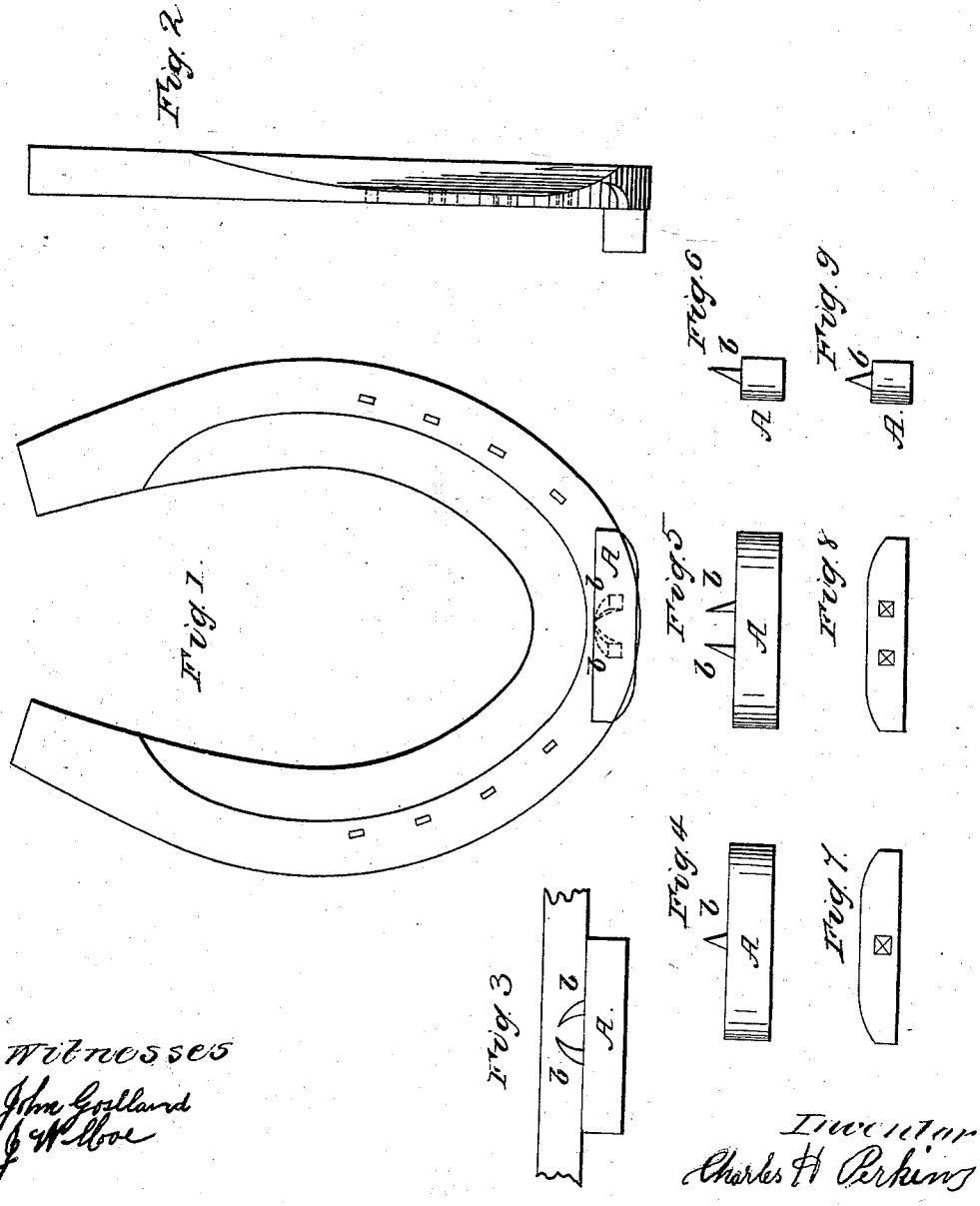
C. H. PERKINS.

Horseshoe.

No. 31,995. Patented April 9, 1861.



Witnesses
John Gotland
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CHARLES H. PERKINS, OF PROVIDENCE, RHODE ISLAND.

IMPROVED TOE-CALKIN FOR HORSESHOES.

Specification forming part of Letters Patent No. **31,995**, dated April 9, 1861.

To all whom it may concern:

Be it known that I, CHARLES H. PERKINS, of the city and county of Providence, in the State of Rhode Island, have invented a new and useful Improvement in the Toe-Calkins for Horseshoes; and I do hereby declare that the following specification, taken in connection with the drawings making a part of the same, is a full, clear, and exact description thereof.

Figures 4 and 5 are views of a toe-calkin as I have improved it. Figs. 1 and 3 are views of the same when welded to the toe of the shoe.

It is a fact well known to all farriers who are accustomed to shoe horses that particularly during the winter months, in climates where the ground is frozen, the toe-calkins of horseshoes are broken off long before the shoe requires resetting. This is occasioned by the fact that as toe-calkins are usually made a perfect welding between the calkin and the shoe is the exception rather than the rule, no other means for attaching the two together in aid of the welded joint being employed.

A toe-calkin as it is now made consists of a piece of steel, one end of which is crooked at right angles, or nearly so, to the rest of the piece. The blacksmith then places it in position on the shoe and drives the tapered end into a hole punched in the shoe, whereby the two are held together while the welding heat is obtained. The joint is then completed, upon the perfection of which the length of time that the calkin remains attached to the shoe solely depends. By my improvement the calkin is, in addition to the welded joint, mechanically held to the shoe in such a manner and at such a point that the chance of its being broken off is almost entirely removed.

A, Fig. 5, represents a calkin of steel. At equal distances from the two extremities—say about one-fourth of an inch apart—I make two projecting steel points, *b b*. The calkin is applied to the shoe in the usual way and the two at the points of contact brought to a welding heat. As soon as the shoe cools, it will be found that the tapering steel points *b b*, from the effect of the blows of the hammer, as well as from unequal contraction, have been crooked like the roots of a tooth, Figs. 3 and 1, and thereby greatly assist the welded joint.

Another and important advantage which is the result of my improvement consists in the fact that the steel points *b b* are located in the most favorable position for resisting the shock sustained by the shoe at each step of the animal, the percussion serving rather to tighten the spurs than to unloose the calkin, as is the case with the common fastening.

Instead of two spurs or projections, as shown in Fig. 5, a single spur placed midway between the extremities may be used, as shown in Fig. 4. This, though possessing great advantages over the common calkin, is considerably inferior to the one above described.

What I claim as my invention, and desire to secure by Letters Patent, is—

The improved toe-calkin described, consisting of a steel piece, A, provided with one or more tapering steel spurs, *b b*, placed midway between the two extremities, or nearly so, for the purposes described, the improved article being substantially such as specified.

In testimony whereof I have hereunto set my name.

CHARLES H. PERKINS.

Witnesses:

JOHN GARTLAND,

JOSEPH W. MOORE.