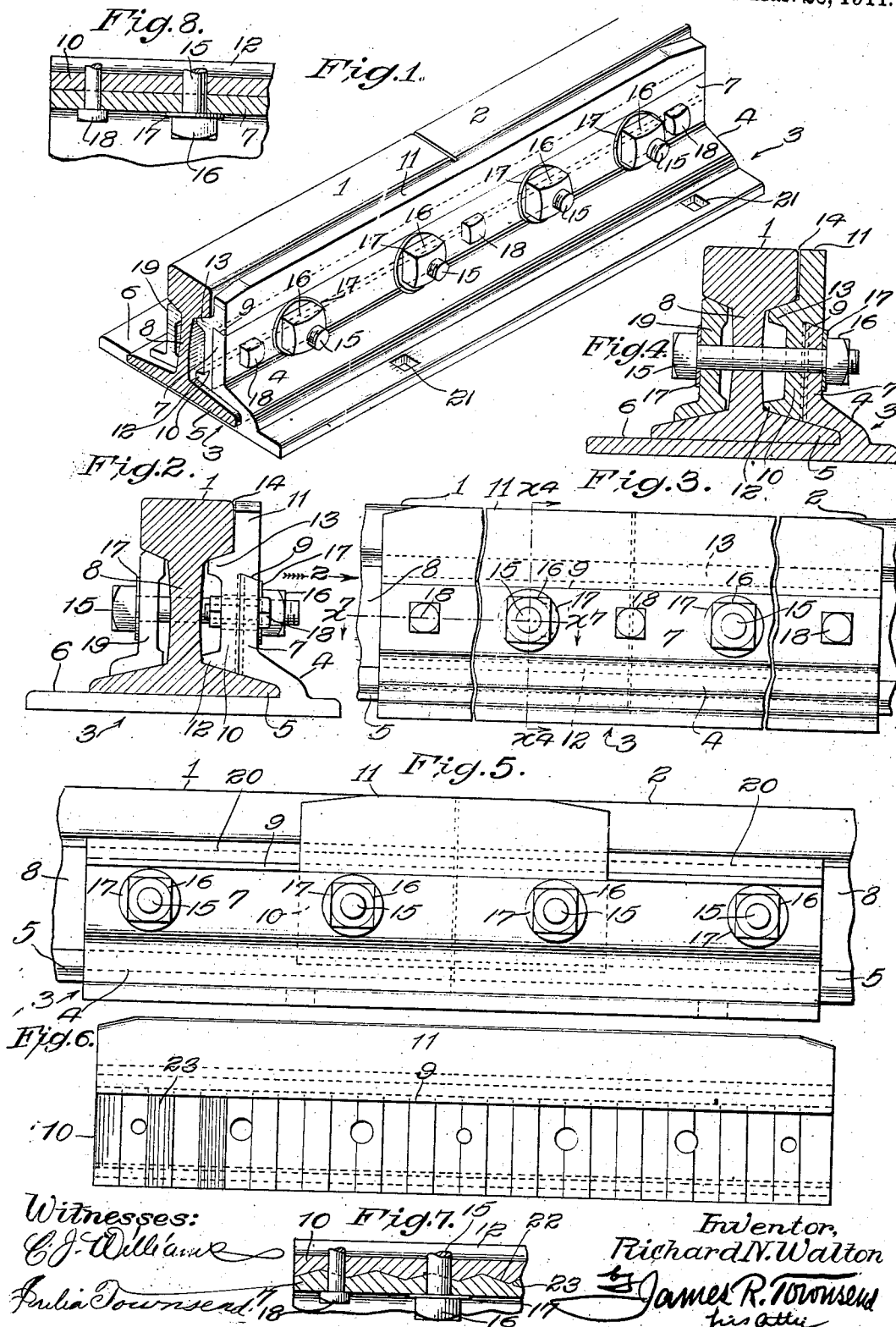


R. N. WALTON.
RAILWAY JOINT.
APPLICATION FILED NOV. 30, 1908.

988,156.

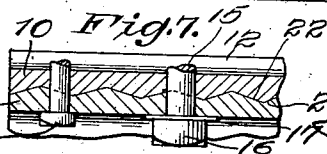
Patented Mar. 28, 1911.



Witnesses:

E. J. Williams

Paula Townsend



Inventor,
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James R. Townsend
his attorney

UNITED STATES PATENT OFFICE.

RICHARD N. WALTON, OF LOS ANGELES, CALIFORNIA.

RAILWAY-JOINT.

988,156.

Specification of Letters Patent. **Patented Mar. 28, 1911.**

Application filed November 30, 1908. Serial No. 465,181.

To all whom it may concern:

Be it known that I, RICHARD N. WALTON, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Railway-Joints, of which the following is a specification.

The object of this invention is to provide a railway joint of superior strength for a given weight, that can be constructed at minimum expense, and the parts of which can be rolled easily with simple sets of rolls. Also to make provision whereby the same rail seat may be used for various sized rails, thus dispensing with the necessity of providing an entire separate set of rolls for each size of joint.

The invention relates to means for connecting the abutting ends of tee rails and for supporting the passing wheels at the open space between the rail ends.

An object of the invention is to provide superior means for stiffening the joint so that the passing wheels will not depress or pound the rails at the joint.

The accompanying drawings illustrate the invention.

Figure 1 is a view of a portion of a railway provided with this newly invented joint.

Fig. 2 is an elevation from the left of Fig. 1, except that the top of the bridge-rest is beveled aslant, while in Fig. 1 it is horizontal. Fig. 3 is a broken side elevation of the joint shown in Fig. 2. Fig. 4 is a section on line $\alpha\alpha'$, Fig. 3. Fig. 5 is a side elevation of a joint constructed with a shorter bridge than that shown in Fig. 1. Fig. 6 is a side elevation of the combined fish-plate and bridge shown in Fig. 1. Fig. 7 is a broken view showing the corrugations that may be provided in the joint between the base-bar and the fish-plate portion of the combined fish-plate and bridge. Fig. 8 is a view analogous to Fig. 7 showing said joint plain.

1 and 2 designate the abutting ends of two tee rails.

3 designates a rail-seat provided at one edge with a member 4 to overlap one edge of the rail-bases 5, and being free on its upper face 6 to slip under the rails for removal and replacement. The overlapping member 4 terminates in a bar 7 arranged on edge above the plain face 6 of the seat and above the bases 5 and parallel with the webs 8 of the rails to form a bridge-rest or sup-

port. The upper edge of the bar 7 may be beveled aslant downwardly and outwardly, and the lower edge of the bridge conforms thereto as clearly seen at 9 in Figs. 2 and 4, but it may be flat or otherwise constructed if desired, as indicated in Fig. 1. An integral body comprising a fish-plate 10 and a bridge 11 is provided; the fish-plate portion 10 fitting between the bar 7 and the web 8, and the bridge portion 11 resting on the top of the bar and extending up to the level of the tops of the rails, thus to support the passing wheels. The fish-plate portion 10 is provided at the bottom with a foot abutment 12 to engage the lower portion of the web 8, and is provided at its upper end with a head abutment 13. The under face of the foot of the fish-plate is aslant to fit the bases of the rails and the upper face of the head abutment is aslant to fit the under face of the heads of the rails. The head abutment 13 does not project so far as the foot abutment 12 so that when the abutment 12 engages the web 8 there is an open space between the abutment 13 and the web of the rail. The parts are so proportioned that when the fish-plate is in position to form the joint there will be an open space 14, as shown in Fig. 4, between the bridge portion 11 and the head of the rail, thus allowing the fish-plate portion to be sprung into place when the bolts 15 are tightened. This springing action or tension of the fish-plate is designed to assist in holding the nuts 16 of the bolts from loosening and to operate as a nut-lock. 17 designates the usual washers for the bolts that hold the parts together. The fish-plate portion 10 may be free from the bar 7, or may be fastened thereto by rivets or bolts, as indicated at 18. 19 designates the usual stock inside fish-plate.

The seat 3 may be wide enough to fit various sizes of rails; as for example, 80, 85 or 90 pound rails, may all be fitted by one seat; the only change that is required being in the sizes of the inner fish-plate 19 which is a common stock-plate, and the outer combined fish-plate and bridge 10, 11. Said combined fish-plate and bridge may be constructed of superior steel, while the seat and inside fish-plate 19 may be of inferior steel.

The combined fish-plate and bridge may be of greater or less length, as indicated by the views. When the shorter length is used, wooden or other blocks 20 may be provided between the bridge-rest bar 7 and the rail,

as indicated in Fig. 5. The rails, fish-plates and bridge-rest may all be perforated as is usual with the rails and fish-plates of other rail-way joints to receive the bolts 15; and
5 the rail-seat may be perforated as at 21 to receive spikes not shown for fastening the rail-seat to the ties, not shown. The corrugated faces 22, 23 of the bridge rest 7 and the fish-plate portion 10 are designed to afford
10 greater strength of joint.

I claim:—

In a railway joint a rail-seat provided with an overlapping member that terminates in a bar to form a bridge-rest, a combined

fish-plate and bridge on the bridge-rest, the 15 fish-plate portion thereof being provided with abutments at the head and foot, the former being shorter than the latter, and bolts through the bar and fish-plate to draw the same toward the rails of the joint. 20

In testimony whereof, I have hereunto set my hand at Los Angeles, California, this 23d day of November, 1908.

RICHARD N. WALTON.

In presence of—

JAMES R. TOWNSEND,
JULIA TOWNSEND.