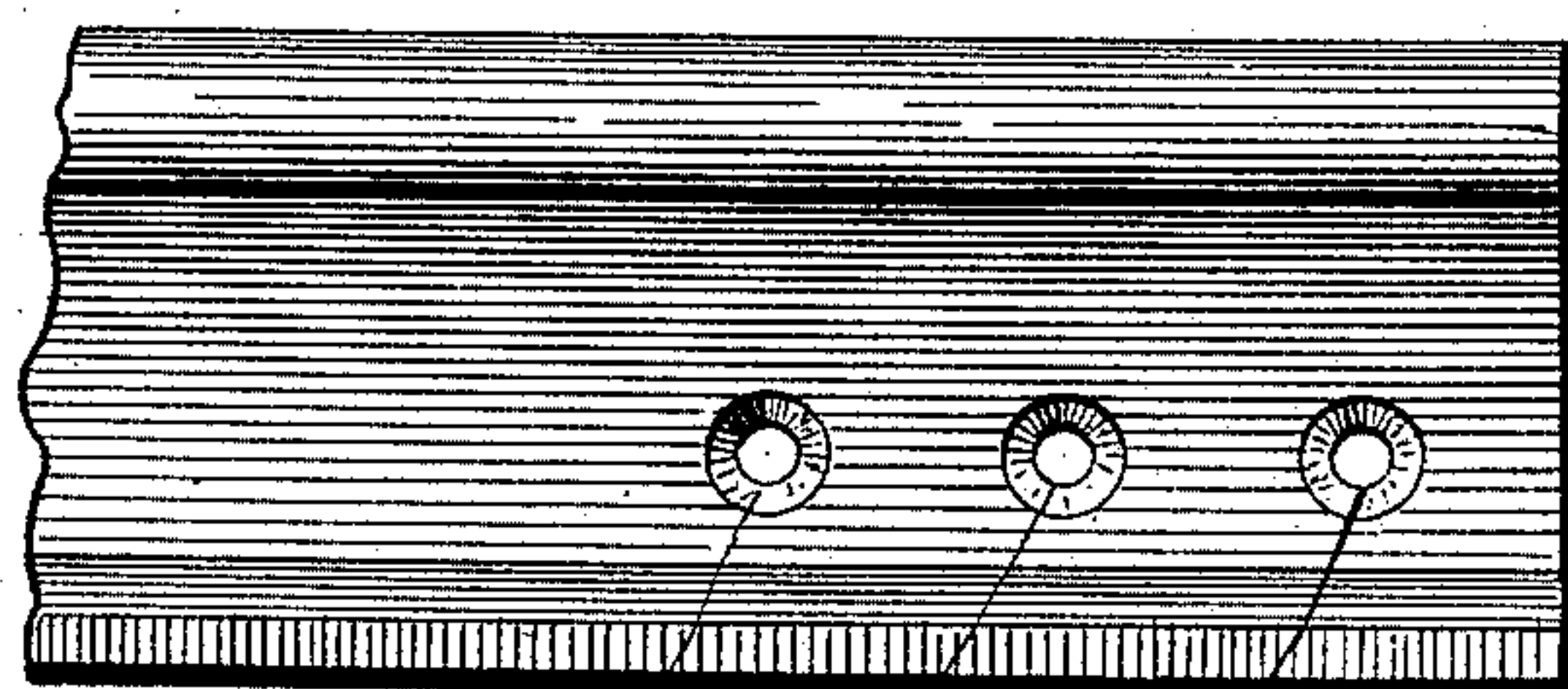
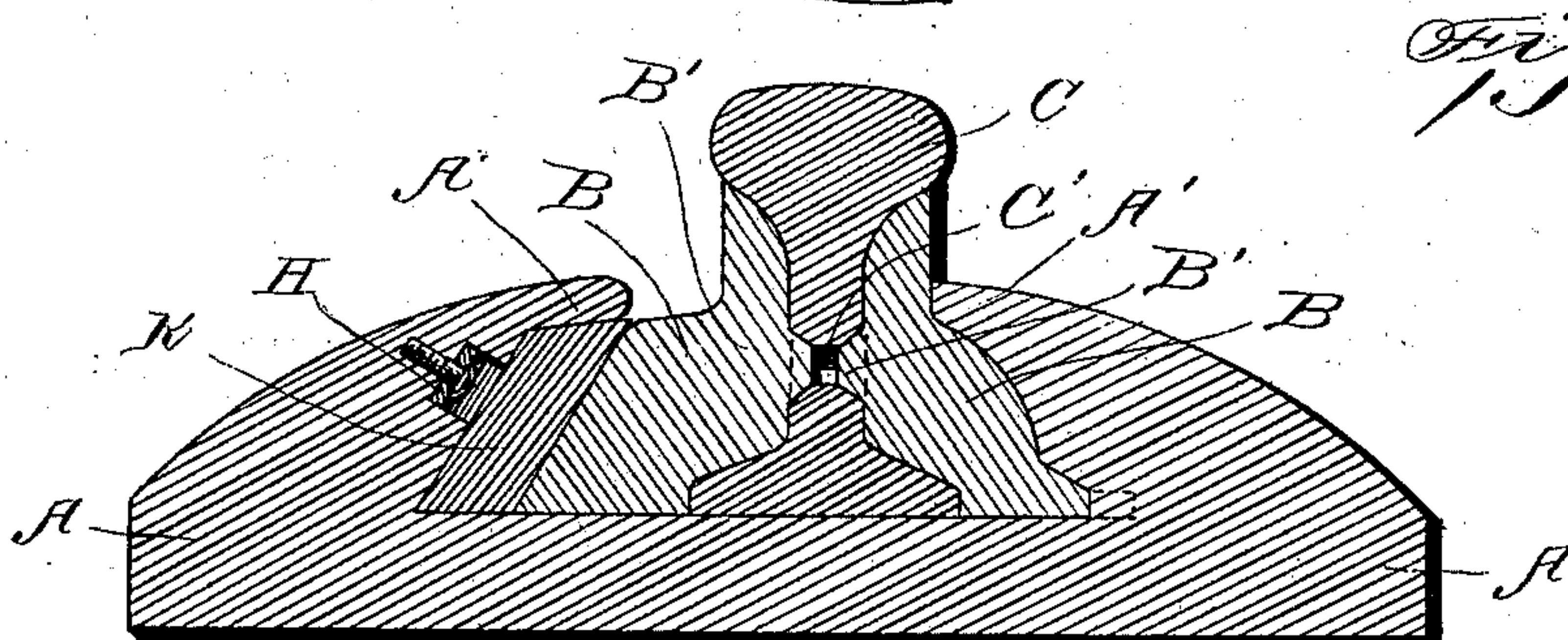
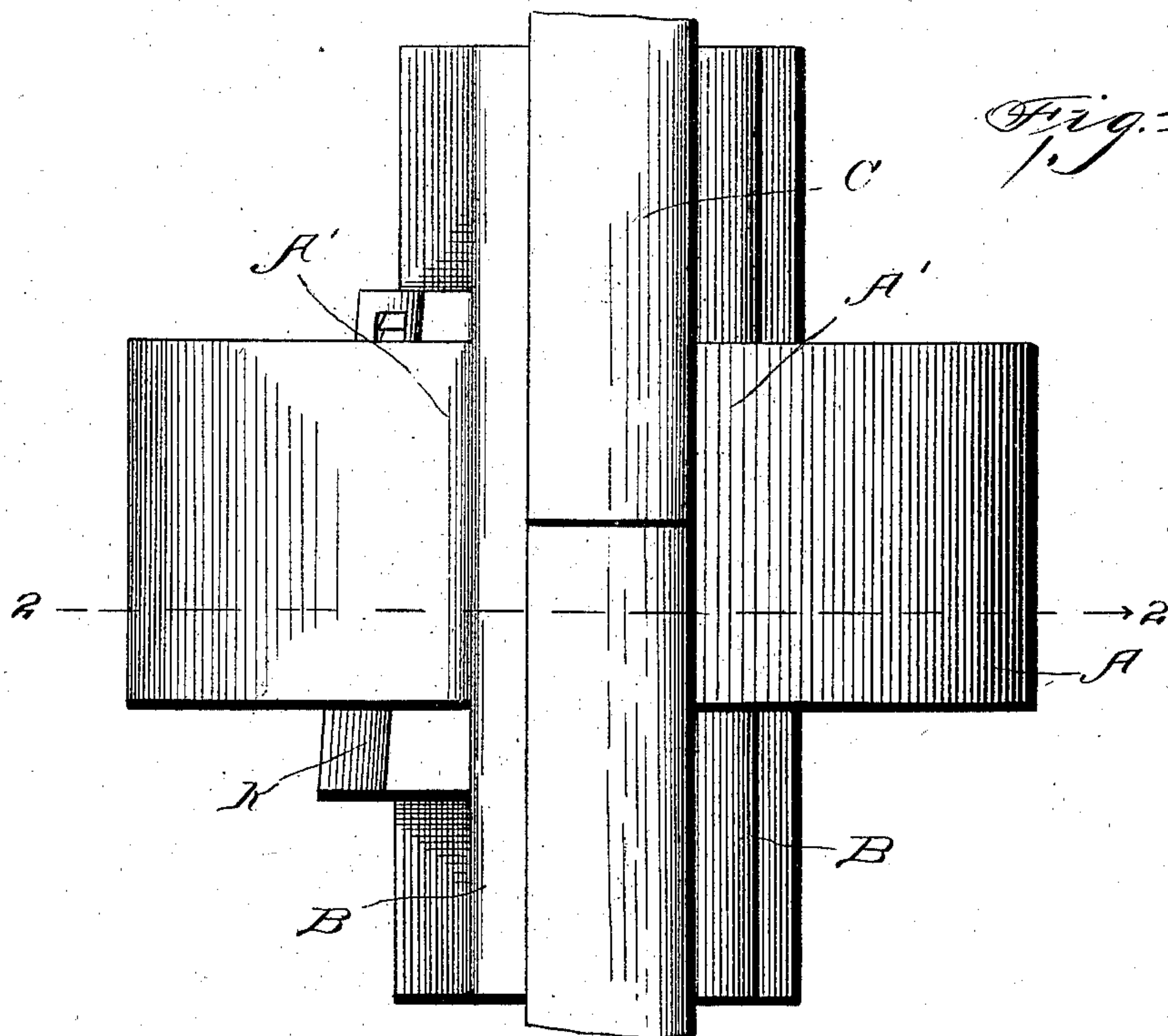


J. C. FAIR.
RAILWAY RAIL JOINT.
(Application filed Mar. 24, 1902.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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RAILWAY RAIL JOINT.

(Application filed Mar. 24, 1902.)

(No Model.)

2 Sheets—Sheet 2.

Fig. 4.

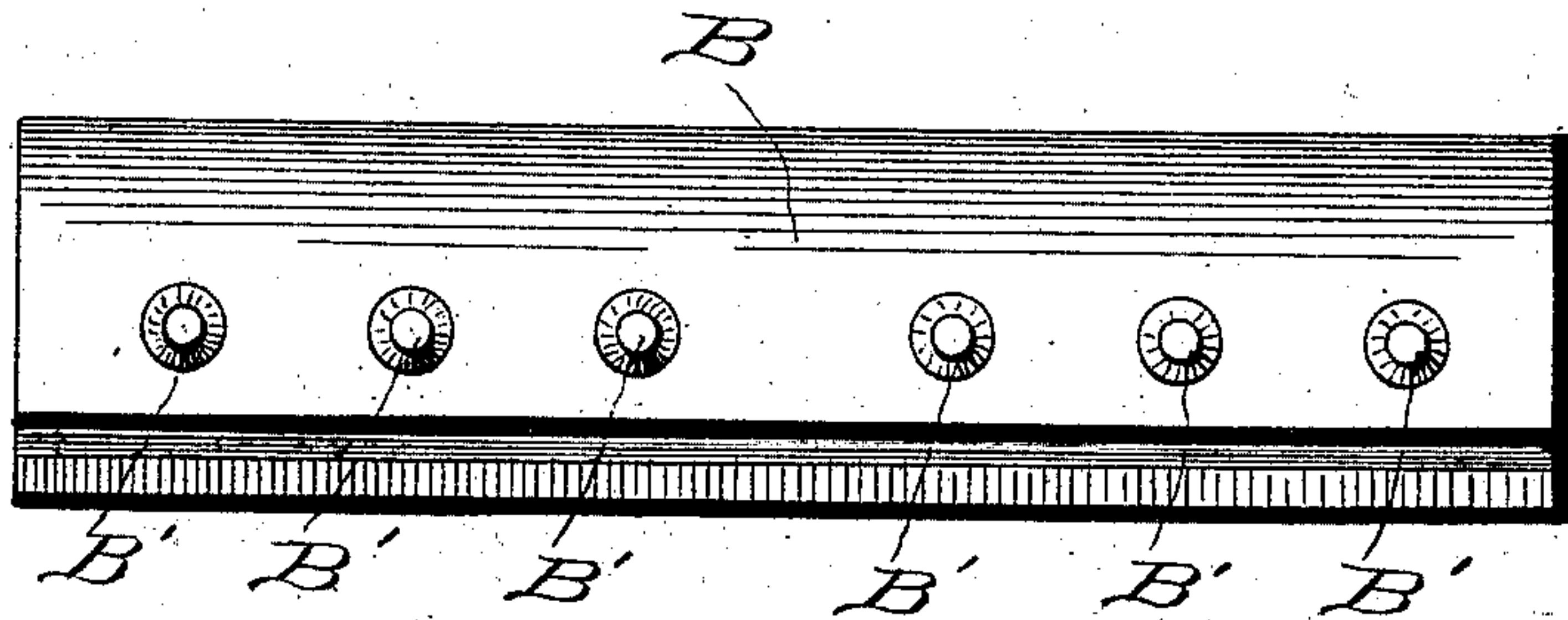


Fig. 5.

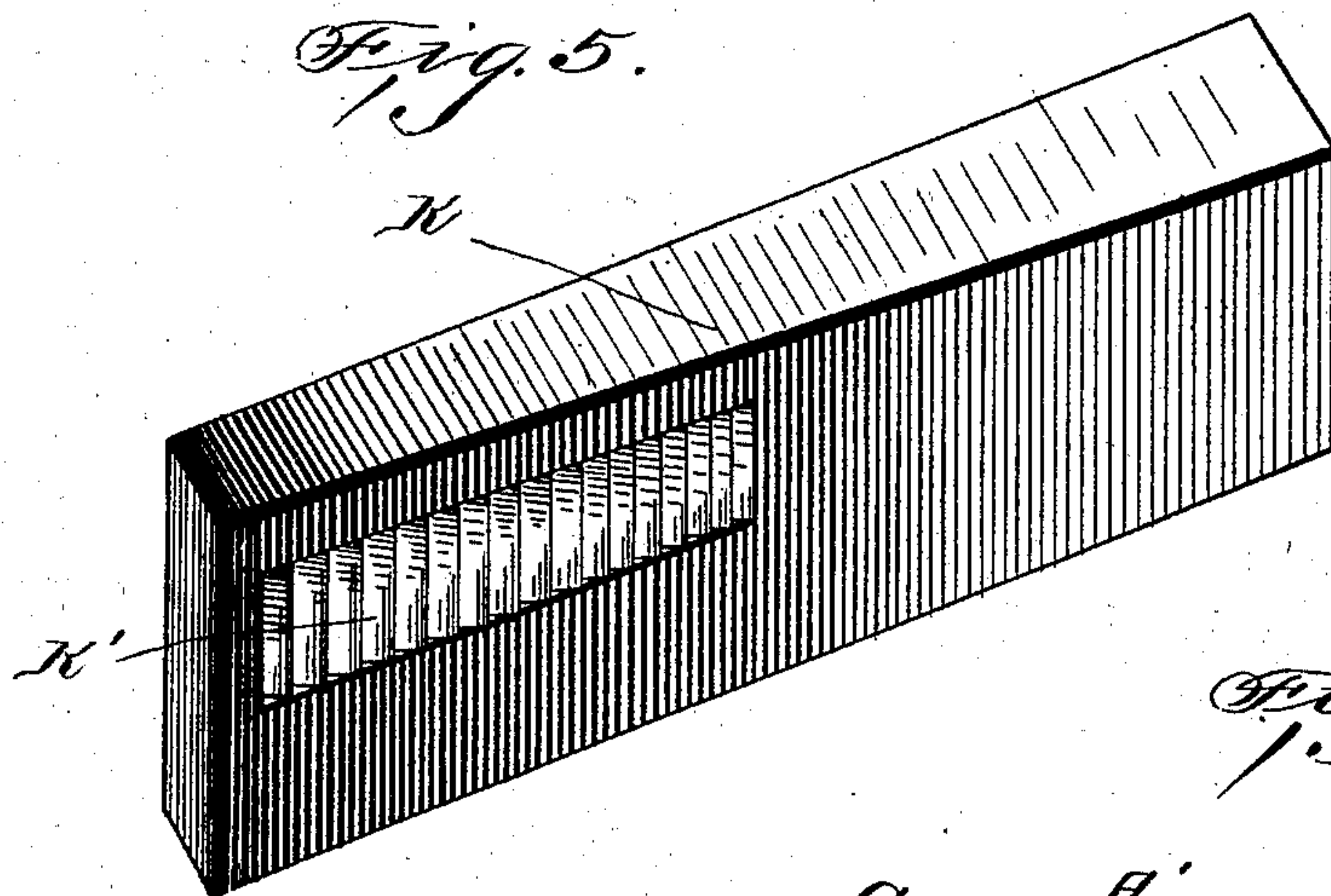
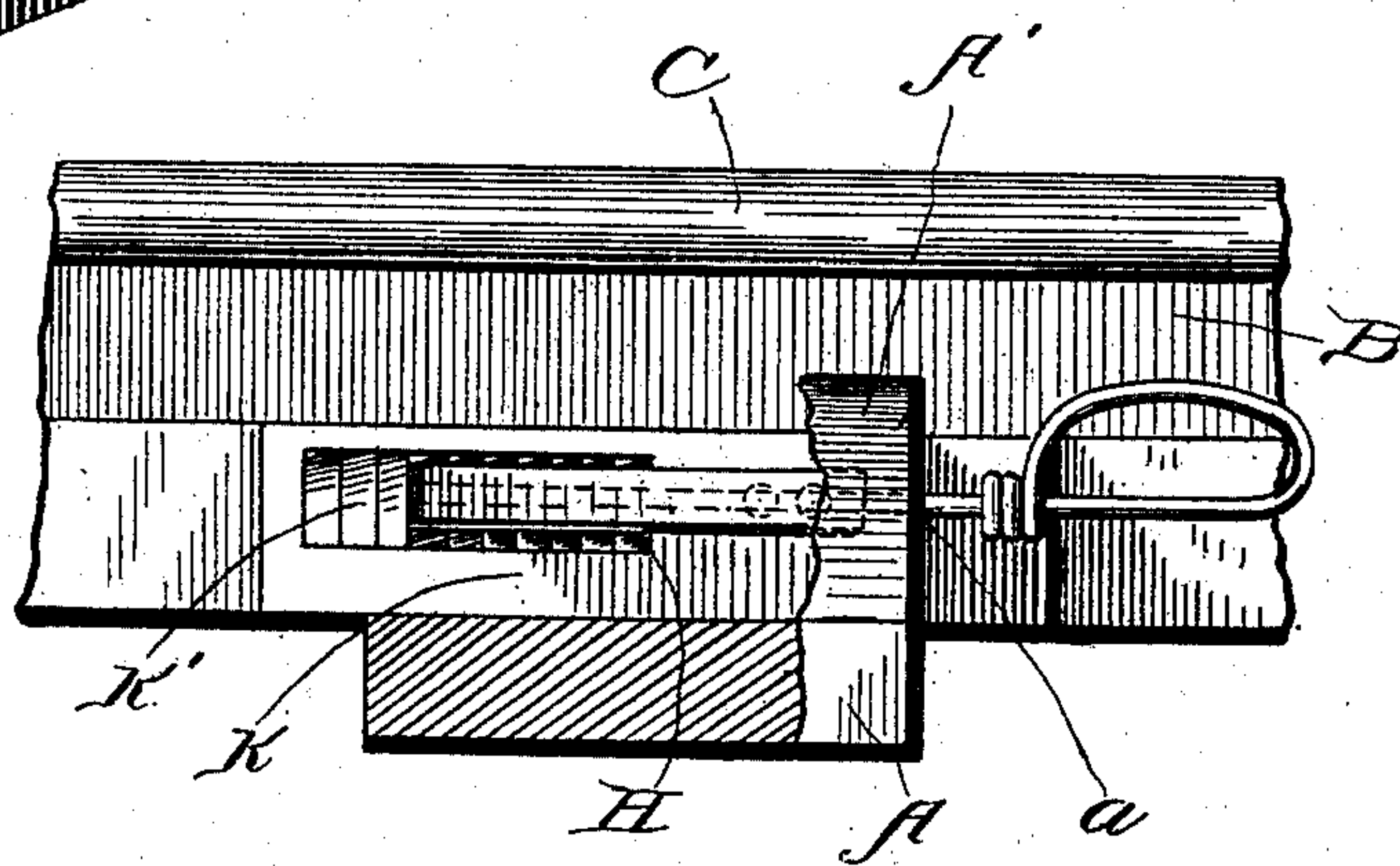


Fig. 6.



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UNITED STATES PATENT-OFFICE.

JACOB C. FAIR, OF WEST MONTEREY, PENNSYLVANIA.

RAILWAY-RAIL JOINT.

SPECIFICATION forming part of Letters Patent No. 705,568, dated July 29, 1902.

Application filed March 24, 1902. Serial No. 99,819. (No model.)

To all whom it may concern:

Be it known that I, JACOB C. FAIR, a citizen of the United States, residing at West Monterey, in the county of Clarion and State of Pennsylvania, have invented certain new and useful Improvements in Railway-Rail Joints; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in railway-rail joints; and it consists in the provision of means whereby fish-plates may be securely clamped to the meeting ends of rails, and consists, further, in the provision of a wedge-shaped rack-bar adapted to hold the fish-plates having lugs on their inner faces in apertures in the webs of rails, a spring being provided to engage serrations in the face of said wedge-block in order to hold the same in a clamping relation.

The invention consists, further, in the provision of various details of construction and arrangements and combinations of parts, as will be hereinafter fully described and then specifically defined in the appended claim.

My invention is illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this application, and in which drawings similar letters of reference indicate like parts in the different views, in which—

Figure 1 is a top plan view of my improved railway-rail joint. Fig. 2 is a cross-sectional view on line 2 2 of Fig. 1. Fig. 3 is a side elevation of one end of the rail. Fig. 4 is a detail view of the inner face of one of the fish-plates. Fig. 5 is a detail view of the wedge-block, and Fig. 6 is a detail view showing the spring-bar for holding the wedge-block in place.

Reference now being had to the accompanying drawings by letter, A designates a bed-plate having two flanged portions A', which are adapted to engage over the fish-plates B. The rails C, which are of the ordinary construction, have apertures C' in the web portions thereof, and the meeting ends of the

rails are adapted to rest upon the upper surface of said plate below the inwardly-projecting flanges thereof, as shown. Each fish-plate B has a series of lugs B' on its inner face, and the inner face of each fish-plate is adapted to conform to the contour of the flange, web, and under surface of the tread of the rail. Said lugs are adapted to enter the apertures in the webs of the rails, thereby holding said rails from longitudinal movement from each other. After the two fish-plates are adjusted in place, with the lugs thereon passing through the apertures in the webs of the rails, a wedge-block K is inserted between the outer face of one of said fish-plates and the inner face of one of said flanges, the wall of which flange is formed at an inclination, and as said wedge-block is forced in place the fish-plate is forced against the rail and crowds the rail and the fish-plate on the other side thereof tightly together. One face of said wedge-block has a series of teeth K' thereon, and a spring H has one end fastened in a recess in the inclined wall of one of said flanges, and the free end of the spring is adapted to engage one of said teeth as the wedge-block is forced in place, thereby holding the wedge in its locked position.

For releasing the end of the spring from engagement with the teeth of the wedge-block I provide a rod which may be inserted in an aperture a and which may be pushed against the end of the spring to throw it out of engagement with the teeth.

From the foregoing it will be observed that by the construction of a joint embodying the features of my invention the meeting ends of rails are positively held in engagement, the use of bolts being dispensed with entirely, and when it is desired to release the ends of the rails this can be easily done by moving the wedge-block in the manner described.

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

A railway-rail joint comprising, in combination with the web of a rail having apertures therein, fish-plates with integral tapering lugs adapted to be inserted in the apertures in said web from opposite directions, a channeled bed-plate on which said rail and fish-plates rest, a wedge-shaped block having a series

of ratchet-teeth on its outer wall, said block adapted to be inserted between one of said fish-plates and the wall of the channeled portion of the bed-plate, the upper inclined end
5 of said wedge-block adapted to be held in contact with the overhanging wall of the channeled portion of the bed-plate, a spring fastened at one end in a recess in the channeled portion of the bed-plate, and having its free
10 end disposed in the path of said ratchet-teeth, whereby the wedge-block is held in contact

with the fish-plate, the free end of said spring adapted to be held out of the path of said ratchet-teeth by inserting a rod in an aperture in the bed-plate against the spring, as set
15 forth.

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

JACOB C. FAIR.

Witnesses:

S. S. MILLER,
LINCOLN JUDSON.