

R. T. BERRY.  
RAIL JOINT.  
APPLICATION FILED JAN. 4, 1911.

993,949.

Patented May 30, 1911.

Fig. 1.

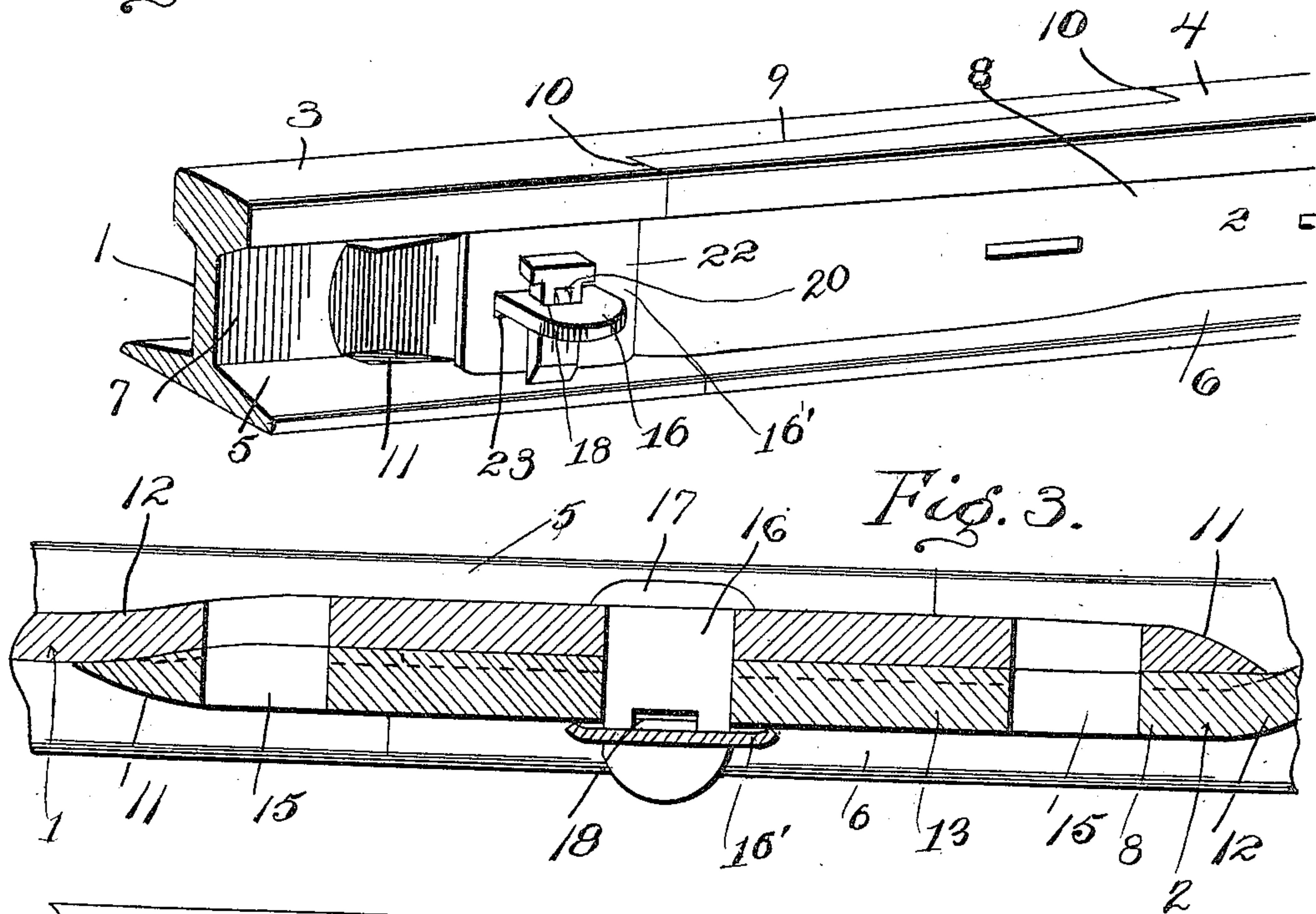


Fig. 3.

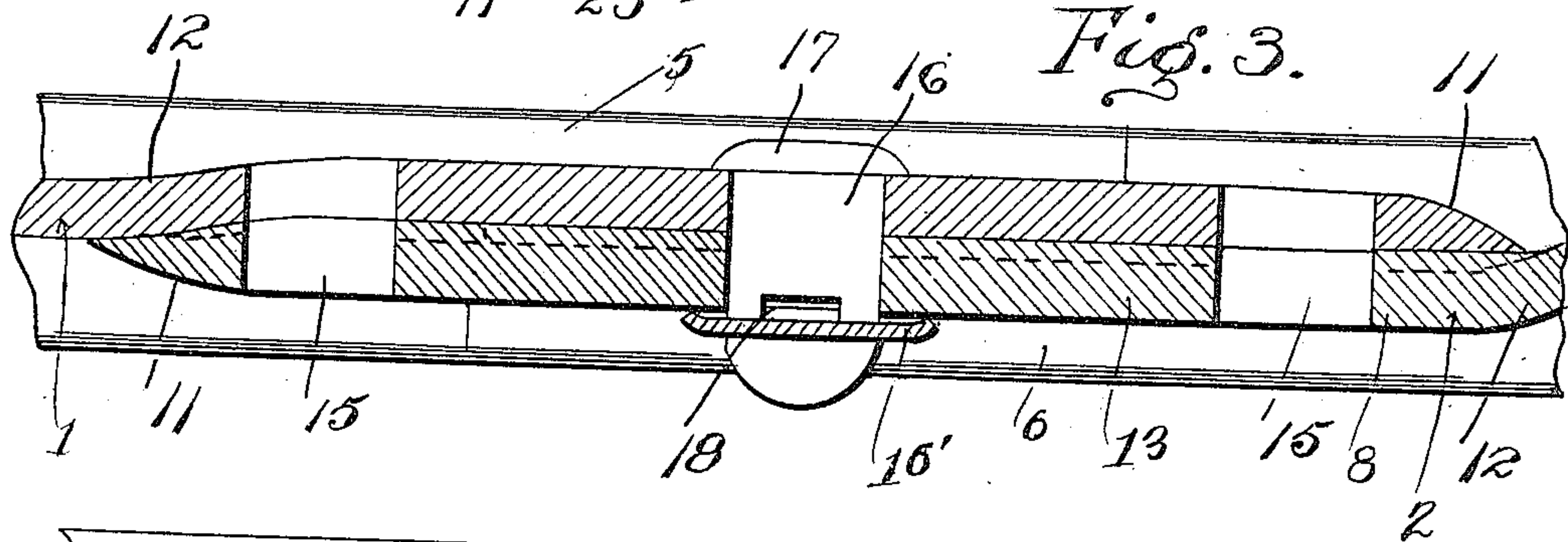


Fig. 2.

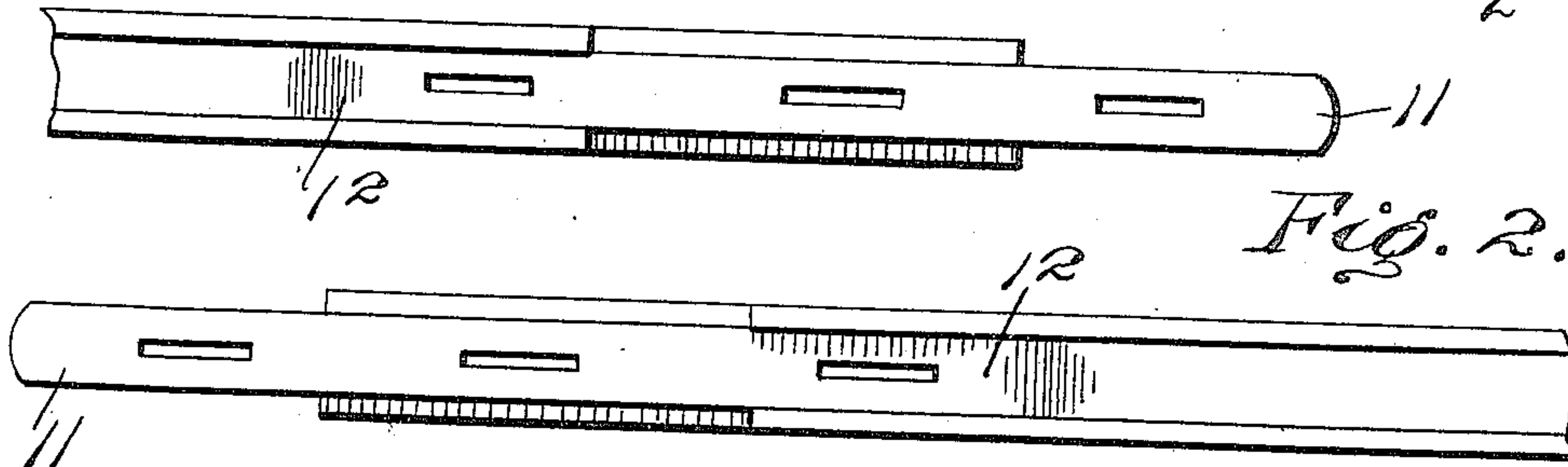
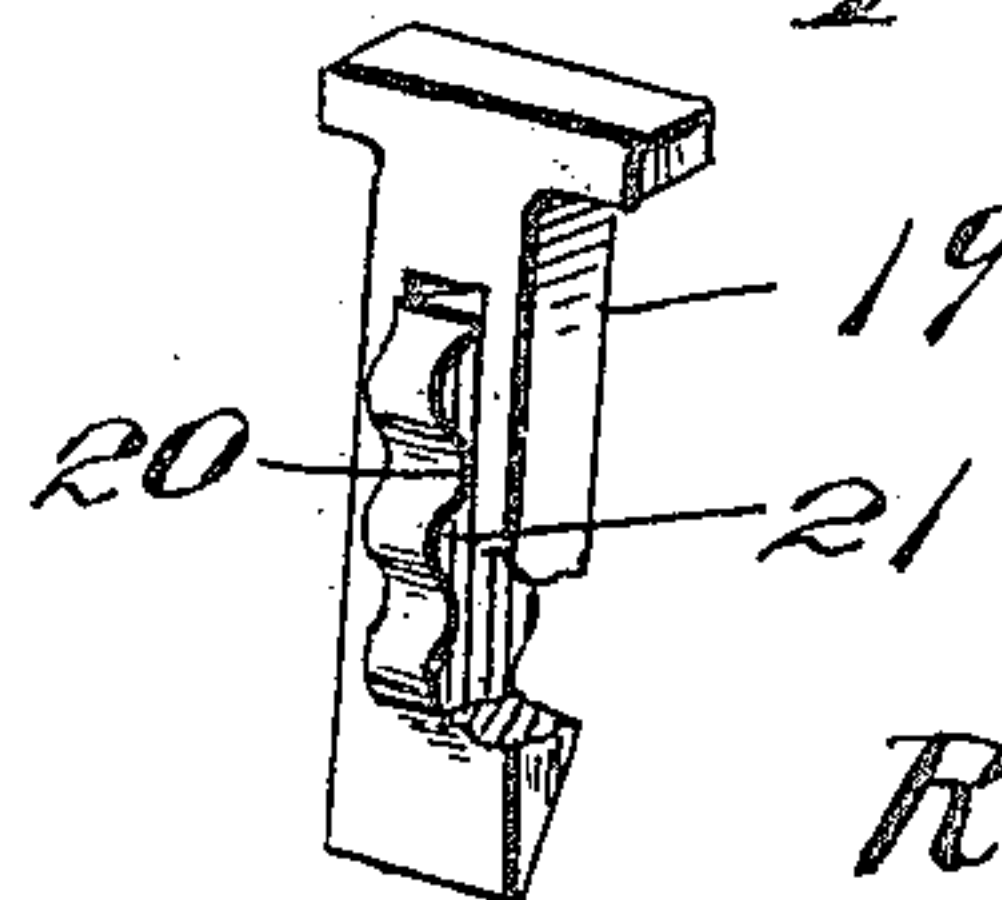


Fig. 5.



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Witnesses Fig. 7.

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# UNITED STATES PATENT OFFICE.

RICHARD T. BERRY, OF MENDENHALL, MISSISSIPPI.

## RAIL-JOINT.

993,949.

Specification of Letters Patent.

Patented May 30, 1911.

Application filed January 4, 1911. Serial No. 600,800.

*To all whom it may concern:*

Be it known that I, RICHARD T. BERRY, a citizen of the United States, residing at Mendenhall, in the county of Simpson and State of Mississippi, 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.

This invention relates to new and useful improvements in rail joints, and has for an object to provide a device of this character in which the customary fish plates and connecting bolts can be dispensed with without weakening or in any way lessening the strength of the rails.

Another object of this invention is the construction of the meeting ends of a pair of rails in such manner as to produce interlocking webs which will serve to strengthen and prevent the customary sagging caused by the passing of a heavy train thereover, and also for the purpose of providing a connection between the several rails composed in a track section, whereby the same can be curved without the use of the customary machinery now required.

A further object of this invention is to improve and simplify devices of this character, rendering them comparatively simple and inexpensive to manufacture, reliable and efficient in use, and readily operated.

A still further object of this invention is to provide a rail joint which will be as strong or stronger at the points of juncture as at any other points throughout their lengths.

With the above and other objects in view, this invention resides in the novel features of construction, formations, combinations and arrangements of parts to be hereinafter more particularly described, claimed and illustrated in the accompanying drawing, in which—

Figure 1 is a perspective view of my invention; Fig. 2 is a perspective view of the device separated; Fig. 3 is a horizontal sectional view taken through the meeting ends of a pair of rails constructed in accordance with my invention; Fig. 4 is a transverse sectional view taken through Fig. 1, and Fig. 5 is a detail perspective view of one of the clamping members.

Referring to the drawing by characters of reference, the numerals 1 and 2 designate the meeting ends of a pair of rails of the usual type, comprising the customary heads 3 and 4, base flanges 5 and 6, and connecting webs 7 and 8.

The heads 3 and 4 and the base flanges 5 and 6 of the rails are cut out longitudinally, as indicated at 9, and transversely, as indicated at 10, terminating at points in spaced relation to the tapered ends 11 of the connecting webs 7 and 8. These webs 7 and 8 are substantially the same thickness throughout their lengths, and are offset outwardly, as clearly illustrated by 12 in Fig. 2, for interlocking engagement with each other.

The web 8 is provided with an inward extension or enlargement 13, adapted to engage a recess 14 extending between the base flange and head of the web 7, thereby forming a double tongue and grooved joint, which obviously prevents any sagging of the rails caused by the continuous passage of heavy objects thereover.

The connecting webs 7 and 8 of the rails are aliningly slotted, as at 15, for the reception of locking pins 16, which are slightly less in width than the length of the said slots to permit the necessary expansion and contraction of the rails caused by the various acting elements, and are provided at one end with heads 17, and in their opposite ends with transverse slots 18, for the reception of locking members 19, each of which is provided with a spring tongue 20, serrated as at 21, and adapted to engage either one of the slots 15 formed within the connecting webs 7 or 8, or the opposite edges of the slots 18, located in the locking pins 16.

It is preferred that slotted segmental spring plates 16' are located upon the pins 16, and the clamping members 19 turned so the tongues 20 will engage the centrally located slots 23, which obviously take up any play should the pins 16 be greater in length between the heads and the slots formed therein than the thickness of the webs 7 and 8.

From the foregoing description, taken in connection with the accompanying drawings, it will be manifest that when the several parts are placed in their normal positions, a rail joint will be provided for which will fulfil all of the necessary requirements of such a device.



It will be also apparent that the beveled ends 11 of the extended portions of the connecting webs 7 and 8 serve to deflect the rails therefrom, preventing injury to the same should the ends of the rails become disconnected.

The foregoing disclosures illustrate one embodiment of my invention, but it is to be understood that various minor changes in the details of construction can be resorted to within the scope of the appended claims without sacrificing any of the advantages of the invention.

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

1. The combination with a pair of rail ends, each of which overlaps the other and has alining apertures located therein, of pins extending through said apertures of a width slightly less than that of said apertures, spring plates located upon the said pins, locking members extending through said apertures located in the ends of the pins, and spring tongues formed upon the locking members for engagement with either the slots located in the spring plates or the slots located in the pins, for the purpose

of holding the several parts against displacement.

2. The combination with a pair of rail ends, each being provided with offset connecting webs adapted to lie between the base flanges and heads of the rails and engage each other, an extension formed upon one of the connecting webs and adapted to engage a recess formed in the opposite web, which have located therein alining apertures, of pins extending through said apertures of a width slightly less than that of said apertures, spring plates located upon the said pins, locking members extending through said apertures located in the ends of the pins, and spring tongues formed upon the locking members for engagement with either the slots located in the spring plates or the slots located in the pins, for the purpose of holding the several parts against displacement, substantially as and for the purposes set forth.

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

RICHARD T. BERRY.

Witnesses:

D. G. STUART,  
HENRY C. HAZARD.