(Model.)

J. HYSLOP, Jr.

METHOD OF MAKING SHOE NAILS.

No. 255,997. Patented Apr. 4, 1882.

Fig. 1

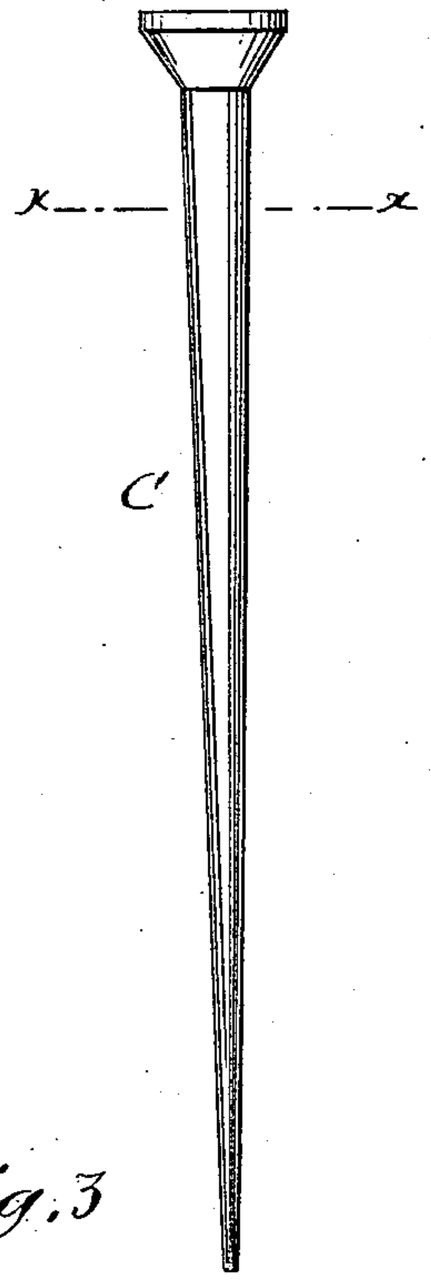


Fig. 2

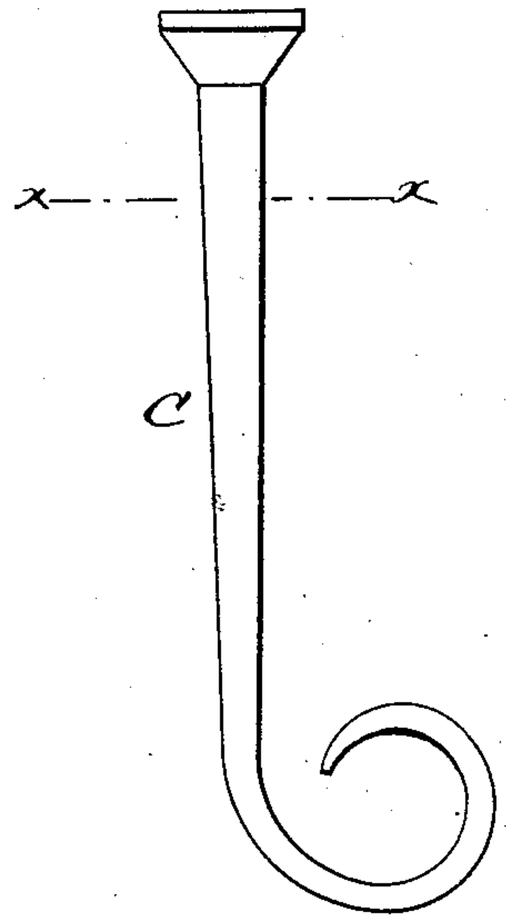


Fig. 3

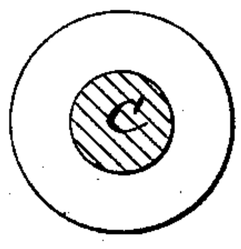


Fig. 5

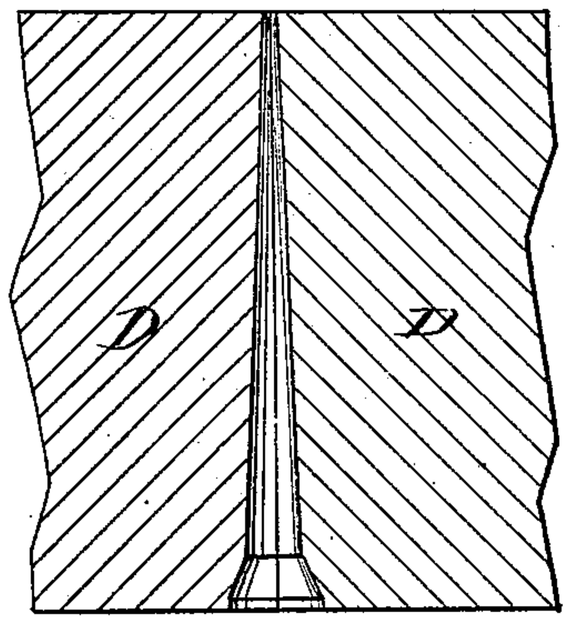
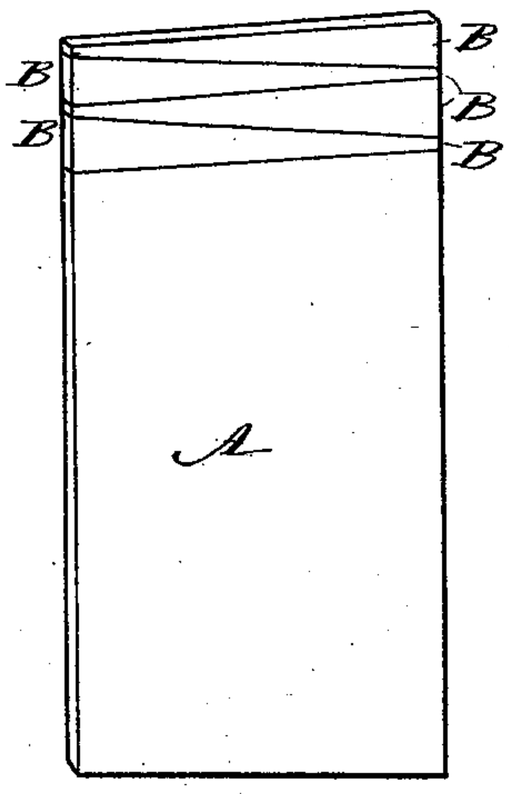


Fig. 4



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UNITED STATES PATENT OFFICE.

JOHN HYSLOP, JR., OF ABINGTON, MASSACHUSETTS.

METHOD OF MAKING SHOE-NAILS.

SPECIFICATION forming part of Letters Patent No. 255,997, dated April 4, 1882.

Application filed February 17, 1881. (Specimens.)

To all whom it may concern:

Be it known that I, JOHN HYSLOP, Jr., of Abington, in the county of Plymouth and State of Massachusetts, have invented a new Improvement in the Method of Making Shoe-Nails, of which the following is a full, clear, and exact description.

Figure 1 is a side elevation of one of my improved nails. Fig. 2 is a side elevation of the same clinched. Fig. 3 is a cross-section of the same, taken through the line *x x*, Figs. 1 and 2. Fig. 4 is a plate from which the nail-blanks are cut. Fig. 5 is a section of the dies by which the nails are formed.

The object of this invention is to furnish nails for fastening the soles of boots and shoes and other purposes, that will curve back in clinching, and that can be made lighter than nails made in the ordinary manner.

The invention consists in forming nails with a uniform taper upon all sides from blanks cut from sheet metal and upset edgewise with dies, as will be hereinafter fully described.

In making my improved nails they are cut from a strip, A, of sheet metal, of such a thickness as it is desired the points should have, and of a breadth equal to the required length of the nails.

The blanks B are cut from the strip A with their heads and points alternately in opposite directions, in the ordinary manner. The blanks B are cut with their points of a width equal to the thickness of the plate A, and with the head end of such a width as will furnish sufficient metal to give the desired size and taper to the nails C. The blanks B are pressed or upset by dies D, into which they are fed in such a manner that the pressure will be applied to the blanks edgewise.

The dies D are so formed as to grasp the blank B from its head to, or nearly to, the point and give the nail a uniform taper from head to point.

The nails C can be made with or without heads, and the heads, when used, can be made of any desired shape.

The dies D are made with a tapering cavity, of which one-half is in each die. The blank is pressed breadthwise between the dies and in the tapering cavity or score, so that the width gradually decreases, while the thickness increases until the cavity or score is filled. The point is so thin as to receive but little pressure—just enough to round the corners. The nails C are designed to be made and the dies D used in an ordinary nail or tack machine. In making nails in the ordinary way they are cut from a plate of the thickness that the body at the head is designed to have, and the nails, when formed, are straight upon two sides and tapered upon two sides, so that they can bend only in two directions, and when driven against the iron bottom of a last or other obstruction are liable to bend to one side and pass along the surface of the obstruction at right angles with the bodies of the nails, forming a clinch of very little strength. To obviate these objections I make a conical nail by cutting from sheets of metal a wedge-shaped blank tapering equally from one end to the other, and then round it by striking it up edgewise in dies. My improved nails, when driven against the iron bottom of a last or other obstruction, curve back upon themselves through the material, as indicated in Fig. 2, forming a clinch of great strength. The nails C, being made with a uniform taper, will not work forward when made without heads or when the heads have worn off, thus forming a secure and reliable fastening.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The process of forming a shoe-nail from a wedge-shaped blank, which consists in compressing the metal along the whole length of the opposite edges toward the center and condensing it until the body below the head is cylindrical in cross-section, of a continuous taper, and adapted to clinch properly, no matter in what direction the point is turned, as set forth.

JOHN HYSLOP, JR.

Witnesses:

NATHL. P. CARVER,

OSCAR RUMSEY.