

(No Model.)

J. CHURCHWARD.
WEAR PLATE FOR RAILWAY TIES.

No. 434,918.

Patented Aug. 26, 1890.

Fig. 1

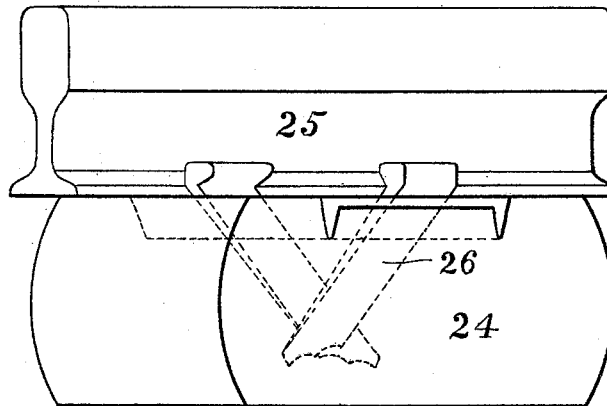


Fig. 3

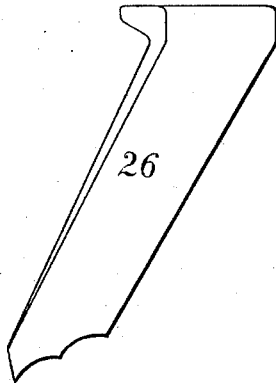
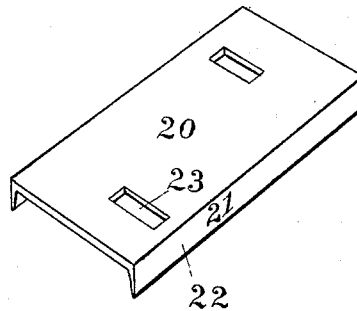


Fig. 2



WITNESSES:

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JAMES CHURCHWARD, OF BROOKLYN, NEW YORK, ASSIGNOR TO THE
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WEAR-PLATE FOR RAILWAY-TIES.

SPECIFICATION forming part of Letters Patent No. 434,918, dated August 26, 1890.

Application filed April 16, 1890. Serial No. 348,270. (No model.)

To all whom it may concern:

Be it known that I, JAMES CHURCHWARD, a subject of the Queen of Great Britain, and a resident of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Wear-Plates for Railway-Ties, of which the following is a specification.

My invention relates to railway appliances, and is an improvement upon the device known as the "Servis" railway-tie plate; its object being to adapt the plate to be secured by spikes other than those having a perpendicular straight body, and thereby prevent spreading and creeping of the rails.

For a better understanding of the invention recourse may be had to the accompanying drawings, forming a part hereof, in which similar figures of reference designate corresponding parts in all the views.

Figure 1 is a side elevation showing the plate applied to the rail and tie, the rail being shown only in part and the tie in transverse section. Fig. 2 is a perspective view of the plate detached, and Fig. 3 is a side view of the general form of spike employed in connection with the plate.

The wear-plate is in general construction substantially similar to the Servis plate above referred to, in that it has an oblong rectangular body 20, of iron or steel, integral with which along each side are formed depending flanges 21, which taper toward their lower ends, where they are beveled on opposite faces to produce a cutting-edge 22. The Servis plate, however, being formed with square slots in its body, it is necessary to employ as securing-spikes therefor those having a straight perpendicular body. By my improvement presently to be described, I adapt the plate to receive spikes having a broad flat tapering body, ranging diagonally from its head, an example of which is that shown and described in Letters Patent No. 394,678, dated December 18, 1888, and known as the "Davies" spike, and in Letters Patent No. 425,407, granted to me April 15, 1890, by which advantages are attained which are not attainable by the Servis plate, as will hereinafter appear. To the end above named, I form in the body of the plate transversely of

the same, oblong rectangular slots 23, adjacent to diagonally-opposite corners thereof and out of alignment with each other, as shown in Fig. 2 of the drawings.

In use the flanges of the plate are driven into the wooden tie 24, longitudinally thereof, until the body of the plate bears on the tie, and the rail 25 is then placed thereon between the slots 23, whereupon spikes, having the general form of the one 26 shown in Fig. 3, are driven into the tie through the slots in the plate in directions opposite to each other, as shown in full and dotted lines in Fig. 1 until their heads bear upon the flange of the rail. Thus it will be seen that the spikes not only hold the rail and tie securely together, but the plate so re-enforces the spikes as to prevent spreading of the rail and change of gage of the road, while the spikes entering the tie diagonally and in opposite directions instead of straight and parallel with each other, as in the Servis plate, re-enforce each other and prevent the rails from "creeping."

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

1. The combination, with a railway rail and tie, of an oblong rectangular wear-plate having depending flanges adapted to enter the tie, and formed transversely of its body with oblong elongated slots adjacent to diagonally-opposite corners thereof, and spikes having a broad flat tapering diagonally-ranging body adapted to said slots, as shown and described, for the purpose set forth.

2. The combination, with a railway rail and tie, of an oblong rectangular wear-plate 20, formed with depending sharpened side flanges 21, and formed also transversely of its body at diagonally-opposite corners with oblong rectangular slots 23, and spikes, as 26, driven through said slots into the tie in directions opposite each other, substantially as shown and described, for the purposes specified.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two witnesses.

JAMES CHURCHWARD.

Witnesses:

M. V. CRONIN,
A. B. CHOBOT.