

No. 685,672.

Patented Oct. 29, 1901.

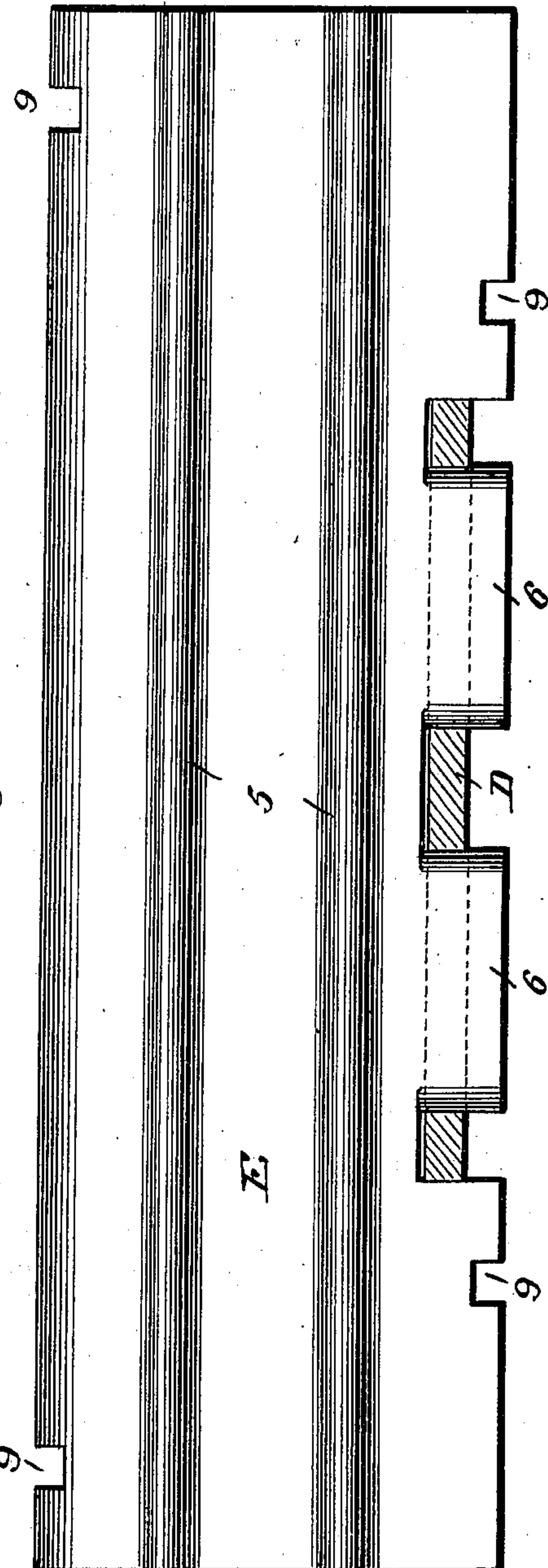
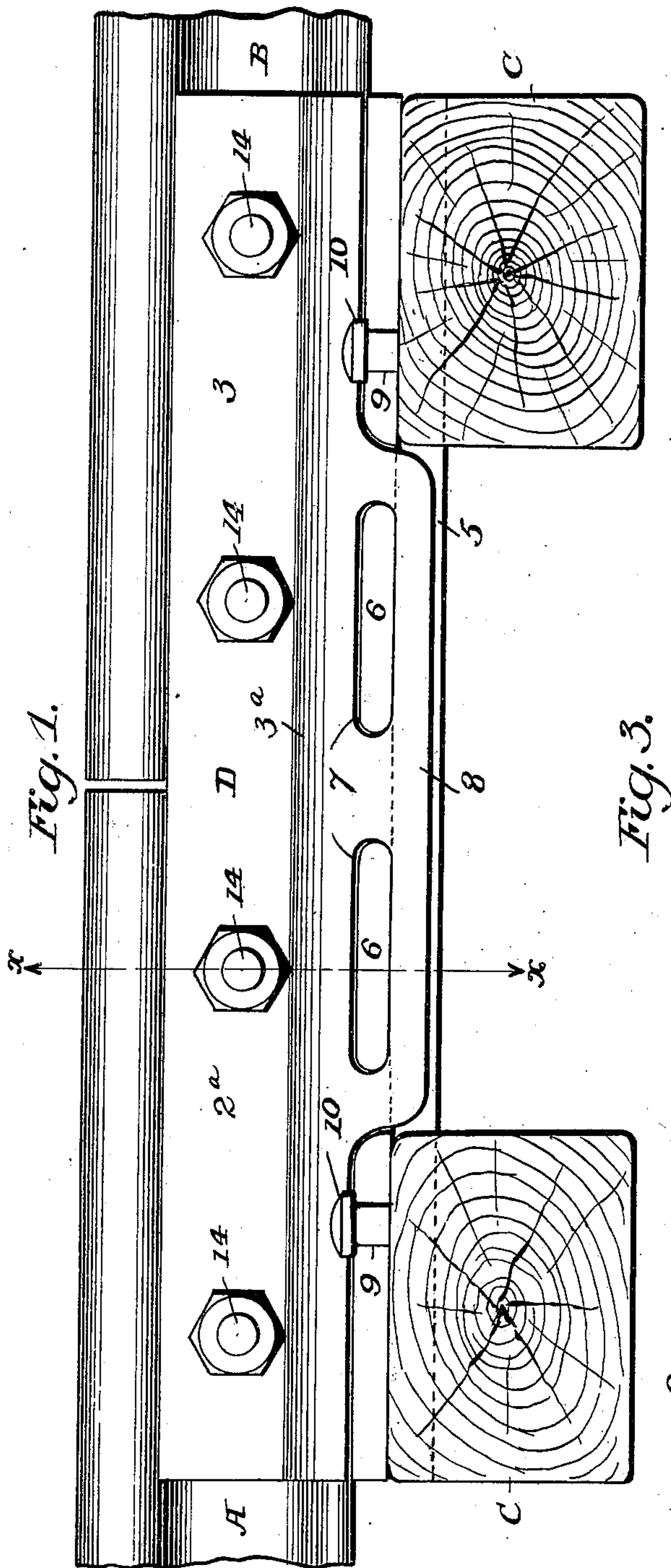
F. BURGER & H. M. WILLIAMS.

RAIL JOINT.

(Application filed Nov. 16, 1899. Renewed Mar. 29, 1901.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses
J. H. Trinkel
H. M. Gillman, Jr.

Inventors
Fram Burger
Henry M. Williams
by *Joseph Freeman*
Attorneys

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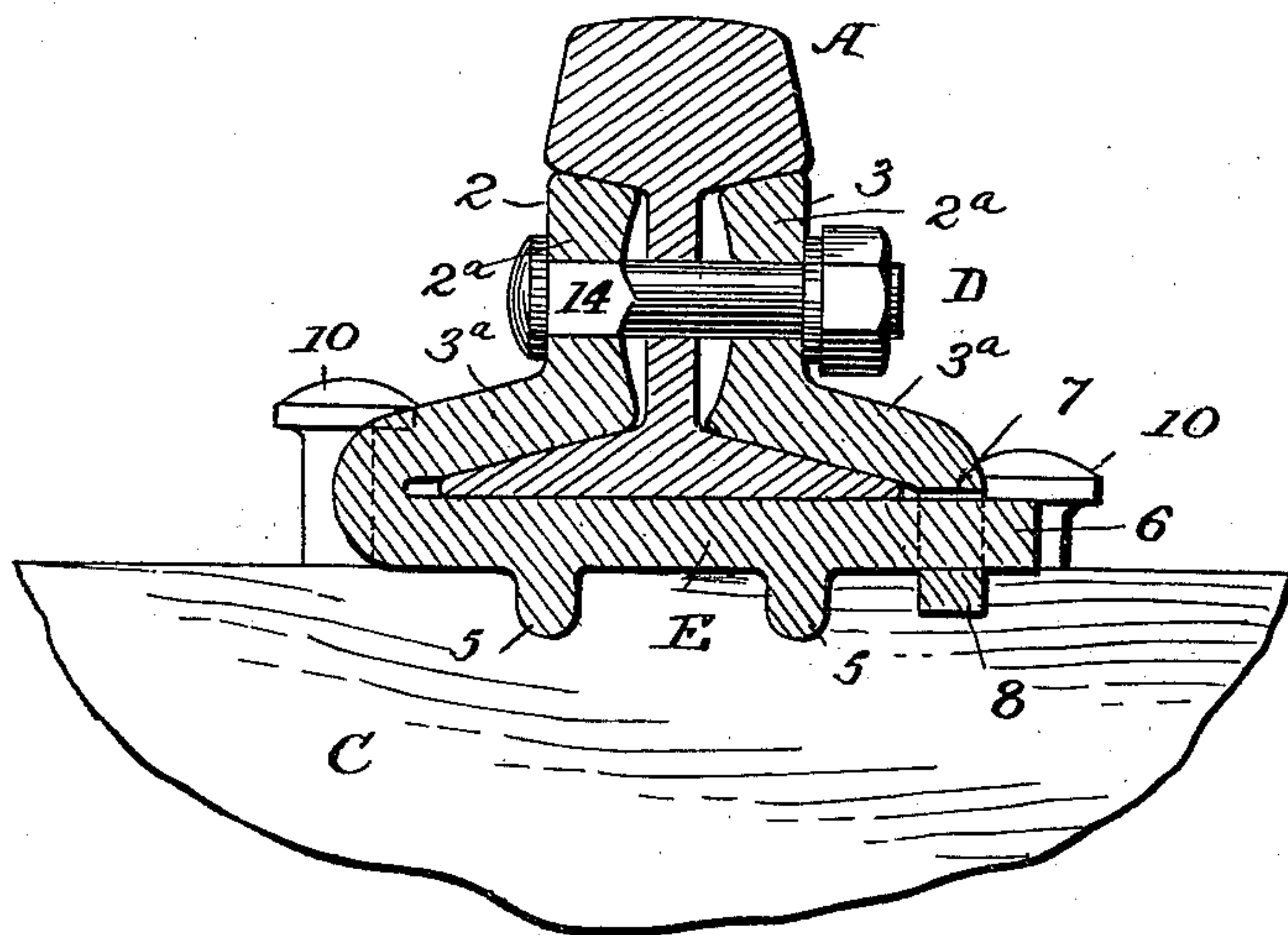
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2 Sheets—Sheet 2.

Fig. 2.



Witnesses

J. G. Hinkel
H. M. Gillman, Jr.

Inventors

Frank Burger
Henry M. Williams

John Freeman
Attorneys

UNITED STATES PATENT OFFICE.

FRANZ BURGER AND HENRY M. WILLIAMS, OF FORT WAYNE, INDIANA; SAID
BURGER ASSIGNOR OF ONE-HALF OF HIS RIGHT TO SAID WILLIAMS.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 685,672, dated October 29, 1901.

Application filed November 16, 1899. Renewed March 29, 1901. Serial No. 53,569. (No model.)

To all whom it may concern:

Be it known that we, FRANZ BURGER and HENRY M. WILLIAMS, citizens of the United States, residing at Fort Wayne, in the county of Allen and State of Indiana, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to certain new and useful improvements in rail-joints; and it has for its object to provide a simple and exceedingly efficient joint and one which may be easily manufactured and capable of firmly securing and holding the abutting ends of two rails in perfect alinement.

With this object in view the invention consists in a rail-joint characterized by the features of construction and arrangement hereinafter pointed out.

In the accompanying drawings, forming a part of this specification, and in which like characters of reference designate corresponding parts, Figure 1 is a side elevation of a rail-joint embodying the invention, the joint being shown applied to the abutting ends of two rails. Fig. 2 is a transverse sectional view on the line $x x$ of Fig. 1, and Fig. 3 is an inverted plan view of the joint, parts being in section.

Referring more particularly to the drawings, A B designate the ends of two abutting rails, which extend over and meet between two adjacent ties C C, and D represents the rail-joint applied to the ends of the rails A B.

The joint D comprises two angular members or sections 2 3, arranged upon opposite sides of the rails, respectively, and secured thereto and to each other. Each of the sections comprises a vertical portion 2^a and an inclined portion 3^a, the said vertical portion being adapted to engage the under face of the head of the rail, while the inclined portion 3^a is adapted to engage the upper face of the rail-base.

Extending beneath the bases of the rails A B and serving as a bearing therefor is a base portion or plate E, which rests upon adjacent cross-ties at its opposite ends. Upon its under face the base-plate is provided with one or more longitudinal ribs 5, adapted to

be received in transverse recesses in the cross-tie to prevent accidental lateral shifting of the base-plate and the consequent spreading of the rails. These ribs likewise serve to impart additional strength and rigidity to the base-plate. The base-plate E is integral with the angle-bar 2, as shown in Fig. 2, and forms a continuation of the inclined portion 3^a thereof. The plate E is provided at its longitudinal edge with one or more projecting tongues 6, which are adapted to enter slots or openings 7 in a depending portion 8 of the angle-bar 3, the said portion extending vertically downward between the cross-ties C C. In its opposite edges, near its ends, the base-plate is provided with recesses 9, into which are received spikes 10, which serve to hold the plate E firmly upon the cross-ties and against longitudinal creeping.

In practice the angle-bars 2 3 are placed upon opposite sides of two abutting rails. Bolts 14 are then passed through coinciding holes in the vertical portions of the angle-bars and the webs of the rails and tightened. This has the effect of drawing the vertical and inclined portions of the angle-bars into firm contact with the under face of the head of the rails and with the upper face of the rail-bases, respectively, and at the same time the tongues of the base-plate are projected through the slots of the depending portion of the angle-bar.

From the foregoing description it will be apparent that a simple, cheap, and efficient rail-joint may be constructed out of a comparatively small amount of metal and without the necessity of employing special tools or machinery in rolling the parts. It will be obvious, too, that the joint is an extremely stiff and rigid one, and consequently the bending of the rails at their meeting ends is impossible.

Without limiting ourselves to the exact construction of the parts shown and described, we claim—

The combination with the rails, of a rail-joint applied thereto comprising angle-bars arranged upon opposite sides of the rails, one of which bars is provided with a depending slotted portion, a base-plate beneath the rails

adapted to extend from one cross-tie to another and to rest upon the same, said plate being secured at one edge to one angle-bar and provided at its other edge, intermediate
5 adjacent cross-ties, with tongues adapted to engage the slots of said depending portion, said plate being also provided upon its lower face with longitudinally - extending ribs to embed in the cross-ties, and with recesses in
10 its edges to receive spikes driven into the ties and means for securing the angle-bars

together and to the rails, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of 15 two subscribing witnesses.

FRANZ BURGER.

HENRY M. WILLIAMS.

Witnesses:

GEO. D. CRANE,

H. A. DININS.