(No Model.)

L. J. ATWOOD.

SHOE NAIL.

No. 324,070. Patented Aug. 11, 1885.

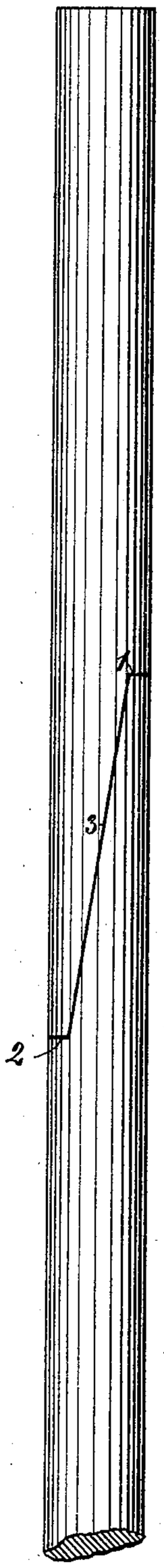

Fig. 2.

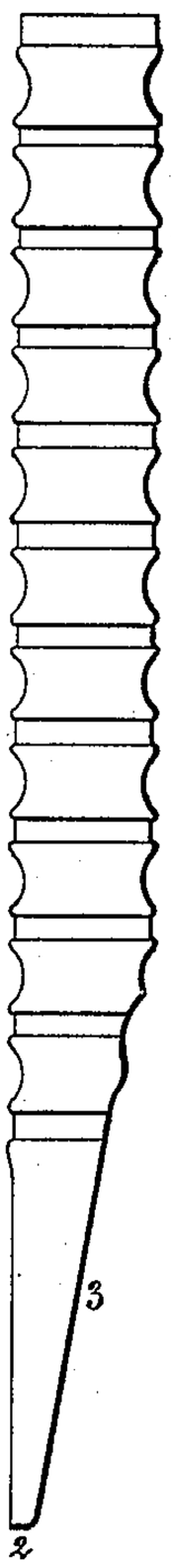

Fig. 3.

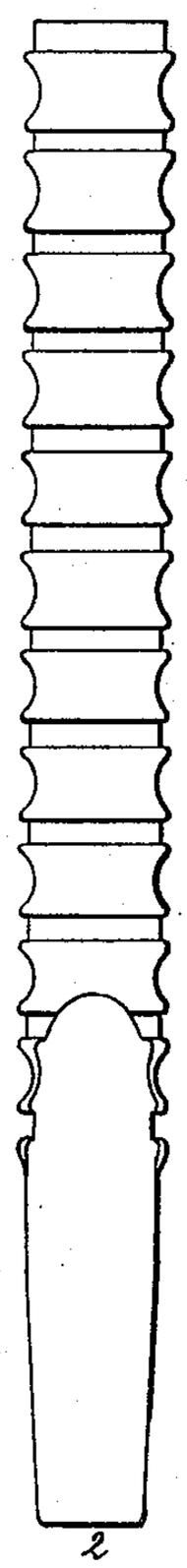

Fig. 4.

Fig. 1.

Witnesses:
I. Staib
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UNITED STATES PATENT OFFICE.

LEWIS J. ATWOOD, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE PLUME & ATWOOD MANUFACTURING COMPANY, OF SAME PLACE.

SHOE-NAIL.

SPECIFICATION forming part of Letters Patent No. 324,070, dated August 11, 1885.

Application filed March 21, 1885. (No model.)

To all whom it may concern:

Be it known that I, LEWIS J. ATWOOD, of Waterbury, in the county of New Haven and State of Connecticut, have invented an Improvement in Shoe-Nails, of which the following is a specification.

In the manufacture of shoe-nails brass wire has been made use of, and in the separation of one nail from the next a cutter has been employed that acts with a long diagonal cut. The body of the nail is afterward corrugated or roughened in various ways. In this mode of manufacture the end of the nail is a point that is elliptical in its shape and quite thin, and it is liable to become bent in the cutting operation, so that it does not drive straight into the leather.

The object of my invention is to form the point of the nail slender, with a very gradual taper, and to produce a chisel-shaped end that is sufficiently sharp for driving, but not so thin as to become bent either in the manufacture or in driving into the leather. This point, however, will turn up and clinch in the desired manner upon coming into contact with the metallic last.

In the drawings, Figure 1 is an elevation of the shoe-nail in about the ordinary size. Fig. 2 is an elevation in larger size, representing the lines of separation in cutting off the shoe-nail from the wire; and Figs. 3 and 4 are elevations of the shoe-nail complete and upon a magnified scale.

I make use of dies properly constructed for separating the wire at the lines 1, 2, and 3. The line 3 is diagonal to the wire; but it does not extend sufficiently far for effecting the separation of one piece of wire from the next, the lines of separation 1 and 2 being at right angles, or nearly so, to the axis of the wire. In consequence of separating the wire in this manner to form blanks for the shoe-nails, such blanks have slender penetrating points, the extreme ends of which are not perfectly sharp, but are somewhat chisel-shaped, and hence such points are sufficiently rigid to maintain their proper shape while being driven into the leather, and in the clinching operation the point bends much more freely than heretofore, because the cut portion of the point is not so stiff as when cut diagonally in the manner heretofore made use of, and hence the bend in clinching will be longer and more reliable.

In corrugating the surface of these shoe-nails the extreme penetrating point should be left smooth for about an eighth of an inch, and the indentation and intermediate ribs or corrugations will form burrs around the portion that has a shoulder that is left in cutting off the adjacent nail, and these corrugations fill in and obliterate the shoulder upon the nail sufficient to prevent the shoulder interfering with the driving.

I am aware that shoe-nails with corrugated bodies and wedge-shaped points parallel on two sides are not new. In my shoe-nail the point is rounding on one side, flat on the other, slightly tapering, chisel-shaped at the end, and the body corrugated, so as to combine the advantageous form of point that is easy to make and will drive and clinch easily with the body that is corrugated to increase its hold upon the leather, and the point is simply cut out and does not require to be pressed to shape.

I claim as my invention—

The wire shoe-nail having a slender tapering point that is plain and rounding on one side and flat on the other side and terminates approximately in a straight chisel-edge, a body that is parallel and corrugated circumferentially, said corrugations also surrounding and forming burrs at the shoulder between the body and point portions, substantially as set forth.

Signed by me this 17th day of March, A. D. 1885.

LEWIS J. ATWOOD.

Witnesses:

A. E. FOGG,

B. B. BRISTOL.