

R. G. MUSGROVE.
RAIL JOINT.
APPLICATION FILED APR. 8, 1909.

Patented Apr. 12, 1910.

954,684.

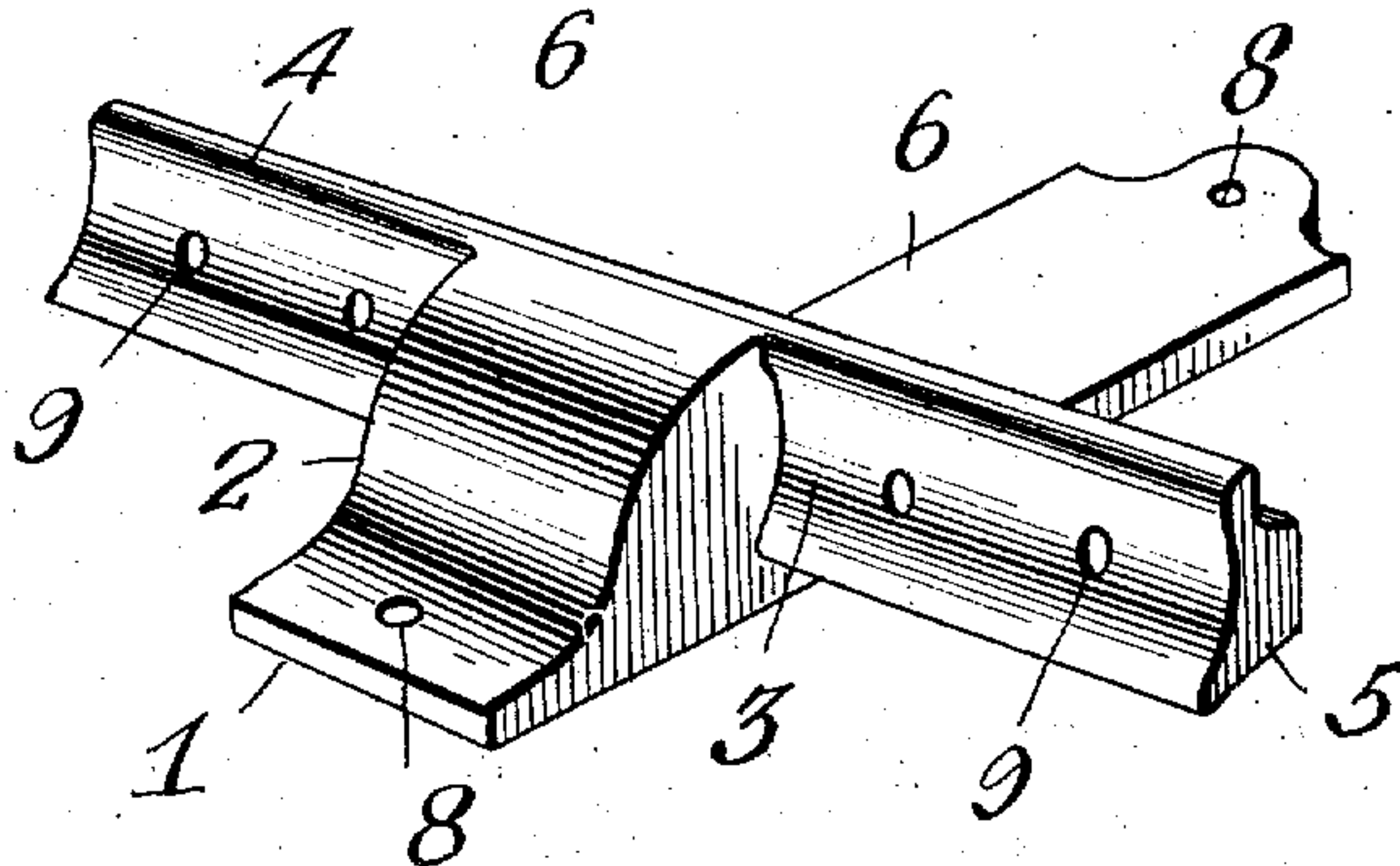
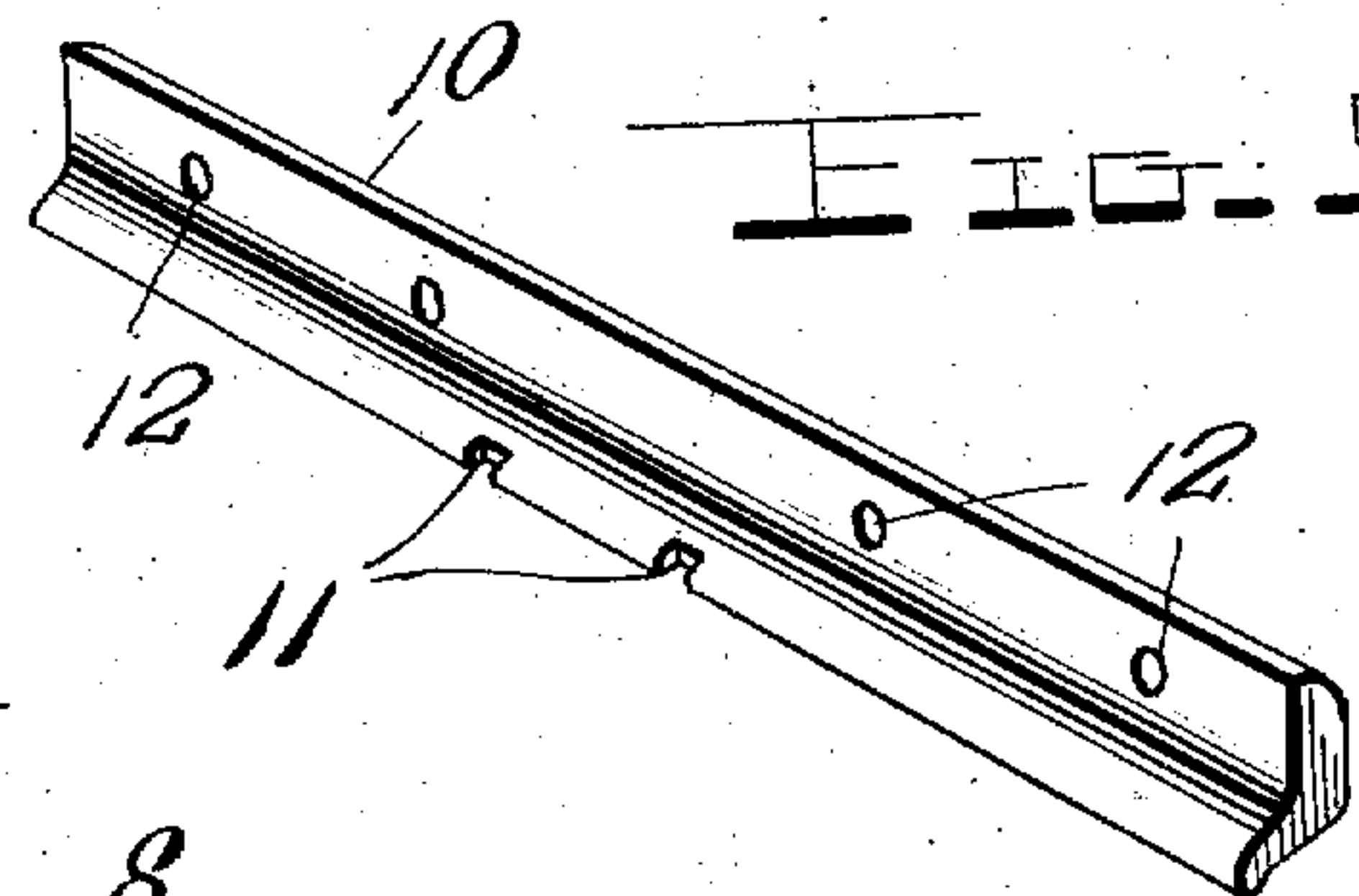
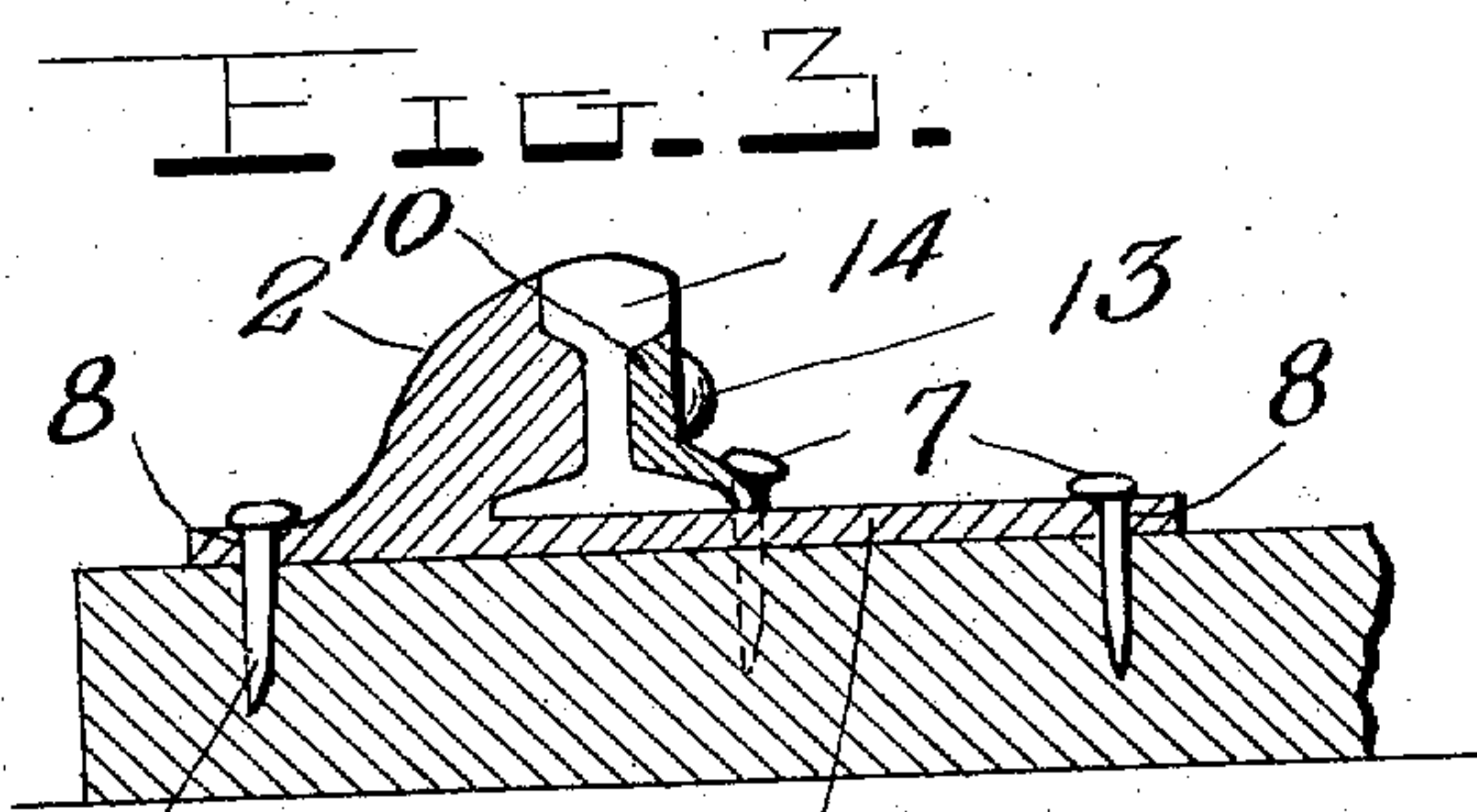
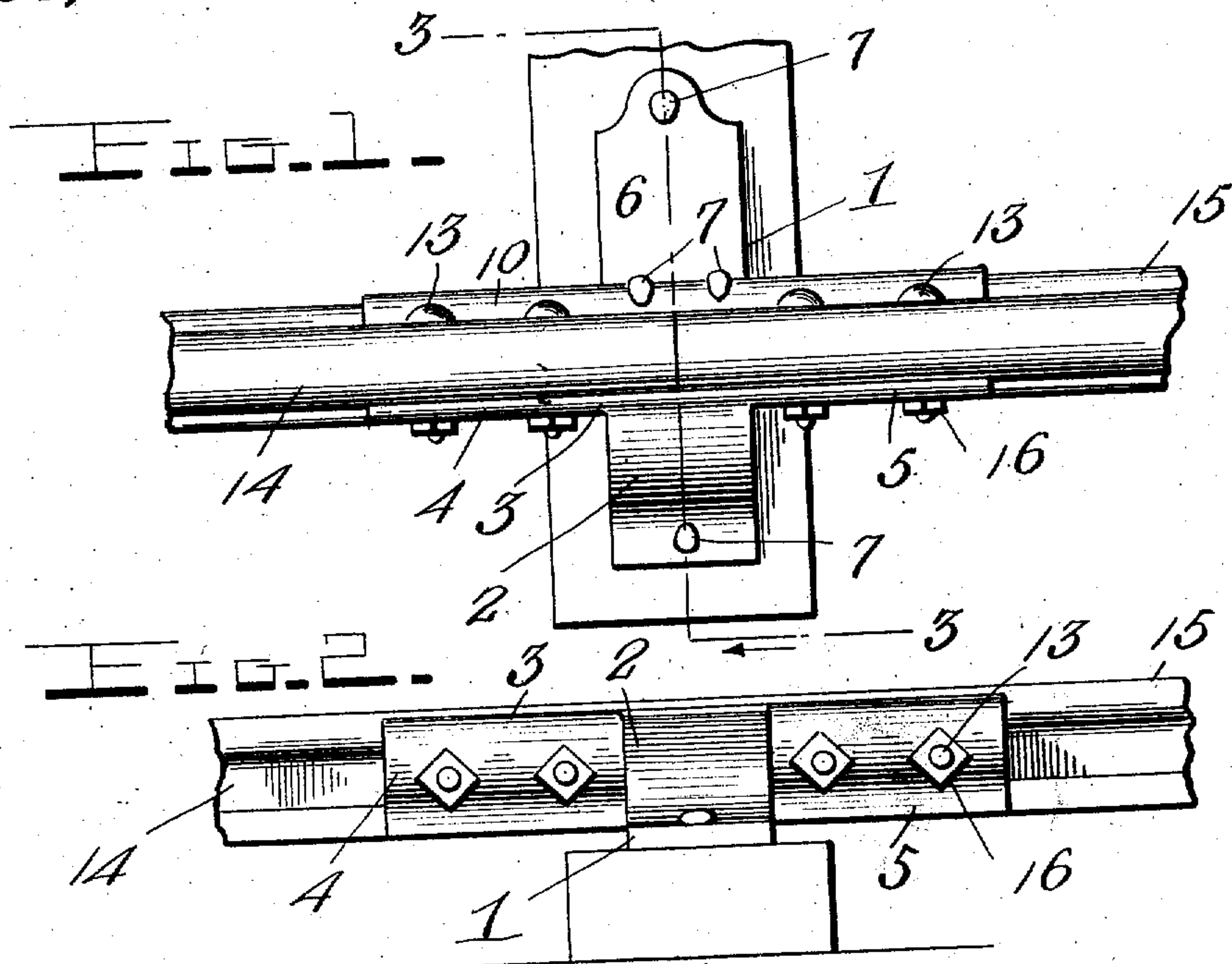


FIG. 4.

Inventor
R. G. Musgrove

Witnesses

Chas. L. Griesbauer. By
L. O. Hilton

A. B. Wilson & Co.
Attorneys

UNITED STATES PATENT OFFICE.

ROBERT G. MUSGROVE, OF GREENWOOD, MISSISSIPPI.

RAIL-JOINT.

Specification of Letters Patent.

Patented Apr. 12, 1910.

Application filed April 8, 1909. Serial No. 488,657.

To all whom it may concern:

Be it known that I, ROBERT G. MUSGROVE, a citizen of the United States, residing at Greenwood, in the county of Leflore and State of Mississippi, have invented certain new and useful Improvements in 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.

This invention relates to an improved rail joint and fastener designed as an improvement on my Patent 855,474 dated June 11, 1907.

The object of the invention is to provide a rail fastener and brace embodying such a construction that the necessity of employing angular bars and fish plates is obviated and one which is adapted to tightly hold and support rails and to withstand the great strain imposed on the outer rail at a curve.

With this and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claim.

In the accompanying drawings: Figure 1 is a top plan view of the device applied; Fig. 2 is a side elevation of the same; Fig. 3 is a transverse vertical section taken on the line 3—3 of Fig. 1; Fig. 4 is a perspective view of one member of the device detached; and, Fig. 5 is a similar view of the other member detached.

This improved rail brace will also serve as a tie plate and will provide a much safer track and prevent breaking, turning over and spreading of the rails. The rail joint being all in one piece lessens the danger of the nuts and bolts becoming loose and will also greatly check creeping of the rails. This improved joint also provides for the completing of the electrical circuit through the rails which is necessary in a block signal system without necessitating the use of a wire connection.

In the embodiment illustrated a tie plate 1, is shown composed of steel or any other suitable metal provided at one end with an integral brace 2, having an angular bar 3, secured thereto preferably made integral with the brace 2, and extending on opposite sides thereof, forming laterally extending

arms 4, and 5, having their inner faces shaped to fit one side of a rail with the top edge thereof extending approximately flush with the tread of the rail as is clearly shown in Fig. 4. This member 1, is made in approximately L-shape form, the base plate 6 being designed to extend transversely under the rails and be secured to the tie by means of spikes 7, which pass through the openings as 8, formed in said plates for this purpose. The arms 4, and 5, are provided with longitudinally spaced bolt apertures as 9, which are adapted to register with similar openings formed in the meeting ends of the rails and in a plate 10, adapted to be arranged on the opposite side of said rails and having its inner face shaped to fit the sides of the rails with its upper edges arranged slightly beneath the head of the rail as is clearly shown in Fig. 3. This plate 10, is also provided at its lower edge with longitudinally spaced notches as 11, with which the spikes 7, are adapted to engage for securely holding said plate against longitudinal movement. This member 10 is in the form of the ordinary fish plate having longitudinally spaced apertures 12, for the passage of bolts as 13, which also pass through the registering apertures in the meeting rail ends and in the lateral arms of the member 1 as above described.

In the use of this device the base plate 6, of the member 1, is extended under the meeting ends of the rails 14, and 15, with the arms 4, and 5, closely fitting against one face or side of said rails with the apertures 9, in said arms registering with similar apertures formed in the rail ends. The plate 10 is then arranged on the opposite sides of the rail ends and the bolts 13, are passed through and secured in place by means of nuts 16. It will thus be seen that the integral block which forms the brace 2, will be arranged opposite the space between the rail ends on the outer side of the rail and is adapted to withstand the strain imposed on the outer rail especially at curves.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the

principle or sacrificing any of the advantages of this invention as defined in the appended claim.

I claim as my invention:

- 5 In combination, a single casting comprising a base plate adapted to extend beneath rail ends, a joint brace on one side of said base plate and adapted to extend flush with the top of the rails and to bridge the
10 joints therebetween, an extension carried at the top of said brace at right angles to the major line of the base plate and adapted to act as a fish plate, said extension lying flush with the top of the brace and rails and hav-
15 ing apertures to receive attaching bolts, said

base plate having spike apertures, and a fish plate having a base covering flange with spike notches to register with the apertures in the base plate and bolt apertures to register with the apertures in the extension, together with bolts and spikes to hold the parts in proper relation. 20

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ROBERT G. MUSGROVE.

Witnesses:

CLINTON V. ERVIN,
WILLIAM G. YERGER.