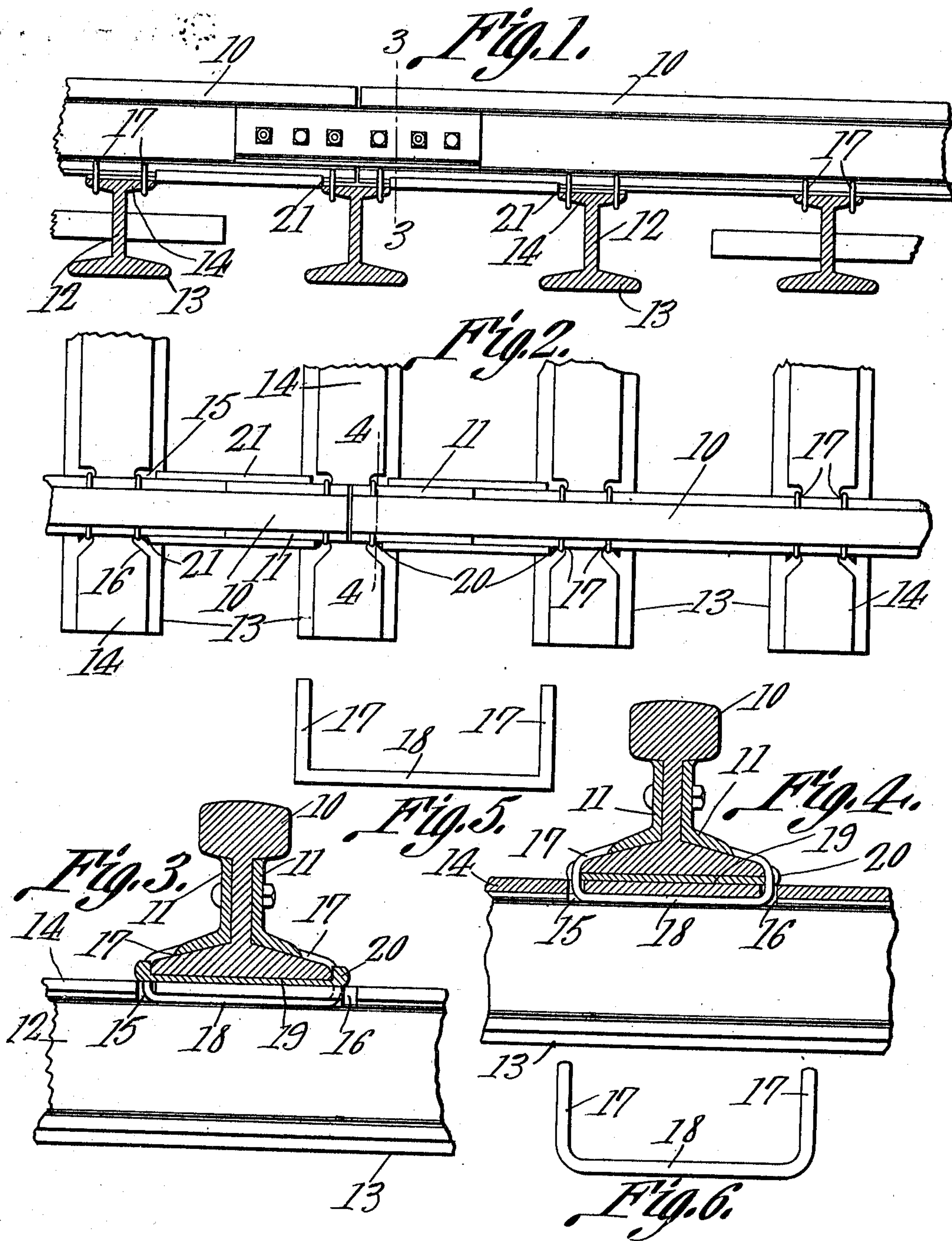


H. KOHLMYER.
RAILWAY TIE.
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993,176.

Patented May 23, 1911.



Witnesses

J. R. Meier
H. G. Smith

H. Kohlmyer

by

C. A. Snow & Co.
Attorneys

Inventor

UNITED STATES PATENT OFFICE.

HENRY KOHLMYER, OF LORAIN, OHIO.

RAILWAY-TIE.

993,176.

Specification of Letters Patent.

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REISSUED

To all whom it may concern:

Be it known that I, HENRY KOHLMYER, a citizen of the United States, residing at Lorain, in the county of Lorain and State of Ohio, have invented a new and useful Railway-Tie, of which the following is a specification.

It is the object of the present invention to provide an improved railway tie, embodying simple, inexpensive and novel means for clamping a rail thereto.

The primary aim of the invention is to provide a railway tie in which the rail clamping means consists merely of a suitable length of bar or rod material, the employment of expensive and complicated clamps being in this manner obviated.

A further object of the invention is to provide a novel form of rail chair and a novel arrangement of this chair with the ties and rail clamping devices embodying the present invention.

In the accompanying drawings: Figure 1 is a vertical longitudinal sectional view through a portion of a railway track, the rails and chair shown in side elevation and the ties being shown in section. Fig. 2 is a top plan view of the said portion of track. Fig. 3 is a vertical sectional view on the line 3—3 of Fig. 1. Fig. 4 is a similar view on the line 4—4 of Fig. 2. Fig. 5 is a view in side elevation of one of the rail clamps embodying the present invention. Fig. 6 is a similar view illustrating a slightly modified form of clamp.

In the drawings, there are shown two rails indicated by the numeral 10 and connected by ordinary fish plates 11. The ties for supporting these rails are indicated by the numeral 12 and are preferably in the form of I-beams of suitable length, the base of each tie being indicated by the numeral 13 and the rail supporting head thereof by the numeral 14.

Each tie 12 is formed in the opposite side or longitudinal edges of its head 14 with notches certain of which are indicated by the numeral 15 and the others by the numeral 16. More specifically speaking, each longitudinal edge of the head of each tie is formed, near each end of the tie, with one of the notches 15 and one of the notches 16. The notches 15 extend inwardly at right angles from the edges of the head in which edges they are formed, whereas the notches 16 extend inwardly at an acute angle from

the edges in which they are formed and in a direction toward the corresponding or adjacent notches 15. The distance between the inner ends of each set of notches 15 and 16 is equal substantially to the width of the base flange of the rail disposed upon the head so that the said inner ends of these notches will coincide with the edges of the said base flange of the rail. The ties are of course so disposed that the notches 15 of all of the ties at corresponding ends will be in alinement in the direction of extent of the track way and this also is true of the notches 16. With the ties thus positioned, the rails are properly disposed thereon and are clamped thereto by clamping devices embodying the present invention.

Each of the clamps above mentioned is formed either from a length of bar or rod material which is bent to form spaced portions 17 and a connecting portion 18. While these clamps are of stout bar or rod material, they being shown as of the former material in Fig. 5 and as made of the latter material in Fig. 6, they are malleable so that when they are disposed with their spaced portions 17 projecting into the notches 15 and 16, their said spaced portions may be struck down into clamping engagement with the base flange of the rail.

It will be readily understood from an inspection of the drawings that in assembling the clamping devices with the ties, one spaced portion 17 of each tie is inserted into one of the notches 16 and the clamp then has its other said portion 17 seated in the related notch 15. A support of any suitable sort is then disposed beneath the connecting portion 18 of the clamp and the portions of the parts 17 of the clamp projecting above the base flange of the rail, are struck down with a hammer or other suitable implement. In this manner, the rail is firmly clamped upon the head of the tie. Inasmuch as the spaced portions of the clamp, when struck down into clamping engagement with the base flange of the rail, snugly embrace the said flange, and one of the said portions of each flange is seated in the notch 16 and prevented from leaving this notch, owing to its snug engagement with the base flange of the rail, the other spaced portion will also be prevented from leaving the other notch 15.

At the point of connection of the meeting ends of the two rails, there is provided a

5 rail chair, the base of which is indicated
by the numeral 19 and the side flanges by
the numeral 20, these flanges receiving be-
tween them the base flange of the rail dis-
posed upon the tie. It will be observed that
at points coincident with the ties 12, the
flanges 20 of the rail chair are cut away as
at 21 and that the spaced portions of the
clamping devices engage in the cut away
10 portions of the chair so that longitudinal
movement of the chair is prevented.

What is claimed is:

1. In a railway tie, a body having a flat
rail supporting head, the head being formed
15 in one side edge with spaced notches, one
of the notches being extended toward the
other notch at an acute angle to the said
edge of the head, the distance between the
inner end of the first mentioned notch and
20 the corresponding end of the other notch
being substantially equal to the width of
the base of a rail supported upon the head,
and means for holding a rail to the tie com-
prising a clamp having spaced portions and
25 a connecting portion, the spaced portions
being inserted in the notches and being
adapted to be bent into clamping engage-
ment with the rail.

2. In a railway tie, a body having a flat
30 rail supporting head, the head being formed
in one side edge with spaced notches, one
of the notches being extended toward the
other notch at an acute angle to the said
edge of the head, the distance between the
35 inner end of the first mentioned notch and
the corresponding end of the other notch
being substantially equal to the width of
the base of a rail supported upon the head,
and means for holding a rail to the tie com-
40 prising a clamp having spaced portions and
a connecting portion, the spaced portions

being inserted in the notches and being
adapted to be bent into clamping engage-
ment with the rail, the connecting portion
of the clamp extending beneath the side of 45
the head between the notches.

3. In a railway tie, a body having a flat
rail supporting head, the head being formed
in one side edge with spaced notches, the
notches being relatively angularly posi- 50
tioned, the distance between the inner end
of the notches being substantially equal to
the width of the base of a rail supported
upon the head, and means for holding the
rail to the head comprising a clamp having 55
spaced portions and a connecting portion,
the spaced portions being inserted in the
notches and being adapted to be bent into
clamping engagement with the rail.

4. In a railway track structure, a tie, a 60
chair disposed upon the tie and having its
side cut away at points coincident with the
tie, one side edge of the head of the tie be-
ing formed with notches coincident with
the side edges of the base flange of the rail, 65
and means for holding the rail upon the tie
and chair, said means comprising a clamp
having spaced portions and a connecting
portion, the clamp being disposed with the
spaced portions engaging in the notches 70
near the said edge of the tie and struck
down into clamping engagement with the
base flange of the rail, the said spaced por-
tions engaging in the cut away portions of
75 the chair.

In testimony that I claim the foregoing
as my own, I have hereto affixed my signa-
ture in the presence of two witnesses.

HENRY KOHLMYER.

Witnesses:

G. A. FRIDAY,
C. E. KENT.