

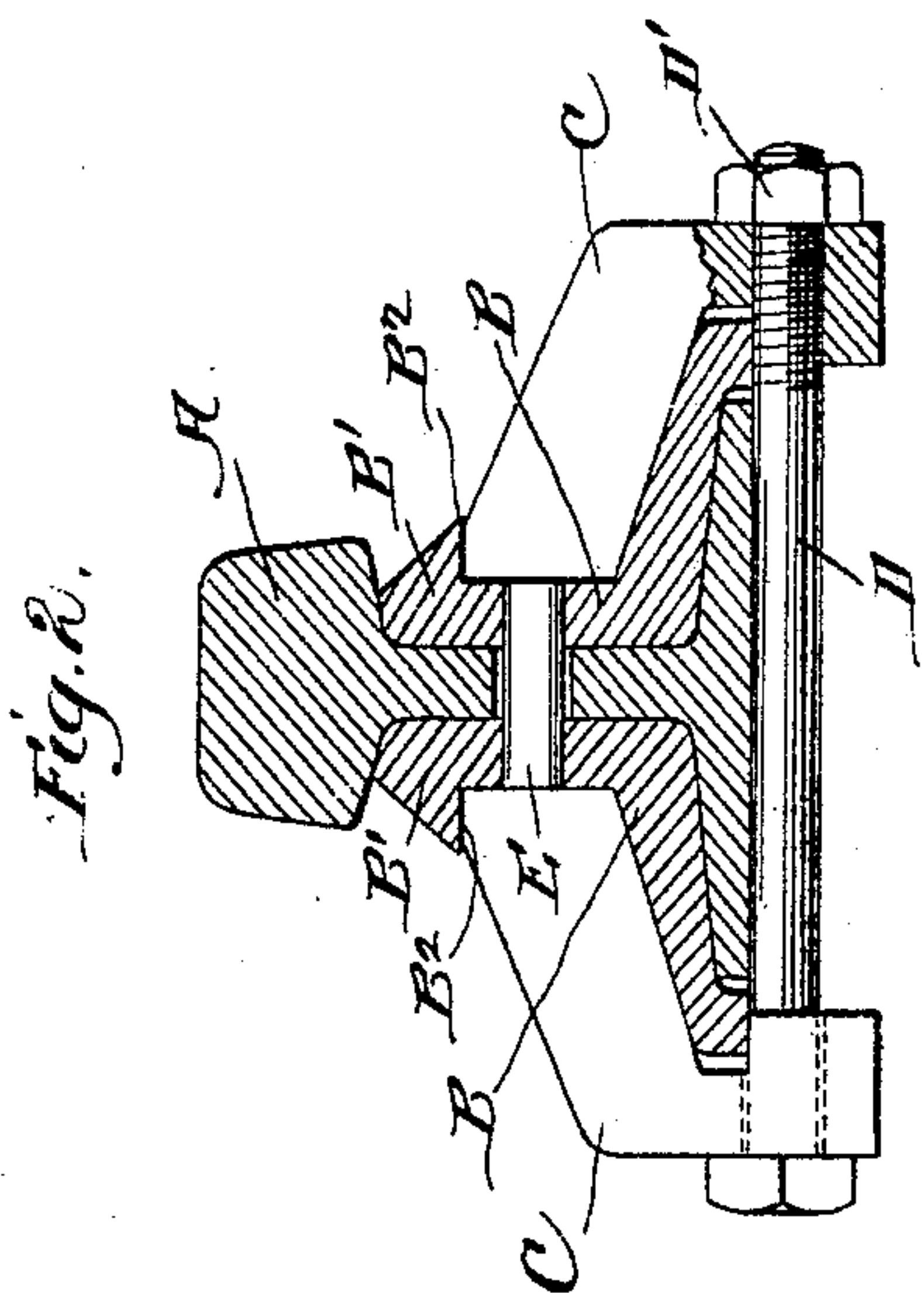
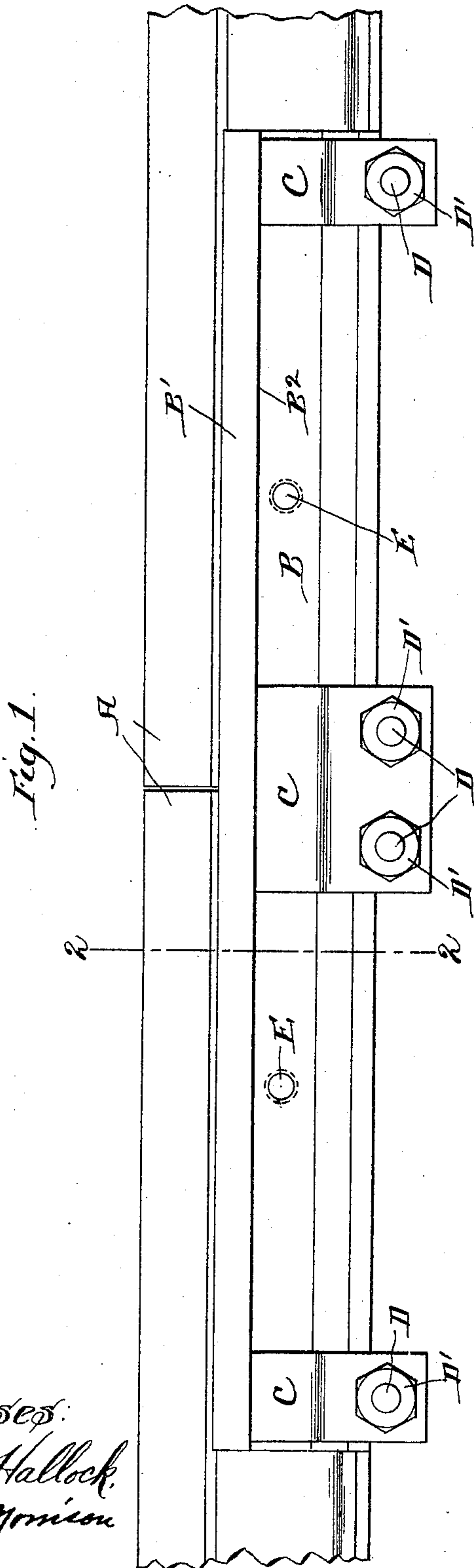
No. 799,512.

PATENTED SEPT. 12, 1905.

J. A. B. WILSON & H. A. WISE.

RAIL JOINT.

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UNITED STATES PATENT OFFICE.

JAMES A. B. WILSON AND HENRY A. WISE, OF MAMMOTH, WEST VIRGINIA.

RAIL-JOINT.

No. 799,512.

Specification of Letters Patent.

Patented Sept. 12, 1905.

Application filed January 19, 1905. Serial No. 241,718.

To all whom it may concern:

Be it known that we, JAMES A. B. WILSON and HENRY A. WISE, citizens of the United States, residing at Mammoth, county of Kanawha, and State of West Virginia, have invented a certain new and useful Improvement in Rail-Joints, of which the following is a specification.

Our invention relates to a new and useful improvement in rail-joints, and has for its object to provide a device whereby the ends of rails may be bound together and held in alinement or a broken rail may be repaired without the use of bolts passing through the rails.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claim.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, the construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is an elevation of our device in use in binding two rails together; Fig. 2, a cross-section taken on the line 2 2 of Fig. 1.

A represents the rails.

B represents fish-plates which are adapted to come in contact with the web of the rail upon each side and also come in contact with the upper surface of the flange of the rail and extend downward outside of the flange and end flush with the bottom of the flange. At the upper end of each of the fish-plates a projection B' extends outward, so as to form an undercut shoulder B².

C represents blocks arranged in pairs, the blocks of each pair being opposite one another. Any number of these pairs of blocks can be used, as desired, along the length of the fish-plates, said blocks bearing against the vertical portion of the fish-plates underneath the shoulder B², the blocks extending outward and resting upon the horizontal portion of the fish-plates, and the outer ends of said blocks extend around and a short distance underneath the ends of the horizontal portions of the fish-plates, as shown in Fig. 2, and the lower ends of said blocks extend a distance below the flange of the rail, and bolts

D are passed through holes in one block of each pair and threaded into the opposite block of the same pair, thus serving to draw the blocks tightly against the fish-plates, and the fish-plates in turn binding against the rail serve to hold the two portions of the rail in alinement. A nut D' is threaded upon the outer end of the bolt and serves to lock the bolt against turning.

When the device is to be used as a rail-joint and not for the purpose of repairing a broken rail, holes are formed laterally through the fish-plates, each of said holes coming opposite one of the usual bolt-holes through the web of the rail. Pins E are then passed through the holes of the fish-plates and through the hole of the web of the rail to keep the rails from moving longitudinally to the fish-plates. The pins E are smaller than the holes through the rail to allow for the expansion and contraction of said rails.

By the use of this device it will be seen that if a few of these splices are carried on a train or locomotive a broken rail can be easily and quickly repaired without the necessity of drilling holes through the rail, and the joint thus made will be as strong, if not stronger, than before the rail was broken, and bolts D will pass underneath the rail in contact with the lower surface of the flange thereof and will form a support for the rail. Simply by the addition of two pins the device can be used as a rail-joint for the joining together of two rails.

Having thus fully described our invention, what we claim as new and useful is—

In a rail-joint, a pair of fish-plates arranged upon opposite sides of the rail, each fish-plate consisting of a vertical portion and a horizontal portion, the vertical portion bearing against the web of the rail, and the horizontal portion resting upon the flange of the rail, the outer edge of the horizontal portion extending downward beyond the flange of the rail flush with the lower surface thereof, blocks arranged in pairs upon opposite sides, the inner ends of said blocks bearing against the vertical portion of the fish-plate, a projection extending outward from the upper edges of the fish-plates under which the inner ends of the blocks are adapted to lodge, the outer ends of the blocks embracing the outer edges of the fish-plates and extending

downward below the lower surface of the
same, bolts passing through one block of each
pair and threaded into the opposite block of
said pair, nuts threaded upon the outer ends
5 of the bolts beyond the blocks, said bolts pass-
ing across directly underneath the rail and in
contact therewith, and pins passing through
the vertical portions of the fish-plates and
through the web of the rail, the opening in
10 the web of the rail through which the pin
passes being considerably larger than the pin

to allow for expansion and contraction, as
and for the purpose specified.

In testimony whereof we hereunto affix
our signatures in the presence of two sub- 15
scribing witnesses.

JAMES A. B. WILSON.
HENRY A. WISE.

Witnesses:

R. W. PICKERING,
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