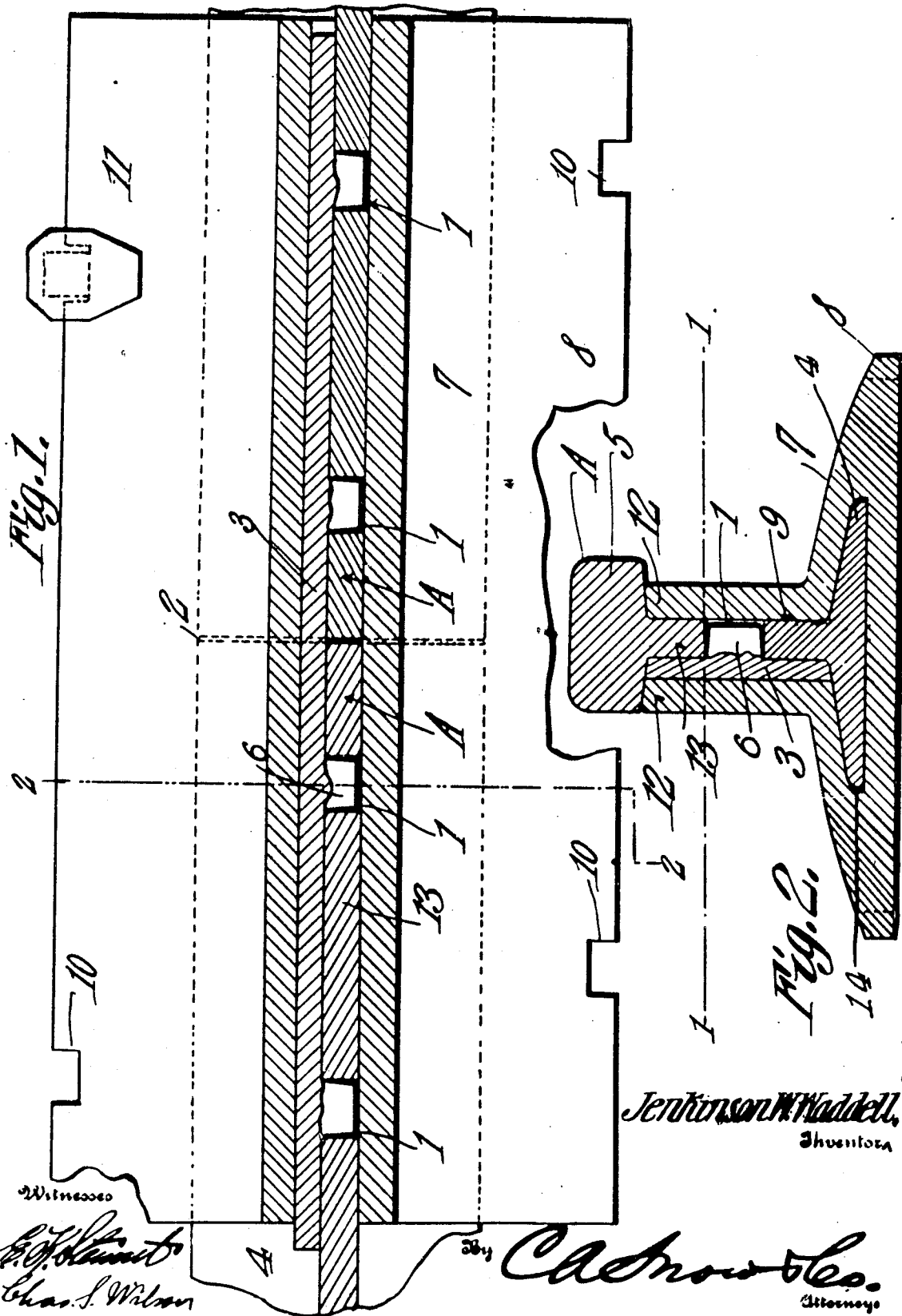


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960,453.



UNITED STATES PATENT OFFICE.

JENKINSON W. WADDELL, OF BELMONT, OHIO.

RAIL JOINT.

960,453.

Specification of Letters Patent.

Patented June 7, 1910.

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To all whom it may concern:

Be it known that I, JENKINSON W. WADDELL, a citizen of the United States, residing at Belmont, in the county of Belmont and State of Ohio, have invented a new and useful Rail-Joint, of which the following is a specification.

This invention relates to rail joints and is designed to provide a joint which will form a permanent structure that will eliminate the use of bolts and other expensive devices which are now used to connect rails.

A still further object is to provide a novel means whereby a rail may be secured to the ties and at the same time form a secure and inexpensive joint.

With the above and other ends in view, the invention consists in the construction, combination and arrangement of parts, all as hereinafter more fully described, specifically claimed and illustrated in the accompanying drawings, wherein,

Figure 1 is a horizontal cross section taken along line 1--1, Fig. 2 is a transverse cross section taken along line 2--2, Fig. 1.

Reference being had to the drawings, A indicates in general, the ends of two rails made after the usual manner having at their longitudinal extremities bolt holes 1. These rails are secured together by means of a fish plate 3 which rests snugly between the base 4 and the head 5 flush with the web 13, and has a series of inwardly projecting studs 6 adapted to be received in the holes 1 in the rail that are spaced a sufficient distance apart to secure the rails and allow the space 2 between the extremities thereof, to allow for the expansion and contraction of the same, caused by the action of heat and cold. These studs, when in their operative position, are flush with the opposite side of the web against which the fish plate rests. This entire device is adapted to be received in my improved rail chair 7, which comprises a base portion 8, having a channel therein which is formed to receive the base 4 of the rail and from which there extend upwardly the sides 12, having the passage 9 therebetween, a slight space, indicated at 11, being left between the edge of the rail base and the chair, to accommodate expansion and

contraction. The upwardly projecting side 12 adjacent the fish plate 3 is of a greater distance from the center line of the rail than the other in order to permit the admission of the fish plate in the passage 9. Along the outer edge of the base 8 of the chair there is provided at regular intervals a series of notches 10 in the base portion 8, through which the spikes 11 pass and secure the chair to the tie.

From the foregoing it will be readily seen that it is not my intention to limit the number of studs 6 on the fish plate 3 or the spike openings 10 in the said chair, the latter being located in the opposite sides of the chair and are not in the same transverse plane but are preferably situated diagonally across from each other which permits a secure and firm hold for the spikes should the tie split longitudinally through the opening made by one of said spikes.

Having thus fully described my invention, what I claim as new and desire to secure by U. S. Letters of Patent is:

A rail joint comprising a pair of meeting rails having transverse openings through their webs, a straight fish plate fitting snugly against the webs of the said rails between the head and the base of the same and provided on one side with lateral projections adapted to engage the transverse openings in the webs of the rails, the entire outer face of the fish plate lying in a plane parallel with the web and a chair having a base portion fitting around and inclosing the base portion of the meeting rails and engaging the upper sides of the base of the rails and having upwardly extending side portions engaging under the head of the rails, one of said side portions bearing against web of the rail and the other side portion bearing against the outer side of the fish plate and holding the same in engagement with the rails.

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

JENKINSON W. WADDELL.

Witnesses:

C. E. ACTIN,
C. W. LEWIS.