

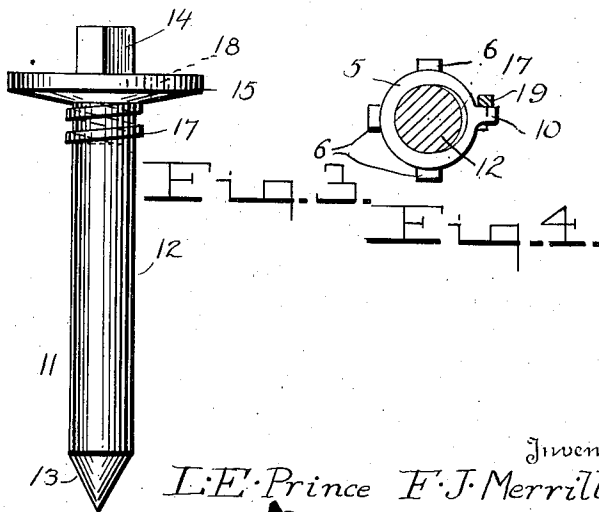
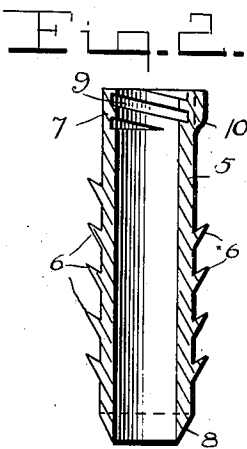
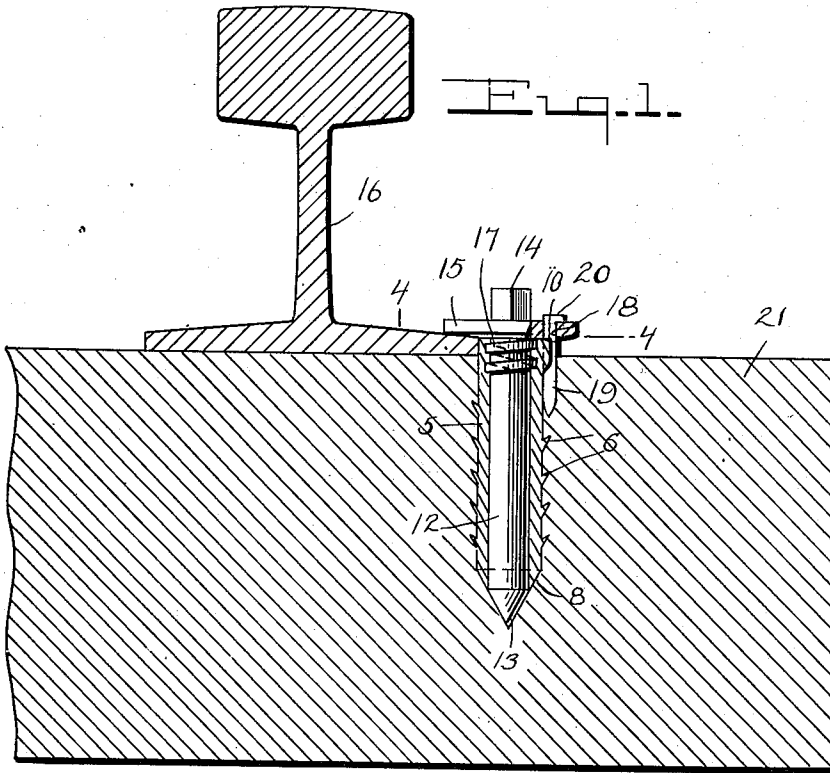
L. E. PRINCE & F. J. MERRILL.

SPIKE.

APPLICATION FILED FEB. 15, 1915.

1,156,811.

Patented Oct. 12, 1915.



Witnesses
R. H. Jones
Chas. E. Bullock

Inventors
L. E. Prince F. J. Merrill
A. H. Randolph, Jr.
Attorney

UNITED STATES PATENT OFFICE.

LLEWELLYN E. PRINCE, OF WEST WARREN, AND FLOYD J. MERRILL, OF WINDHAM,
PENNSYLVANIA.

SPIKE.

1,156,811.

Specification of Letters Patent.

Patented Oct. 12, 1915.

Application filed February 15, 1915. Serial No. 8,367.

To all whom it may concern:

Be it known that we, (1) LLEWELLYN E. PRINCE and (2) FLOYD J. MERRILL, citizens of the United States, residing at (1) West Warren, and (2) Windham, in the county of Bradford and State of Pennsylvania, have invented certain new and useful Improvements in Spikes; and we 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 spikes and more particularly to a spike especially designed for reliably securing railway rails to ties.

The invention has for its object to provide an anchoring sleeve designed to be permanently secured in a tie or other object and constituting a holder in which the spike proper is reliably and removably secured.

Another object is the provision of a spike including means for reliably locking the spike against rotation in the tie and in the sleeve.

Another object is the provision of a railway spike having an annular flange adjacent one end constituting a head for engagement with the base of the rail to secure the latter upon the tie.

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

Figure 1 represents a central sectional view through the spike applied to use. Fig. 2 represents a sectional view through the sleeve removed. Fig. 3 represents a side elevation of the spike removed. Fig. 4 represents a sectional view on the line 4-4 of Fig. 1.

Referring to the drawing in detail, wherein similar reference numerals designate corresponding parts throughout the several views, the numeral 5 indicates the anchoring element which is preferably of hollow cylindrical formation and formed upon its outer surface with a plurality of angular or pointed projections 6, which are directed toward the upper extremity 7. The lower

end of the sleeve is tapered, as indicated at 8, and the upper end is formed with a relatively short internal screwthread 9. The external surface of the threaded end 7 of the anchoring sleeve is formed with a radially extending rib 10.

The spike, designated generally by the numeral 11, comprises a shank 12 having a pointed end 13 adapted, when the spike is properly positioned within the anchoring sleeve 5, to project beyond the tapered end 7 of said sleeve. The end of the shank 12 opposite the point 13 is squared, as indicated at 14, so as to permit a wrench or other suitable tool to be positioned thereon to turn the spike. Adjacent the squared or polygonal end 14 the shank 12 is formed with an enlarged annular flange 15 constituting a head for engaging the base of a rail 16 or another object. Adjacent the flange 15 the shank 12 is formed with an external thread 17 to fit the internal thread 9 of the sleeve 5. An aperture 18 is formed transversely through the flange 15 and is adapted to receive a locking pin 19, having one end pointed and a head 20 at the opposite end adapted to engage the upper surface of the flange 15.

In use, the spike shank 13 is fitted within the anchoring sleeve 5 and is driven into a tie or other object 21 by blows delivered upon the squared end 14 with a suitable tool. The locking pin 19 is inserted within the opening 18 and is driven a relatively short distance into the portion of the tie 21 adjacent the sleeve 5 and is thus reliably held against accidental removal. The pin 19 engages the radial projection 10, as clearly illustrated in Fig. 4, and thus reliably locks the spike against rotation within the sleeve. From the foregoing it is apparent that the sleeve 5 is permanently anchored in position within the tie 21 by the prongs or projections 6, but the spike 11 may be removed from time to time and replaced by removing the locking pin 19 and unscrewing the spike from within the sleeve 5.

What we claim is:

1. A spike including a sleeve, a plurality of anchoring projections on said sleeve, a spike threaded into said sleeve, an annular flange on said spike having a transverse aper-

ture, a radial projection or rib on said sleeve, and a locking pin removably positioned through said aperture and engaging said radial rib to lock said spike and sleeve against relative rotation.

2. A spike including a sleeve, a shank threaded into said sleeve, a projection on said sleeve, and a locking pin associated with said spike adapted to engage said projection to

lock said spike and sleeve against relative rotation.

In testimony whereof we affix our signatures in presence of two witnesses.

LEWELLYN E. PRINCE.

FLOYD J. MERRILL.

Witnesses:

M. I. WHITAKER,

M. N. HARDIE.