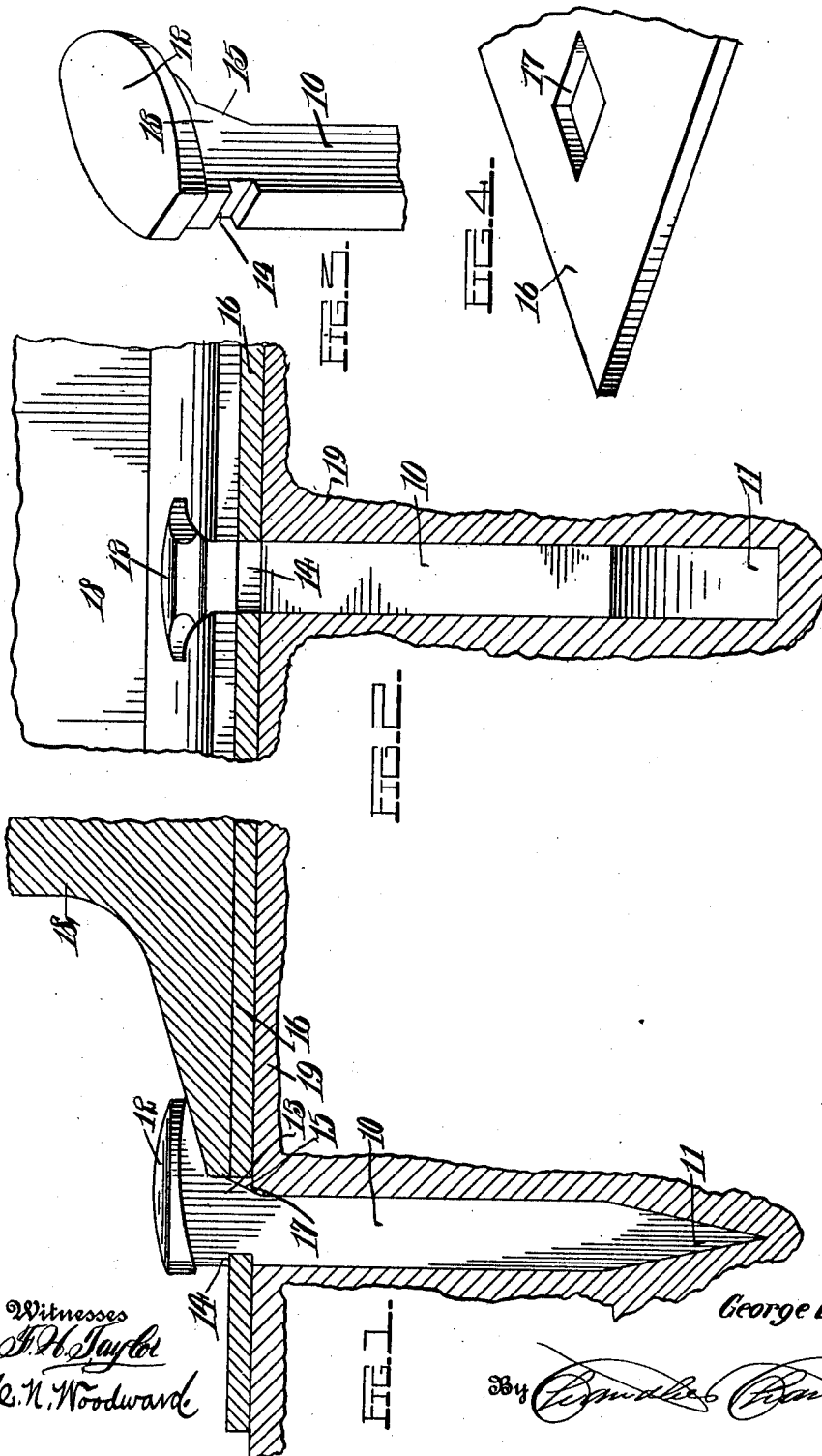


G. L. CHEADLE, JR.
RAILWAY RAIL FASTENING DEVICE.
APPLICATION FILED OCT. 12, 1910.

1,020,264.

Patented Mar. 12, 1912.



Witnesses
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Attorneys

UNITED STATES PATENT OFFICE.

GEORGE L. CHEADLE, JR., OF AUSTIN, ILLINOIS.

RAILWAY-RAIL-FASTENING DEVICE.

1,020,264.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE L. CHEADLE, Jr., a citizen of the United States, residing at Austin, in the county of Cook, State of Illinois, have invented certain new and useful Improvements in Railway-Rail-Fastening Devices; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in railway rail fastening devices, and has for one of its objects to provide a simply constructed device combining all of the advantageous operations of a railway spike and a tie plate.

Another object of the invention is to provide a simply constructed tie plate and a novel construction of spike whereby the spike is locked to the plate when driven into the tie.

With these and other objects in view, the invention consists in certain novel features of construction as hereinafter shown and described and then specifically pointed out in the claim; and, in the drawings illustrative of the preferred embodiment of the invention, Figure 1 is a side elevation of the improved device with the tie plate portion, the tie, and a rail, in section, illustrating the construction and operation. Fig. 2 is a side elevation of the parts shown in Fig. 1, with the tie plate and tie in section. Fig. 3 is a perspective view of the improved spike detached. Fig. 4 is a perspective view of the rail plate detached.

The improved device comprises a spike of improved construction and a rail plate, the spike comprising a stock 10 having the usual pointed wedge-shaped terminal 11 at one end and with the usual form of rail flange engaging head 12 at the other end. The stock 10 is enlarged at the side next to the overhang portion of the head 12, as shown at 13, and provided with a transverse recess 14 in the rear edge, the stock between the enlargement 13 and the body 10 being inclined as shown at 15.

The tie plate is represented as a whole at 16 and is of the usual form and is provided with an aperture 17 through which the spike is driven, the aperture corresponding in size to the stock opposite the recess 14, as shown.

One of the rails is represented conventionally at 18 and a portion of the tie at 19. In applying the improved device the plate 16 is located upon the tie 19 and the rail located upon the tie plate with one edge of the rail flange preferably flush with the inner end of the aperture 17. The spike is then driven through the aperture until the recess 14 comes opposite the outer edge of the aperture 17, when the inclined face 15 will force the recess of the spike over the edge of the aperture into the position shown in Fig. 1, and thus lock the spike to the tie plate. The aperture 17 in the tie plate will be just large enough to easily admit the body of the spike, and then when the spike is driven home the inclined shoulder 15 by bearing against the edge of the rail flange, forces the recess 14 to engage over the outer edge of the hole 17 in the tie plate and thus forms a complete lock between the parts, as will be obvious. When the spikes are thus locked in place they provide the usual space for the expansion.

The improved spike can be manufactured at no material increase of expense over the ordinary spike, and the difference in weight will be so slight as to be practically negligible.

The enlargement 13 compensates for any reduction in strength produced by the recess 14 in the spike, so that the general strength of the spike is not decreased.

What is claimed is—

In a railway rail fastener, a spike comprising a stock having a head overhanging at one side to engage with the flange of a rail, said stock being enlarged beneath the overhanging portion of the head and with an inclined shoulder between the body of the stock and the enlargement and with a transverse recess opposite to the shoulder and in the side of the spike opposite the rail engaging portion of the head, and a tie plate having an aperture to receive the shank and located opposite to the recess whereby the tie plate and spike are locked to the tie when the spike is driven into the same.

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

GEORGE L. CHEADLE, JR.

Witnesses:

W. H. JAEGER,
C. J. BROWN.