

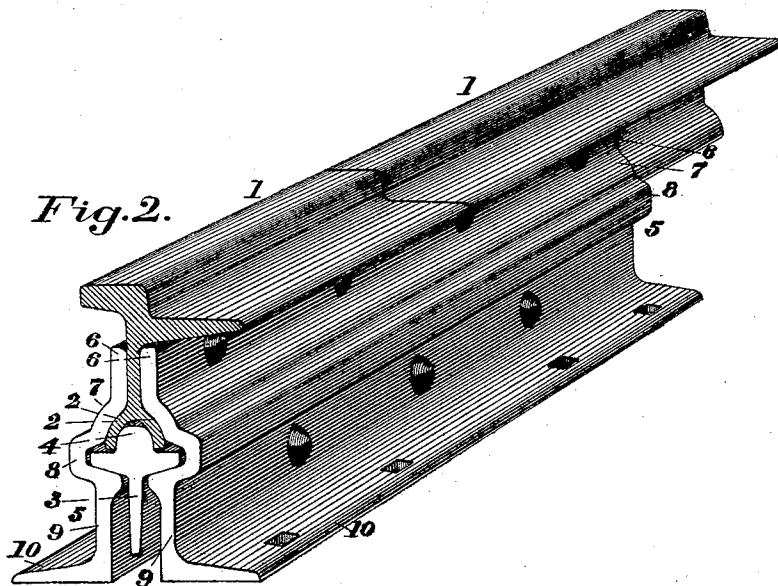
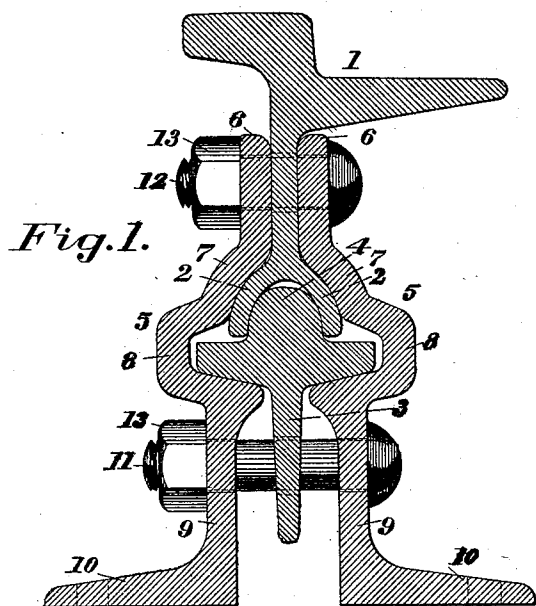
(No Model.)

2 Sheets—Sheet 1.

M. M. SUPPES.
GIRDER JOINT FOR RAILROAD RAILS.

No. 496,916.

Patented May 9, 1893.



WITNESSES:

Hamilton C. Ford
Chas. Linton

INVENTOR

Maximilian M. Suppes

BY

E. W. Cady

ATTORNEY.

(No Model.)

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Fig. 3.

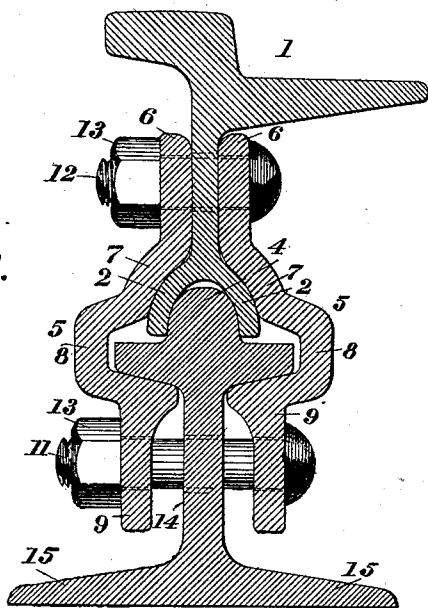
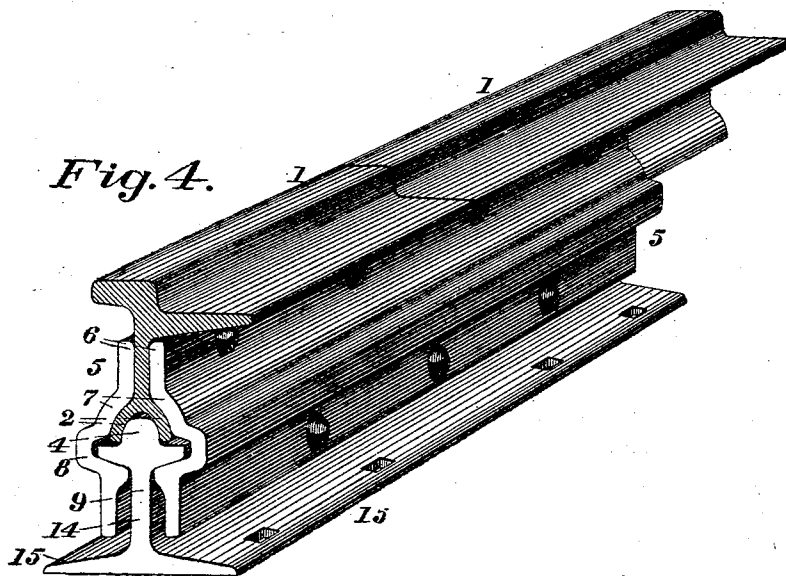


Fig. 4.



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UNITED STATES PATENT OFFICE.

MAXIMILIAN M. SUPPES, OF JOHNSTOWN, PENNSYLVANIA.

GIRDER-JOINT FOR RAILROAD-RAILS.

SPECIFICATION forming part of Letters Patent No. 496,916, dated May 9, 1893.

Application filed June 27, 1892. Serial No. 438,200. (No model.)

To all whom it may concern:

Be it known that I, MAXIMILIAN M. SUPPES, a resident of Johnstown, Pennsylvania, have invented a new and useful Girder-Joint for Railroad-Rails, of which the following is a specification.

This invention relates to girder joints for railroad rails, and has for its object to provide a girder joint of great strength, which will firmly seat the abutting ends of rails and bind the latter in place.

The invention consists of a girder joint for railroad rails and in details thereof as hereinafter described and claimed.

15 In the accompanying drawings: Figure 1 is a view in cross section of a girder joint constructed in accordance with this invention and Fig. 2 is a perspective view thereof showing the abutting ends of two rails secured in place. Figs. 3 and 4 are views of modifications similar to those in Figs. 1 and 2 but showing the girder member provided with base flanges.

1 indicates the abutting ends of rails rolled with lower depending flanges 2, preferably of curved shape, forming a channel or pocket in the bottom of the rail, and 3 is a girder bar, formed with a bead or rib 4, projecting from and extending lengthwise on its top. The bead or rib 4 is shown to be of such size as to partly fit into the channel formed by the flanges 2 of the rails 1, leaving a space between the bead 4 and the upper part of the channel formed by flanges 2. This arrangement of bead and channel is incidental to the rolling of the flanges 2 of the rails shown, and they both may be of such size and relation to each other that the bead will entirely fill the channel.

5 indicates side members, which serve as a chair, and are formed with the vertical portions 6, to lie against the webs of the rails 1, the preferably curved shoulders 7, conforming to the sides of the curve flanges 2 of the rails 1; lateral recessed portions or offsets 8, which inclose the flanges of a T bar 3; lower vertical portions 9, and flanges 10 to rest upon and be secured to ties. The side members may be varied in form from that shown and described, they being provided with a clamping upper portion, a lateral offset, and a shoulder between the upper portion and the

offset. Any other form of bar with a longitudinal rib on its top may be employed in place of the girder bar 3. The girder joint is formed by placing a girder bar 3 between two side members 5, with the flanges of the girder bar 3 resting on the offsets 8 and the curved flanges 2 of the abutting ends of two rails 1, resting on the bead or rib 4 of the girder bar 3. The parts are fastened together by bolts 11 extending through the vertical portions 9 of members 5, and the web of the girder bar 3, and bolts 12, extending through the vertical portions 6 of members 5 and the webs of rails 1. The bolts 11 and 12, are tightened by means of nuts 13. In tightening the parts together, the drawing toward each other of the vertical portions 9 of members 5, by screwing up the nuts 13 on bolts 11, brings an upward pressure of the parts of members 5 on which the flanges of girder bar 3 rest against said flanges and a pressure of the shoulders 7 against the flanges 2, thereby on the one hand forcing the bead or rib 4 up into the channel or pocket formed by flanges 2, and on the other hand drawing the shoulders 7 against the flanges 2 and thereby forcing the latter against the bead 4. By this means the flanges 2 are seated in place and tightly clamped between the bead 4 and shoulders 7; and when the vertical movement of the rails from pounding of the joint occurs, the tendency of the parts will be to cause the flanges 2 to be clamped between the bead 4 and shoulders 7. When the side members are thus secured, their vertical portions 6 will be clamped against the webs of rails 1, and the flanges 2 of rails 1 will lie snugly between the sides of bead or rib 4, and the curved shoulders 7 of side members 5. By means of this construction and arrangement of parts, the abutting ends of rails 1 will have a firm bearing in the joint, as any tendency to vertical movement of the ends of the rails from pounding, will be prevented by the firm bearing of the flanges 2, clamped between the bead 4 of T bar 3, and the curved shoulders 7 of side members 5. If desired the girder member 14 may be employed, provided with base flanges 15 as in Figs. 3 and 4, to secure the joint to ties, in which case the flanges upon the side members may be dispensed with.

I do not intend to limit myself to the form

of girder shown. The type used for illustration is that known as side bearing girder rail and any form of head of said rail may be used without in any way departing from my invention.

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The form of the channel or pocket formed on the rail, and the form of the bead or projection upon the T bar may be varied without departing from my invention.

10 I claim—

1. The combination of two abutting rails, formed with pockets at their lower extremities, of a girder bar provided with a bead or rib extending from top of said bar, the pockets of said rails being adapted to receive said bead; and side members offset to form a seat for the head of the girder bar and secured to said abutting rails and girder member.

2. The combination with two abutting rails, formed with pockets at their lower extremities, of a girder bar provided with a bead or rib extending from the top of said girder bar, the pockets of said rails being adapted to receive said bead; and side members offset to form a seat for the girder bar and secured to the web of the girder bar and the webs of the abutting rails.

3. The combination with two abutting rails, formed with pockets at their lower extremities, of a girder bar provided with a bead or rib extending from the top of said girder bar, the pockets of said rails being adapted to re-

ceive said bead; and side members offset to form a seat for the head of the girder members and conforming to the outer sides of the pockets of said rails, the side members being secured to the abutting rails and the girder bar.

4. In a girder joint, two abutting rails, flanges at their lower extremities forming a pocket in combination with a girder bar provided with a bead or rib extending from its top and side members inclosing the girder bar and the webs of the rails the bead of the girder bar being wedged between the rail flanges forming the pocket, and the said rail flanges being clamped between the bead and the side members.

5. In a girder joint, two abutting rails, having flanges at their lower extremities forming a pocket in combination with a girder bar provided with a bead or rib extending from its top projecting into said pocket, and side members secured to the rails and girder bar, the bead of the girder bar being wedged between the pocket flanges of the rails and said flanges being clamped between the bead and the side members.

In testimony whereof I have affixed my signature in presence of two witnesses.

MAXIMILIAN M. SUPPES.

Witnesses:

WM. D. McELHINNY,
HARRY W. SMITH.