

J. W. KENDRICK.
TIE PLATE WASHER.
APPLICATION FILED DEC. 21, 1908.

952,568.

Patented Mar. 22, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

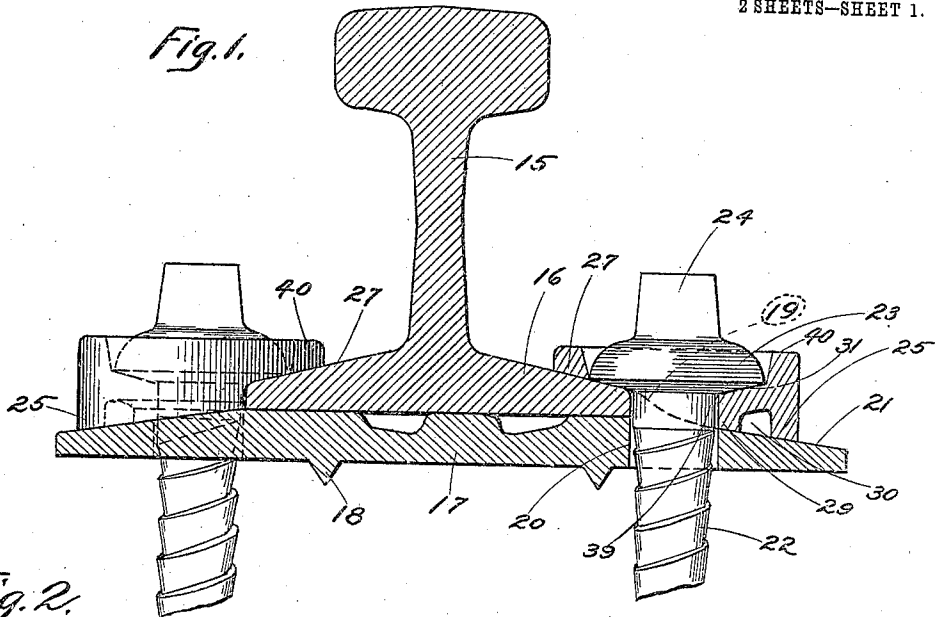
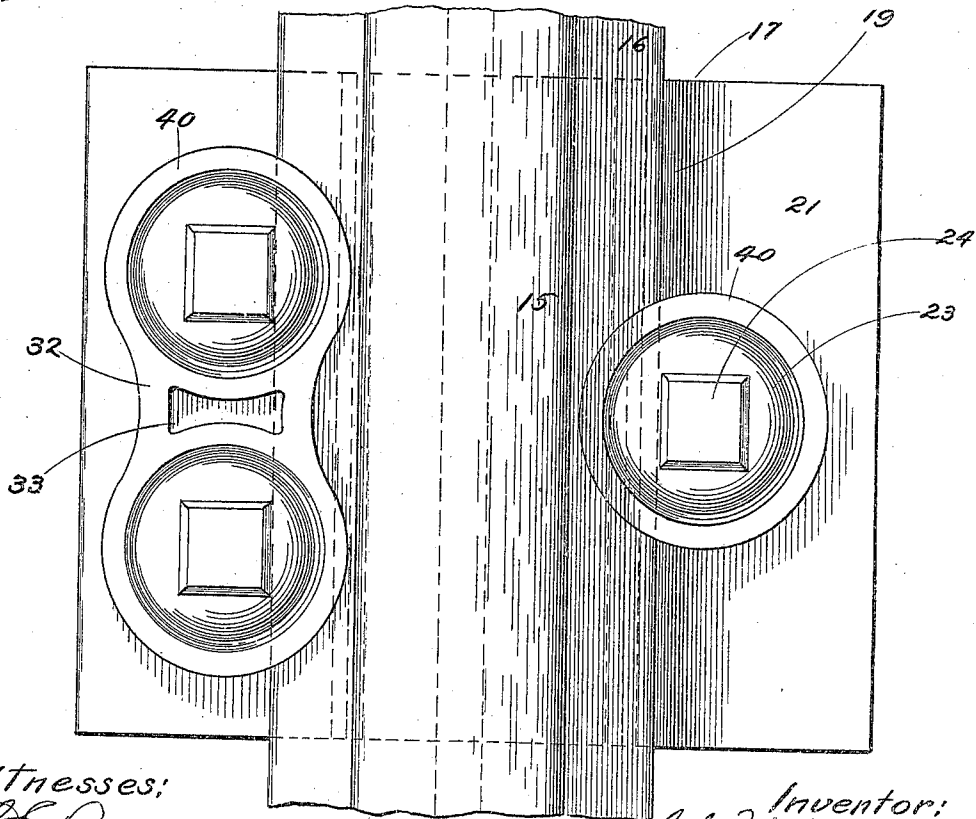


Fig. 2.



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Inventor:

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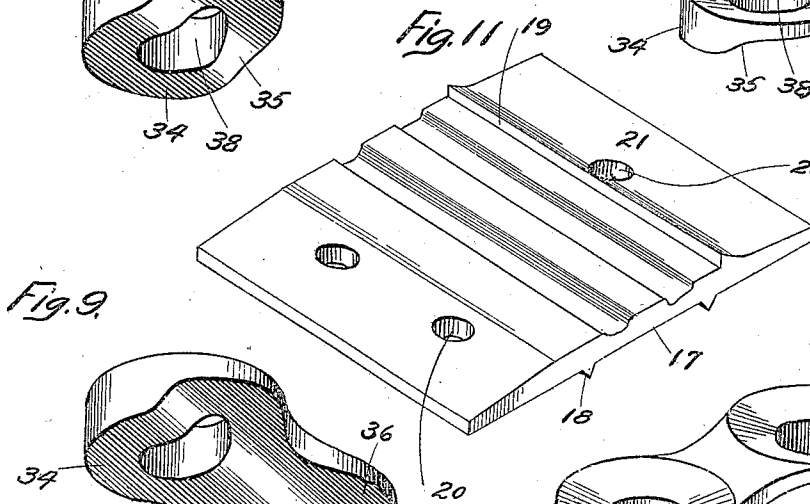
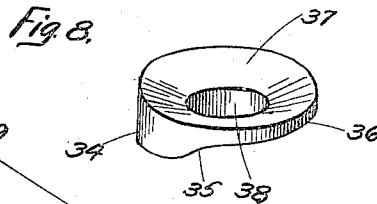
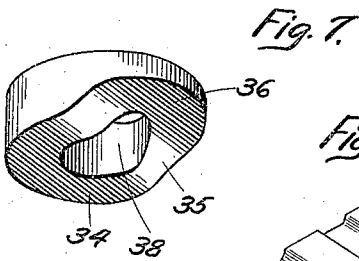
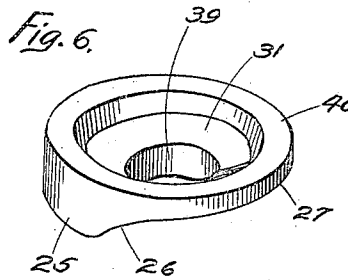
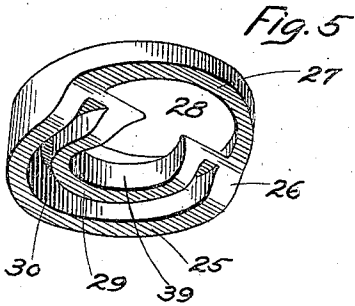
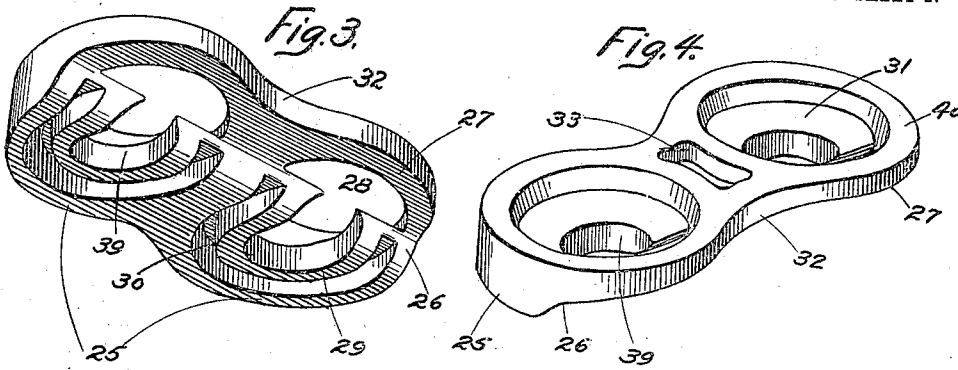
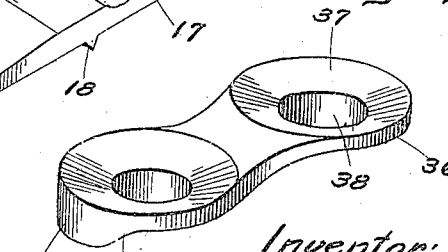


Fig. 10.



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UNITED STATES PATENT OFFICE.

JOHN W. KENDRICK, OF CHICAGO, ILLINOIS.

TIE-PLATE WASHER.

952,568.

Specification of Letters Patent.

Patented Mar. 22, 1910.

Application filed December 21, 1908. Serial No. 468,519.

To all whom it may concern:

Be it known that I, JOHN W. KENDRICK, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Tie-Plate Washers, of which the following is a specification.

The principal object of my invention is to provide a new and improved washer adapted to be used under the heads of the spikes that are driven down into a railway tie to hold the rail in position thereon.

My invention is particularly adapted to be used with screw spikes.

A further object of my invention is to provide a washer that shall support the head of the spikes on the opposite side thereof from the edge of the rail base.

These and various other objects of my invention will be better understood on reading the following specification and claims, when taken in connection with the accompanying drawings, in which—

Figure 1 is a cross section of a rail, tie plate and other parts embodying my invention. Fig. 2 is a top plan view of the same. Figs. 3 and 4 are perspective views of the double washer shown at the left of Fig. 2. Figs. 5 and 6 are perspective views of the single washer shown at the right of Fig. 2. Figs. 7 and 8 are perspective views of a modified form of the single washer. Figs. 9 and 10 are perspective views of a modified form of the double washer, and Fig. 11 is a perspective view of the tie plate.

In the particular embodiment of my invention disclosed in the accompanying drawings, I have designated the rail by the reference numeral 15, the base thereof by 16 and the tie plate by 17. Little ridges 18 are formed on the under side of the tie plate, the intention being that they shall become embedded in the top surface in the tie and thus hold the tie plate more securely in place. At one side of the tie plate, I have shown a ridge 19 on the top surface adapted to lie against the edge of the rail base 16 and form an abutment therefor. The holes in the tie plate are indicated by the reference numeral 20. I have illustrated two holes on one side, and one hole on the other side of the rail, it being a somewhat common practice to have two spikes on the outer side of the rail, especially upon curves. The upper surface of the tie plate slopes gently toward the lat-

eral edges from the edges of the rail base, as indicated by the reference numeral 21. The screw spikes 22 have the heads 23 adapted to overhang the edges of the rail base 16, with the squared parts 24 adapted to receive a wrench.

The washer consists of a circular arc-shaped member 25, adapted to rest on the tie plate and having its ends beveled, as indicated at 26, to accommodate the abutment rib 19. The arc-shaped member 27 forms a continuation of 25, and is adapted to lie upon the rail base 16. Just within the member 27 is an open space 28. Concentric with the arc-shaped member 25 is a similar member 29 surrounding the hole 39 for the spike. Between the two parts 25 and 29 is a space 30. On its upper side the tie plate washer has a conical concave seat 31 adapted to receive the head 23 of the spike. Around this concave seat 31 is a flange 40, which completely surrounds the head 23 of the spike.

The foregoing description of the tie plate washer applies equally well to either the single or double forms shown in the drawings.

In addition to the description just given, it should be noted that the double washer illustrated in Figs. 3 and 4 has its two parts connected together at 32, and that it is recessed at 33 on its top surface, in order to effect a saving of material.

Referring to the modification shown in Figs. 7, 8, 9 and 10, it will be noted that the under surface of each washer consists of a part 34, adapted to lie upon the tie plate, and a part 36 adapted to lie upon the edge of the rail base, these two parts being joined together by the oblique parts 35, which fit upon the rib 19. On its upper side, each washer has a complete conical concave surface 37, which constitutes a seat for the head 23 of the spike. The hole 38 for the spike is a complete circle, thus surrounding the spike at all points within the seat 37.

It will be observed that I have invented a tie plate washer which supports the head of the spike equally on all sides, and that the washer engages the rail base in such a way as to prevent its rotation around the spike.

I claim:

1. A tie plate washer having a part adapted to lie upon the tie plate beside the rail

base, another part adapted to lie upon the edge of the rail base, and an intermediate part conforming to the shape of an abutment ridge on the tie plate.

- 5 2. A tie plate washer having a part adapted to lie upon the tie plate beside the rail base, another part adapted to lie upon the edge of the rail base, and an intermediate part conforming to the shape of an
10 abutment ridge on the tie plate, said washer having two holes therethrough for spikes.

3. A tie plate washer having a thick part on one side adapted to rest directly upon the tie plate, a thin part upon the other side
15 adapted to rest directly on the rail base and having a concave conical seat adapted to receive the head of a screw spike, said thick

part of the washer having an annular channel on the underside thereof.

4. A tie plate washer having a thick part 20 on one side adapted to rest directly upon the tie plate, a thin part on the other side adapted to rest directly on the rail base, and having two concave conical seats adapted to receive the heads of screw spikes, said thick 25 part of the washer having a channel on the under side thereof.

In testimony whereof, I have subscribed my name.

JOHN W. KENDRICK.

Witnesses:

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