P. KRIVACIC.

RAILROAD SPIKE.

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1,048,839. Patented Dec. 31, 1912.

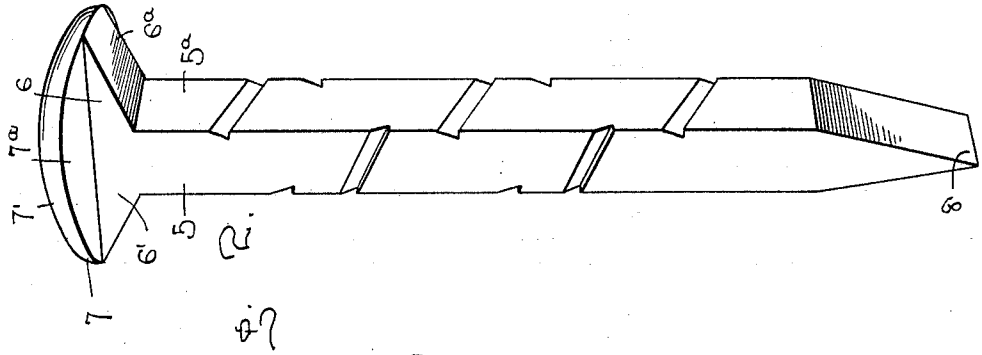

Fig. 1.

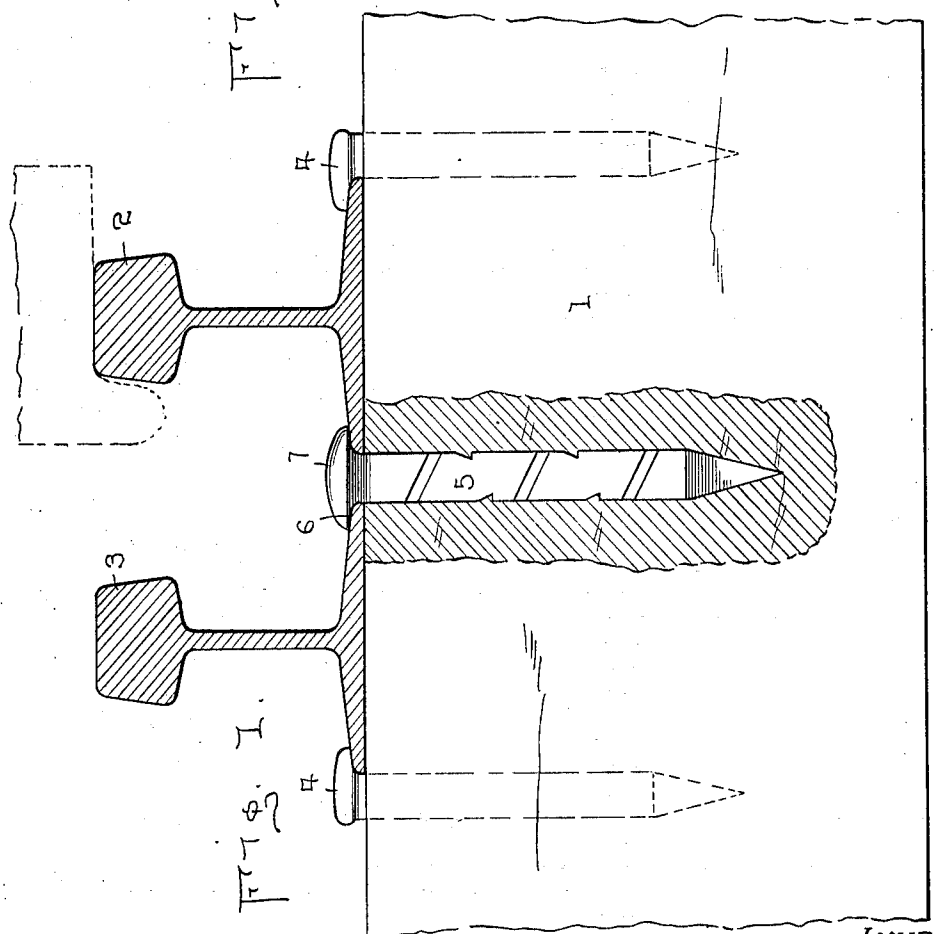

Fig. 2.

WITNESSES:

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RAILROAD-SPIKE.

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To all whom it may concern:

Be it known that I, PETER KRIVACIC, a citizen of the United States, residing at Whiting, in the county of Lake and State of Indiana, have invented certain new and useful Improvements in Railroad-Spikes; 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 railroad spikes, and it more particularly relates to a double headed spike, intended to be used between a track rail and a guard rail of ordinary construction.

An object of the invention is to provide a railroad spike which when used in connection with wooden railroad ties, engages the fiber or grain of the wood for securely holding the spike within the tie.

A further object of the invention is to provide a railroad spike having a double head comprising two similar rail-flange engaging surfaces, adapted to be seated upon the adjacent flanges of a track rail and a guard rail.

A still further object of the invention is to provide a spike of this character which when in use has a portion of its head or crown spaced above the rail flanges for the admission of a spike puller, or other suitable tool, for drawing the spike when it is desired to repair the track by renewing the tie, etc.

Other objects and advantages of my invention will be made clearly apparent in the specification and pointed out in the claims.

In the accompanying drawings which form a part of this application, Figure 1 shows a fragmental portion of the tie, a part of which is in section, with a track rail and a guard rail thereon; these rails being shown in vertical cross section, a railroad spike embodying my invention being seated between the rails. Fig. 2 is a perspective view of the preferred form and embodiment of my invention.

Referring to the drawings in which similar reference characters designate corresponding parts throughout the several views, a railroad tie is designated by the numeral 1, the track rail by the numeral 2 and the guard rail by the numeral 3. Spikes 4 of ordinary construction are shown engaging the outer flange of the track rail and inner flange of the guard rail. The flange and tread of a car wheel are indicated in dotted lines on top of said track wheel for rendering the illustration perfectly clear.

It is well known by those familiar with the art that where it is necessary to curve a railroad track abruptly, the ties must be laid at an incline; that is the end of the tie at the outer arc of the curve being on a considerably higher plane than the other end of the tie. It is well known that when a train runs at slow speed over such a curve, the flanges of the car wheels will gravitate against the inner surface of the lower track rail; and that when a train is running at high speed, the momentum thereof carries the flanges of the wheels against the vertical edge of the upper guard rail. In the first instance the track rail 2 tends to cant outward while in the second instance the guard rail tends to cant. In both instances the tendency of the rails to cant, also tends to draw the spikes which engage the rail on the side adjacent to the wheel flanges. Now, in order to avoid the foregoing difficulties and overcome the said tendency, I provide a spike 5 of larger size and of a greater holding capacity than is provided by railroad spikes or ordinary construction.

Because of the excessive frictional contact of the wheel flanges upon the vertical surfaces of the rails, as described, it becomes necessary to often renew these rails; and in doing so, it becomes necessary to draw the spikes 4 or else to draw the spikes 5. Obviously, to draw the spikes 4 would require two operations, whereas, only one operation would be required for drawing the spike 5; and when the latter is removed, the rails may then be slid from under the heads of the spikes 4, and replaced by new ones, whereupon, the spike 5 may be again driven into its former seat, and if necessary supplemented by another one of its kind. Now, one of the objects of this invention is avoided by means of the construction and relation of the head 6, the crown 7 and the shank 5 of the spike, which is more clearly shown in Fig. 2. The head 6 comprises the vertical plane surfaces 6′ and the inclined under surfaces 6^a. The crown 7 comprises a convexed top having its highest point 7′ in central vertical alinement with the shank 5, and the inclined under surfaces 7^a, which meet the vertical surfaces of the head at an obtuse angle. The lower terminus of each under surface 7^a is substantially on the same

horizontal plane with the upper terminus of the inclined surfaces 6^a. Each vertical surface of the head is on a common plane with certain vertical surfaces of the shank, each of the last said vertical surfaces terminating at its lower portion, in an angle which meets the entering edge 8 of the spike.

In practice, the entering edge of the spike is set transversely of the tie, or in alinement with the rail flanges and about midway therebetween and is driven by means of a sledge or other proper means in the usual manner. The point of driving contact, being exactly centered over the entering edge, the spike may be driven perfectly vertical, thereby accurately defining the position of the rails.

When it is desired to draw the spikes, a spike pulling tool of ordinary construction may be inserted under one of the surfaces 7^a for that purpose, said surfaces being spaced above the rail flanges by means of the inclined surfaces 6^a. The inclination of the surfaces 6^a, being greater than that of the rail flanges, said inclined surfaces contact the flanges on a line adjacent to the surfaces 5^a of the shank, and because of this relation there is less danger of the spike head being pulled off, while greater resiliency is obtained from the flanges of the rails, because of the greater distance from the edge of the flange to the middle thereof than from the edge of the spike to the middle of the flange.

What I claim is:

1. In a railroad spike, a shank adapted to be driven vertically into a railroad tie, a head on the spike, a crown on the head, said head formed with inclined under surfaces adapted to be seated upon the inclined surfaces of two ordinary and adjacent track rail flanges, the inclination of said inclined surfaces being greater than that of the rail flanges, said crown reinforcing the head and having inclined under surfaces meeting the vertical plane of the head at an obtuse angle, the top of each said vertical surface being on the same horizontal plane with the bottom of each of the second said vertical surfaces.

2. In a railroad spike adapted to be used with a railroad tie and a track rail and a guard rail of ordinary construction, a shank adapted to be driven into said tie, a head formed with two vertical surfaces and two inclined surfaces, a crown on the head having two under surfaces, the top of each said inclined surface being substantially on the same horizontal plane with the bottoms of the said under surfaces, said inclined surfaces being adapted to be seated upon adjacent flanges of said track rail and guard rail for holding the rails on the tie and holding said under surfaces in spaced relation to said flanges for the purpose specified.

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

PETER KRIVACIC.

Witnesses:

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