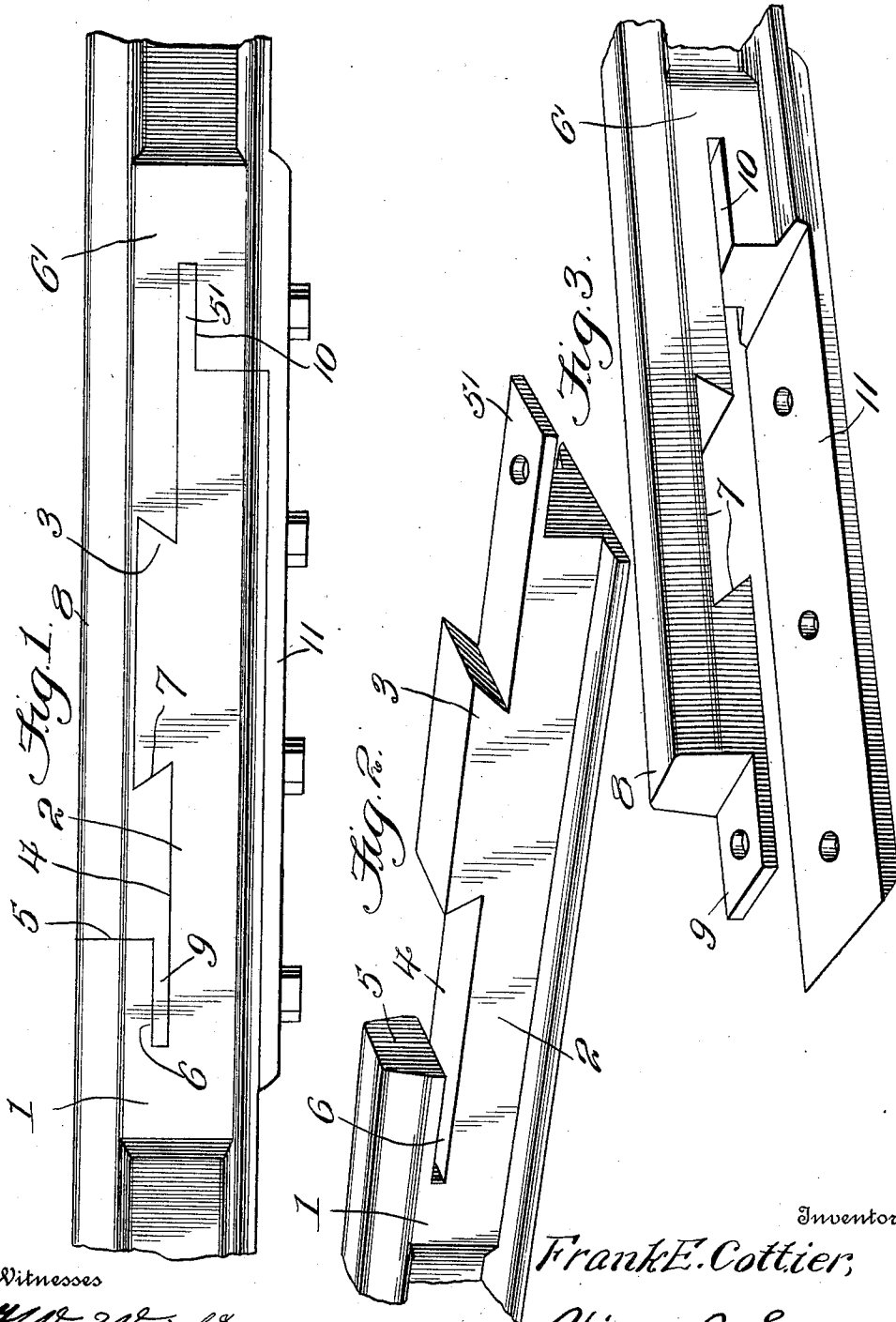


F. E. COTTIER.
RAIL JOINT.
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1,029,492.

Patented June 11, 1912.



Witnesses

H. W. Wright
Wm. J. Koeck

Inventor
Frank E. Cottier,

By *Victor J. Evans,*
Attorney

UNITED STATES PATENT OFFICE.

FRANK E. COTTIER, OF MOUND CITY, MISSOURI.

RAIL-JOINT.

1,029,492.

Specification of Letters Patent.

Patented June 11, 1912.

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To all whom it may concern:

Be it known that I, FRANK E. COTTIER, a citizen of the United States, residing at Mound City, in the county of Holt and State of Missouri, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to certain novel improvements in joints for railway rails or the like.

The object of the invention is to provide a simple and practical joint of this character which will permit the rails to be quickly and easily connected together and which will hold them in perfect alinement with each other.

To these, and other ends, my invention consists in the rail joint having certain details of construction and combinations of parts as will be hereinafter described and pointed out in the claim.

In the drawings,—Figure 1 is a side elevation of the meeting ends of a pair of rails joined in accordance with the present invention, the fish plates being removed. Fig. 2 is a perspective view of one of the ends of a rail. Fig. 3 is a similar view of the opposite coacting end.

The bodies of the rails employed in connection with my improvement are of the usual construction, the ends, however, being enlarged upon their opposite faces, so that their webs are flush with their heads. The enlarged portion of one of the rails designated by the numeral 1 has an extension 2, the same having its top face horizontally flat and continued in a plane substantially central of the rail proper. The central portion of this extension is provided with an integrally formed dove-tailed projection 3, the latter being preferably arranged approximately central of the horizontally straight face of the extension 2 and is of a width corresponding with that of the said extension. The portion of the rail between the horizontally straight upper face 4 of the extension 2 and the enlargement of the rail provides a shoulder 5 which is formed at a right angle to the said extension.

The numeral 6 designates a recess or pocket which has its lower wall formed in the plane of the upper face 4 of the extension 2, and the opposite end of the extension is formed with a projecting tongue 5. The opposite enlarged end 6' of the coacting rail is formed with an extension which is

continuous with the head of the rail. This extension has its under face horizontally straight. The extension is centrally provided with a dove-tailed recess 7, the same adapted to coact with the dove-tailed extension 3 of the opposite rail end 1. The projecting portion, which may be designated by the numeral 8 has an extending tongue 9, and this tongue is adapted to engage within the pocket 6 of the first rail section 1 when the rail ends are assembled.

The numeral 10 designates a pocket, similar to the pocket 6, and the upper wall of which is arranged in a plane with the lower horizontally straight face of the projection 8, the said pocket being adapted to receive the tongue 5' of the section 1.

The numeral 11 designates an integrally formed plate which projects a suitable distance from the under face or base of the rail end 6', and this plate 11 is provided with a plurality of openings each of which aligns with a similar opening in the base of the section 1, the said openings being adapted to receive securing elements, such as threaded bolts.

From the above description, taken in connection with the accompanying drawings, it will be noted that it is merely necessary to place the rail ends side by side, so as to force the dove-tailed extension 3 within the dove-tailed recess 7, and the tongues 5' and 9 within their respective pockets 10 and 6. The plate 11 materially adds to the strength of the rails, but it is to be understood that fish plates for preventing lateral movement of the rails may and preferably are employed, it being deemed unnecessary to illustrate the same in the drawings.

Having thus fully described the said invention, what I claim is:—

A rail joint comprising a pair of rails having their ends enlarged and formed with extensions, one of said extensions having its lower face continuous with the base of the rail and its upper face horizontally flat, the said extension being provided with a dove-tailed projection, the said extension being further provided with a projecting tongue, the rail end being formed with a pocket having its lower wall continuous with the upper face of the extension, the second rail having its head extended, the lower face of the extension being horizontally flat, the said head extension being provided with a dove-tailed recess and being further pro-

vided with a projecting tongue continuous
with its under face, the rail extension also
having a pocket whose upper wall is con-
tinuous with the lower face of the exten-
5 sion, the said rail end also having an ex-
tending plate arranged below the base
flange of the rail, the said plate being pro-
vided with openings, the base of the first
named rail end being provided with

threaded openings, and threaded elements 10
for engaging these openings after the rail
ends are assembled.

In testimony whereof I affix my signature
in presence of two witnesses.

FRANK E. COTTIER.

Witnesses:

GEAR L. HAYS,
C. T. HALL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
