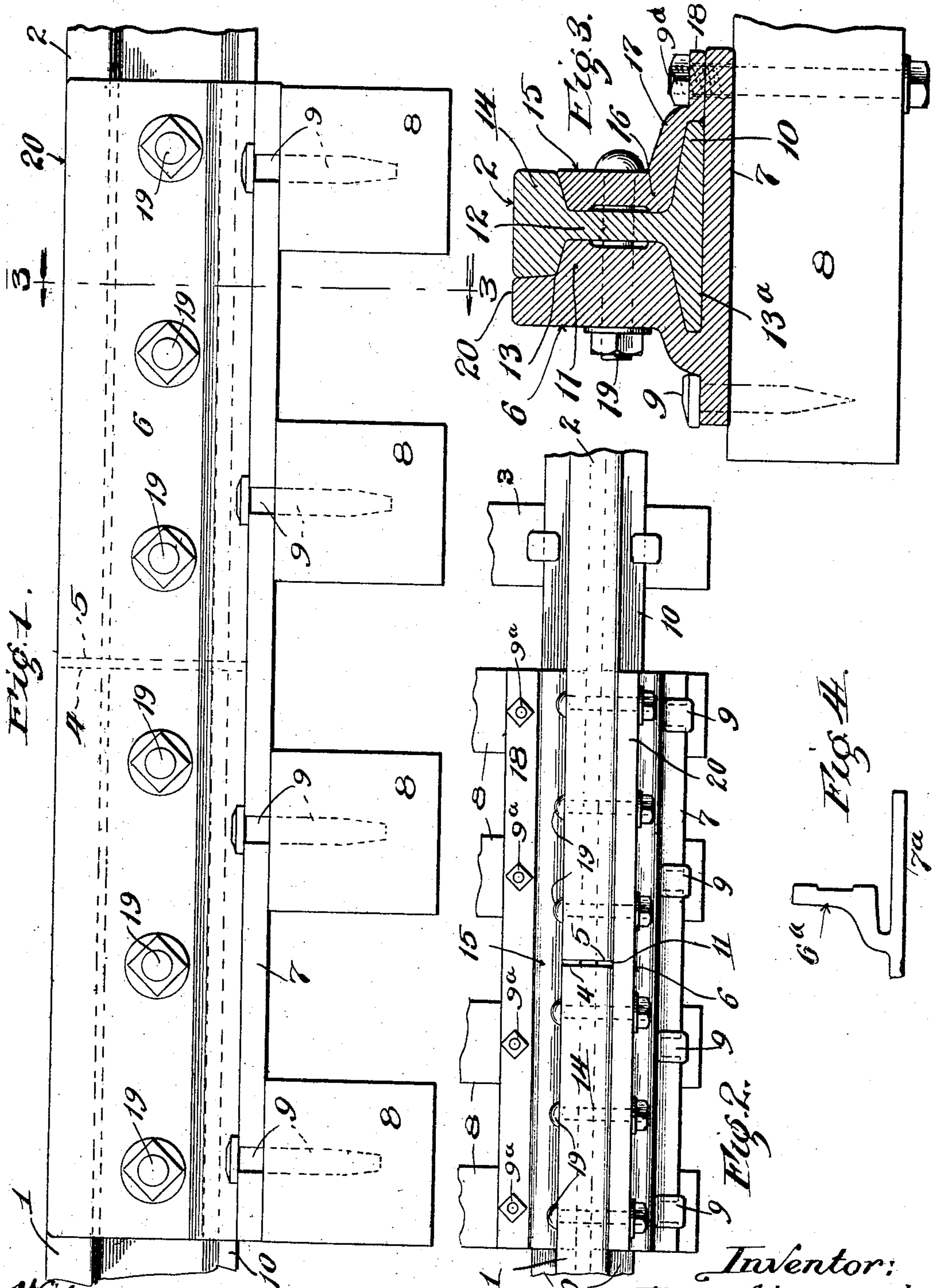


J. GICZEWSKI.
RAIL JOINT.
APPLICATION FILED OCT. 21, 1907.

912,558.

Patented Feb. 16, 1909.



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UNITED STATES PATENT OFFICE.

JOHN GICZEWSKI, OF WEST HAMMOND, ILLINOIS.

RAIL-JOINT.

No. 912,558.

Specification of Letters Patent.

Patented Feb. 16, 1909.

Application filed October 21, 1907. Serial No. 398,326.

To all whom it may concern:

Be it known that I, JOHN GICZEWSKI, residing at West Hammond, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Rail-Joints, of which the following is a full, clear, and exact description.

My invention relates to improvements in rail joints.

10 The object of the invention is to provide means whereby the gaps between the adjacent ends of rails may be so bridged that a practically continuous upper or riding surface may be presented, thereby preventing the annoying features usually attendant at the gaps between the rails.

Another object is to provide means for positively maintaining such means in position with respect to the rails whereby the wear upon the rails and joints will be equal.

Another object is to provide a joint which shall possess certain novel characteristics and advantages.

To such end the invention consists in certain novel features of construction, a description of which will be found in the following specification and the essential features of which will be more definitely pointed out in the claim appended hereto.

0 The invention is clearly illustrated in the drawings furnished herewith in which—

Figure 1 is a side view of a fragment of two adjacent rails, with my improved joint applied thereto. Fig. 2 is a plan upon a smaller scale. Fig. 3 is a cross section taken on line 3—3 of Fig. 1, and Fig. 4 is an end view of a modified form of plate.

The rails 1 and 2 are spiked to the ties 3, intermediate the ends of the rails in the usual manner and laid with their ends 4—5 set close together, as is usual. If the ties abut each other perfectly, the wheels of the cars will pass from one rail to the other without notice, but wherever a slight gap happens to be the wheels must necessarily jump the gap thereby causing sudden jars or jolts. To overcome this undesirable feature I have provided a plate 6, of suitable length, for joining the meeting ends of the rails, which plate contains a flange 7 that is bolted or otherwise secured to the ties 8 by bolts or spikes, 9. The flange 7 is somewhat wider than the lower flange 10, of the rails as shown, so as to afford a wide bearing upon the ties, and so that the spikes or bolts

may be placed at a considerable distance from the center of the plate, thereby obtaining a greater purchase upon the ties.

The plate 6 is formed with a rib 11, adapted to bear upon the web 12 of the rail and the contour of that portion of the plate 6 and flange 7, which is contiguous with the rail, is made to conform thereto as clearly shown in Fig. 3. A seat 13 for the head 14, of the rail is thus afforded, as well as a recess 13^a, for one half of the flange 10. The rail practically fits the plate and rests directly upon the flange thereof. A plate 15 is positioned upon the opposite side of the rail which has a portion 16 that extends between the head and flange of the rail, a lateral flange 17, that extends out from said portion and rests upon the flange of the rail, and a flat base portion 18, which rests upon the flange 7. The plate is bolted or otherwise secured upon the flange 7 by the same bolts or spikes 9^a that bolt the flange down upon the ties and bolts 19 extend through the vertical portion of the plates 6—15, and through the web of the rail nuts being provided upon the ends of the bolts for securely clamping the plates upon the rail.

The upper riding edge or face 20 of the plate 6 is constructed to be flush with the riding face of the rail, so that a practically continuous riding face is afforded. Relative vertical movement of the plate 6, with respect to the rails is practically impossible, inasmuch as the flanges of the rails are confined in the recess 13^a of the plate 6, and for this reason there is little or no danger of the riding edge 20 of the plate getting out of alinement with the riding face of the rails. Furthermore, the entire rib 11 fits between the heads and flanges of the rails and further prevents any relative vertical movement. The rails rest upon the flange 7 of the plate 6, and the pressure exerted by the cars in passing over the joint tends rather to hold the parts together, than to separate the plate from the rail as is the case when the ordinary "fish plate" is used to connect the ends of rails.

In Fig. 4, the riding edge is omitted from the plate and this form is shown merely to illustrate the advantage of the flange 7^a upon the ordinary fish plate. The plate 6^a cannot work away from the rail because the weight is directly upon the flange 7^a. Both forms are especially advantageous wherever

there are curves or bends in the track. The vertical part should be placed upon the rails on the outer side of the curve, so that it will resist the centrifugal pressure exerted by the cars in going around a curve.

I claim as new and desire to secure by Letters Patent:

10 A rail joint comprising two rails whose ends meet in alined relation to each other, a plate on one side of the rails having a rail supporting flange extended underneath the meeting ends of the rails, a rib of increased thickness bearing against the web of the rails and a wide tread portion or riding

edge flush with the tread of the rails, a plate 15 on the other side of the rails having a flange resting on the supporting flange of the first named plate and a portion bearing against the web of the rail, bolts for clamping the plates and rails together and bolts passing 20 through the flanges of the plates and through ties for clamping the plates together upon the ties.

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