

(No Model.)

W. R. FUNK.
EXTENSION TIE PLATE.

No. 530,409.

Patented Dec. 4, 1894.

Fig. 1.

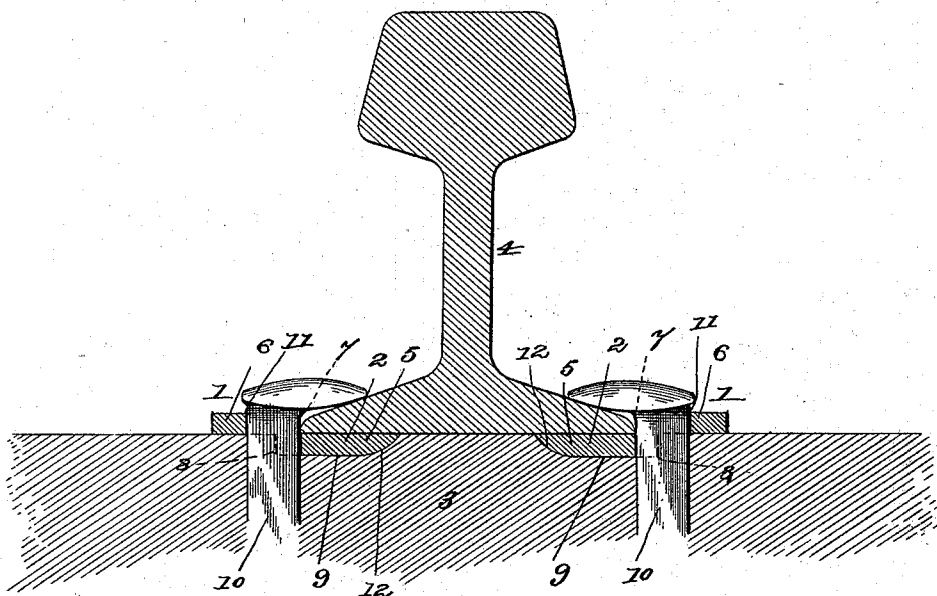
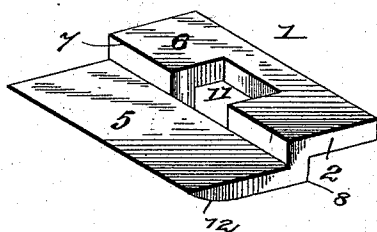


Fig. 2.



Witnesses

E. H. Monroe
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By his Attorneys.

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UNITED STATES PATENT OFFICE.

WILLIAM R. FUNK, OF MCFARLAND, KANSAS, ASSIGNOR OF ONE-HALF TO
ARTHUR G. HENRY, OF SAME PLACE.

EXTENSION TIE-PLATE.

SPECIFICATION forming part of Letters Patent No. 530,409, dated December 4, 1894.

Application filed September 21, 1894. Serial No. 523,717. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. FUNK, a citizen of the United States, residing at McFarland, in the county of Wabaunsee and State of Kansas, have invented a new and useful Extension Tie-Plate, of which the following is a specification.

The invention relates to improvements in tie plates.

10 The object of the present invention is to improve the construction of tie plates, and to provide an adjustable one adapted to be readily arranged to suit the width of the rails to which it is to be applied, and capable of forming a firm seat for a rail, and of securely holding the same against lateral displacement to prevent spreading of rails, or the like.

15 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

20 In the drawings: Figure 1 is a transverse sectional view of a rail provided with a tie plate constructed in accordance with this invention. Fig. 2 is a detail perspective view of one of the sides or sections of the tie-plate.

25 Like numerals of reference indicate like parts in both the figures of the drawings.

30 1 designates a tie plate composed of two sections 2, arranged upon the upper face of a tie 3, and located at opposite sides of a rail 4, and forming a seat for the same and preventing lateral displacement to prevent rails from spreading. Each section of the tie plate is constructed of a single piece of metal, and is composed of a downwardly-offset, horizontally-arranged inner portion 5, and an oppositely, upwardly-offset outer portion 6, where-
40 by an inner vertically-disposed shoulder 7 is formed for engaging the outer edge of the bottom flange at one side of the rail 4, and an outer vertical shoulder 8 is provided for engaging the cross-tie 3. The inner portion 5 of each section is located beneath the bottom flange of the rail, and is seated in a recess 9 of the cross-tie, whereby the sections of the tie-plate are prevented from slipping outward on the latter; and the upper or outer portion

6 rests upon the upper face of the cross-tie 50 and is located at the side of the rail adjacent to the bottom flange thereof.

The sections form a seat or recess between their vertical shoulders 7 for the bottom flanges of the rail which is engaged in the usual manner by spikes 10, passing through openings 11 of the sections, whereby the rail is securely clamped and the sections of the tie plate firmly attached to the cross-tie.

The tie-plate sections are adapted to be adjusted on the upper face of the cross-tie to suit the width of a rail, and they bear against the shanks of the spikes and support the latter, holding them in engagement with the bottom flanges of the rail. The lower edges 12 of the inner portions 5 of the sections of the tie-plate are slightly beveled. Owing to the beveled lower face of the inner portion of the plate, the latter has a tendency to rock, when the rail receives a heavy weight, incident to the passage of a train, the inner portion of the plate being forced downward, and the outer portion upward and inward, whereby the said outer portion is caused to hug the neck of the spike and to bind the latter against the rail, to prevent any liability of the rails spreading.

75 It will be seen that the tie-plate is simple and comparatively inexpensive in construction, that the sections are capable of adjustment to suit the width of a rail, and that they form a seat for the latter. It will also be seen that the rail is securely clamped to the cross-tie and is safely held against lateral movement to prevent the spreading of rails and the consequent accidents. It will be apparent that the tie-plate sections may be readily manufactured and quickly applied to any ordinary construction of rails.

80 The tie-plate is adapted to be employed in various places, such as in connection with frogs, guard rails, switches, and the like; and from their compactness and adjustability they are adapted for use in places where larger rail chairs and plates cannot be employed.

85 Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or

sacrificing any of the advantages of this invention.

What I claim is—

1. A tie-plate composed of two adjustable
5 sections designed to be arranged at opposite
sides of a rail, and each comprising a plate
consisting of a downwardly offset inner por-
tion designed to be located beneath a rail,
10 and an upper outer portion forming an upper
inner shoulder to engage the bottom flange
of a rail and having a lower outer shoulder
for engaging the cross-tie, said plate being
provided at its outer portion with a spike
15 opening, whereby the said outer portion is
adapted to support the neck of the spike and
to bind the latter against a rail, substantially
as described.

2. The combination with a rail, and a cross-
tie provided below the rail with recesses, of
20 a tie-plate composed of two sections located
at opposite sides of the rail, and each consist-
ing of a plate having a downwardly-offset
inner portion located in a recess of the cross-
tie and having a beveled lower face, and an
25 upper outer portion arranged on the upper

face of the cross-tie, said section being pro-
vided with a central spike-opening and hav-
ing an upper inner shoulder to engage the
bottom flange of the rail and a lower outer
shoulder for engaging the cross-tie, and spikes 30
passing through the openings of the sections
and engaging the rails, substantially as de-
scribed.

3. A tie-plate section or plate having a
downwardly offset inner portion with a bev- 35
eled lower face, and provided with an upper
outer portion, and having an intervening ver-
tical shoulder, the inner portion being de-
signed to be placed beneath a rail, whereby
the shoulder and the outer portion will form 40
a support for the rail, substantially as de-
scribed.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in
the presence of two witnesses.

WILLIAM R. FUNK.

Witnesses:

ERNST WETZEL,
GEORGE TENEYCK.