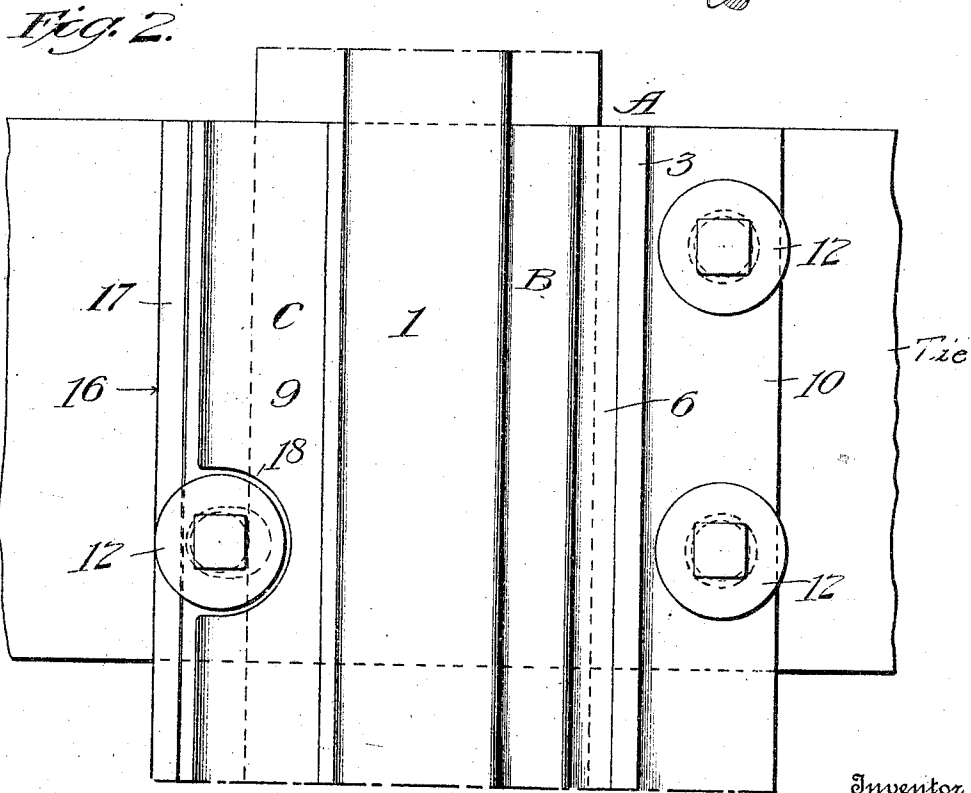
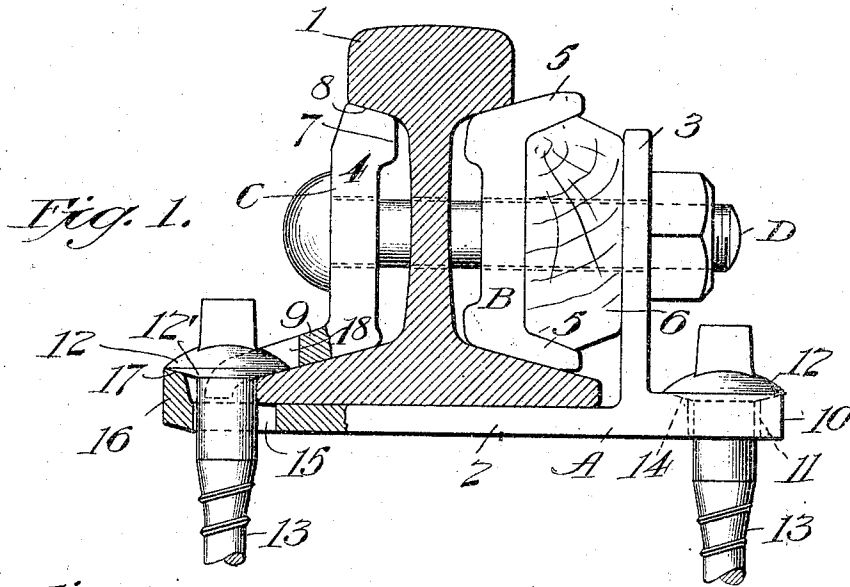


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 TRACK FASTENING FOR RAIL JOINTS.
 APPLICATION FILED APR. 7, 1911.

1,038,811.

Patented Sept. 17, 1912.



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UNITED STATES PATENT OFFICE.

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TRACK-FASTENING FOR RAIL-JOINTS.

1,038,811.

Specification of Letters Patent. Patented Sept. 17, 1912.

Application filed April 7, 1911. Serial No. 619,591.

To all whom it may concern:

Be it known that I, BENJAMIN WOLHAUPTER, a citizen of the United States, residing at New Rochelle, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Track-Fastenings for Rail-Joints, of which the following is a specification.

The present invention relates to certain new and useful improvements in the construction of rail joints, and more particularly to those of the Weber type, the primary object of the invention being to adapt and modernize this type of joint, in a thoroughly practical and efficient manner, to the use of screw-spikes in place of the ordinary type of cut-spikes which have heretofore been generally employed.

Though possessing special utility in its application to the Weber type of rail joint, yet the improvements claimed herein are equally serviceable with any construction of joint presenting similar spiking conditions, and particularly where the joint only provides a bearing or support for the under side of the screw-spike head on the side toward the rail, leaving the outer side unsupported, with the consequence that the screw-spike has a tendency to tip outwardly. This outward tipping of the screw-spikes has been considered objectionable and a specific object of the present invention is accordingly to overcome this objection by the provision of a rail joint in which a firm and rigid support is obtained for the under surfaces of the screw-spike heads on the outer side thereof, as well as on the inner side, or side toward the rail.

With these and many other objects in view which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangements of the parts hereinafter more fully described, illustrated, and claimed.

The essential features of the invention involved in carrying out the objects above specified are necessarily susceptible to a wide range of structural modification without departing from the scope of the invention, but a preferred embodiment thereof is shown in the accompanying drawings, in which—

Figure 1 is an end view, partly in section, of a rail joint constructed in accordance

with the invention, showing the rail in section. Fig. 2 is a top plan view of a portion of the rail joint, the bolt being omitted.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawings, which illustrate one embodiment of the invention, the numeral 1 designates the rail resting upon the base plate 2 of a shoe-angle A having near its outer edge the usual upright bolting flange 3, and cooperating therewith is the channel-bar B fitting the fishing spaces of the rails at one side thereof and provided with the top and bottom flanges 5—5 forming therebetween the channel which receives the filler block 6 that is interposed between the channel bar and the bolting flange 3 of the shoe-angle. At the opposite side of the rails is arranged the angle-bar C having the usual upper bearing head 7 presenting the bearing face 8 for engagement with the under sides of the rail heads, said bar being further provided with the usual inclined foot flange 9 which extends outwardly over the base flange of the rail. The usual joint bolts D hold the several parts together in the usual way.

The various joint members so far described are substantially the same as those now in use, and merely serve to illustrate the well-known type of Weber joint.

In carrying out the present invention the shoe-angle A is provided at the junction of the base plate 2 and upright bolting flange 3 with an outwardly projecting spiking toe or flange 10 which has a substantially flat upper surface, and is provided at suitable intervals with the spike-receiving openings 11, the width of the said flange being approximately equal to the diameter of the heads 12 upon the screw-spikes 13. The upper edges of the spike-receiving openings 11 are chamfered or beveled at 14, at an angle corresponding to the beveled or conical under sides 12' of the spike heads 12, so that when the spikes are turned into position, a firm bearing will be provided for the heads 12 thereof on all sides. The under part of the head of the screw spike 13 may be made flat so that no beveling is necessary. The opposite edge of the base plate 2 of the shoe-angle A projects beyond the rails and is provided with the spike-receiving openings 15,

an upwardly projecting supporting rib being formed at the edge of the base plate. This rib 16 has a height substantially equal to the thickness of the rail base at the outer edge thereof, and the upper bearing edge of the said rib is beveled inwardly at 17 on an angle corresponding to the inclination of the upper surface of the rail base.

The floor flange 9 of the angle-bar C has the edge thereof provided at points adjacent the spike-receiving openings 15 with clearance notches 18 which permit the heads 12 of the spikes to come into direct binding contact with the edges of the base flanges of the rails. With this construction it will be obvious that when the screw-spikes 13 are turned into position, the beveled under sides of the heads 12 thereof will be brought into a firm engagement with the beveled upper surface 17 of the rib 16, and also with the inclined upper surface of the rail base at the edge thereof. A firm bearing is thus provided for the under surface of the head of each spike on the outer side thereof as well as on the inner side or side toward the rail, and the spikes are thereby prevented from the outward tipping which has been found objectionable.

From the foregoing description, it will be apparent that by constructing a Weber or other rail joint in the manner described, screw-spikes may be employed in connection therewith without danger of the spikes tipping outwardly and being deflected away from the rails in such a manner as to have their efficiency either decreased or destroyed.

Changes in the form, proportion, and mi-

nor details of construction as fall within the appended claims may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

What I claim is:

1. In a track fastening for rail joints, a rail joint including the rails, the joint bolts, a joint bar engaged by the bolts and having a base plate provided adjacent one edge with a spike-hole and a spike head bearing surrounding said hole, and adjacent its opposite edge provided with a spike-hole and a spike head bearing located at the outer side of said hole, and screw spikes arranged in the respective holes and whose heads engage said bearings, the head of the inner spike also engaging the rail flange.

2. In a track fastening for rail joints, a rail joint including the rails, the joint bolts, a shoe angle engaged by the joint bolts and provided at its outer corner with a spiking flange having a spike-hole and a symmetrical spike-hole bearing surrounding said hole, and at its inner edge having a spike-hole and a raised spike head bearing located at the outer side of said hole, and screw spikes arranged in the respective holes and whose heads engage said bearings, the head of the inner spike also engaging the rail flange.

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

BENJAMIN WOLHAUPTER.

Witnesses:

E. F. SCHERMERHORN,
K. McNALLY.