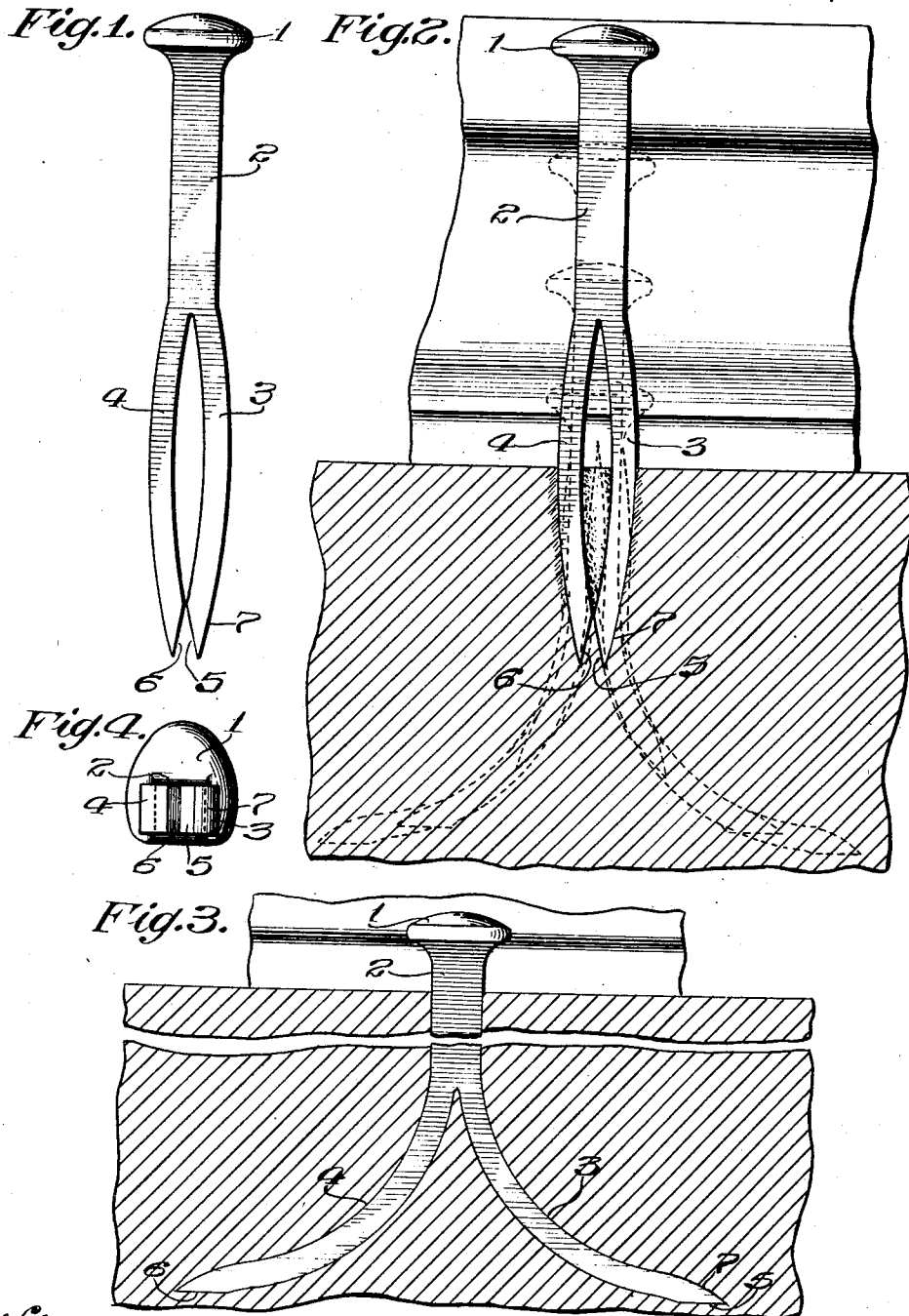


C. L. COLUMBIA.
RAILWAY SPIKE.
APPLICATION FILED JUNE 1, 1908.

931,272.

Patented Aug. 17, 1909.



Witnesses:
C. J. Williams
W. Beulah Thumend.

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Charles L. Columbia
by James R. Townsend
his atty.

UNITED STATES PATENT OFFICE.

CHARLES L. COLUMBIA, OF ORANGE, CALIFORNIA.

RAILWAY-SPIKE.

No. 931,272.

Specification of Letters Patent.

Patented Aug. 17, 1909.

Application filed June 1, 1908. Serial No. 436,132.

To all whom it may concern:

Be it known that I, CHARLES L. COLUMBIA, a citizen of the United States, residing at Orange, in the county of Orange and State of California, have invented a new and useful Railway-Spike, of which the following is a specification.

This invention relates to a bifurcated railway spike, and the object of the invention is to insure the automatic clenching of said spike inside the solid wood of the railway tie.

In this invention the points of the bulged out bifurcations of the tie are beveled, and the inner faces of said points in the normal condition of the spike before driving, stand aslant with their uppermost edges in contact or nearly so, and diverge thence away from the head of the spike to the tips of the bifurcations. In this way when the spike is started to be driven, the bifurcations rapidly spread apart and are certain to become clenched inside the stick of timber.

The accompanying drawings illustrate the invention.

Figure 1 is a view of a spike constructed in accordance with this invention. Fig. 2 is a view of a spike partly driven in a tie which is shown in fragmentary section to hold a rail, a fragment of which is shown. Different positions of the spike as the same is further driven are indicated in dotted lines. Fig. 3 is a fragmental view showing the spike fully driven home in a tie to secure a rail in place. Fig. 4 is an end view of a spike before the same is driven.

1 designates the head; 2, the solid shank; 3, 4, reversely-bowed furcations forming the

insertion end of the spike. Said furcations are beveled on their adjacent faces, as shown at 5 and 6, and the outer faces 7 of the spike are converging at the lower end of the spike. However, the angle of the inner face with said line is greater than that of the outer face so that as the spike is driven, the point will be directed away from the axis of the spike, as indicated in Fig. 2, and as the spike is driven, this tendency increases until the spike is fully driven, when its prongs will be widely separated as shown in Fig. 3.

By providing the inner beveled faces, and by bowing the prongs it is made possible to drive the spike to a considerable depth,—say, one-half the length of the furcations before the spreading effect is of any consequence; but as the pressure of the material of the tie begins to force the bowed portions of the prongs together, the angle of the inner faces of such prongs with the extended axis of the spike, becomes more and more pronounced, thus causing accelerated spreading of the prongs as the spike is driven home. The spike when thus driven home will be firmly held by the widely-spread prongs.

I claim:—

A spike having bowed furcations and beveled points and adjacent faces at said points divergent toward the points in the normal condition of the spike.

In testimony whereof, I have hereunto set my hand at Los Angeles, California, this 15th day of May, 1908.

CHARLES L. COLUMBIA.

In presence of—

JAMES R. TOWNSEND,

M. BEULAH TOWNSEND.