

No. 631,248.

Patented Aug. 15, 1899.

J. CUNNINGHAM.
RAIL JOINT.

(Application filed Oct. 29, 1898.)

(No Model.)

Fig. 2.

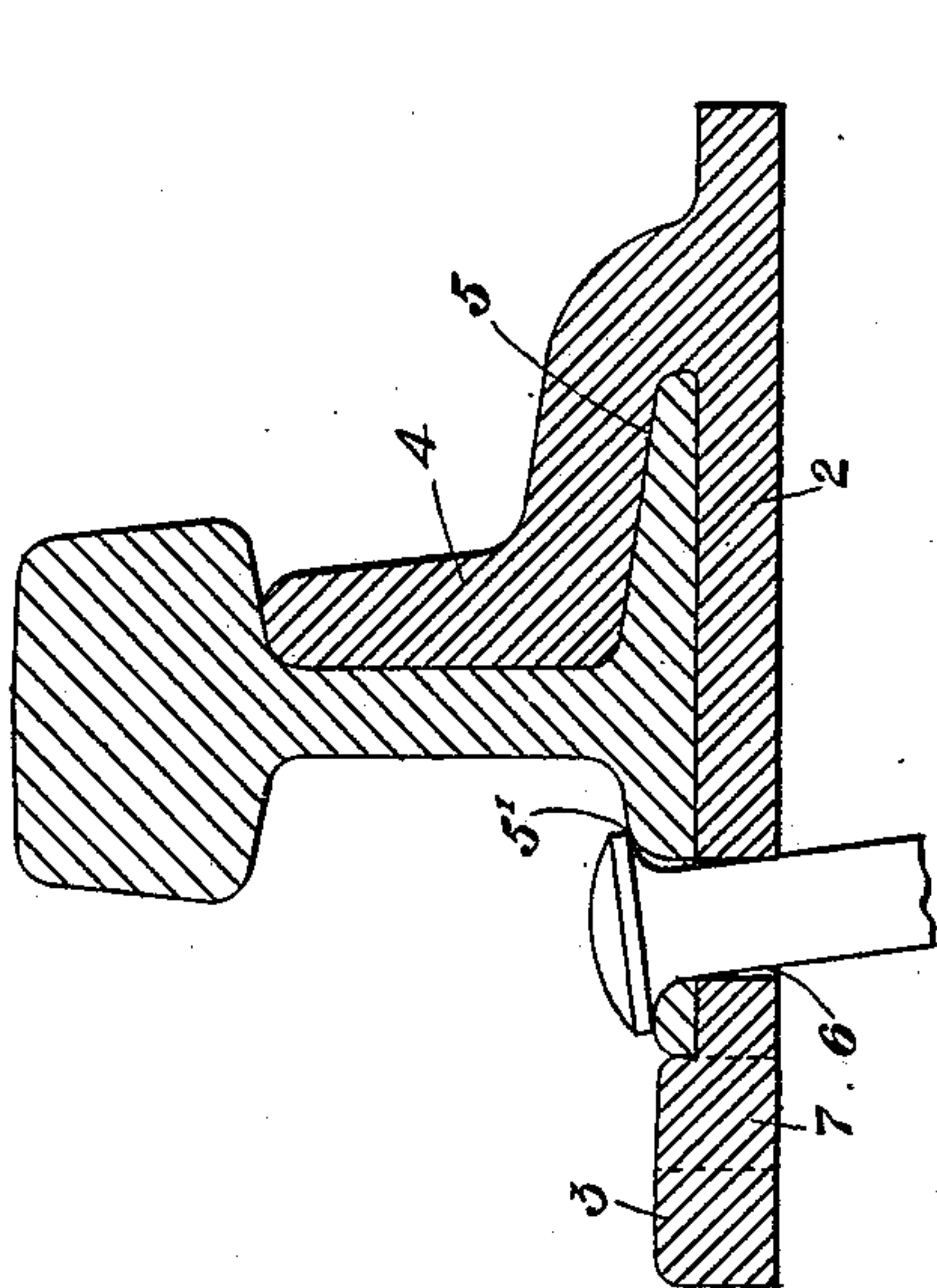


Fig. 4.

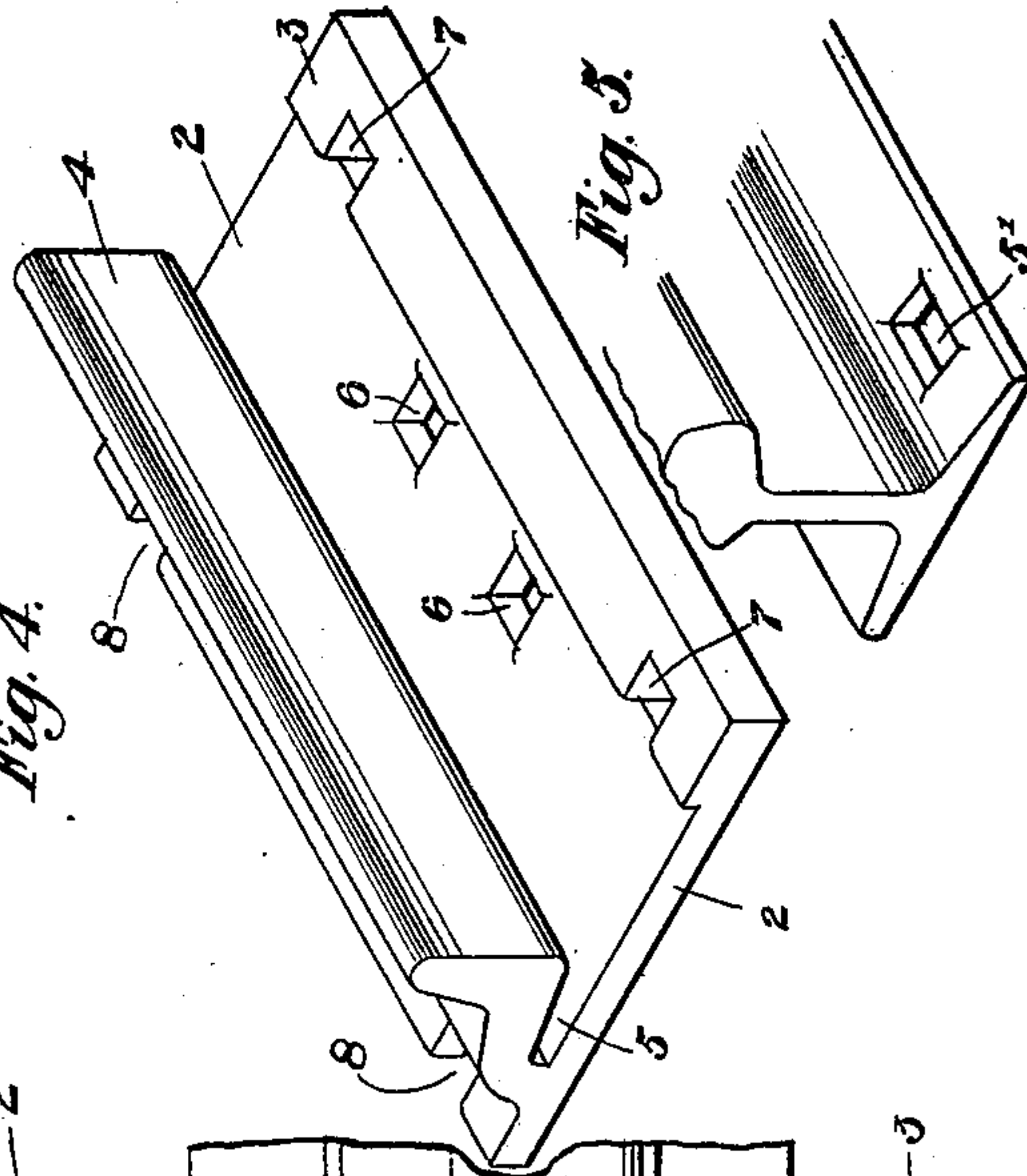


Fig. 5.

Fig. 1.

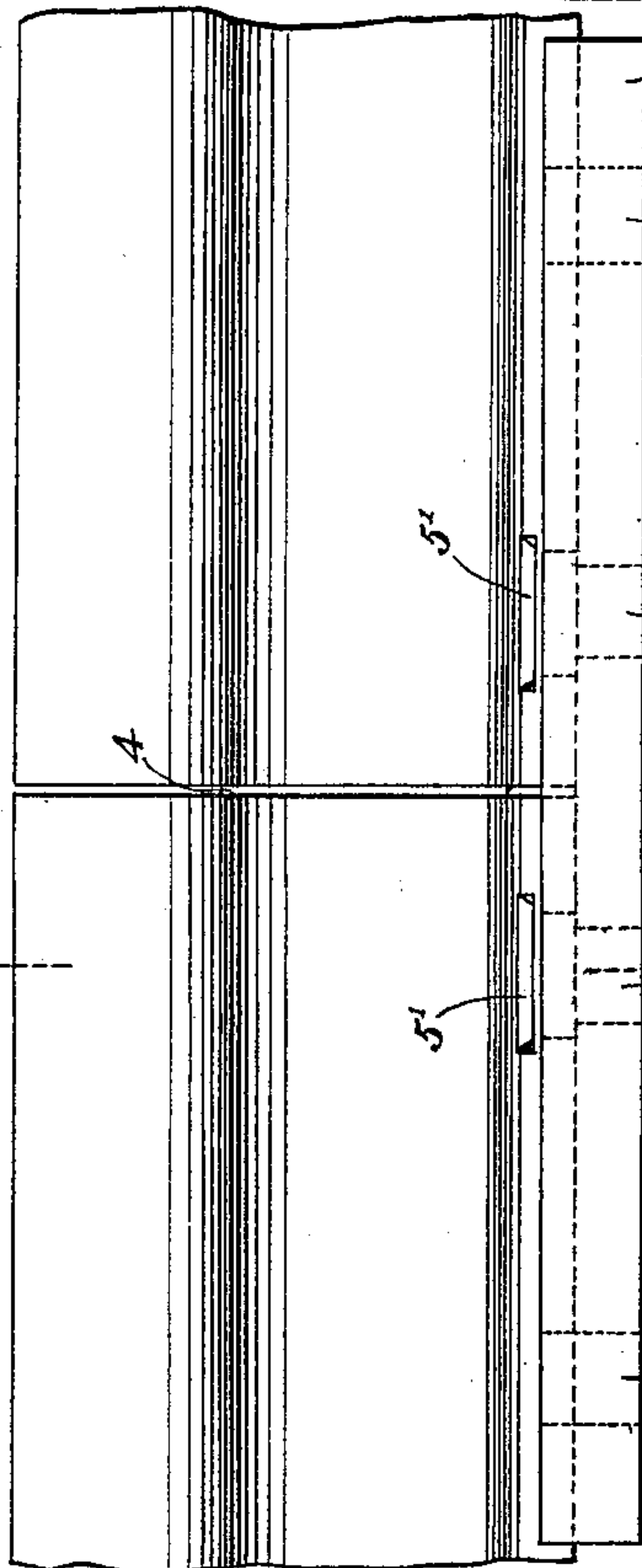
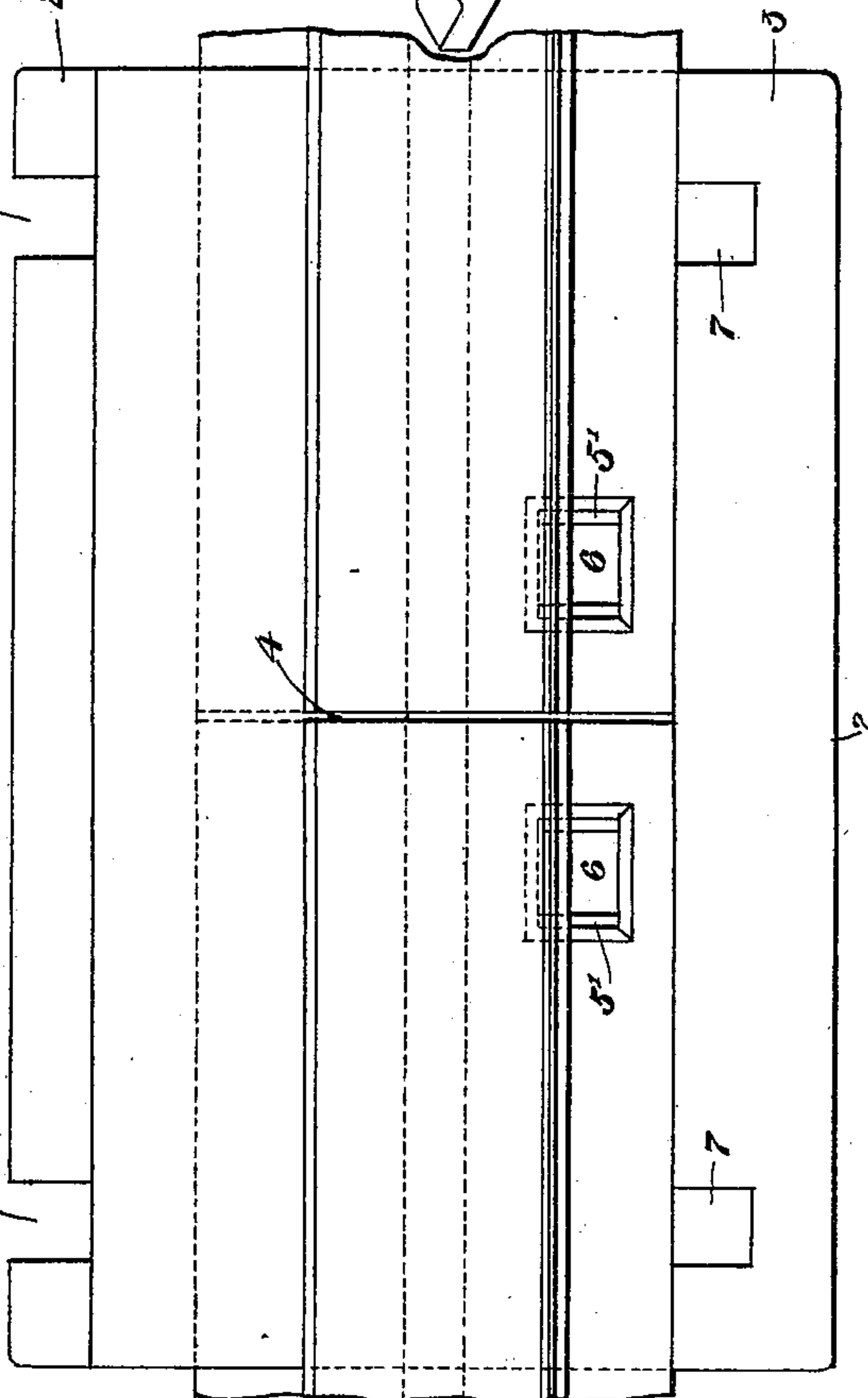


Fig. 3.



Witnesses:

Wm. L. Lutz.
J. F. Edwards

Inventor:

John Cunningham
by O. M. Clarke
his Attorney.

UNITED STATES PATENT OFFICE.

JOHN CUNNINGHAM, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF
ONE-HALF TO JOHN CARNEY, OF SAME PLACE.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 631,248, dated August 15, 1899.

Application filed October 29, 1898. Serial No. 694,907. (No model.)

To all whom it may concern:

Be it known that I, JOHN CUNNINGHAM, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented or discovered a new and useful Improvement in Rail-Joints, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a view in side elevation of a rail-joint made with my improved plate. Fig. 2 is a cross-section on the line II II of Fig. 1. Fig. 3 is a plan view. Fig. 4 is a perspective detail of the plate. Fig. 5 is a similar view of a portion of the end of a rail.

My invention relates to improvements in rail-joints; and it consists of an improved plate adapted to receive and embrace the abutting ends of the rail, with means for bracing the web and head of the rail and for securing the rails and plate together and to the tie without the use of bolts or nuts.

Referring to the drawings, 2 is the base of the plate, provided at one side with an upwardly-projecting rib 3 of sufficient thickness to reinforce and strengthen the plate and to form a retaining-lip for the edge of the rail-flange. At the other side the base is carried up and formed into a backing portion 4, adapted to cover the top of the flange and to abut against the web of the rail and under the head. As thus formed a cavity 5 is formed, into which the other flange of the rail enters and in which it is tightly embraced, so that when the meeting ends of two rails are introduced they will fit neatly within and be tightly held between the base of the plate, the edge 3, and the backing 4.

Each rail is provided with a spike-hole 5', somewhat elongated to allow for expansion and contraction, and the base has two corresponding spike-holes 6 6, designed to register with the holes 5' when the rails are in position, when spikes are driven through the rail-flanges and base of the plate into the tie.

Additional holes 7 are made through the reinforced edge 3 in such a position that the lip of an ordinary railroad-spike will project over and embrace the edge of the flange when driven down, thus further securing the rail and base to the tie. On the opposite side are recesses 8 in the base, by which the base is also secured to the tie by spikes, and it will

be noted that by reason of the compact construction of the joint I am enabled to make the base-plate comparatively short, so that all of the spikes passing through both the base and the rail-flanges will be driven into a single cross-tie, upon which the joint is supported. When the two abutting ends of rails are thus engaged by the plate, they will be firmly held against displacement, and the usual fish-bars are dispensed with, thus obviating the necessity of making bolt-holes in the rails, and the rails are, moreover, more firmly clamped and braced by reason of the greater surface contact of the plate around one side up to the head, under the flanges, and along the edges of the opposite flanges for the entire length of the plate.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A plate for securing the meeting ends of rails consisting of a flat base adapted to be supported on a single cross-tie and to receive the flanges of the rails, an inwardly and upwardly projecting flange-retaining and web-supporting member along one side of the plate adapted to form an embracing-recess for the flange, an upwardly-projecting flange-retaining rib along the opposite side, lateral base portions provided with cavities for retaining spikes, and spike-holes through the flat base adapted to register with corresponding holes in the rail-flanges, substantially as set forth.

2. In combination with the meeting ends of rail-sections provided with spike-holes through the flanges at one side, a joining-plate provided with a flat base upon which the flanges rest, an inwardly and upwardly projecting flange-retaining and web-supporting member along one side of the plate adapted to form an embracing-recess for the flange, an upwardly-projecting flange-retaining rib along the opposite side, lateral base portions provided with cavities for retaining spikes, and spike-holes through the flat base adapted to register with the holes in the flanges of the rails, substantially as set forth.

In testimony whereof I have hereunto set my hand.

JOHN CUNNINGHAM.

Witnesses:

PETER J. EDWARDS,
C. M. CLARKE.