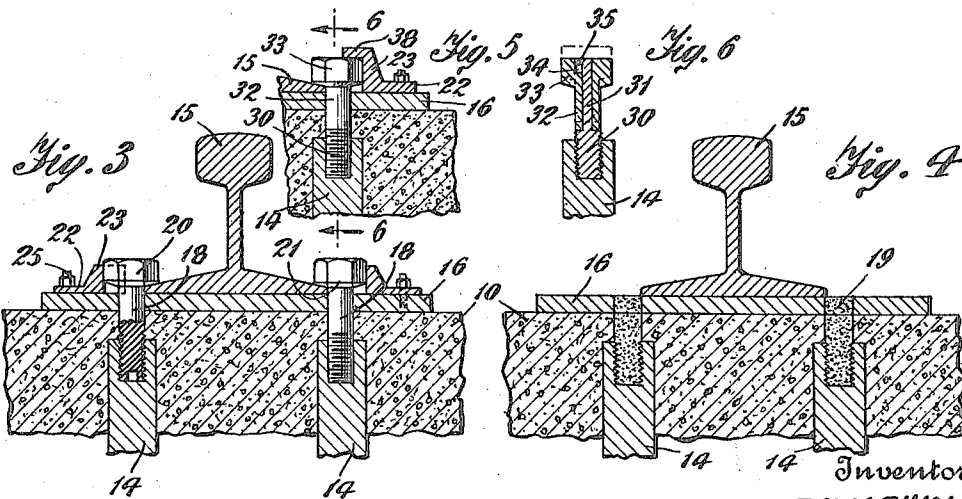
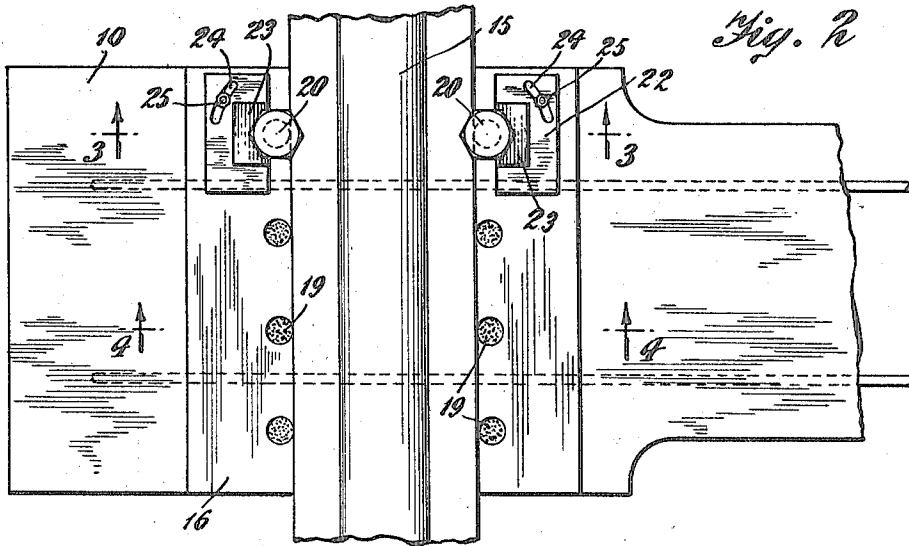
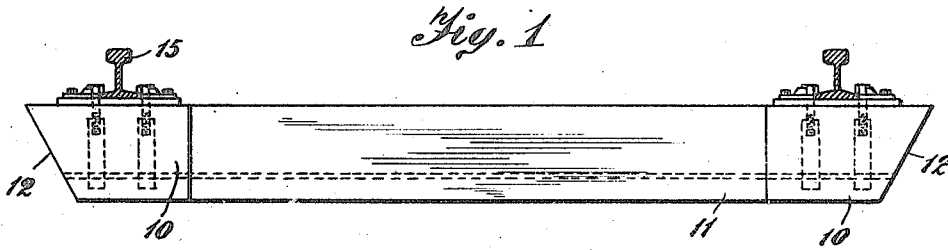


M. ZAVARKIN.
RAILWAY CLAMP.
APPLICATION FILED JAN. 2, 1918.

1,264,251.

Patented Apr. 30, 1918.



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UNITED STATES PATENT OFFICE.

MAXIM ZAVARKIN, OF EAST BRIMFIELD, MASSACHUSETTS.

RAILWAY-CLAMP.

1,264,251.

Specification of Letters Patent.

Patented Apr. 30, 1918.

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To all whom it may concern:

Be it known that I, MAXIM ZAVARKIN, a citizen of Russia, resident of East Brimfield, county of Hampden, and State of Massachusetts, have invented certain new and useful Improvements in Railway-Clamps, of which the following is a specification.

This invention relates to improvements in rail clamps and particularly to types applied to concrete construction.

The principal object of the invention is to provide means whereby the running rails of a railroad may be effectively and securely clamped to the upper surface of the tie.

A further object is to provide means whereby the rail fastenings are prevented from turning and thereby permitting the rail to become displaced.

A still further object is to provide means whereby the rails may be raised clear of the clamping means without removing the latter from the tie.

These and other like objects are attained by the novel construction and combination of parts hereinafter described and shown in the accompanying drawing, forming a material part of this specification, and in which:—

Figure 1 is a side elevational view, showing a concrete tie and a pair of rails secured by fastenings made in accordance with the invention.

Fig. 2 is an enlarged fragmental plan view showing one of the rails as connected to the tie.

Fig. 3 is a longitudinal sectional view taken on line 3—3 of Fig. 2.

Fig. 4 is a similar sectional view taken on line 4—4 of Fig. 2.

Fig. 5 is a fragmental sectional view showing a modified form of holding means, and

Fig. 6 is a vertical sectional view taken on line 6—6 of Fig. 5.

Referring to the drawings, the numeral 10 indicates the head of the concrete tie having integral connections 11 and formed with beveled ends 12. Contained in the head of the tie are metallic inserts 14, arranged in pairs at opposite ends of the tie, and positioned below the flanges of the track rail 15. Interposed between the flange of the rail and the top of the tie, are metallic plates 16, through which are formed openings receptive of the screws or bolts 18, the same

being suited to threaded openings in the upper element of the reinforcing inserts 14. Such of these openings as are not used may be filled with cement 19 as indicated.

The bolts 18 are preferably formed with hexagonal heads 20, having a beveled lower surface 21, and in order to prevent these heads from moving accidentally, by shock or jar, blocks 22 are formed with standing projections 23, adapted to engage with the angles of the heads 20, and are secured to the plate 16. These blocks have arcuate slots 24, through which pass bolts 25, thereby securing the blocks in any adjusted position with reference to the head 20 and preventing the same from turning accidentally.

In order to permit the track rails to be raised, without materially releasing the screws or fastenings the modifications shown in Figs. 5 and 6 are used.

The modification consists in making the screws in two parts, the lower threaded portion 30 being suited to engage in the openings at the tops of the inserts 14 and is formed with a vertical central projection 31, of rectangular cross section, fitted to be received within a sleeve 32, formed with the heads 33, the heads having recesses 34, suited to receive the projection 35 formed on the stems 31.

When the screw heads are rotated, causing the screws to engage with the reinforcement, it is also possible to raise the head relatively to the stems 31 to a limited extent, sufficient however to release the rail flange, which projects closely adjacent to the sleeves 32 and below the heads 33. The heads are kept in a normal position by means of extensions 38 overlying the heads and formed with the projections 23 of the plates 22. Thus by removing the plate 22, which can readily be done by slackening the screws 25, so the plates can be turned by reason of the slots 24, the rail can be removed without affecting the screws.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is—

1. In a rail clamp, the combination with a tie having screw threaded openings, of bolts receivable therein, said bolts having heads normally impinging upon the rail flange, of a slotted plate engageable upon said tie, projections on said plate, said projections having an opening partially recep-

tive of the head of the screw and means by which said plate can be swung to suit the position of said head.

2. In a rail clamp, the combination with
5 a tie having threaded openings, of bolts suited to said threaded openings, the heads of said bolts having a beveled lower surface engageable with the flange of the rail, blocks having recesses suited to the head
10 of said bolts, and means by which said blocks can be adjusted to suit the position of said heads whereby they are prevented from turning.

3. In a rail securing device, the combina-
15 tion with a tie having threaded openings in its upper surface, of headless screws fitted to the mentioned openings, rectangular stems formed on said screws, said stems having lateral projections, a sleeve slidably en-

gageable on each of said stems, a hexagonal
20 head formed on each of said sleeves, said heads being adapted to engage with the upper surface of the rail flange, and recesses contained in said heads receptive of said pro-
25 jections.

4. In a rail clamping device, the combina-
tion with a threaded screw and a part re-
ceptive thereof, of a rectangular stem on
said screw, a sleeve slidable on said stem, a
head formed on said sleeve, a recess in said
30 sleeve, an element formed on said stem op-
eratively engaged in the mentioned recess, and means for clamping said head to the
upper surface of the rail flange.

In testimony whereof I have affixed my
35 signature.

MAXIM ZAVARKIN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."