

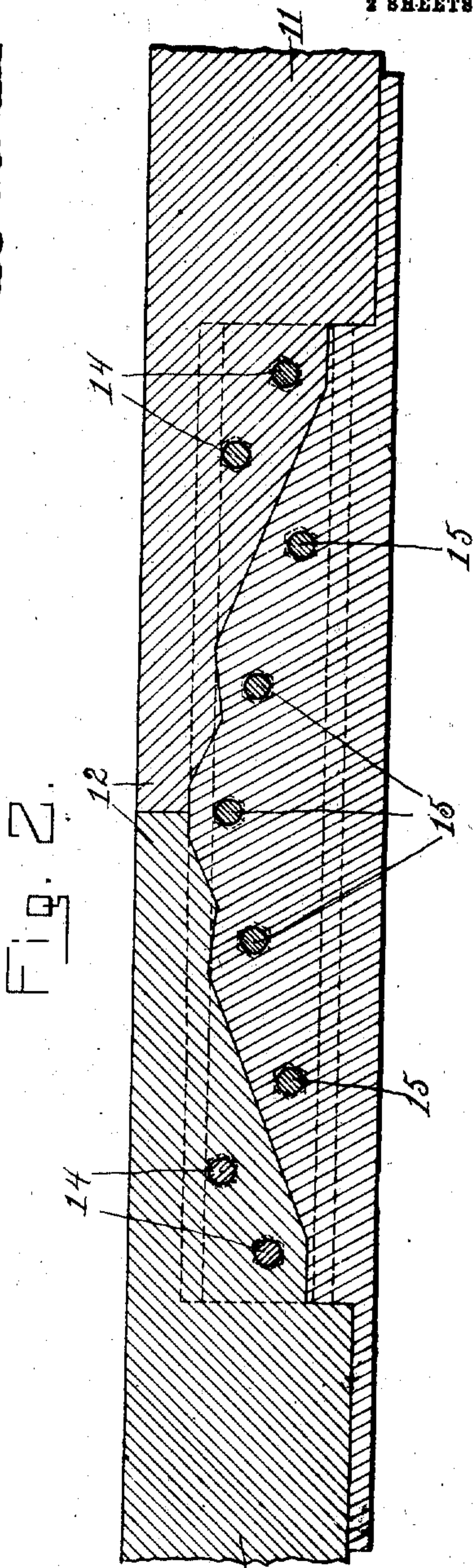
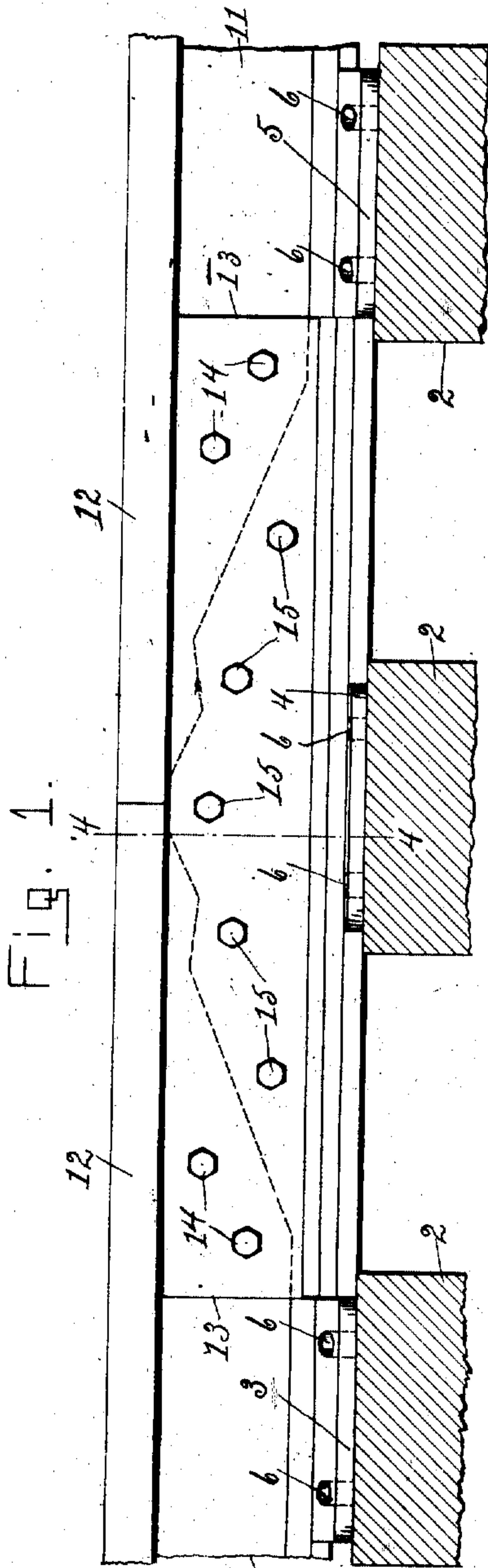
J. PILLIG.
RAIL JOINT.

APPLICATION FILED APR. 18, 1910. RENEWED DEC. 12, 1910.

994,274.

Patented June 6, 1911.

2 SHEETS-SHEET 1.



WITNESSES

R. Ladue.
J. Donabach.

INVENTOR

John Pillig
BY
Truesher & Carter
ATTORNEYS

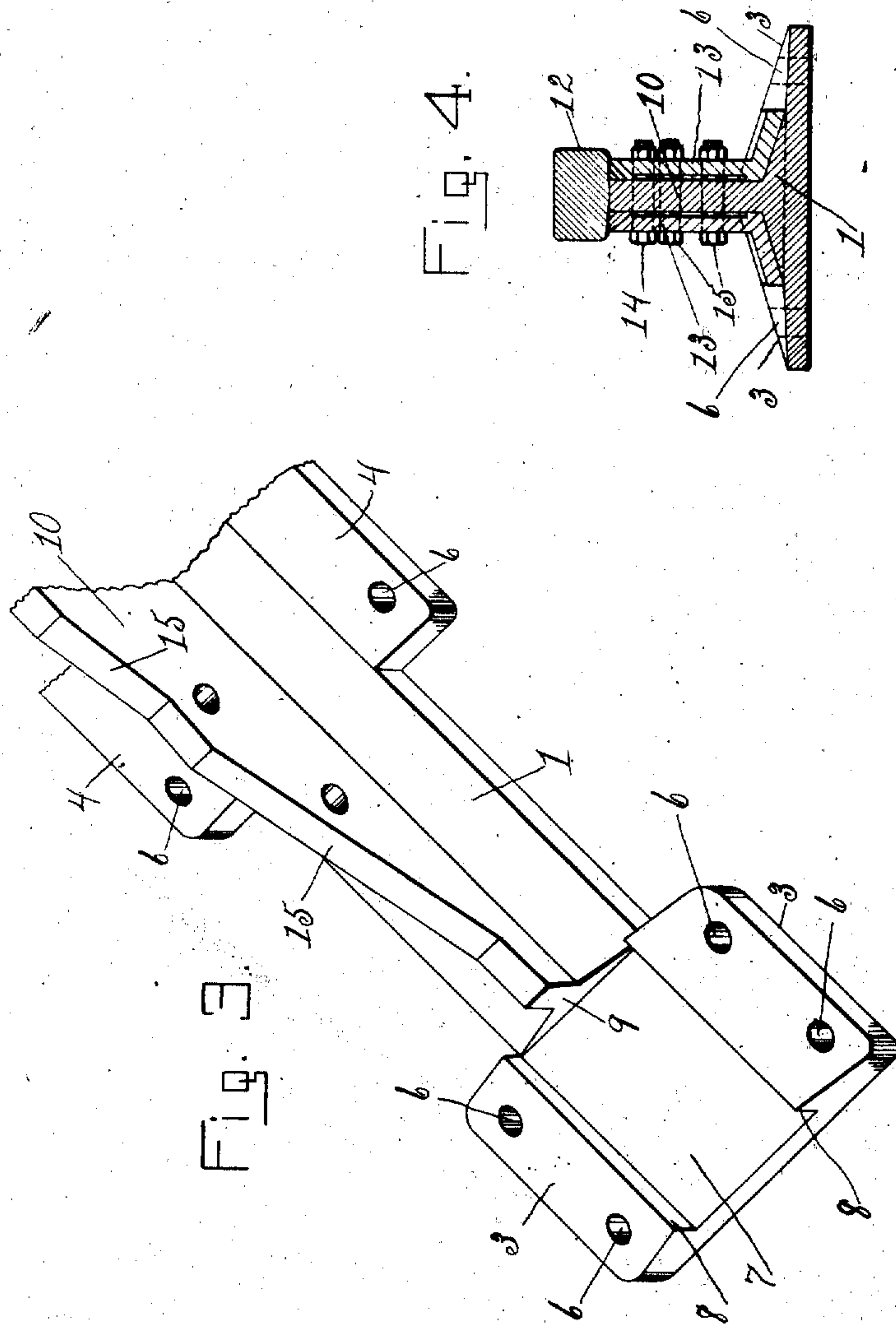
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WITNESSES

R. Leder
J. Donsbach,

INVENTOR

John Pillig

BY

Frederick A. Carter

ATTORNEYS

UNITED STATES PATENT OFFICE.

JOHN PILLIG, OF AMSTERDAM, NEW YORK.

RAIL-JOINT.

994,274.

Specification of Letters Patent.

Patented June 6, 1911.

Application filed April 18, 1910, Serial No. 556,107. Renewed December 12, 1910. Serial No. 596,971.

To all whom it may concern:

Be it known that I, JOHN PILLIG, a citizen of the United States, residing at Amsterdam, county of Montgomery, and State of New York, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

The invention relates to such improvements and consists of the novel construction and combination of parts hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawings, and the reference characters marked thereon, which form a part of this specification. Similar characters refer to similar parts in the several figures therein.

Figure 1 of the drawings is a view in side elevation of my improved rail-joint. Fig. 2 is a central, vertical, longitudinal section of the same. Fig. 3 is a view in isometrical perspective of a broken-away portion of the base-plate. Fig. 4 is a vertical cross-section taken on the broken line 4-4 in Fig. 1.

The principal object of the invention is to secure together and support in alignment the neighboring ends of two railway rails.

Other objects will appear in connection with the following description.

Referring to the drawings wherein the invention is shown in preferred form, 1, represents the base-plate of my improved rail-joint, which is preferably of a length to rest upon three ties, 2, as shown in Fig. 1, said base-plate having three pairs of oppositely projecting ears or lugs, 3, 4 and 5, provided with spike-apertures, 6, whereby the base-plate can be attached to the several ties by means of spikes.

At each end the base-plate is provided with a recessed seat, 7, adapted to receive the foot of a railway rail adapted to be confined to said seat by the side-walls, 8, of said seat and an abutment, 9, at the inner end of the seat. Extending along the upper side of the base-plate from one of the end-seats, 7, to the other, is a rib, 10, which rises gradually, preferably in stepped form, from the respective abutments, 9, to the middle of the base-plate, whereat it is of the full height of the web, 11, of the rail, which is of substantially the same width as said rib. The neighboring ends of the rails have their web and foot portions cut away to conform substantially to the shape of the top surface of the rib, 10, the heads, 12, of the rails be-

ing left intact and adapted to rest upon the highest part of the rib, 10, at the middle of the joint, as shown in Fig. 2. The abutments, 9, have substantially the same shape and dimensions, as seen in elevation, as the foot-portion of the rails, so that the height of the rib, 10, at its middle portion is substantially the same as the full height of the web, 11, of the rails.

The rib, 10, and web-portions of the joined rails between the seats, 7, are clamped firmly together by means of a pair of fish plates, 13, and bolts, 14, passing through aligned apertures in the respective fish-plates and the web of a rail, and other bolts, 15, passing through aligned apertures in the respective fish-plates and the rib 10. The fish-plates, 13, are preferably angular in cross-section, as shown in Fig. 4. The fish-plates are of substantially the full height of the webs of the rails, and afford a direct support between the head of the rail and the base-plate of the rail-joint, which support is co-extensive in height with the support afforded by the web of the rail at points between the rail-joints. The joined rails are held from lateral displacement by the side-walls, 8, of the seats, 7, and are prevented from creeping endwise by the abutments, 9, as well as by the inclined risers, 15, of the rib 10.

What I claim as new and desire to secure by Letters Patent, is—

1. In a rail-joint, and in combination, a base-plate having at its opposite ends seats for the respective foot-portions of a pair of rails; and having at the inner end of each of said seats an abutment corresponding in form with the foot-portion of the rail, and having on its upper side a rib extending from each of said abutments gradually upward to the middle of the plate, whereat said rib is of substantially the full height of the web of a rail; a pair of rails having their respective web and foot portions cut away in conformity with said abutment and the upper side of said rib, and having foot-portions adapted to occupy said seats, respectively; a pair of fish-plates embracing between them said rib and the neighboring portions of the webs of said rails; and bolt-connections between said fish-plates, some of said bolt-connections passing through the respective webs of the rails, and others through said rib.

2. In a rail-joint, and in combination, a

base-plate having at its opposite ends seats
for the respective foot-portions of a pair of
rails, and having between said seats a sup-
port for the webs of a pair of joined rails;
5 a pair of rails cut away on the underside to
adapt their web-portions to rest upon said
supports, and having remaining foot-por-
tions adapted to occupy said seats, respec-
tively; a pair of fish-plates adapted to em-
10 brace between them the web-portions of the
rails resting on said supports, said fish-
plates constituting direct supports between
the heads of the joined rails and said base-
plate of substantially the full height of the
15 web of a rail; and bolt-connections between
said fish-plates.

3. In a rail-joint, and in combination, a
base-plate having at its opposite ends seats
for the respective foot-portions of a pair of
20 rails, and having an abutment at the inner
end of each of said seats corresponding in

form with the foot-portion of the rail, and
having between said seats a support for the
webs of a pair of joined rails; a pair of
rails cut away on the underside to adapt 25
their web-portions to rest upon said sup-
ports, and having remaining foot-portions
adapted to occupy said seats, respectively;
a pair of fish-plates adapted to embrace
between them the web-portions of the 30
rails resting on said supports, said fish-
plates constituting direct supports between
the heads of the joined rails and said base-
plate of substantially the full height of the
web of a rail; and bolt-connections between 35
said fish-plates.

In testimony whereof, I have hereunto set
my hand this 13th day of April, 1910.

JOHN PILLIG.

Witnesses:

CHARLES C. BIGLER,
PATRICK J. DOOREY.