

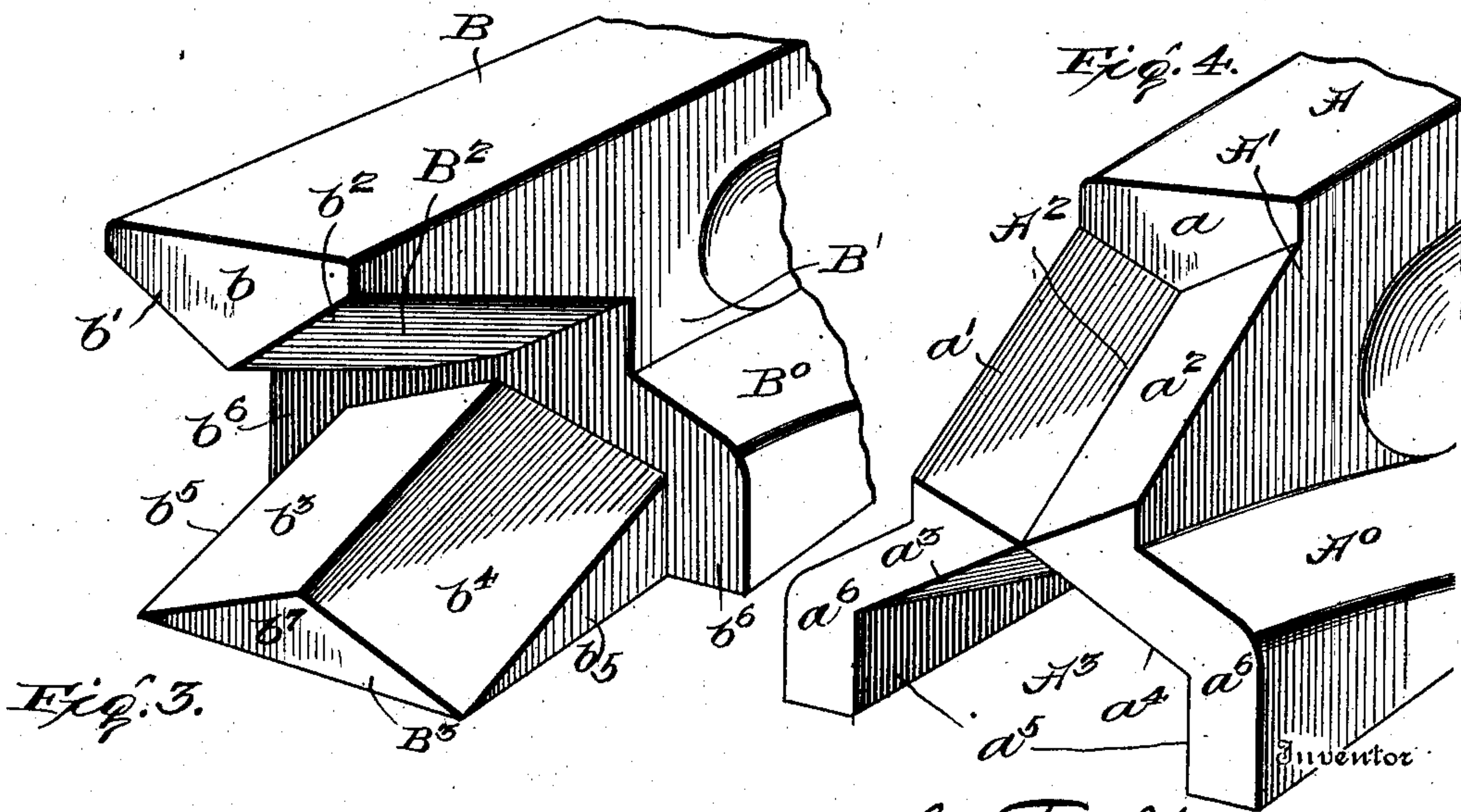
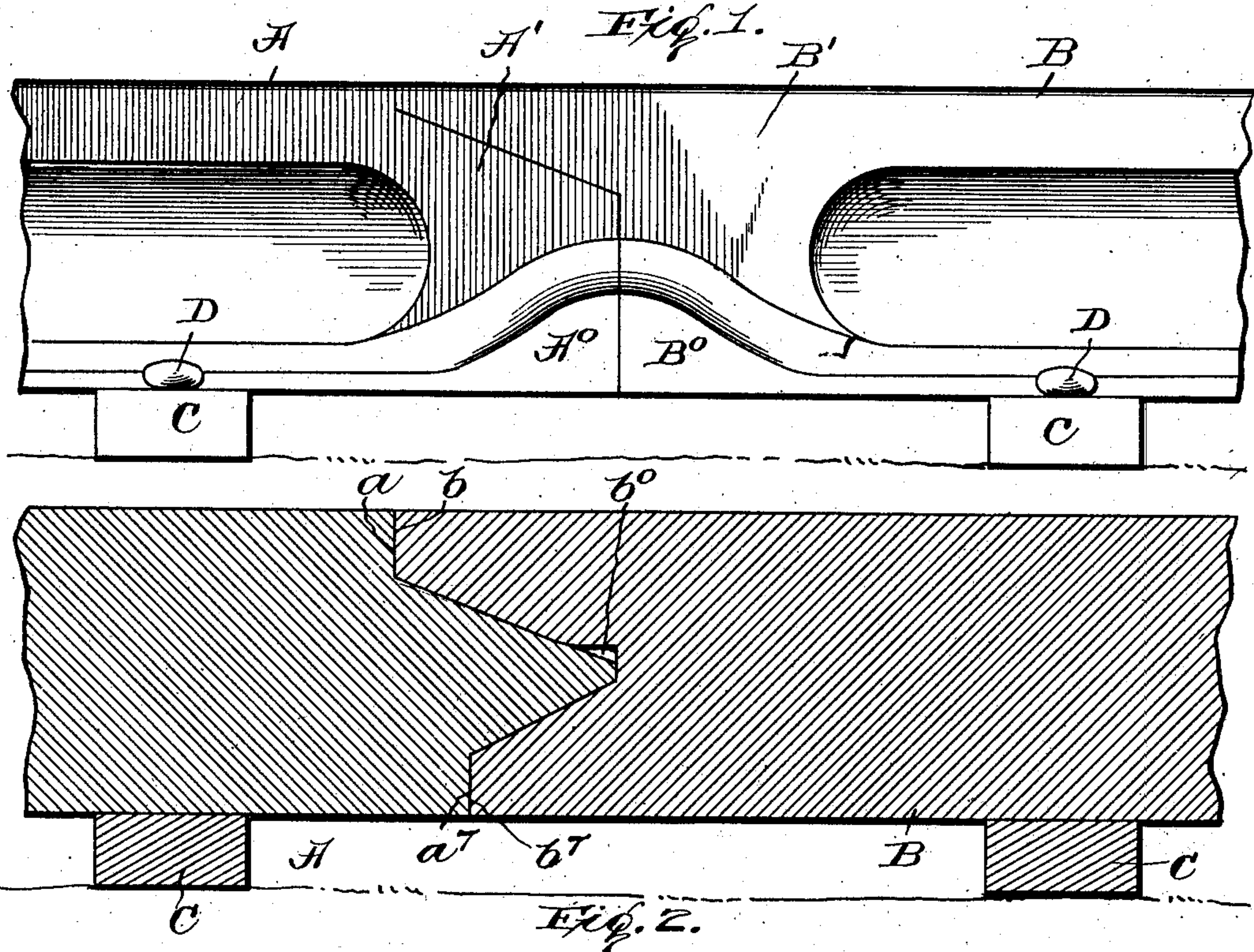
No. 757,316.

PATENTED APR. 12, 1904.

C. F. KEENER.
RAIL JOINT.

APPLICATION FILED AUG. 28, 1903.

NO MODEL.



Witnesses

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CHARLES F. KEENER, OF GRAFTON, WEST VIRGINIA.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 757,316, dated April 12, 1904.

Application filed August 28, 1903. Serial No. 171,132. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. KEENER, a citizen of the United States, residing at Grafton, in the county of Taylor and State of West Virginia, have invented certain new and useful Improvements in Rail-Joints; and I do hereby 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.

My invention relates to improvements in rail-joints; and it consists of improved means for joining the rails together, whereby the use of fish-plates, bolts, and nuts is done away with.

My invention will be understood by reference to the accompanying drawings, in which the same parts are indicated by the same letters throughout the several views.

Figure 1 is a side elevation of a rail-joint constructed according to my invention. Fig. 2 is a central vertical longitudinal section through the joint shown in Fig. 1. Figs. 3 and 4 are details showing the two members of the joint.

A and B represent rails of the ordinary construction, except that one or both ends are provided with the locking arrangement, which will be hereinafter described. The ends A' and B' of the two rails are preferably thickened, as shown, and the flanges are also preferably raised somewhat, as shown at A⁰ and B⁰. The end of the rail B is provided with two tongues B² and B³. The rail A is cut away, as shown at A² and A³. The face *b* on the tongue B² abuts against the face *a* of the rail A, while the inclined faces *b'* *b''* register with the inclined faces *a'* and *a''*. Again, the inclined faces *b'''* and *b''''* of the tongue B³ engage the inclined faces *a'''* and *a''''* of the recess A³. The side faces *b⁵* of the tongue B⁵ engage the side walls *a⁵* of the recess A³, and the faces *a⁶* and *b⁶* abut, as do also the faces *a⁷* and *b⁷*. (See Fig. 2.) By having the lower tongue B³ and its recess A³ shorter than the tongue B² and its recess A² the rails may be more readily separated and put together than where the tongues are of equal length. Thus if the rails are not secured on the road-bed they may be slid apart a short distance and

the rail B lifted out of engagement, or if the opposite ends of these rails are secured to the road-bed the abutting ends may be sprung up and caused to disengage. To facilitate this unlocking when desired, the rail B is slightly recessed, as at *b⁰*, to allow a limited play of the interlocking parts of the rail A. The rails are secured on the ties C by spikes D in the usual way.

It will be seen that the herein-described engagement of the two rails will hold each rail in place to prevent the rails from spreading apart without the necessity of fish-plates. Moreover, the joint between the two rails may be made by prying up the ends of contiguous rails, as before stated, without the necessity of moving the entire rail from the road.

It will be obvious that the rails may be made rights and lefts and have the locking arrangement provided at one end only of each, whereby the two rails may be inserted at any point in an ordinary track, the other ends of the rails being provided with bolts for fish-plates, as with the ordinary construction, or, if desired, the rails might be made slightly longer than the standard rail and one end of each pair sawed off to the desired length in mending the track.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. A rail-joint comprising two rails made rights and lefts, one rail having recesses with inclined faces, the other rail being provided with tongues having inclined faces registering with the faces of said recesses, substantially as described.

2. The combination with a rail provided with a recess having inclined upper walls and vertical side walls in the base of one end thereof and a cut-away portion above said recess and provided with inclined faces, of a second rail having tongues adapted to pass into and fit snugly in said recess and into said cut-away portion, substantially as described.

3. The combination with a rail provided with a recess having inclined upper walls and vertical side walls in the base of one end thereof and a cut-away portion above said recess and provided with inclined faces, the said

recess having a less longitudinal length than the said cut-away portion, relative to the rail, of a second rail having tongues of unequal length, the lower being the shorter, projecting into said recess, substantially as described.

5 4. In a rail-joint, the combination with the rail A cut away as at A^2 and A^3 and provided with inclined faces a' , a^2 , a^3 , and a^4 and vertical faces a , a^5 , a^6 and a^7 , of a rail B provided

with tongues B^2 and B^3 having inclined faces b' , b^2 , b^3 , b^4 , and vertical faces b , b^5 , b^6 , and b^7 , substantially as described.

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

CHARLES F. KEENER.

Witnesses:

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