

No. 710,290.

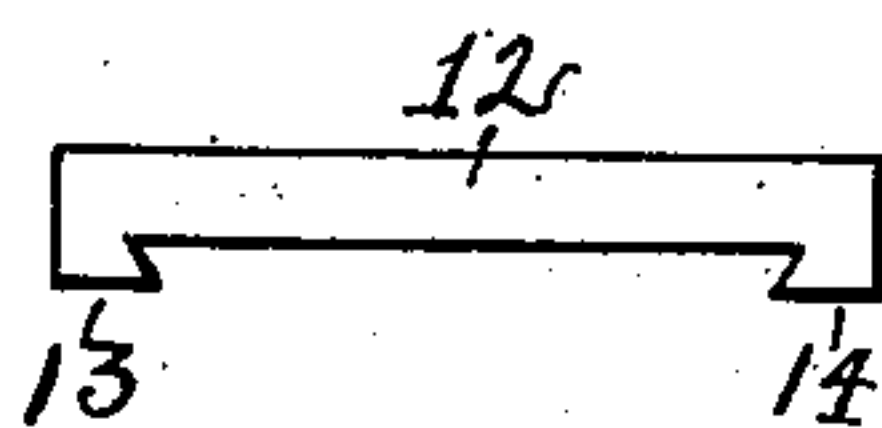
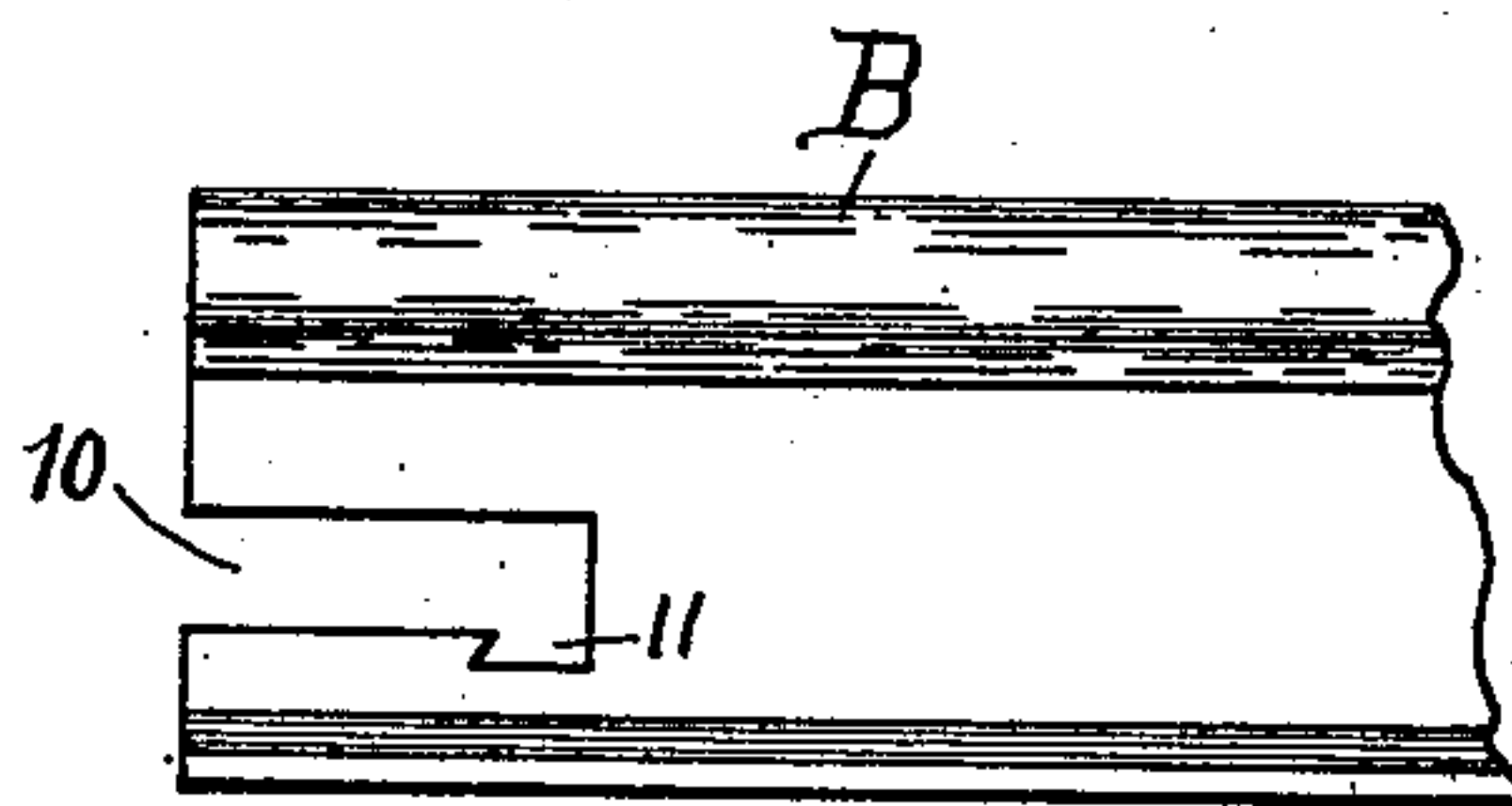
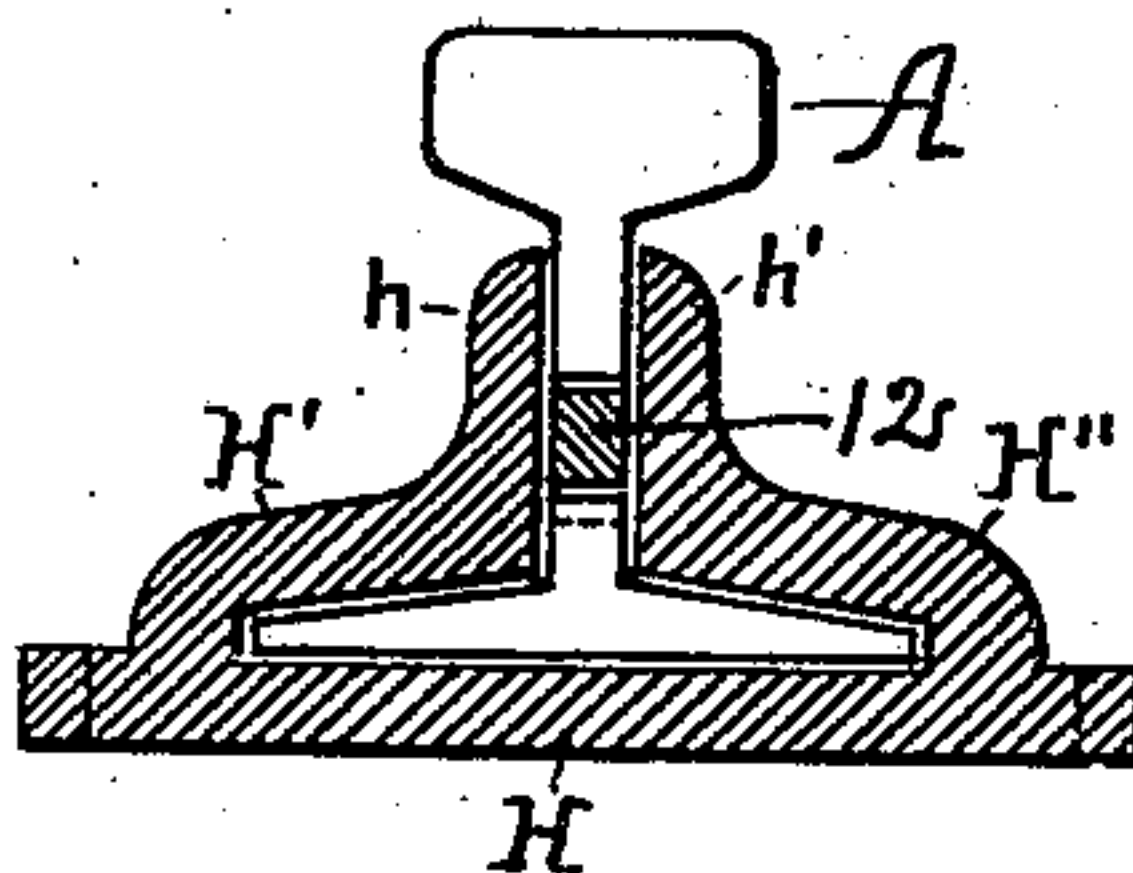
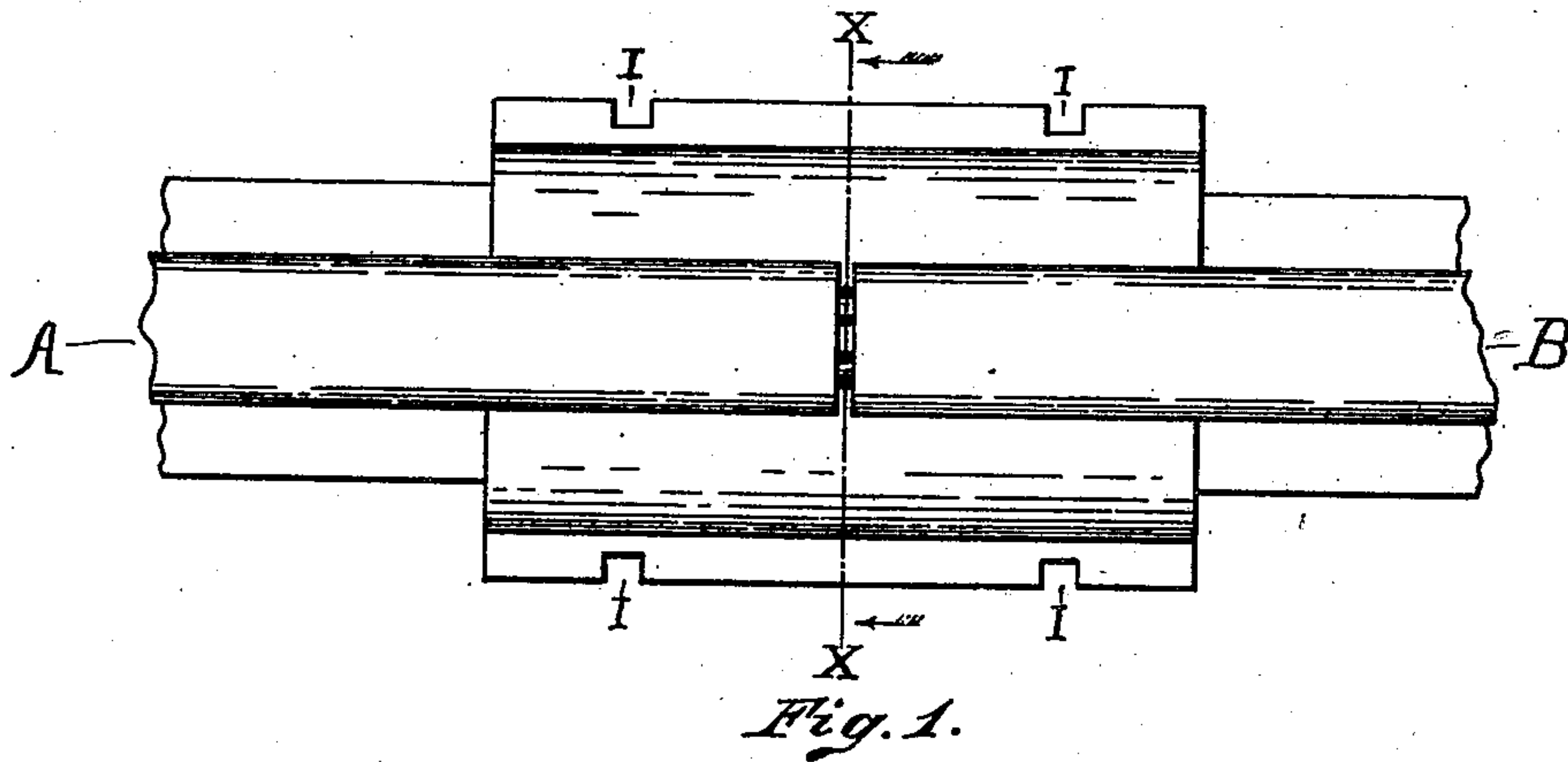
Patented Sept. 30, 1902.

H. MINCK & H. L. DROSTE.

RAIL JOINT.

(Application filed Feb. 7, 1902.)

(No Model.)



Witnesses:

J. C. Duvall.
R. W. Randle

Fig. 4.

Inventors:

HARRY MINCK
AND
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by their attorney,

Robert W. Randle.

UNITED STATES PATENT OFFICE.

HARRY MINCK AND HENRY L. DROSTE, OF RICHMOND, INDIANA.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 710,290, dated September 30, 1902.

Application filed February 7, 1902. Serial No. 92,996. (No model.)

To all whom it may concern:

Be it known that we, HARRY MINCK and HENRY L. DROSTE, citizens of the United States, residing at Richmond, in the county of Wayne and State of Indiana, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

Our invention relates to improvements in rail-joints for supporting and holding in alignment the meeting ends of railway-rails or the like; and the objects of our invention are, first, to provide means whereby the meeting ends of railway-rails may be supported and held in alignment and connected together, so as to form a continuous rail; second, to provide improved means for connecting the abutting ends of railway-rails or the like without the use of screws or bolts which will be neat and attractive in appearance, easily operated, and at the same time adding strength to the rails where most needed; third, to provide means for locking the meeting ends of railway-rails against accidental displacement, yet allowing for the free endwise movements of the rails caused by expansion and contraction, and, fourth, to provide a railway-joint which can be manufactured and sold at a comparatively low price.

Other objects and advantages will appear from the following specification and drawings, and specifically pointed out in the appended claims terminating this specification, which will be apparent to an ordinary mechanic familiar with the art to which it appertains.

Our invention consists in the construction substantially as shown in the drawings forming a part of this specification.

Referring now to the drawings, Figure 1 is a vertical plan of our invention in connection with the meeting ends of two railway-rails. Fig. 2 is a cross-section elevation of same, taken on line X X of Fig. 1. Fig. 3 is a detail view of a portion of a railway-rail, showing the manner in which the ends of the rails are prepared when they are to be used in accordance with our invention; and Fig. 4 is a detail view of a connecting-bar as used in connection with our invention and constructed in accordance with same.

Similar letters and figures of reference de-

note and refer to like parts throughout the several views.

A and B represent the abutting ends of two railway-rails, which are of a form in common use, with the exception of the slot hereinafter referred to.

10 represents a slot in the stem or central portion of each end of each rail. This slot extends inward from the end of the rail and parallel therewith. The inner portion of 10 terminates in an inclave recess 11, substantially of the shape and proportions shown in the drawings.

12 represents a connecting-bar formed of one piece of material with downwardly-projecting portions 13 and 14. The bar 12 should be of a thickness corresponding with the thickness of the stem of the rail.

Our rail-chair is formed of one piece of material consisting of the following parts: H represents the base-plate with upward and inward projecting oblique members H' and H'', extending inward and upward toward each other and thence upward at right angles to H, forming the fish-plate portions h and h'. The inner space between these parts corresponds to the contour of and is slightly larger than the rails below their head or upper portion thereof, as shown in Fig. 2. I, I, I, and I represent recesses or notches in the edges of H, through which spikes may be driven into the ties to hold the rail-chair in place in its position on the ties.

The rails being prepared with the slots or openings 10 11 it is apparent that our rail-joint consists, essentially, of but two separate pieces of material—viz., the rail-chair and the connecting-bar.

In practice each end of the rails are provided with slots 10 11. The rail-chair is then placed over one of the rails, as shown in Fig. 2, and is pushed toward the center of the rail about the length of itself. The ends of the rails to be connected are then brought together in alignment with each other. The connecting-bar 12 is now placed in the space 10 11, which space connects with the corresponding space in the opposite rail end, thus forming a space just sufficient to receive the bar 12, and this space corresponds to the contour of 12. The rail-chair is now brought

over the joint, so that the ends of the abutting rails will meet in the center of the rail-chair, as shown in Fig. 1. Thus the rail-chair will cover and surround the joint below the
5 head of the rail and hold the connecting-bar 12 in place. The rail-chair is then secured to the ties by spikes to be driven through the notches I into the ties, and the ends of the rails A and B will be securely locked in the
10 center of the rail-chair, yet sufficiently free to allow for their contraction and expansion without injury to the rails or the rail-joints.

Our invention is perfectly adapted to accomplish the results for which it is intended,
15 and it is evident that changes in and modifications of the specific construction herein shown and described may be made and that analogous parts may be used to accomplish the same results without departing from the
20 spirit of our invention or sacrificing any of its many advantages and the specific construction of the details of our rail-joint in which novel features are embodied may be variously changed without altering the es-
25 sential principles which are claimed as new.

Having now fully shown and described our

invention and the best mode for its construction to us known at this time, what we claim as new, and desire to secure by Letters Patent of the United States, is—

In a rail-joint, the combination-sections A and B each provided with a slot extending inward therefrom and terminating in enlarged
30 inclave portions, the slot in each end of each rail being adapted to receive one half of the
35 connecting-bar 12, the other half of the connecting-bar being adapted to enter a similar slot in the opposite rail, of the connecting-bar 12 with downwardly-projecting portions
40 13 and 14, adapted to be inclosed by a slot in the abutting ends of two rails in combination with the rail-chair, all substantially as shown
and described and for the purposes set forth.

In testimony whereof we have hereunto set
our hands, in the presence of two subscribing
45 witnesses, this the 3d day of February, 1902.

HARRY MINCK.
HENRY L. DROSTE.

Witnesses:

R. W. RANDLE,
R. E. RANDLE.