

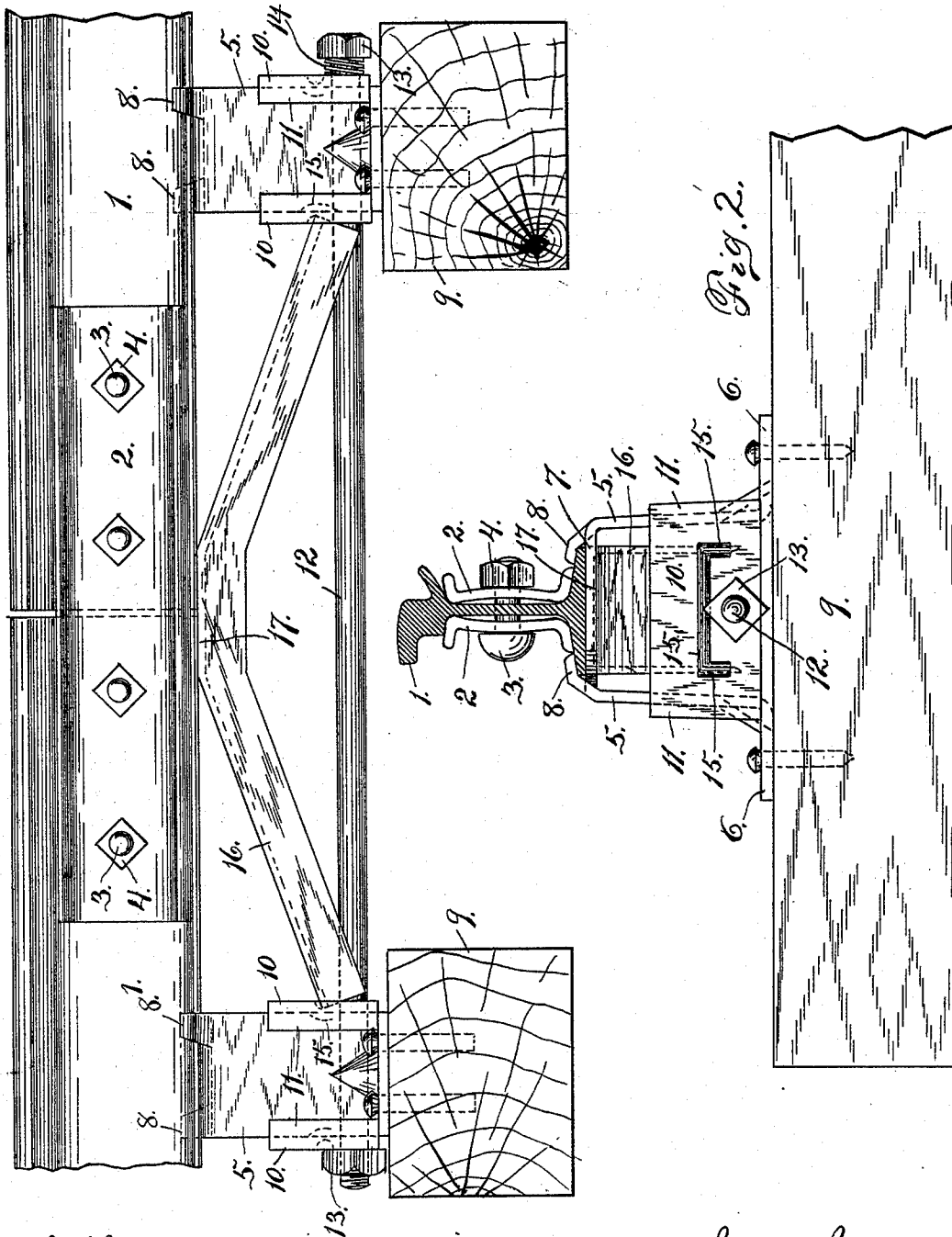
(No Model.)

2 Sheets—Sheet 1.

F. P. STIKER.
SUPPORT FOR RAIL JOINTS.

No. 518,634.

Patented Apr. 24, 1894.



Witnesses:

Geo. P. Wightman
J. H. Murphy

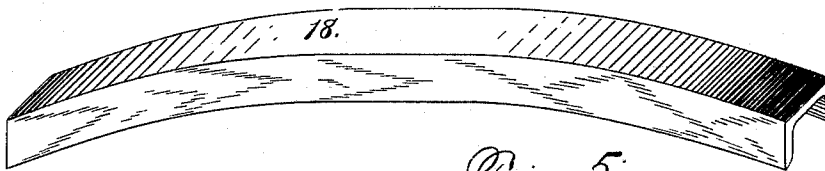
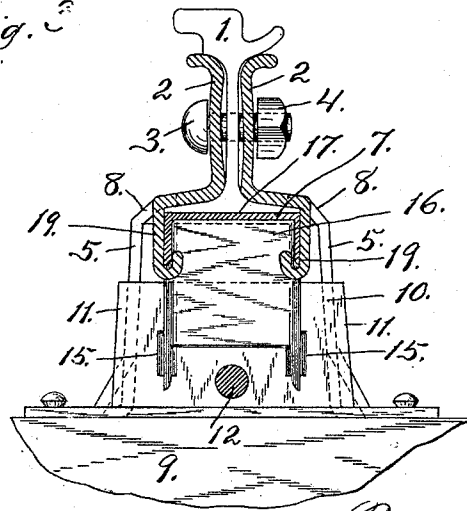
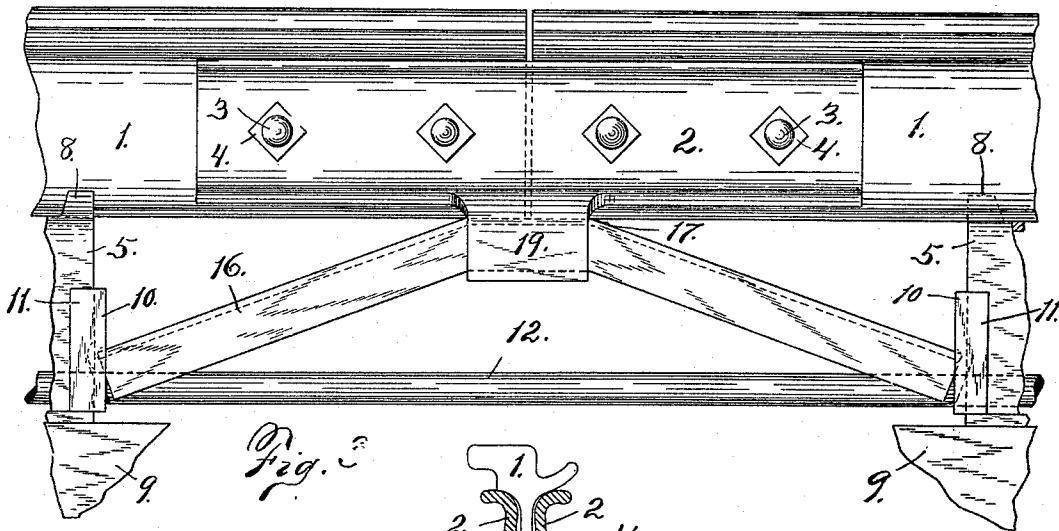
Fig. 1.

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UNITED STATES PATENT OFFICE.

FLAVIUS P. STIKER, OF BUFFALO, NEW YORK, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-HALF TO ANNA VAN DENVOUVER, OF SAME PLACE.

SUPPORT FOR RAIL-JOINTS.

SPECIFICATION forming part of Letters Patent No. 518,634, dated April 24, 1894.

Application filed October 28, 1893. Serial No. 489,363. (No model.)

To all whom it may concern:

Be it known that I, FLAVIUS P. STIKER, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Supports for Rail-Joints; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

My invention relates to supports for rail-joints, its object being to provide an improved construction which, when applied to the contiguous ends of rails, employed in the formation of tracks for railways, serves to keep the ends of the rails in a common plane and thereby prevent the battering of the rail-ends and the consequent pounding and thumping of the car-trucks in passing over the joints.

To that end my invention consists of a metallic strut or arch located under the contiguous rail-ends and its downwardly extending ends resting in the chairs, which support the ends of the rails, the chairs being held from undue spreading under strain, by a metallic tie-rod secured thereto.

My invention further consists in securing the strut or arch in the above outlined structures to the rails, which I preferably accomplish by a pair of fish-plates employed in joining the ends of the rails and provided with downwardly projecting extensions which engage with the top of the strut or arch to hold it in its operative position under the ends of the rails.

I will now proceed to minutely describe the manner in which I have carried out my invention and then claim what I believe to be novel.

In the drawings, Figures 1 and 2 are side and end elevations of my improved form of support for rail-joints. Figs. 3 and 4 are similar views of a modified form, and Fig. 5 is a perspective view of a modified form of strut or arch.

Referring to the drawings, 1, 1 are the rail-

ends forming the joint to be supported and 2, 2 are fish-plates uniting the same on either side by bolts 3 and nuts 4.

5 5 (see Figs. 1, 2, 3 and 4) are chairs of any well known construction in this instance consisting of a metal strip bent so as to form vertical sides with their lower ends bent to form flanges 6 6 and a flat top 7 upon which the rails 1 rest and are held in place by the lips 8. 8. struck up from the flat top at diagonally opposite corners and bent over to embrace the lower flange of the rail on opposite sides thereof. The flanges 6. 6. are spiked to the ties 9 to hold the chairs firmly in position.

On either side of each chair are arranged the plates or washers 10, having side flanges 11. 11 which serve to prevent lateral displacement of these plates 10 in their vertical positions upon the chairs.

12 is a tie-rod extending from one chair to the other its ends being passed through the sets of plates 10. 10. upon each chair the tie-rod being held securely in position by the nuts 13. 13. at each end and outside of the chairs. If desired a spiral spring 14 encircling the tie-rod may be interposed between the nut 13 and plate 10 at one end. Upon the inner faces of the plates or washers 10. 10. are formed the channel-shaped seats or recesses 15 in which the ends of the strut 16 rest. The chairs serve to hold the ends of the strut reliably in place the tie-rod serving to prevent any undue spreading of the ties or chairs under strain and the spring 14, if employed, permits of a certain elastic yielding of parts which under certain conditions may be found desirable. This arrangement of parts as just outlined forms my improved support for the rail-joint and constitutes as will be clearly seen, a firm support for the ends of the rails forming the joint, and should the strut yield slightly, as is possible, the ends of the rails would necessarily be depressed equally thereby preventing the battering of either rail-end.

In Fig. 5 I have shown a curved section of channel-iron forming an arch 18 which may, if desired, be substituted for the angular strut 16 shown in the other figures. It is made flat at its highest portion for a short distance to afford a rest for the rail ends.

In Figs. 3 and 4 I have shown the fish-plates

2 provided with integral downwardly project-
ing extensions 19 centrally arranged, their
lower ends being bent up around the sides of
the channel-iron forming the strut the object
5 being to secure the strut at its central portion
to the rail-joint and prevent accidental dis-
placement which might possibly occur in ex-
treme cases.

I prefer to employ channel-iron on account
10 of its lightness and strength but other forms
of iron could be employed to effect the pur-
pose desired.

I claim—

1. A support for rail-joints consisting essen-
15 tially of a metallic strut or arch upon the up-
per flat surface of which the contiguous ends
of the rails rest, chairs which support the ends
of the rails and which are provided with seats
for the reception of the downwardly extend-
20 ing ends of the strut or arch and a tie-rod hav-
ing its ends secured to the chairs to prevent
their spreading under strain all combined
and operating substantially as shown and de-
scribed.

2. A support for rail-joints consisting essen-
25 tially of a metallic strut or arch, upon the up-
per flat surface of which the contiguous ends
of the rails rest and to which they are secured,
chairs which support the ends of the rails and
30 which are provided with seats for the recep-
tion of the downwardly extending ends of the
strut or arch and a tie-rod having its ends se-
cured to the chairs to prevent their spreading
under strain, all combined and operating sub-
35 stantially as shown and described.

3. A support for rail-joints consisting essen-
tially of a metallic strut or arch upon the up-
per flat surface of which the contiguous ends
40 of the rails rest fish-plates for joining the ends
projecting extensions which engage with the
top of the strut or arch to hold it in its oper-
ative position, chairs which support the ends
of the rails and which are provided with seats
45 for the reception of the downwardly extend-
ing ends of the strut or arch and a tie-rod hav-
ing its ends secured to the chairs to prevent

their spreading under strain all combined and
operating substantially as shown and de-
scribed. 50

4. A support for rail-joints consisting essen-
tially of a metallic strut or arch upon the up-
per flat surface of which the contiguous ends
of the rails rest, chairs which support the ends
55 of the rails and which are provided with seats
for the reception of the downwardly extend-
ing ends of the strut or arch and a tie-rod
elastically secured to the chairs to prevent
their undue spreading under strain, all com-
bined and operating substantially as shown 60
and described.

5. A support for rail-joints consisting essen-
tially of a metallic strut or arch upon the up-
per flat surface of which the contiguous ends
of the rails rest and to which they are secured, 65
chairs which support the ends of the rails and
which are provided with seats for the recep-
tion of the downwardly extending ends of the
strut or arch and a tie-rod elastically secured
to the chairs to prevent their undue spread- 70
ing under strain all combined and operating
substantially as shown and described.

6. A support for rail-joints consisting essen-
tially of a metallic strut or arch upon the up-
per flat surface of which the contiguous ends 75
of the rails rest fish-plates for joining the ends
of the rails and provided with downwardly
projecting extensions which engage with the
top of the strut or arch to hold it in its oper-
ative position, chairs which support the ends 80
of the rails and which are provided with seats
for the reception of the downwardly extend-
ing ends of the strut or arch and a tie-rod
elastically secured to the chairs to prevent
their undue spreading under strain all com- 85
bined and operating substantially as shown
and described.

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

FLAVIUS P. STIKER.

Witnesses:

O. E. HODDICK,
W. T. MILLER.