

Nov. 30, 1926.

H. O. CRIPPEN

1,608,773

SPIKE HOLDER

Filed May 14, 1925

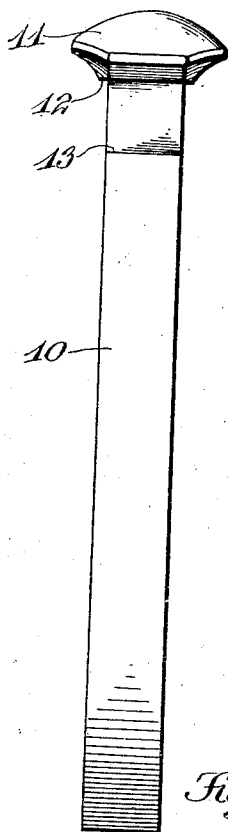


Fig. 1.

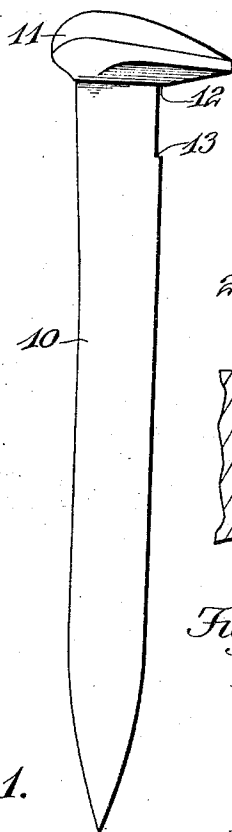


Fig. 2.

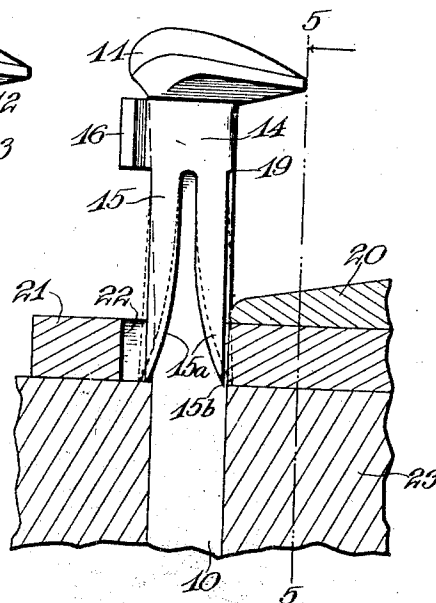


Fig. 4.

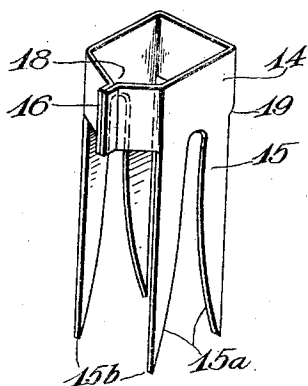
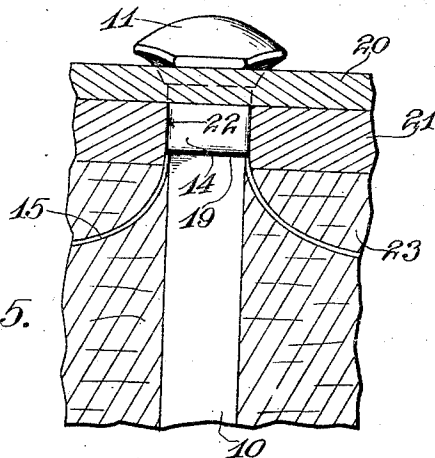


Fig. 3.

Fig. 5.



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SPIKE HOLDER.

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This invention relates to holding devices especially adapted for securing railway spikes in place and has for an important object the provision of simple means where-
by the same may be employed in connection with a standard spike without materially altering the design of the standard spike.

Still another object of the invention is to make the same light as well as sufficiently strong to serve the purpose for which intended.

With the above objects in view, as well as others which may suggest themselves in the specification and claims to follow, a better understanding of the invention may be had by reference to the accompanying drawing, in which—

Figure 1 is a front elevation of the spike as designed for use with the novel retainer;

Fig. 2 is a side elevation;

Fig. 3 is a perspective view of the novel retainer;

Fig. 4 shows the application of the invention before the retainer is driven fast; and

Fig. 5 is a section on the line 5—5 of Fig. 4 illustrating the completed operation.

Referring specifically to the drawing, 10 denotes a rail spike of typical design, the head appearing at 11. The only alterations of the spike to adapt it to the present invention are: (1) to have the under side of the head 11 meet the shank squarely in front and on the sides, as shown at 12, and (2) to cut the frontal face of the shank with a
rabbet 13 next below the head.

The novel retainer comprises an approximately square band 14 of strong sheet steel, of a dimension to receive the spike shank 10 within it. On opposite sides, the band is made with pairs of downwardly directed spurs 15, the inner edges 15^a of these being rounded whereby to gradually taper the spurs toward the bottom to a sharp point 15^b.

At one of the remaining sides of the band are joined the ends thereof, as shown at 16, welding or suitable clips being employed to hold such ends together. Also, the sections of that side of the band in which the joined ends are involved are of extra length, whereby to depart from the balance of the band as they lead to the joint, thus providing a triangular space or pocket 18 adjacent to the ordinarily square bolt shank when received by the band. That wall of the band opposite the joined one is rounded or tapered

along its outer bottom edge, as shown at 19 for a purpose soon to be made clear.

In applying the invention, 20 may be considered the base of the rail, 21 the tie plate, 22 the usual rectangular opening therein to receive the bolt, and 23 the wooden tie. The retainer 14 is first placed in the full-line position shown in Fig. 4, so that its spurs 15 stand inside the tie plate opening 22 upon the tie. The spike 10 is now inserted in the position of Figure 2, and driven down into the tie to appear as in Figure 4 when resting on the retainer. The driving of the spike is then continued whereby the pressure will be transmitted to the retainer by reason of the squared frontal and lateral edges 12 under the spike head bearing evenly on the top of the band 14. As the spike and retainer sink into the stock of the tie 23, the outward taper 15^a of the spurs 15 causes the points 15^b thereof to diverge in the direction denoted by finely-dotted lines in Figure 4. At the same time the spurs, owing to a small amount of inherent spreading tension between one pair of spurs and the other, will have a tendency to spread in a transverse direction as well, per Fig. 5. It is thus seen that the retainer spurs take separate outward paths—independently of the course of the spike—into the wood stock, obviously with the grain of the tie, securing a wide holding area for the retainer.

As the spike and retainer descend, the spike will crowd toward the rail with the result that once that wall of the band 14 opposite the spike rabbet 13 descends opposite the edge of the rail base 20, such wall will be forced into the rabbet to remain there and lock the same as the assembly is driven home. The rounded bottom edge 19 of such wall will facilitate the smooth progress of the retainer in the direction outlined.

Owing to the locking of the spike to the retainer as described, and to the firm hold in the tie secured by the latter, the tendency for the bolt to creep and loosen its hold on the rail will be eliminated. With the multi-directional, lateral anchoring grip exerted by the retainer, as attained by blows of great force it will be obvious that the retainer will not creep or loosen, and that a force operating toward such a condition would most probably tear the band away before dislodging the spurs of the retainer.

Needless to say, a force of this strength would not be met with in the use of the appliance.

In case the spike is to be removed, such as for repairs to the equipment or replacement of the tie, the pocket at 18, which would be accessible from the back of the spike under the head, is used in which to direct a tapered tool, such as a cold chisel. Driving this tool down will break apart or disrupt the joined ends of the retainer band 14, allowing a clearance into which the spike may be forced by a suitable tool to back it away from the rail. This movement will also release the spike from the retainer through the departure of the rabbet 13 from the locking wall of the retainer band, so that the spike will be free to be pulled out.

An appliance is thus had which is designed to fulfill the objects anticipated. While the preferred form of the invention has been illustrated and described, it will be obvious that it is susceptible of many refinements or minor changes without departing from the scope and spirit of the invention as covered in the appended claims.

What I claim as new and intend to secure by Letters Patent is:—

1. A rail spike holder comprising a band adapted to be extended about the shank of a rail spike and having pairs of elongated spurs, the opposed edges of each pair being curved whereby the spurs will be caused to diverge as they enter a tie.

2. A rail spike holder comprising a band adapted to be extended about the shank of

a rail spike and having pairs of elongated spurs, the opposed edges of each pair being curved whereby the spurs will be caused to diverge as they enter a tie, said band being engaged at the upper and lower edges thereof by said spike and thereby held against movement with respect to the spike.

3. A retainer for rail spikes comprising a band to engage the spike, and spurs projecting from the band and adapted to become embedded in the tie which receives the spike, said band having a portion spaced from the spike for the insertion of a prying tool.

4. A retainer for rail spikes comprising a band to engage the spike, and pairs of spurs projecting from the band and adapted to become embedded in the tie which receives the spike, said band having a portion spaced from the spike for the insertion of a prying tool, the spurs of each pair having their opposed edges curved whereby the spurs will diverge as they enter a rail tie.

5. A securing appliance for rails comprising a spike having a shank rabbet, a band receiving the shank and adapted to seat one wall in the rabbet thereof, and spurs projecting from the band and adapted to become embedded in the tie which receives the spike, said band having a portion spaced from the spike for the insertion of a prying tool.

In testimony whereof I affix my signature.

HERBERT O. CRIPPEN.