Oct. 21, 1924. 1,512,265

C. ANDERSON

RAILWAY SPIKE AND HOLDER

Filed April 3, 1924

Fig. 1.

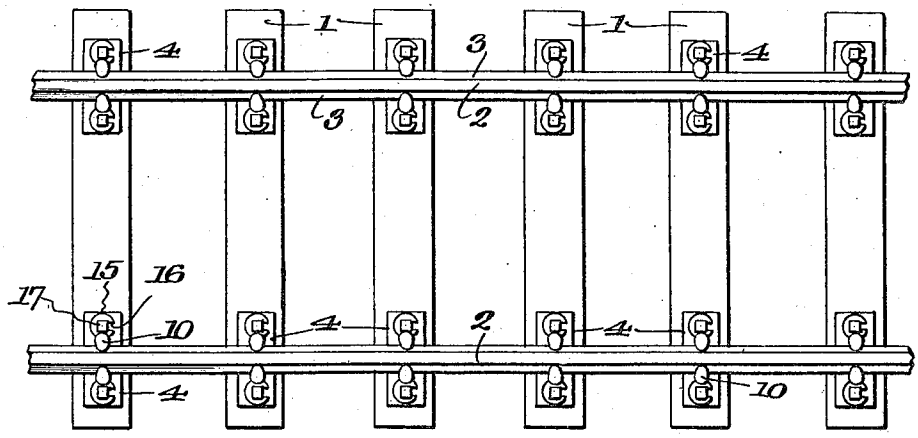


Fig. 2.

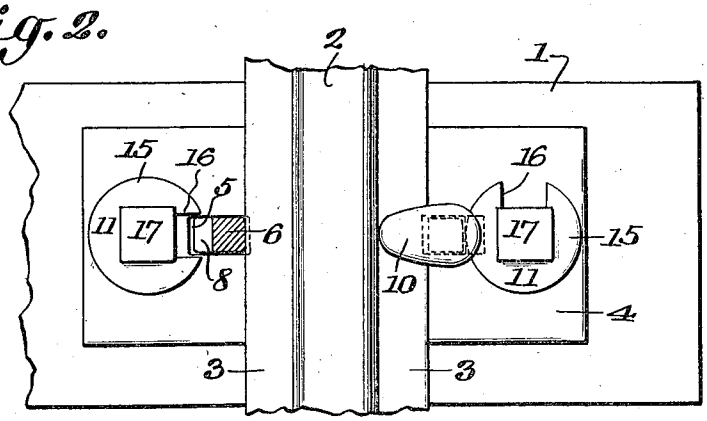
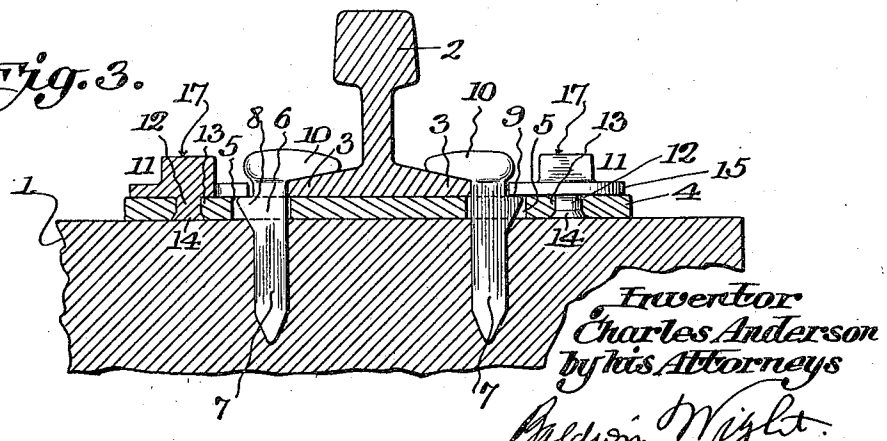


Fig. 3.



Inventor
Charles Anderson
by his Attorneys
Baldwin Wright

Patented Oct. 21, 1924. 1,512,265

UNITED STATES PATENT OFFICE.

CHARLES ANDERSON, OF EDDYVILLE, IOWA, ASSIGNOR OF ONE-HALF TO AMIL FRED GOSCHKE, OF EDDYVILLE, IOWA.

RAILWAY SPIKE AND HOLDER.

Application filed April 3, 1924. Serial No. 704,034.

To all whom it may concern:

Be it known that I, CHARLES ANDERSON, a citizen of the United States, and resident of Eddyville, in the county of Wapello and State of Iowa, have invented certain new and useful Improvements in Railway Spikes and Holders, of which the following is a specification.

In the usual construction of roadbeds for railways and the like, wooden ties are employed to which the rails are fastened by means of spikes having a head portion which overlies an edge of the rail base. Obviously constant attention is necessary to prevent the rails from becoming loose because of the fact that the spikes will slowly work loose and even come entirely out. The careful inspection of the track necessary to keep it in good condition in this respect calls for the expenditure of much time and money.

An object of my invention is the provision of a special form of spike with which cooperates a holding means such that the spike cannot work loose.

Another object is the provision of such means in which the spike is simple in form and can be readily manufactured, and wherein the holding means is such that the spike can be readily released whenever it is desired to withdraw the same.

Other objects will be apparent from the following detailed description and appended claims.

In the drawings:—

Figure 1 is a plan of a section of railroad track showing my invention applied thereto.

Figure 2 is a plan on an enlarged scale of a pair of spikes with the holding means therefor, one of said spikes being in section.

Figure 3 is a vertical section with the spikes and one holding means in elevation.

My invention is shown as applied to the usual railroad track which has wooden ties 1 and rails 2 of the usual form with base flanges 3. Extending lengthwise of each tie and under the rail is placed a short tie plate 4 which has two openings 5 spaced apart the width of the base of the rail, or slightly less. Through each opening is adapted to be driven a spike 6. This spike has the usual body portion 7, an outwardly projecting portion 8 forming a plane shoulder 9 on its upper side adapted to lie in a horizontal plane, and a head 10 which projects a considerable distance on the side away from the portion 8 and is adapted to overlie the flange 3 of the rail.

The holes or openings 5 in the tie plate are wide enough to receive the portion of the spike 6 which has the projecting portion 8, and when the spike is driven into the tie until the head 10 thereof contacts with the rail flange 3, the upper edge of the shoulder 9 will lie in substantially the same plane as the top of the tie plate 4.

Mounted to rotate in the tie plate and located near the outer edges thereof and adjacent the openings 5 are holding members 11. Each holding member has a stem 12 which passes through an opening 13 in the tie plate and is riveted therein as shown at 14. This riveting is not carried to the point that the member will be fixed but it leaves the member free to rotate. The head of the holding member 11 comprises a circular portion 15 having a cut out 16 at one side large enough to permit the head of the spike to pass freely therethrough, and a central angular portion 17 projecting upward from the circular portion 15 and adapted to be engaged by a wrench or other means for turning the same. Each holding member is preferably made of one piece, but it is obvious that it may be made in two or more parts and that other means for attaching it to the plate 4 may be employed without departing from the spirit of the invention.

In making use of the invention, the ties 1 are first placed, and then the tie plates 4 laid in position. The rails 2 are placed upon the tie plates 4 and the holding members 11 turned until the cut out portion 16 of each coincides with an edge of the openings 5. The spikes 6 are then driven into position. After the head of the spike contacts with the flange 3 of the rail and the upper edge 9 of the shoulder 8 lies in the same plane as the top of the tie plate 4, the holding means 11 is turned. This brings the circular portion 15 thereof over the edge 9 of the shoulder 8 and consequently holds the spike against withdrawal.

Any tendency of the spike to work out of the tie is resisted by the holding member 11 which is carried by the plate 4 and the plate 4 is held in position by the weight of the rail 2. It is therefore evident that virtually the entire weight of the rail is effective to hold the spikes in the ties.

The holding members are shown as having been given a quarter turn only, but of course they may be given a half turn if desired. Furthermore, the underside of the circular portion 15 may be provided with a slight depression at some point to receive the shoulder 8 of the spike and thereby prevent accidental rotation of the holding member 11. Ordinarily, however, there will not be sufficient tendency for these holding members to rotate to render such a construction advisable.

Various detail changes may be made without in any manner departing from the spirit of the invention. The spike and holding device may be used with railways of various kinds or with other track rails or analogous structures. It is to be understood that the invention is limited only by the scope of the appended claims.

I claim as my invention:

1. Means for holding rails to their ties comprising a tie plate placed between the rail and tie and having openings adjacent the edge of the bottom of the rail, a spike having a head adapted to overlap said rail edge and an oppositely projecting shoulder intermediate its ends, and a member movably carried by the tie plate and having a cut out adapted to register with an opening in the tie plate, but movable to a position overlying the shoulder of the spike.

2. Means for holding rails to their ties comprising a tie plate placed between the rail and tie and having an opening adjacent the edge of the bottom of the rail, a spike having a head portion adapted to engage the edge of said rail and a shoulder passing into said opening the upper face of which lies in the plane of the tie plate when the head of the spike engages the rail, and a member movably carried by the tie plate and having a cut out adapted to register with an opening in the tie plate to permit the passage of the spike, but movable to a position overlying the shoulder of the spike.

3. Means for holding rails to their ties comprising a tie plate located between the rail and tie and having an opening therein adjacent the rail edge, a spike adapted to pass through said opening and having a head to engage the rail and a shoulder intermediate its ends, said shoulder lying in the plane of the tie plate when the spike engages the rail, and movable means carried by the tie plate adapted in one position to permit passage of the spike and in another position to overlie the shoulder and prevent removal of the spike.

4. Means for holding rails to their ties comprising a tie plate located between the rail and tie and having an opening therein adjacent the rail edge, a spike adapted to pass through said opening and having a head to engage the rail and a shoulder, said shoulder lying in the plane of the tie plate when the spike engages the rail, and rotatable means carried by the tie plate having a circular flange adapted to overlie the shoulder and prevent removal of the spike, and provided with a cut out which may register with the opening in the tie plate when the spike is to be driven.

In testimony whereof I have hereunto subscribed my name.

CHARLES ANDERSON.