A. L. SIMON.

RAILROAD SPIKE.

APPLICATION FILED AUG. 1, 1908.

963,330. Patented July 5, 1910.

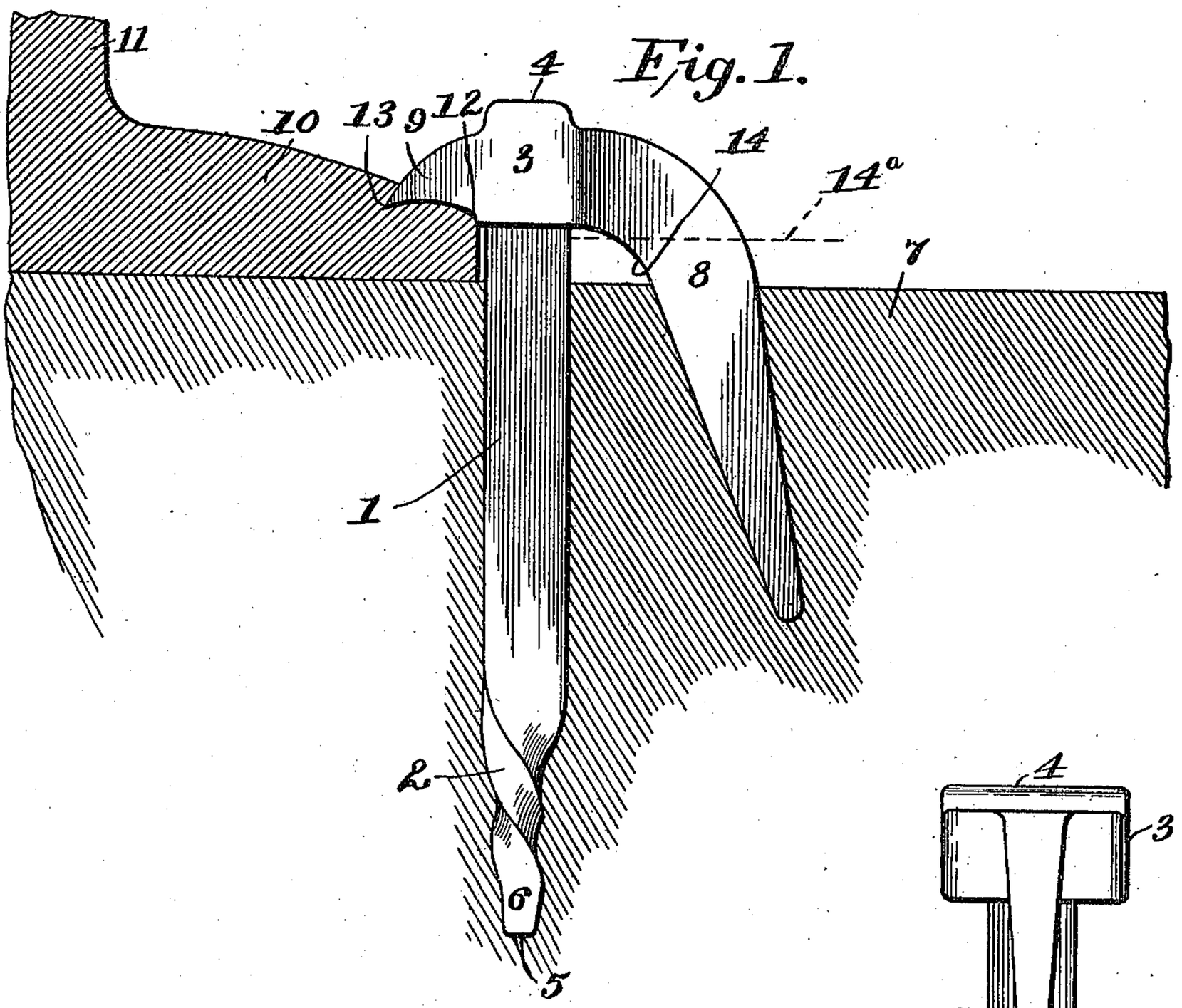

Fig. 1.

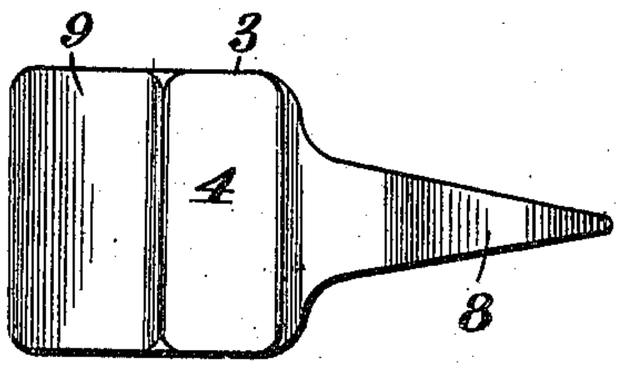

Fig. 2.

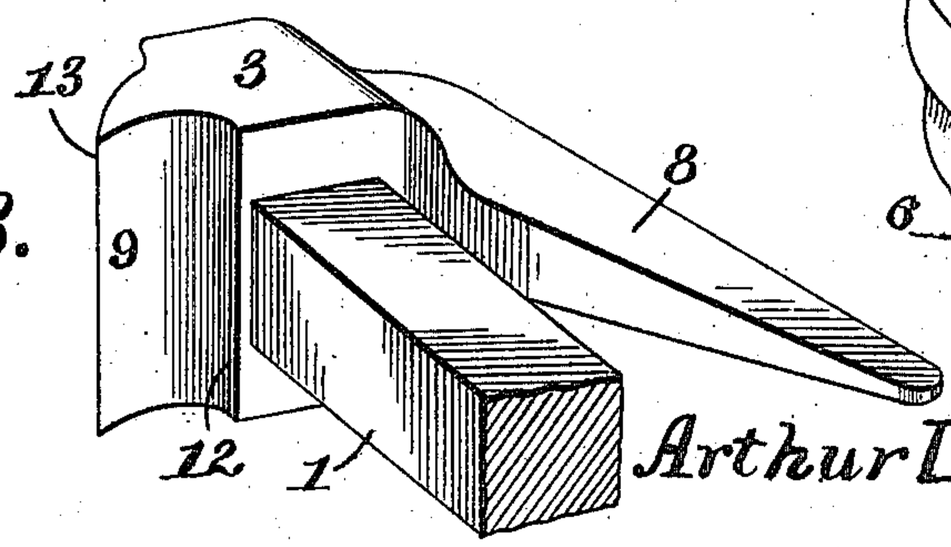

Fig. 3.

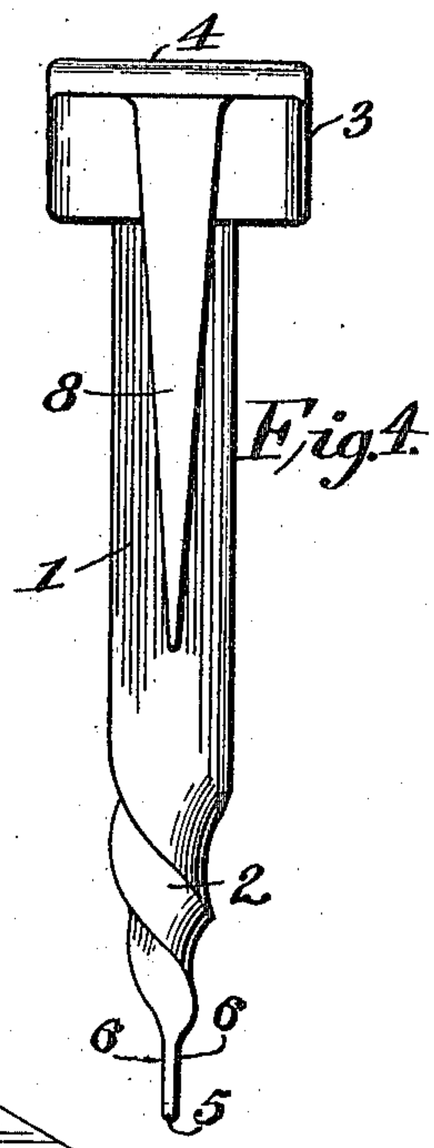

Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

ARTHUR LOUIS SIMON, OF STURGEON BAY, WISCONSIN.

RAILROAD-SPIKE.

963,330. Specification of Letters Patent. Patented July 5, 1910.

Application filed August 1, 1908. Serial No. 446,401.

To all whom it may concern:

Be it known that I, ARTHUR L. SIMON, a citizen of the United States, residing at Sturgeon Bay, in the county of Door and State of Wisconsin, have invented certain new and useful Improvements in Railroad-Spikes, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to railroad spikes and has for its object to provide a new and improved railroad spike which may be effectually secured in place and engage the flange of a rail.

The invention further has for its object to provide an improved railroad spike, so constructed that it will be firmly engaged with a tie and the flange of a rail and will not come loose or twisted out of place.

With these and other objects in view, the invention consists of certain novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described and claimed.

In the drawings: Figure 1 is a view in side elevation, of a railroad spike constructed in accordance with the present invention. Fig. 2 is a top plan view of the spike depicted in Fig. 1. Fig. 3 is a fragmentary view, showing particularly the bottom of the head. Fig. 4 is a rear view, in elevation, of the spike.

Referring to the accompanying drawing, (1) is the shank of the spike having its lower end formed with the twisted, or auger-like portion 2, and the head 3 at its upper end with the flat top 4. The auger-like end (2) of the spike terminates in a penetrating point (5) having parallel flat sides (6) that act as a wedge for facilitating the entering of the spikes into the tie (7). The head (3) is formed on one side with an elongated inclined prong (8), the upper portion of the prong (8) extending outward from the end of the spike in a curve, and the remaining portion extending downward and outward at an angle away from the spike, and serving as a brace, when driven into the tie, as hereinafter explained. The side of the head (3) opposite the prong or brace (8) is formed with a short broad curved bill (9) the sharp edge (13) of which is adapted to bite into the flange (10) of a rail (11), when the spike is driven into place. The inner side of the bill (9) is formed with a shoulder (12) which bears against the edge of the flange of the rail and aids in seating the bill (9) firmly on the flange (10).

When the spike is driven into the tie (7), the prong or brace (8) is forced downward in an inclined direction into the tie, and when the bill (9) is brought into contact with the flange of the rail, its sharp edge (13) is forced into or bites the flange (10). As the edge (13) of the bill (9) is forced against the flange (10), the resistance of the prong (8) as it is forced into the tie tends to assist in causing the edge (13) of bill (9) to bite into the flange (10), owing to the curved upper portion of the prong (8). The prong (8) also serves as a brace, to hold the bill (9) in position on the flange (10), and prevent it from becoming loosened, from its biting position. The auger-like end of the spike being firmly embedded in the tie holds the spike from being pulled up.

A spike constructed as hereinbefore set forth, will be effectually held in place and will be prevented from working loose and becoming disengaged from the rail.

What I claim is:

In combination with a railroad rail and a tie, a spike comprising a headed shank with a spiral lower end which merges into a wedge-shaped terminal, the head of the shank having on one side an outwardly and downwardly inclined prong, a bill on the opposite side of the head having its upper and lower surfaces continuously curved which merge into a knife-shaped edge, said shank and its prong adapted to be driven into the tie to permit of its lower curved surface to contact with the upper surface of the flange of the rail, said bill being also provided with a shoulder at its intersection with the head so as to contact with the edge of said flange, and said knife edge adapted to bite into said flange, substantially as specified.

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

ARTHUR LOUIS SIMON.

Witnesses:

W. E. WAGENER,

DAURUS THENELL.