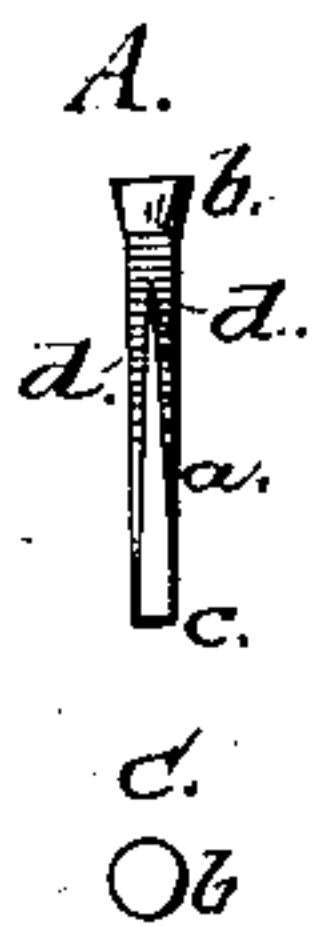


*H. F. Whidden,*

*Shoe Nail.*

*No. 90,902.*

*Patented June 1, 1869*



**WITNESSES:**

*S. B. Kidder,  
M. W. Frothingham*

**INVENTOR:**

*H. F. Whidden  
Per  
Crosby, Watsted & Gould.  
Attorneys.*

# United States Patent Office.

H. F. WHIDDEN, OF SOUTH ABINGTON, MASSACHUSETTS.

Letters Patent No. 90,902, dated June 1, 1899.

## IMPROVED SHOE-NAIL.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, H. F. WHIDDEN, of South Abington, in the county of Plymouth, and State of Massachusetts, have invented an Improved Shoe-Nail; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention, sufficient to enable those skilled in the art to practise it.

In the use of nails, as means for uniting the soles and vamps of boots and shoes, there have of late been employed, to a greater or less extent, sprigs or sections of wire, (sometimes headed, sometimes pointed, and sometimes uniform throughout the length of each,) with jagged, serrated, or corrugated sides or edges, or with screw-threads cut around the shanks, every such nail having its holding-power increased by reason of this formation of its sides or edges.

My invention relates to the manufacture of nails of this class, the invention consisting in a cut shoe-nail, having a tapering shank, a round or frusto-conical head, and serrations upon the body of the tapering shank, from the head down to, or nearly to the point; a nail having these combined features, having holding-power, ease of entrance, capability of clinching at its point, and finish at its head, beyond any shoe-nail hitherto made.

The drawings represent a nail embodying my invention.

- A shows a side view.
- B, an edge view.
- C, a view of the head.
- D, an end view looking at the point.
- a denotes the shank.
- b, the head.
- c, the point.

d, the serration.

In the manufacture of the improved nails, the blanks are cut from a plate, as in ordinary cut-nail manufacture, the plate being vibrated or turned, (or the cutter vibrated,) or two cutters, set at different angles, being used, to cut the nails alternately, heads and points. After each blank is thus cut to a tapering form, the shank is grasped between a pair of grooved jaws, at one end of each of which grooves is a countersunk-recess, and a header then advances and upsets the metal at the large end of the blank, forming the head b, in the conical recess made by the countersink at the end of the two grooves, the head being thereby made round and frusto-conical, as seen in the drawings.

Throughout each jaw-groove are small teeth, which, when the jaws grasp the shank, indent the body of the shank, as seen in the drawings.

The nail-shank has a uniform thickness throughout, due to the thickness of the plate from which it is cut, but in width it tapers from the head to the point, the point being cut quite thin, as seen at B, so that it will readily clinch when driven against an iron-bottomed last.

By the use of these nails, the serrations and the heads both secure the outer sole from drawing off, the clinched points prevent the nails from drawing out, and the round heads impart a finish to the surfaces of the soles, into and flush with which the heads are sunk by driving.

I claim an improved cut shoe-nail, having a round frusto-conical head, a tapering shank, and serrated corners or edges, substantially as shown and described.

H. F. WHIDDEN.

Witnesses:

FRANCIS GOULD,  
S. B. KIDDER.