(No Model.)

L. J. ATWOOD.

SHOE NAIL.

No. 360,983. Patented Apr. 12, 1887.

Fig. 1.

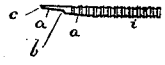


Fig. 2.

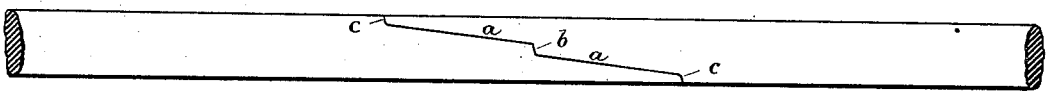


Fig. 3.

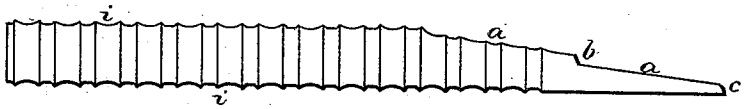


Fig. 4.

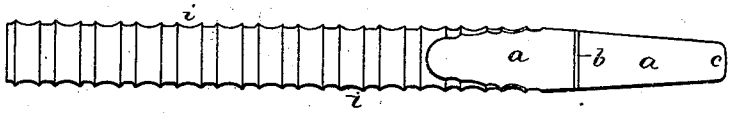
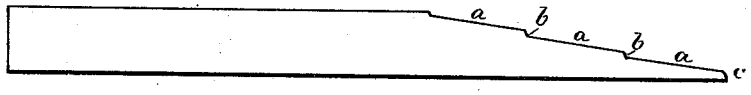


Fig. 5



Witnesses:
I. Stair
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Inventor
Lewis J. Atwood
per Lemuel W. Serrell Atty

N. PETERS. Photo-Lithographer, Washington, D. C.

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. 360,983, dated April 12, 1887.

Application filed October 12, 1885. Serial No. 179,615. (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.

This improvement in shoe-nails is especially available in the long nails made use of in securing the heels upon boots and shoes. In this character of nail difficulty has arisen in causing the point alone to bend up and clinch, because the wire of the nail, being comparatively thin, is liable to bend into a curved line when the point comes in contact with the anvil.

My improvement is especially intended for securing the bending and clinching of the point only. The body of the nail remains straight.

In Letters Patent No. 324,070, granted to me August 11, 1885, a shoe-nail is shown with a corrugated body and with a chisel-shaped point and with an offset at the junction of the point and the body.

In my present improvement the nail is made with a corrugated body and a point having a chisel-shaped end and a middle offset or shoulder in the diagonally-cut portion of the point. Thereby the nail is well adapted to being driven into the leather or other material of the boot or shoe sole or heel, because the point itself is approximately a chisel shape, and the taper of the point is very gradual, the diagonal cut being of considerable length; and the middle shoulder or offset upon the point renders the metal between this shoulder and the point sufficiently weak for the point to turn or clinch with facility and without the body of the nail being bent, and, should the clinching operation be continued, the upper portion of the point will be bent with facility and follow the sharp bend given to the thin point.

In the drawings, Figure 1 represents the shoe-nail in about the ordinary size. Fig. 2 shows the wire in a magnified size and the lines upon which the cut is made in separating one shoe-nail blank from the other in forming the points. Fig. 3 is a similar view of one of the shoe-nails complete after the body has been corrugated. Fig. 4 is an elevation of the nail at right angles to Fig. 3, and Fig. 5 is a side view representing the point with two shoulders.

The line of separation of one shoe-nail from the other is diagonal, as shown at *a*, Fig. 2, there being an offset or zigzag in the middle portion of the diagonal line, as at *b*, and the line of separation, as at *c*, forms a chisel-point upon one nail and an offset or shoulder at the junction of the body and point upon the other nail. The corrugations *i* upon the body of the shoe-nail are preferably made to extend along said body to the offset or shoulder *b*, or nearly so, in order that the point of the nail beyond the shoulder *b* may be smooth.

A nail formed in the manner before described will drive easily and straight, or nearly so, the chisel end cutting its way through the leather or other material, and when the end of the point strikes the anvil the metal will commence to bend, but the bend will not extend behind the shoulder *b*, and the end of the nail will bend up or clinch without the body of the nail becoming bent, thereby insuring the firm and reliable hold of the nail in the leather of a sole or heel.

If desired, two or more shoulders may be made in the diagonally cut portion of the point, as indicated in Fig. 5, in order that the thin point which bends over and clinches may not be too long.

In all cases the flat portions of the diagonal cut are parallel to each other, or nearly so, and the intermediate shoulder or shoulders are between one plane and the next. Thereby the point of one nail will fit against the point of the next nail, enabling two points to be formed complete by one shearing.

I claim as my invention—

The wire boot or shoe nail having a round corrugated body and a point approximately chisel-shaped at the end, and the cut surface of which point has two or more parallel faces and intermediate shoulder or shoulders, so that corresponding points upon two nails are formed by one cut, substantially as set forth.

Signed by me this 7th day of October, A. D. 1885.

L. J. ATWOOD.

Witnesses:
A. E. FOGG,
B. B. BRISTOL.