

No. 692,344.

Patented Feb. 4, 1902.

W. H. F. RAIFSNYDER.

RAIL JOINT.

(Application filed May 13, 1901.)

(No Model.)

Fig. 1.

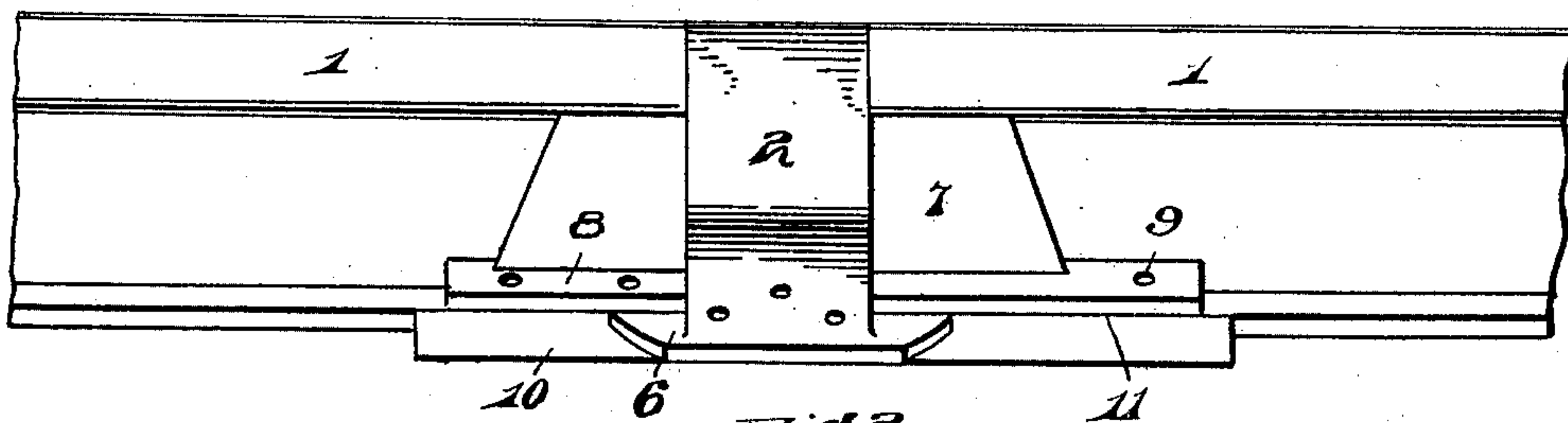


Fig. 2.

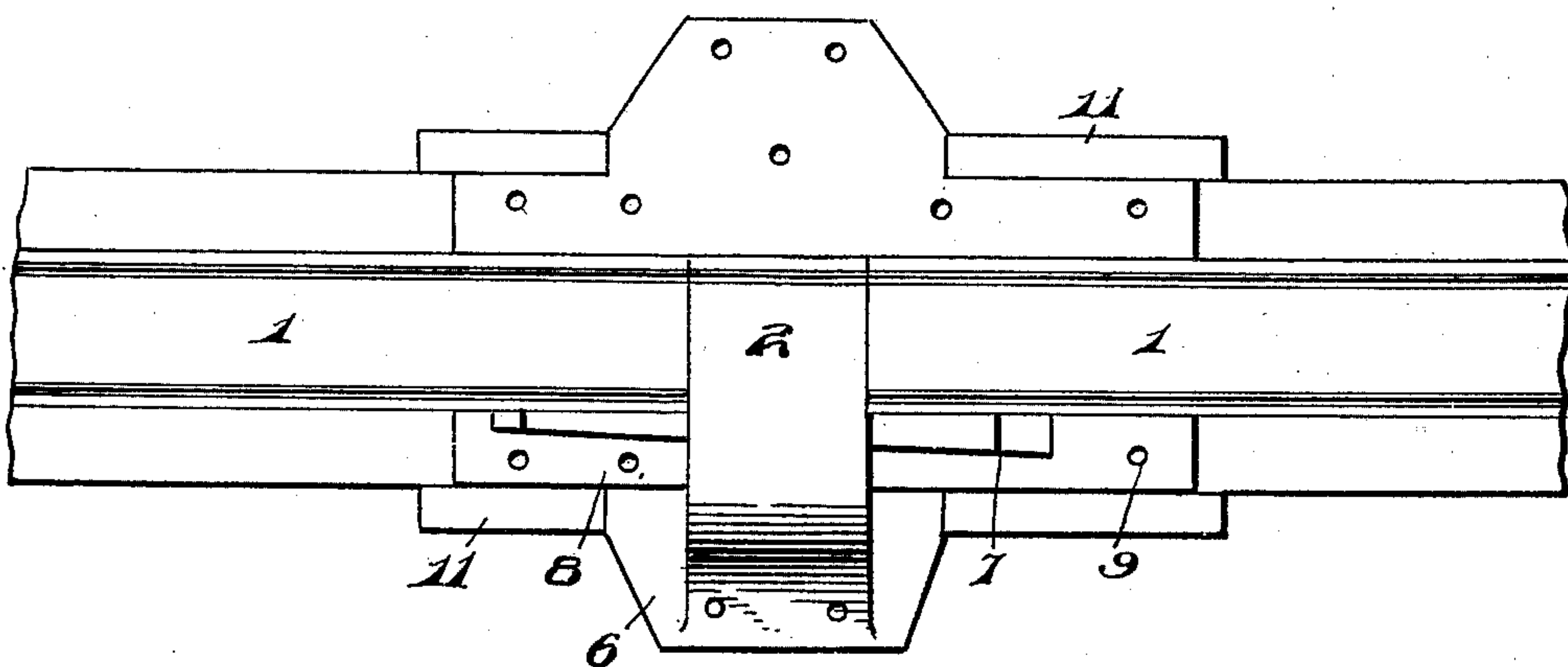


Fig. 3.

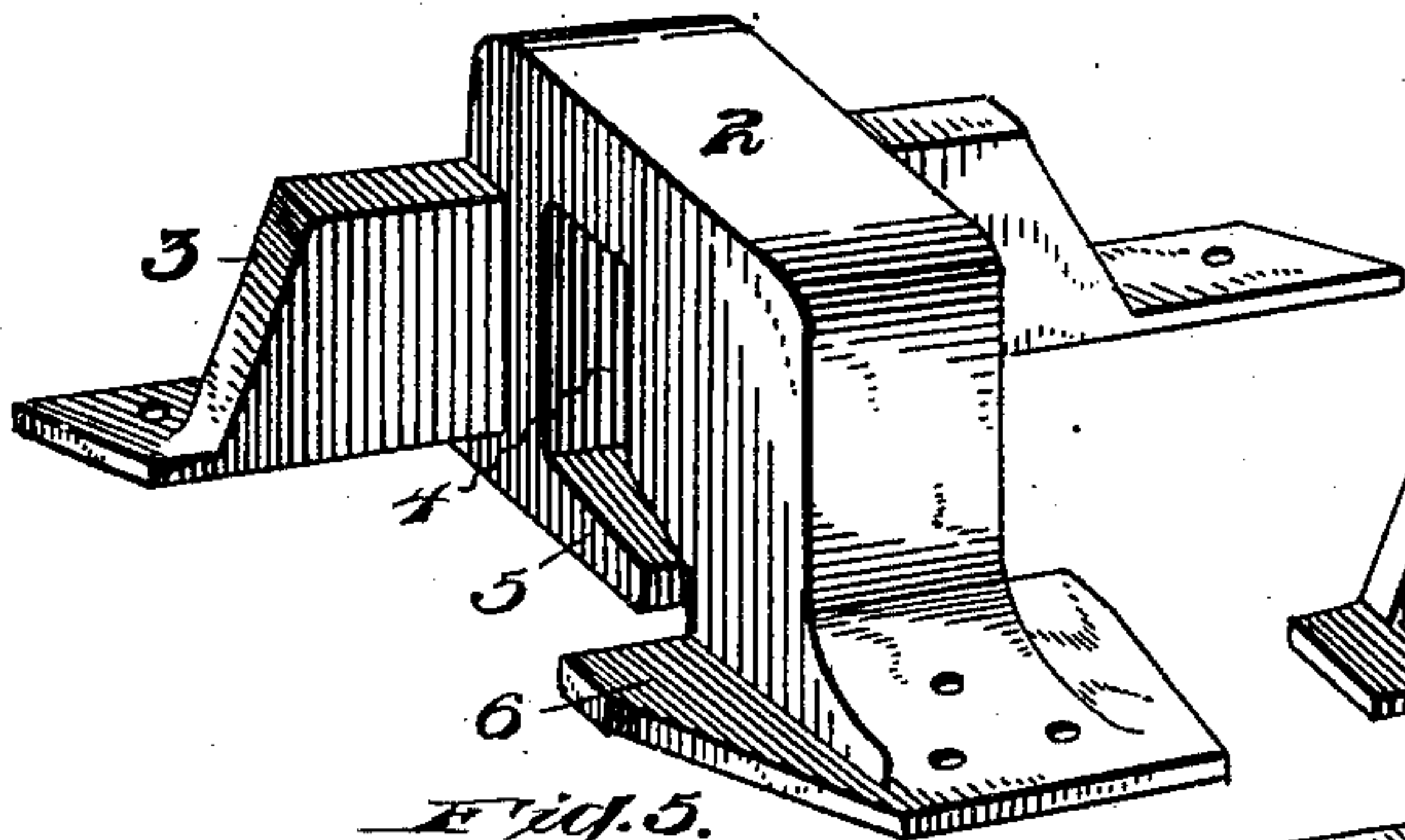


Fig. 4.

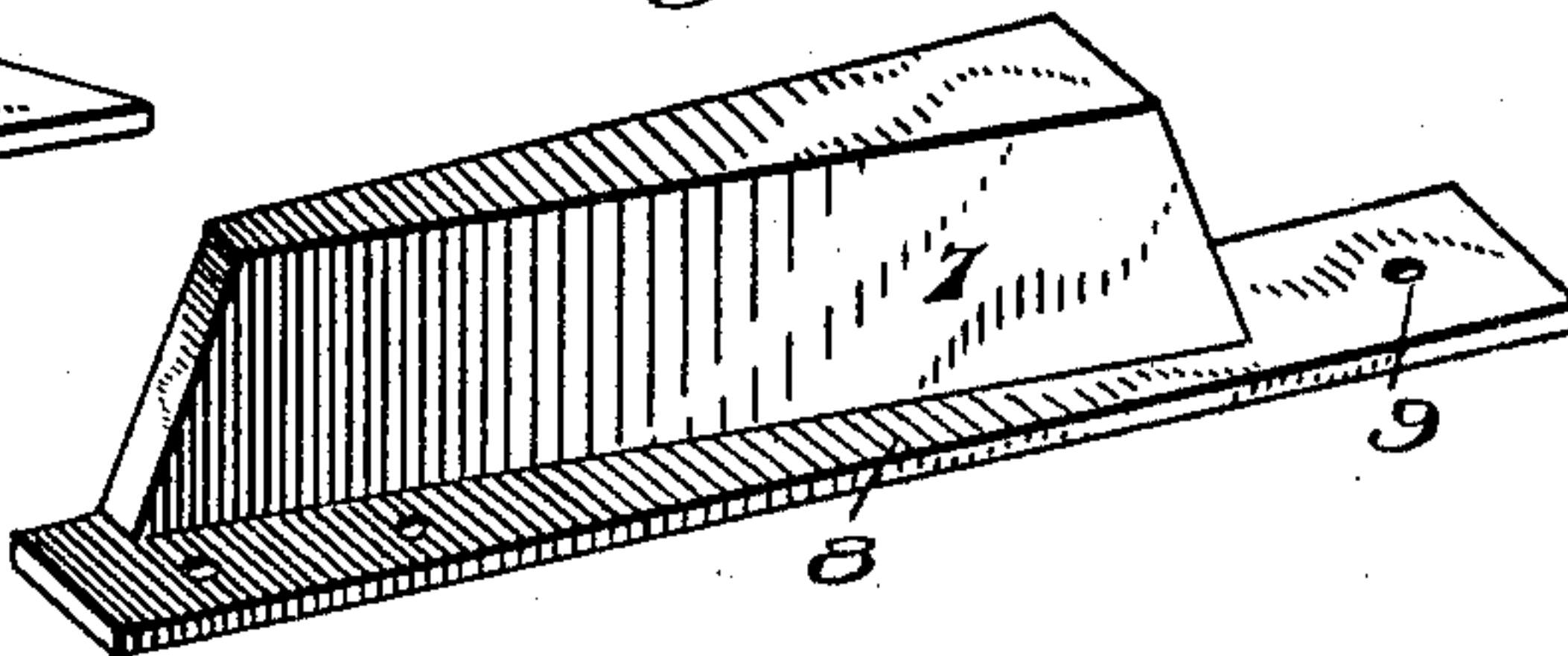
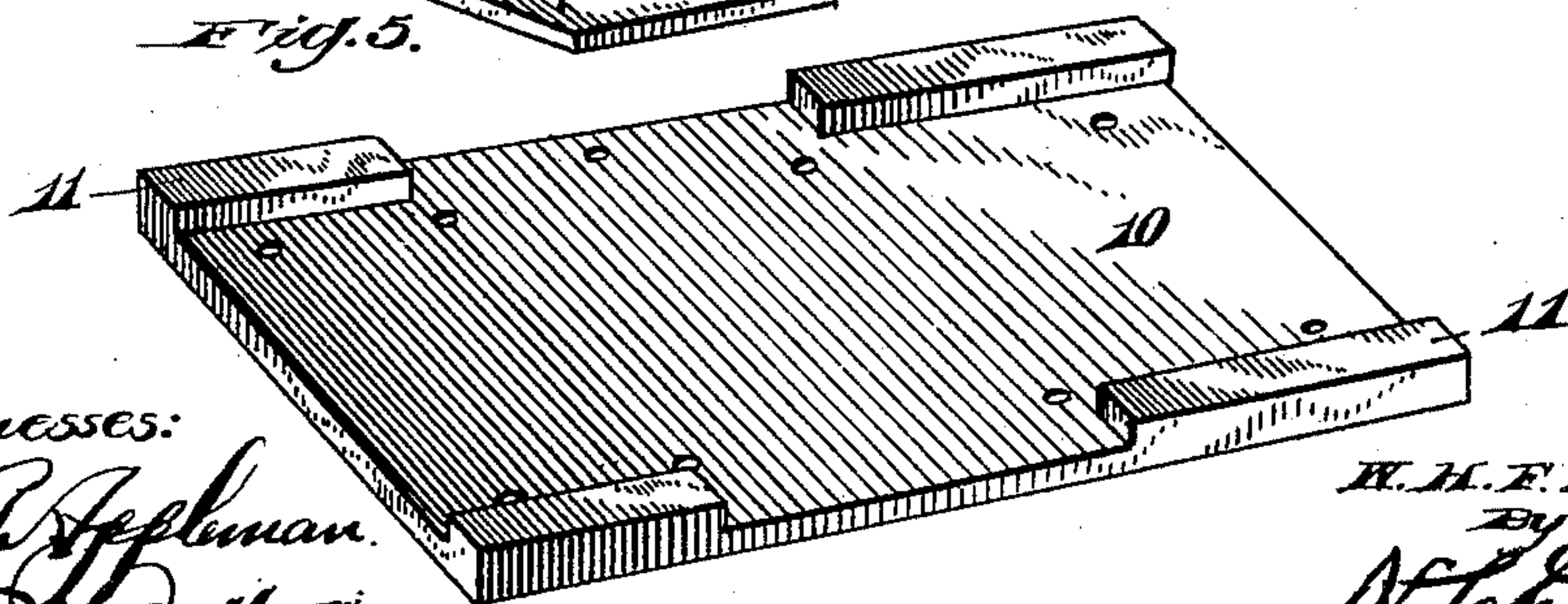


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM H. F. RAIFSNYDER, OF SACKETT, PENNSYLVANIA.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 692,344, dated February 4, 1902.

Application filed May 13, 1901. Serial No. 59,932. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. F. RAIFS-
SNYDER, a citizen of the United States of Amer-
ica, residing at Sackett, in the county of Elk
and State of Pennsylvania, have invented cer-
tain new and useful Improvements in Rail-
Joints, of which the following is a specifica-
tion, reference being had therein to the ac-
companying drawings.

This invention relates to certain new and
useful improvements in rail-joints, and more
particularly to that class wherein the use of
nuts and bolts is entirely dispensed with.

The invention has for its object the provi-
sion of novel means whereby the two ends of
the rails are joined together by simple and
efficient means that will prevent the rail from
spreading or otherwise becoming dislodged;
furthermore, to provide novel means to allow
for the expansion and contraction of the rails.

The invention has for a further object the
construction of a device of the above-de-
scribed class that will be extremely simple,
strong, durable, and comparatively inexpen-
sive to manufacture; furthermore, one that
will be highly efficient in its use and may be
easily applied to the rail and readily removed
therefrom when desired.

The present invention further contemplates
to construct a rail-joint that will practically
take up the jar, that is a great objectionable
feature in the present railway constructions,
and produce a joint which will allow the train
to easily travel over the rails, and, further,
provide means that will cushion the rails at
their joints.

With the above and other objects in view
the invention consists in the novel combina-
tion and arrangement of parts to be herein-
after more fully described, and specifically
pointed out in the claims.

In describing the invention in detail refer-
ence is had to the accompanying draw-
ings, forming a part of this specification,
wherein like numerals of reference indicate
corresponding parts throughout the several
views, and in which—

Figure 1 is a side view of my improved rail-
joint, showing the manner of attachment.
Fig. 2 is a top plan view thereof. Fig. 3 is a
perspective view of the chair carrying the
integral fish-plate. Fig. 4 is a perspective

view of the wedge-shaped fish-plate forming
the lock. Fig. 5 is a similar view of the base-
plate.

In the drawings the reference-numerals 1
indicate the rail-sections, and 2 represents
the chair interposed between said rail-sec-
tions. This chair carries an integral fish-
plate 3 and has formed therein a central open-
ing 4. The said chair also is provided with
a suitable base 5 and 6.

The reference-numeral 7 represents the
wedge-shaped fish-plate, carrying a base 8,
the said base 8, integral fish-plate, and the
chair proper all being provided with suitable
openings 9 to receive fastening means for at-
taching the device to the cross-ties. (Not
shown in the drawings.)

The reference-numeral 10 represents a base-
plate carrying on its upper face lugs 11, be-
tween which the device is seated, the said
base-plate being of sufficient width to extend
under the entire chair.

The manner of applying my improved rail-
joint is as follows: The chair is interposed
between the two sections of rails, being prop-
erly seated upon the base-plate. The wedge-
shaped fish-plate is then inserted from the
end, extending into and through the opening
4 of the chair, thereby wedging the rails tightly
against the inner sides of the integral fish-
plate 3 to form a perfect lock, that will pre-
vent the dislodgment of the rails or the
spreading of the same. When it is desired
to remove the rails, the wedge-shaped fish-
plate is removed, and the device will then be
in a position to admit the easy removal of the
other parts and the rails.

It will be noted that by my improved con-
struction one rail may be easily removed with-
out disturbing the other rails or the other
joints, and a new rail may be readily insert-
ed in place of the old one.

The many advantages obtained by the use
of my improved device will be readily ap-
parent from the foregoing description, taken
in connection with the accompanying draw-
ings.

It will be noted that various changes may
be made in the details of construction with-
out departing from the general spirit of my
invention.

Having fully described my invention, what

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

1. In a rail-joint, the combination of a chair, suitable bases secured thereto, an integral
5 fish-plate carried by said chair, said chair having an opening formed therein, a base-plate, lugs carried thereby, a wedge-shaped fish-plate, a base secured thereto, the said
10 chair adapted to be interposed between the rails, substantially as described.

2. In a rail-joint, the combination of a chair, an upper face of the same contour as the tread of the rail secured thereto, said chair having
an opening formed therein, bases secured to
15 said chair, a wedge-shaped fish-plate, a base secured to the lower face thereof, a base-plate, lugs carried on the upper face thereof, the said bases of the chair adapted to be secured between said lugs, substantially as described.

3. In a rail-joint, the combination of a chair, 20
a fish-plate made integral with one side thereof, the said fish-plate being of less height than the said chair, the upper face of said chair conforming to the shape of the tread of a rail,
said chair having an opening beneath said 25
upper face extending through said chair, bases secured to said chair, an independent wedge-shaped fish-plate, a base secured thereto, a base-plate, a pair of lugs carried on opposite sides thereof and having a space there- 30
between, substantially as described.

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

WILLIAM H. F. RAIFSNYDER.

Witnesses:

R. K. GODDING,

GEORGE J. HALLIWELL.