

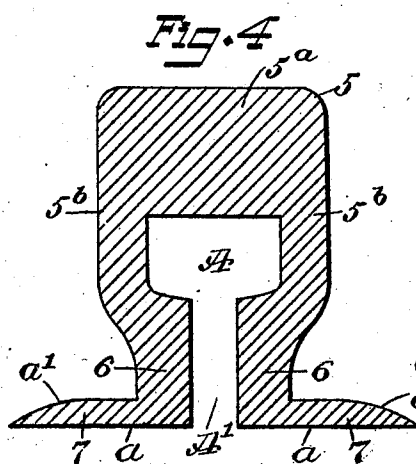
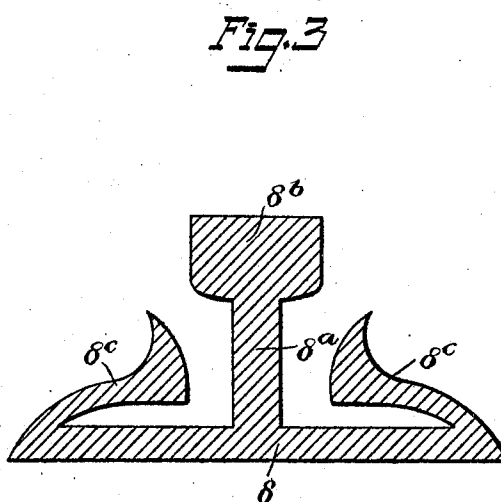
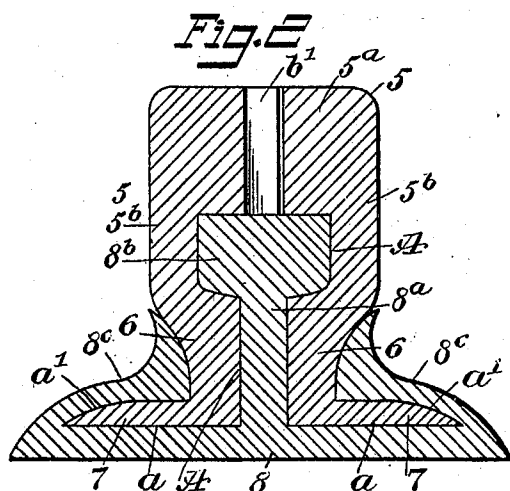
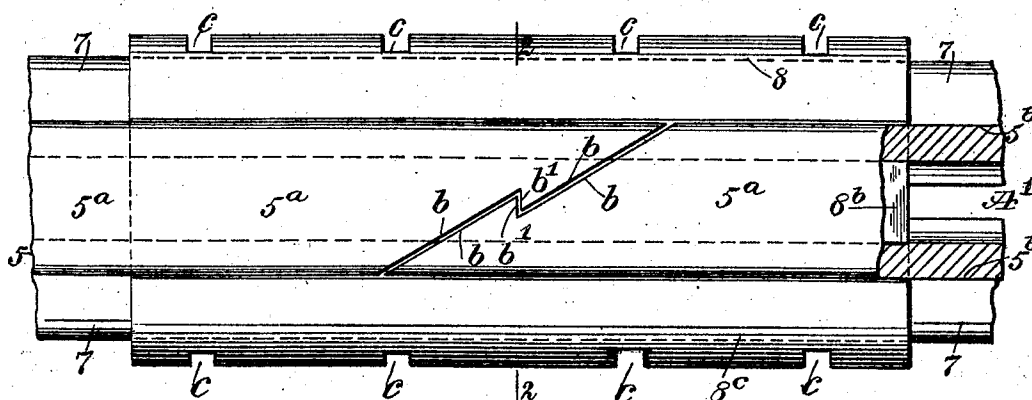
No. 805,902.

PATENTED NOV. 28, 1905.

C. W. CLARK.

TRACK RAIL AND RAIL JOINT CONNECTION.

APPLICATION FILED MAY 23, 1905.



WITNESSES:

WITNESSES.
J. E. Davidson:

Wm L Patton

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UNITED STATES PATENT OFFICE.

CHARLES W. CLARK, OF CHAMA, TERRITORY OF NEW MEXICO, ASSIGNOR
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TRACK-RAIL AND RAIL-JOINT CONNECTION.

No. 805,902.

Specification of Letters Patent.

Patented Nov. 28, 1905.

Application filed May 23, 1905. Serial No. 261,741.

To all whom it may concern:

Be it known that I, CHARLES W. CLARK, a citizen of the United States, and a resident of Chama, in the county of Rio Arriba and Territory of New Mexico, have invented a new and Improved Track-Rail and Rail-Joint Connection, of which the following is a full, clear, and exact description.

The object of this invention is to provide novel details of construction for a railroad-track rail and novel means for connecting the improved rails in sequence, which together afford a continuous track-rail that obviates jar and percussion when the improved track-rails are traversed by rolling-stock of a railroad formed of the improved rails and their joint connections.

The invention consists in the novel construction of the track-rail, of the connecting-shoe therefor, and their combination, as is herein-after set forth, and defined in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a partly-sectional plan view of two of the improved track-rails at their meeting ends and of a novel shoe which connects said ends in sequence. Fig. 2 is a transverse sectional view substantially on the line 2 2 in Fig. 1. Fig. 3 is a transverse sectional view of the shoe detached from the track-rails, and Fig. 4 is a transverse sectional view of one of the improved track-rails.

The rail 5 is formed of steel or other available metal having a proper length for convenience in handling and is preferably rolled into shape. As shown, the track-rail comprises a head or ball 5^a, which may be flat on the upper face and have parallel sides 5^b, the corners between the top face and sides of said ball being rounded. An opening A is formed through the track-rail, rendering it hollow, and said opening of a proper size may be angular, as shown, or have other form, if preferred.

From the opening A a slot A' extends centrally down through the neck or web 6 of the rail, which web may be reduced in thickness as compared with that of the ball 5. From the lower end of the slotted web 6 two base-flanges 7 extend outward and oppositely, said flanges being level with each other on their bottom sides *a*, but have their upper surfaces

convexed somewhat toward their outer edges, as shown at *a'* in the drawings.

The ends of the track-rail ball 5 are each formed with a zigzag slope *b* on one side, providing a tapering end portion having an offset shoulder *b'* thereon, and, as clearly shown in Fig. 1, the engagement of said shoulder with a like shoulder on the mating sloped end *b* of a similar track-rail serves to lock the ends of the rails together in sequence.

The improved shoe for holding the mating ends of two alined track-rails of the improved construction reliably connected together and reinforcing the engaged ends of the track-rails comprises the following details:

Centrally on a flat base-plate 8, that is the bottom wall of the shoe, a web-flange 8^a is erected at right angles therewith, and upon the upper portion of the web-flange a head-block 8^b is formed. As shown in Fig. 2, the web-flange 8^a fits neatly within the slot A' in the neck or web 6 of each track-rail the shoe is to connect, and the head-block 8^b is in a like manner fitted into the opening A.

The base-plate 8 is of a suitable width to afford a seat for the base-flanges 7 at the respective sides of the web-flange 8^a, and integral with the outer side edges of the base-plate two return-bent flanges 8^c 8^c are formed, these flanges being shaped to bear upon the upper sides of the base-flanges 7 and the respective exterior sides of the slotted web 6. A plurality of notches *c* are formed in each side edge of the shoe for the reception of spikes, which are driven into the cross-ties whereon the shoe is seated and hold the shoe from movement.

The shoe is of suitable length for its effective service, and when the joined end portions of the track-rails have been clamped together by driving the shoe thereon it will be seen that the track-rails are rendered practically continuous, are supported against lateral and vertical strains, and permitted to expand and contract to compensate for changes of temperature.

It will be seen that the peculiar formation of the rails and shoes enables the production of a light strong trackway which is measurably elastic and avoids all percussive jars incidental to the travel of rolling-stock over a trackway formed of T-rails of ordinary construction.

Slight changes in the proportion and shape of the rail and shoe may be adopted within the spirit and scope of the invention, and I claim all such modifications as may fall within the manifest intent of the claims.

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

1. A shoe for connecting the ends of track-rails, comprising a flat base-plate, a perpendicular web centrally thereon, a head-block on the web, and return-bent flanges on the side edges of the base-plate.

2. The combination with a pair of track-rails, each having a longitudinally-apertured ball, a web depending from the ball, said web having a longitudinal slot intersecting the aperture, and two similar base-flanges extending oppositely from the lower ends of the

web, of a shoe for connecting ends of the rails in sequence, comprising a base-plate whereon the base-flanges seat, a web projected up from the base-plate and occupying the slots in the rail-webs, a head-block on the projected web occupying the aperture in the balls of the meeting track-rails, and return-bent flanges on the outer edges of the base-plate, said flanges bearing against the tops of the base-flanges and against adjacent sides of the slotted webs on the track-rails.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES W. CLARK.

Witnesses:

WILL A. HALL,
D. H. HINES.