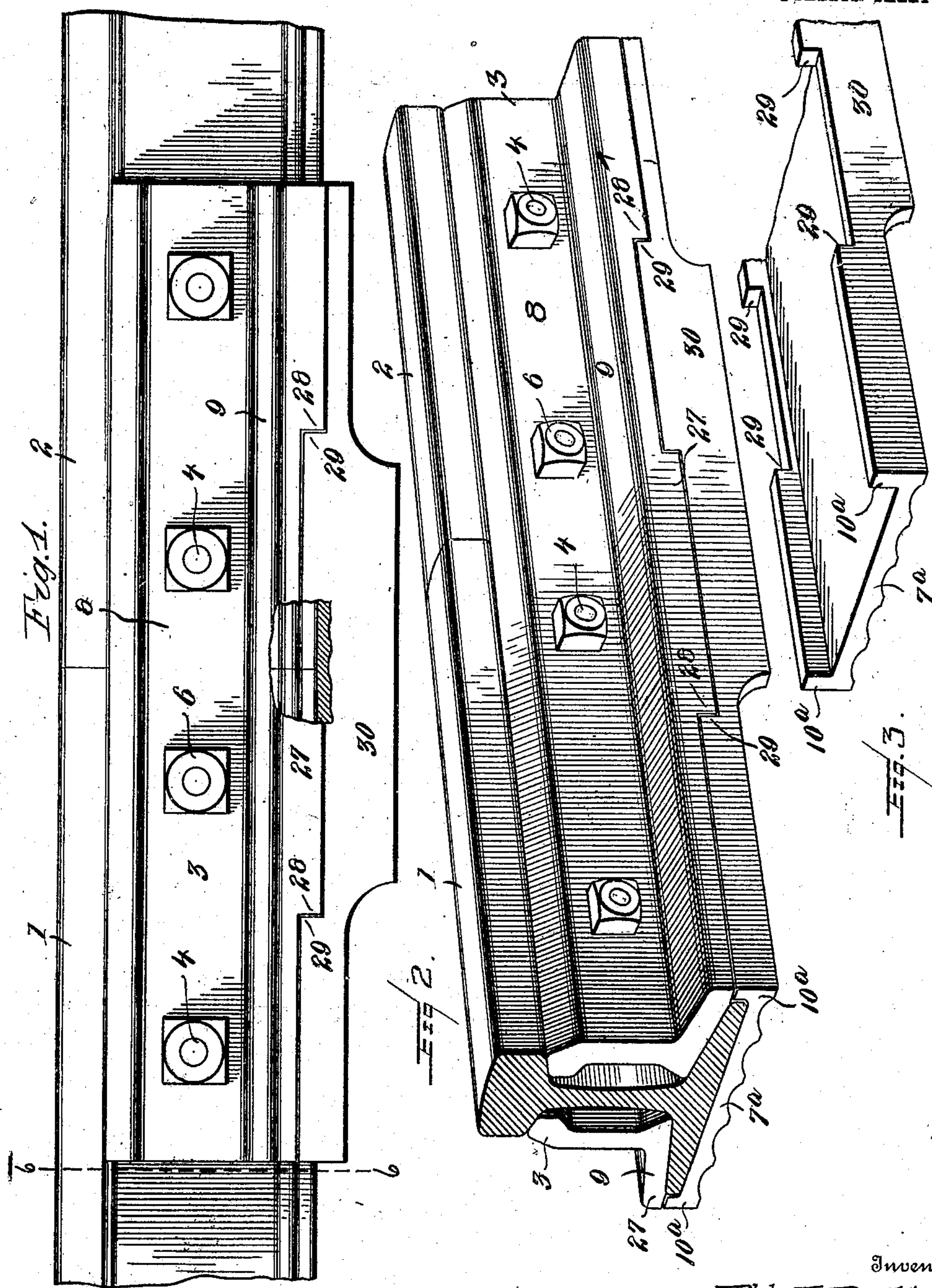
RAIL JOINT.

APPLICATION FILED DEC. 7, 1906.

Patented May 4, 1909.

2 SHEETS--SHEET 1.

920,831.



Witnessed

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920,831.

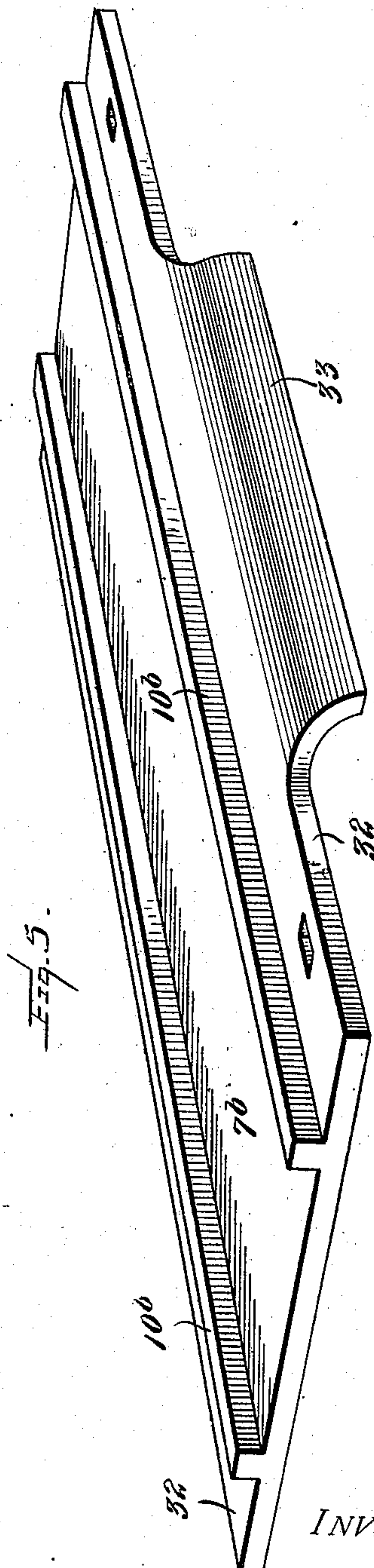
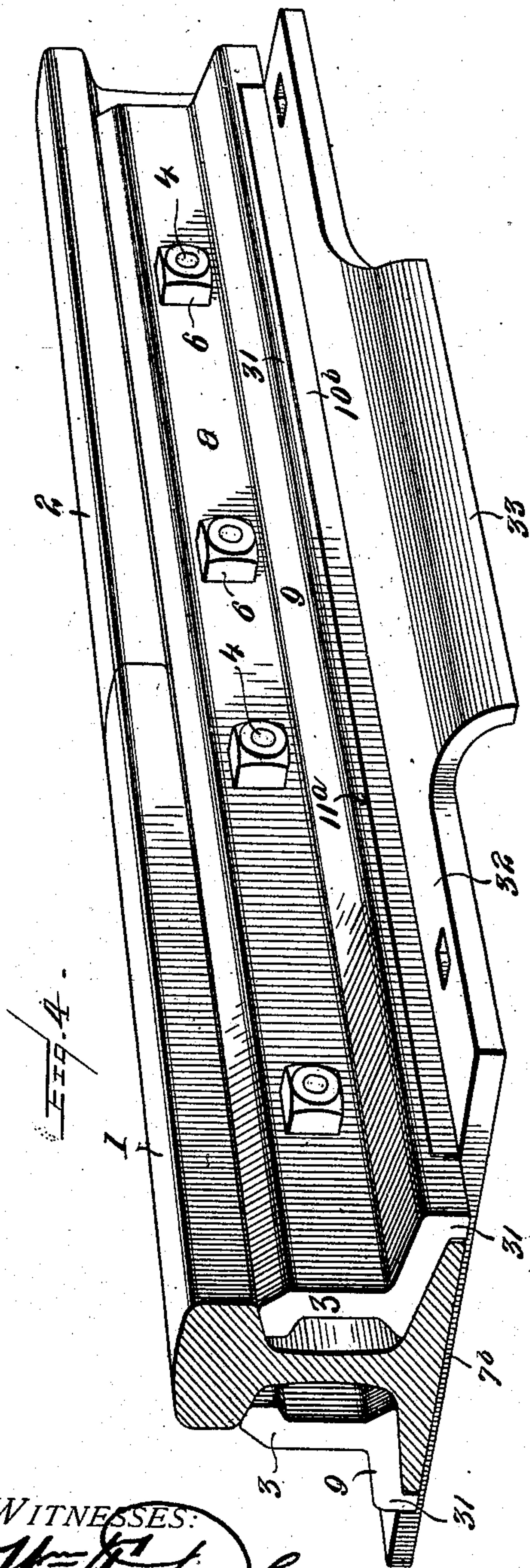
P. J. DALTON.

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2 SHEETS—SHEET 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

PHILIP JOHN DALTON, OF JOLIET, ILLINOIS, ASSIGNOR TO THE RAIL JOINT COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

RAIL-JOINT.

No. 920,831.

Specification of Letters Patent.

Patented May 4, 1909.

Application filed December 7, 1906. Serial No. 346,786.

To all whom it may concern:

Be it known that I, PHILIP J. DALTON, a citizen of the United States, residing at Joliet, in the county of Will and State of Illinois, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to rail joints, and has in view the provision of a practical and effective joint embodying in its construction a firm and substantial metal base support for the rails.

To this end the invention contemplates a rail joint of the base supporting type wherein the various elements of the joint are interlocked and held against relative displacement, while also preserving the feature of separability of the joint parts for convenience and facility in assembling and separating the same.

With these and many other objects in view, which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction and arrangement of parts hereinafter more fully described, illustrated, and claimed.

The essential features of the invention are necessarily susceptible to modification without departing from the scope of the invention, but a preferred embodiment thereof is shown in the accompanying drawings, in which:

Figure 1 is a side elevation of a form of rail joint embodying the invention. Fig. 2 is a sectional perspective view on the line 6—6 of Fig. 1. Fig. 3 is a detail perspective view of a section of the form of base plate embodied in the joint shown in Figs. 1 and 2. Fig. 4 is a sectional perspective view of a modification embodying the invention. Fig. 5 is a detail in perspective of the modified form of base plate employed in the construction shown in Fig. 4 of the drawings.

Like references designate corresponding parts in the several figures of the drawings.

The improvements contemplated by this invention are susceptible to embodiment in different forms of joints, but in all adaptations the same essential features are preserved. However, the construction claimed is well exemplified by the form of rail joint shown in Figs. 1, 2, and 3 of the drawings, and referring first to this construction, it will be observed that the joint illustrated in said figures includes in its general organiza-

tion the adjacent service or running rails 1 and 2, the opposite side angle bars 3, the joint bolts 4 having the usual nuts 6, and a main metal base plate 7^a having a separable interlocking engagement with both angle bars, as will presently appear. The side angle bars 3 are of duplicate design and construction, and each of the same is provided with a main splice bar portion having the usual bolt holes for the reception of the joint bolts 4, and with a foot flange 9 overlying the base flange of the rails, as plainly shown in Figs. 1 and 2 of the drawings. A distinctive feature of the present invention resides in so constructing the foot flanges 9 of the angle bars that the same are formed with what may be characterized as shouldered base fastening sections which have a separable interlocking engagement with upstanding girder flanges arising from the base plate 7^a and preferably forming an integral part of the latter.

In the form of the invention shown in Figs. 1, 2, and 3 of the drawings, it will be observed that there is shown one form of construction which provides for the separable interlocking engagement between the angle bars and the upstanding girder flanges of the base plate. In this form of the invention there is suggested the expedient of forming the pendent edge portion 27 of the foot flange 9 of each angle bar with a plurality of alternated reversely disposed holding shoulders 28 which interlock with the complementary matching correspondingly arranged retaining shoulders 29 formed on and along the upper edge of the side girder flanges 10^a of the base plate 7^a. This form of base plate 7^a is illustrated as having a plain body portion, and in addition to having the series of reversely disposed and alternated shoulders 29, said base plate 7^a is formed at opposite side edges thereof, and intermediate its ends, with the pendent stiffening girders or flanges 30 which serve to stiffen and reinforce the base plate in the vertical plane of the joint between the meeting ends of the rails.

In the form of joint shown in Figs. 4 and 5 of the drawings the foot flanges 9 of the angle bars are illustrated as being provided at their outer edges with pendent flange extensions 31 in which are formed long keeper notches 11^a within which register plain, comparatively low, girder flanges 10^b arising from opposite portions of the body of the base

plate 7^b. These girder flanges 10^b are illustrated as terminating within the plane of the keeper notches 11^a of the angle bars, and the body portion of the base plate may terminate
5 with the flanges 10^b, or may be continued out to the ends of the joint, to afford a full-length base support. In addition to the girder flanges 10^b the modified form of plate 7^b is preferably constructed with the side spiking
10 flanges 32 arranged outside of the vertical plane of the flanges 10^b and provided between the ends of the plate body with pendent stiffening flanges or girders 33.

Various other modifications will suggest
15 themselves to those skilled in the art, and it will therefore be understood that changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of
20 the advantages of the invention.

I claim:

1. In a rail joint, the rails, side angle bars, each of which is provided at the outer edge of

its foot flange with a pendent shouldered flange portion, and a separate base-plate
25 underlying the rail ends and provided with upstanding girder flanges lying within the vertical planes of the flange portions of the opposite angle bars and presenting a plurality of shoulders interlocking with the
30 shoulders of said flange portions.

2. In a rail joint, the rails, side angle bars, each of which is provided at the outer edge of its foot flange with a pendent shouldered flange portion having a series of shoulders,
35 and a separate base-plate provided at its side edges with upstanding girder flanges also having a series of shoulders arranged in matching and opposing relation to those of said flange portions of the angle bars.
40

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

PHILIP JOHN DALTON.

Witnesses:

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D. J. EVANS.