

G. G. FLOYD.  
 RAIL JOINT SUPPORT.  
 APPLICATION FILED JUNE 29, 1907.  
 962,424. Patented June 28, 1910.

Fig. 1

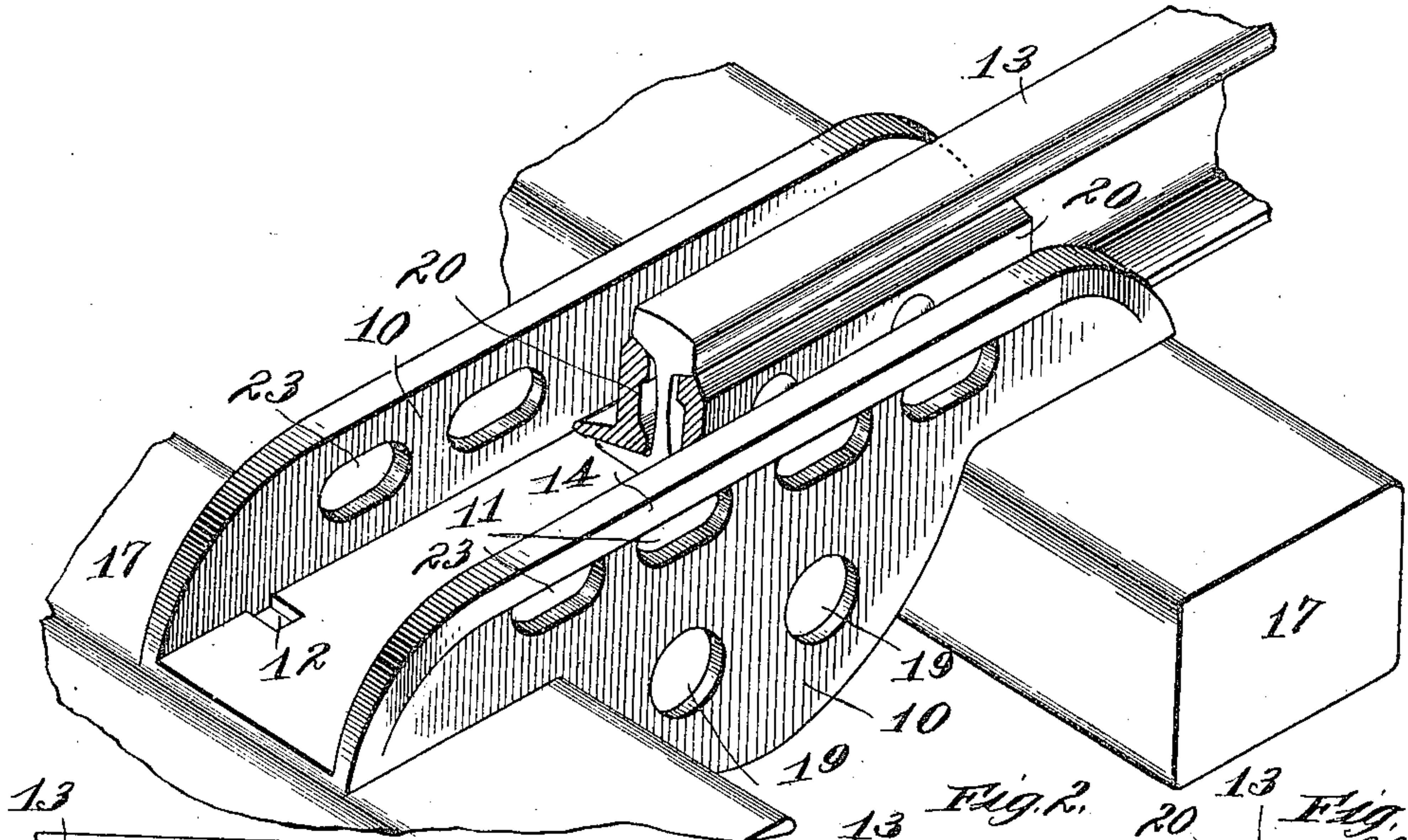


Fig. 2.

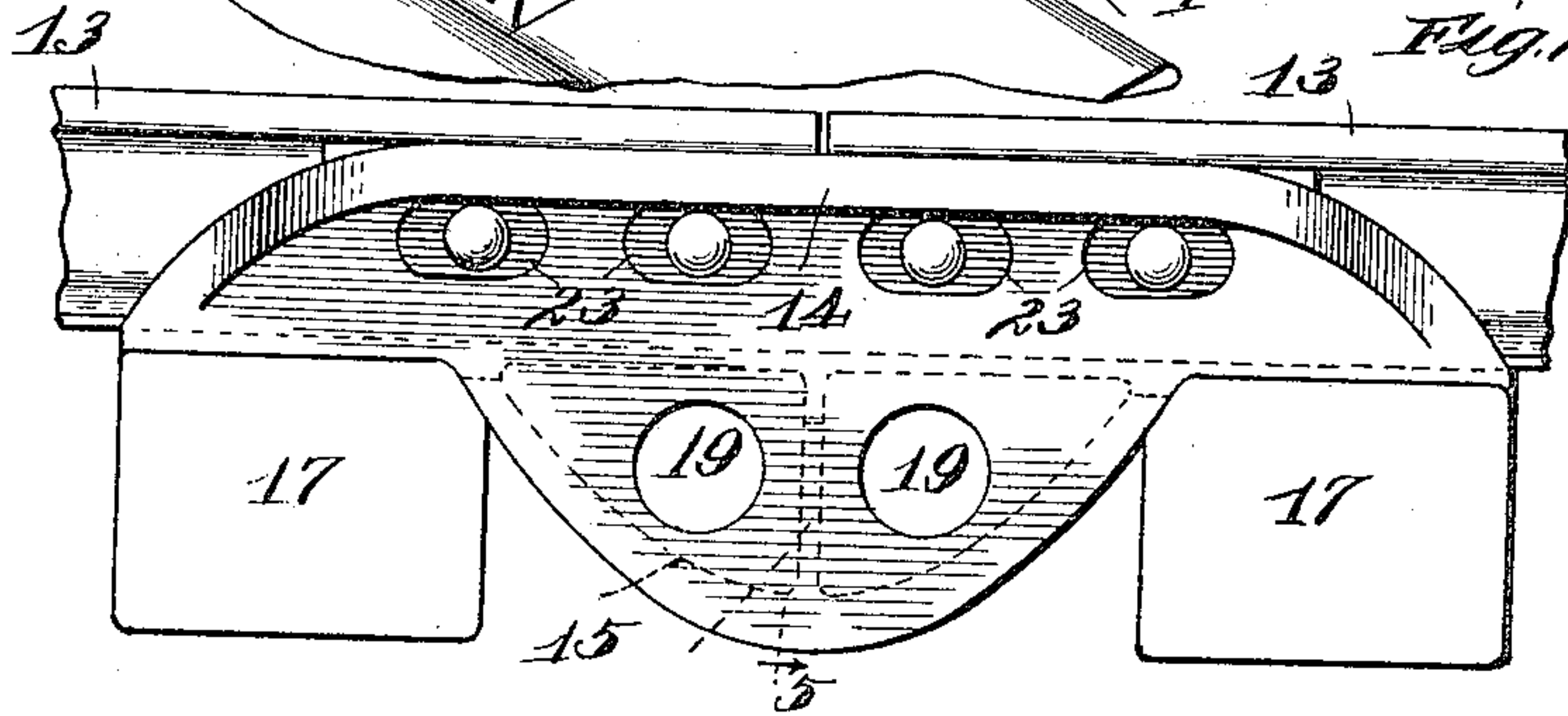


Fig. 5.

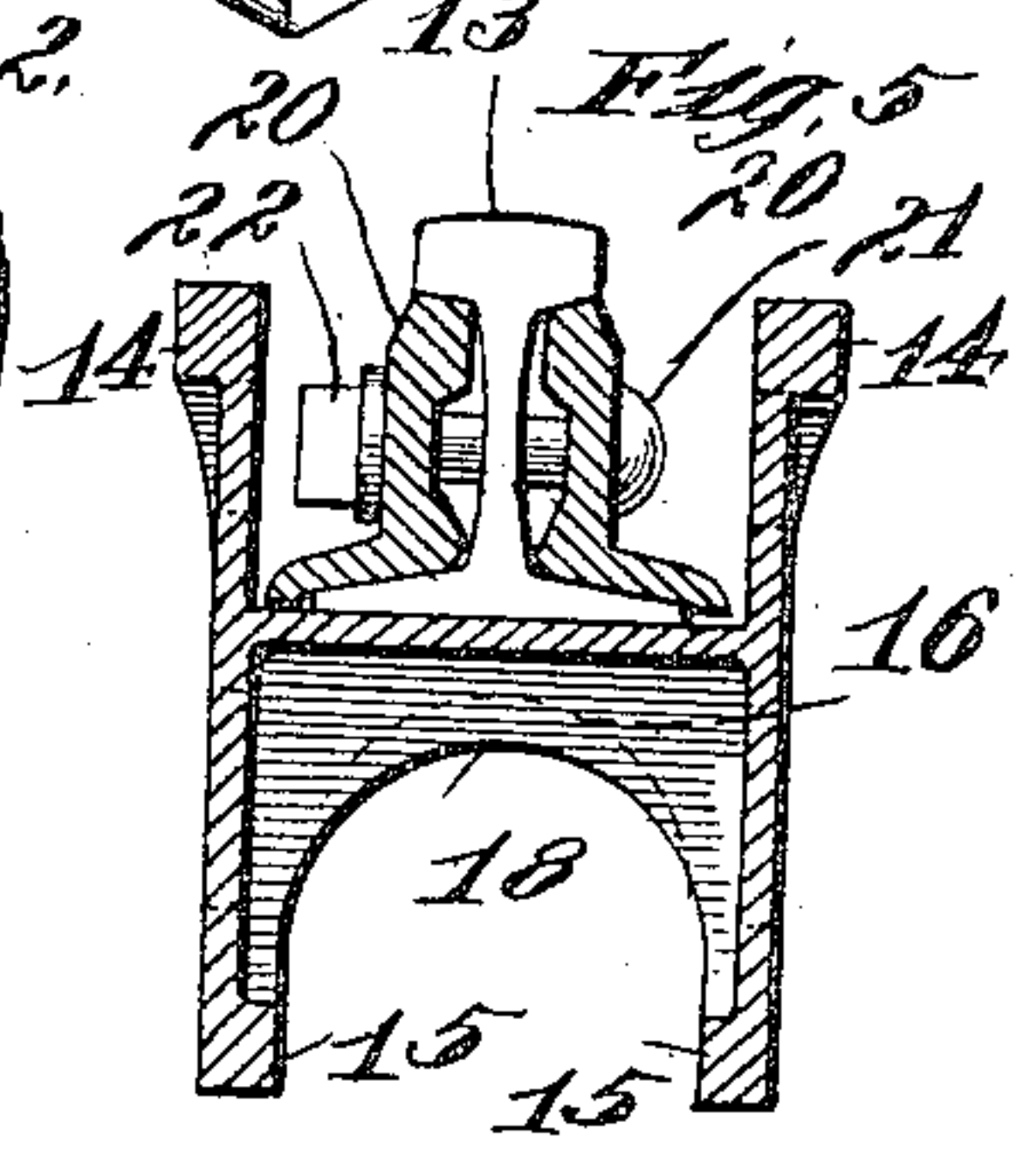


Fig. 3.

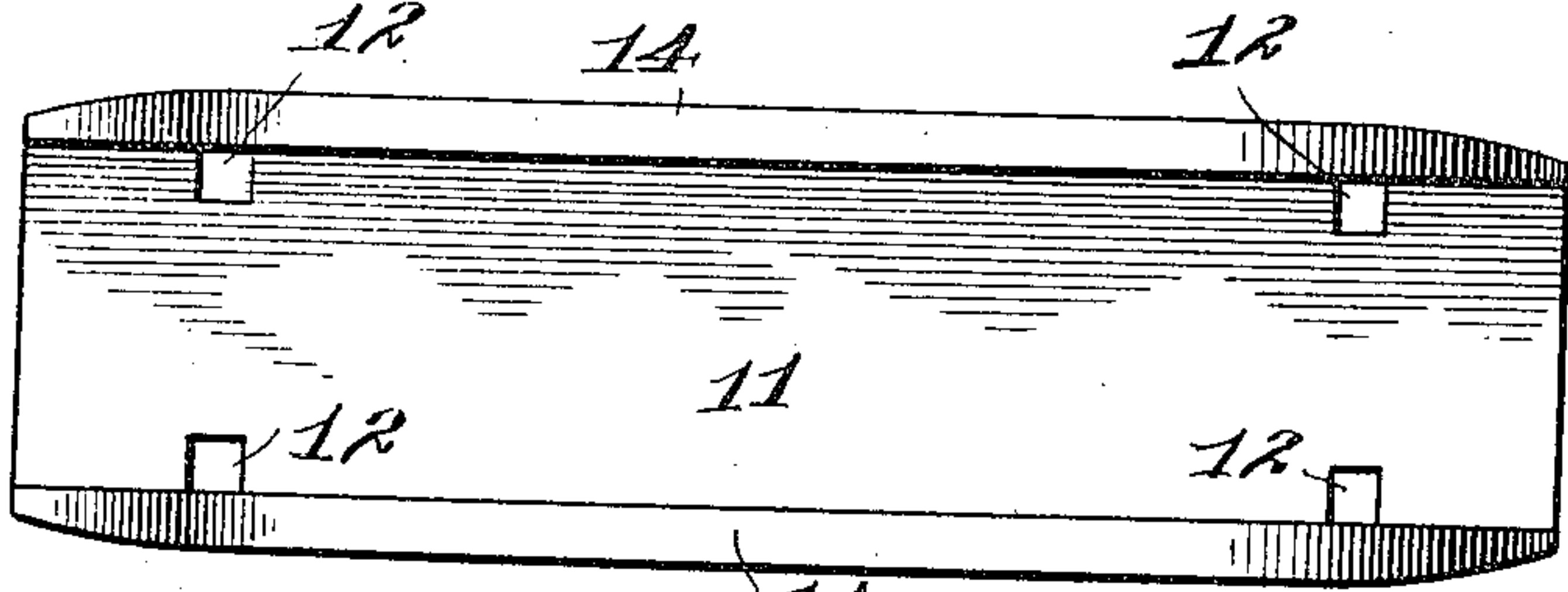
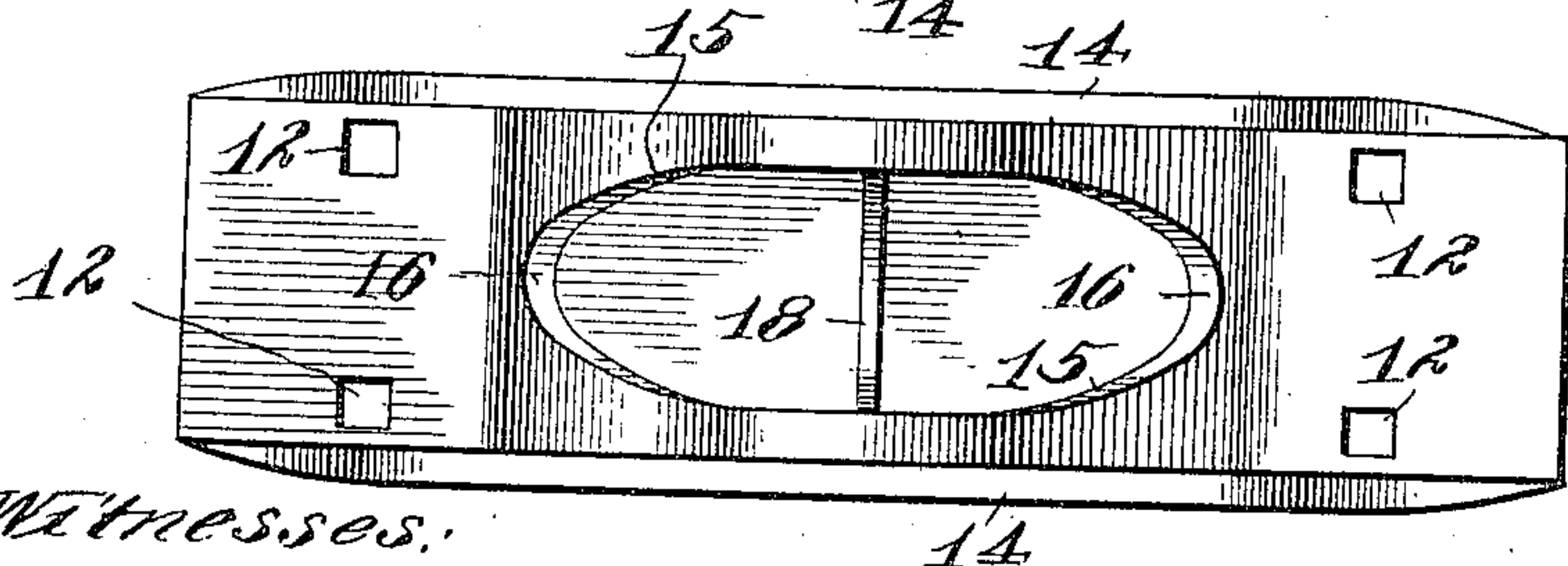


Fig. 4.



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# UNITED STATES PATENT OFFICE.

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## RAIL-JOINT SUPPORT.

962,424.

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*To all whom it may concern:*

Be it known that I, GEORGE G. FLOYD, a citizen of the United States, residing at Granite, in the county of Madison and State of Illinois, have invented certain new and useful Improvements in Rail-Joint Supports, of which the following is a specification.

The production and provision of improved forms of rail joint supports or seats is the object and aim of my present invention. The supports or seats which I have in mind especially, though not exclusively, are those adapted to rest upon railroad ties, bridge the space between adjacent ties, and form a strong support for the rail ends of the joint to keep them in alinement and prevent their displacement.

On the accompanying drawings, forming a part of this specification, I have illustrated a preferred and desirable embodiment of my invention, like reference characters referring to the same parts in all of the views.

On said drawings Figure 1 is a perspective view of my improved rail joint support showing two adjacent cross ties, one of the rails, and portions of the fish plates adapted to connect the adjacent ends of the rails; Fig. 2 is a side elevation of the support or seat and shows in addition the ends of two rails and the ends of the two ties; Fig. 3 is a top plan view of the support; Fig. 4 is a bottom plan view of the same; and Fig. 5 is a vertical cross section between the rail ends on line 5, 5 of Fig. 2.

Preferably the seat or bridge is made of cast metal, such as steel, and comprises a single and unitary structure. It has two vertical side plates 10, 10 connected at about their middle by a horizontal rectangular plate or web 11 apertured at 12 for the accommodation of spikes to hold the rail ends 13 in place. Along its top edge each vertical plate 10 is supplied with an outwardly-extended marginal flange 14. The bottom portion of each plate 10, that is the part below the plate or web 11, is bellied, as is clearly shown, and is provided along its lower edge with an inwardly-extended flange 15 which becomes wider toward the ends of the support, the flanges 15 on opposite sides joining each other at the points 16 (Fig. 4). The bellied lower portion of the plates 10 is present only at the central part of the seat or bridge, and is intended to occupy the space

between adjacent cross ties 17, 17 on which the bottom end faces of plate or web 11 rest, as is clearly shown in Figs. 1 and 2.

In order to strengthen the structure laterally and hold the side plates 10 in proper parallel relation, I provide a central cross curved web 18 which is integral with the side plates 10 and web 11, being disposed beneath the latter. If desired, to reduce the weight of the device, the side plates may have through them the holes or apertures 19. The two rail ends 13, 13 come together over the center of the bridge above web 18 and rest upon plate 11, the rails and support being held in place on the ties by spikes passed through the holes 12.

To connect the rail ends together, I employ fish plates or connecting angle bars 20, which are fastened together and to the rails by bolts 21 and nuts 22, the former passing through holes in the plates and in the webs of the rails. Since the side plates 10 of the seat or bridge extend upwardly as high as the heads of the rails, as shown in Fig. 5, I provide them with elongated apertures which permit the insertion and withdrawal of the bolts 21 through them.

It will be apparent from this description, to those skilled in the art, that the support shown and described is simple in construction and unusually strong, because of the pair of bellied side plates and the marginal flanges, and also because these plates are held in their proper vertical planes by the transverse web 18.

My invention is not limited and restricted to the structural features shown and described, which may be varied considerably and still fall within the scope of my invention.

Although I have illustrated my bridge or seat as extending only between two ties, it is obvious that if desired the bridge might be elongated so as to extend over and rest upon a number of cross ties.

I claim:

1. A unitary cast-metal rail-joint support or seat having a pair of vertical plates spaced apart, a horizontal rail-supporting plate or web connecting said vertical plates between their top and bottom margins, and a vertical transverse web below said horizontal web and connecting said vertical plates, substantially as described.

2. A single-piece cast-metal rail-joint sup-



port comprising a horizontal plate or web adapted to rest at its opposite ends on cross ties and having at its opposite longitudinal edges vertical plates extending both above  
5 and below said web, the portions of said plates above said web extending substantially the full length of the support, and the portions of said plates below said web being bellied and located at the central part  
10 of the support only, substantially as described.

3. A single-piece cast-metal rail-joint support comprising a horizontal plate or web adapted to rest at its opposite ends on adjacent cross-ties and having at its opposite  
15

longitudinal edges vertical plates extending both above and below said web, the portions of said plates above said web extending substantially the full length of the support and being equipped at their upper edges with  
20 outstanding strengthening flanges, and the portions of said plates below said web being bellied, located at the central part of the support only, and having along their lower margins inwardly-extended strengthening  
25 flanges, substantially as described.

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