Z. O. FISCHER.

RAILWAY SPIKE.

APPLICATION FILED MAY 11, 1914.

1,133,947. Patented Mar. 30, 1915.

Fig. 1.

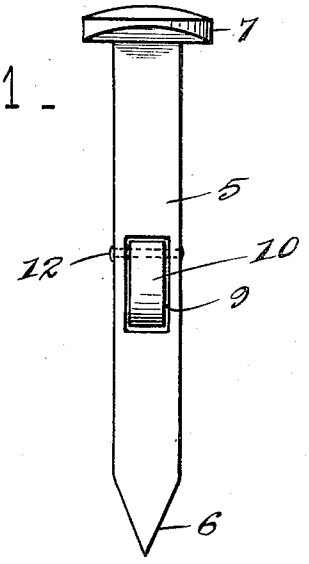
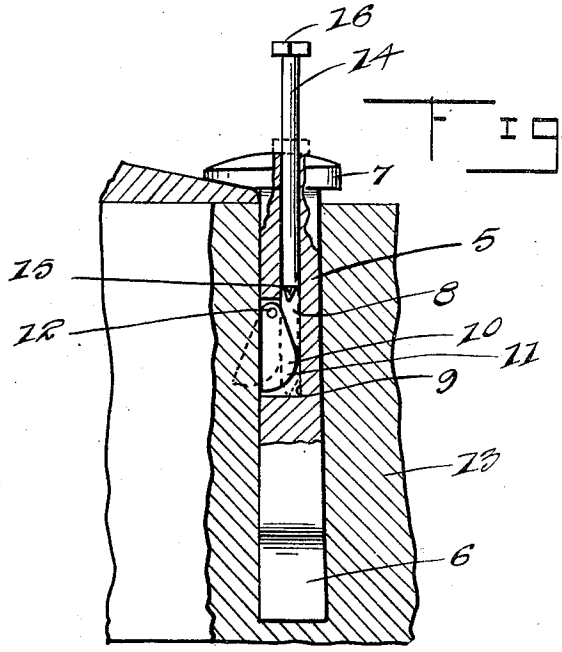


Fig. 2.



Witnesses

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RAILWAY-SPIKE.

1,133,947. Specification of Letters Patent. Patented Mar. 30, 1915.

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To all whom it may concern:

Be it known that I, ZACHARIUS O. FISCHER, a citizen of the United States, residing at Moccasin, in the county of Fergus and State of Montana, have invented certain new and useful Improvements in Railway-Spikes, of which the following is a specification.

An object of this invention is the provision of a spike specially designed for securing railway rails to ties and embodying a novel and efficient locking means for positively preventing the removal of the spike from the tie.

Another object is the provision of a spike of simple and efficient construction which shall be inexpensive to manufacture.

With these and other objects in view, the invention consists in the novel construction, arrangement and combination of parts as will be hereinafter specifically described, claimed and illustrated in the accompanying drawings, in which,

Figure 1 represents a front elevation of the improved spike, and, Fig. 2 represents a side elevation thereof, partly broken away, as applied to use.

Referring to the drawing in detail, wherein similar reference numerals designate corresponding parts throughout the several views, the numeral 5 indicates the body of the spike having one end 6 beveled to provide a cutting edge and carrying a laterally projecting head 7 at the opposite end. An opening 8 is formed longitudinally through the spike body 5 from the head 7 to a point nearly adjacent the longitudinal center thereof, and the inner end of said opening communicates with a second opening 9 extending transversely to that face of the body from which the head 7 projects.

A locking member 10 is positioned within the open end of the transverse opening 9 and is of substantially wedge shape having the inner corner of the large end rounded, as indicated at 11. The small end of the wedge shaped locking member 10 is pivotally supported in the open end of the opening 9 on a pin 12 positioned through the walls of the opening and transversely of the body of the spike. In its normal position, as indicated in full lines in Fig. 2, the locking member 10 lies flush with the front face of the spike body 5 and obviously offers practically no resistance to the movement of the spike as it is driven into the tie or other object 13.

After the spike is driven the desired distance into the object 13, it is desirable to swing the locking member 10 outwardly and laterally of the spike to insure against the removal of the spike. For this purpose, I provide a rod 14 preferably of cylindrical formation and having its lower end 15 pointed and carrying a suitable head 16 at its opposite end. The length of the rod 14 from the head 16 to the pointed end 15 is preferably equivalent to the distance between the top face of the head 7 of the spike and the inner end of the longitudinal opening 8, whereby the rod 14 practically closes said longitudinal opening when the same is driven inwardly until the head 16 thereof engages the head 7 of the spike. During the inward movement of the rod 14 the pointed end 15 thereof engages between the wall of the longitudinal opening 8 and the adjacent face of the locking member 10 and forces the latter outwardly to the position indicated by dotted lines in Fig. 2 where it is held as long as the rod 14 remains in operative position. The locking member 10 projects laterally of the body and from the same side as the head 7 and thus reliably holds the latter in firm engagement with the rail or other object.

It is clearly apparent that as the locking member 10 is moved laterally by the action of the rod 14 it is struck into the fibers of the tie 13 and greatly resists outward movement of the spike 5 due to vibration or any other cause. It is also clearly apparent that, when necessary, the spike may be removed by withdrawing the rod 14 and thus permitting the locking member 10 to swing inwardly within the transverse opening 9 where it offers comparatively no resistance to the removal of the spike.

What I claim is:—

In a spike, a body, a head projecting laterally of the front face of said body, said body having a longitudinal opening extending from the headed end to a point adjacent the center thereof and having a transverse opening extending inwardly from the front face to and communicating with the inner end of said longitudinal opening, a wedge shaped locking member having its small end arranged adjacent said head and

pivotally secured in said transverse opening, the outer face of said locking member normally lying flush with the front face of said body and having an inner cam face, a rod slidable longitudinally through said longitudinal opening having a pointed end adapted to engage the cam face of said locking member to swing the latter laterally of the front face of said body, and a head on said rod adapted to engage the head of said spike.

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

ZACHARIUS O. FISCHER.

Witnesses:
L. V. JACKSON,
G. B. KING.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."