

J. M. LAUGHLIN.
HORSESHOE NAIL PLATES.

No. 184,089.

Patented Nov. 7, 1876.

Fig. 1.

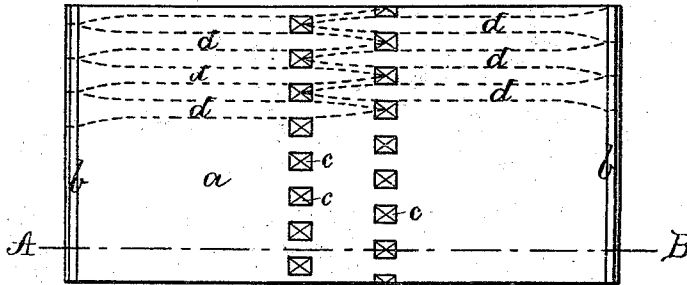


Fig. 2.

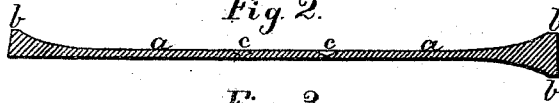


Fig. 3.

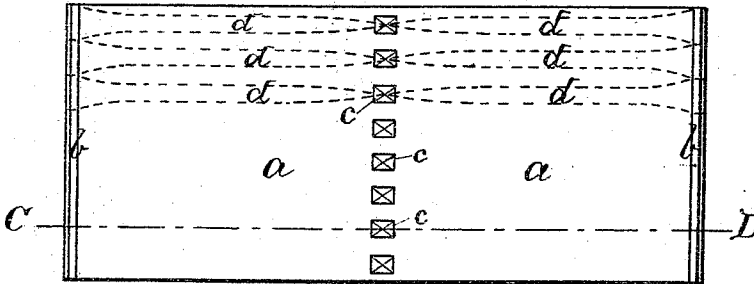


Fig. 4.

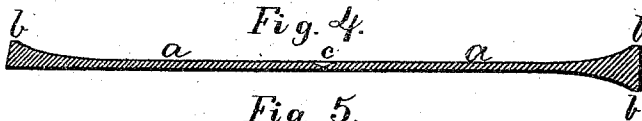


Fig. 5.

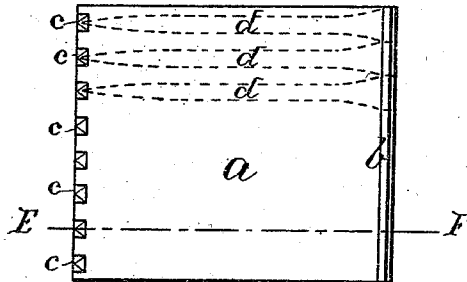
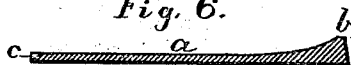


Fig. 6.



Witnesses:

W. Chadbourne.
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UNITED STATES PATENT OFFICE.

JOSEPH M. LAUGHLIN, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO JOHN O. McDONALD, OF SAME PLACE.

IMPROVEMENT IN HORSESHOE-NAIL PLATES.

Specification forming part of Letters Patent No. **184,089**, dated November 7, 1876; application filed September 21, 1876.

To all whom it may concern:

Be it known that I, JOSEPH M. LAUGHLIN, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Horse-Nail Plates; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in nail-plates for the manufacture of horseshoe-nails; and consists in providing a nail-plate with a succession of depressions or indentures, which I make either by removing a portion of the stock, or by subjecting the plate to pressure between a pair of rolls, or by blows, or otherwise. The said indentures or depressions serve for the purpose of forming the point or bevel of the end of the nail when punched from the nail-plate.

The advantage of this improved nail-plate over the patent granted on the 2d day of February, 1875, (No. 159,410,) to D. J. Harrington, in which a continuous groove is formed for the formation of the bevel or point of the nail when punched from the plate, is that less power is needed to produce the aforesaid indentures or depressions than to form a continuous groove, whether it is produced by the removal of the stock, or by pressure between rolls, or by blows, or otherwise.

Another advantage is that when the said indentures are arranged in two rows, as represented in Fig. 1, I am able to make longer nails with less stock and less waste than could be done according to said Harrington's patent, owing to the fact that each nail when punched overlaps the opposite one as much as the distance between each row of indentures or depressions in the direction of the length of the nails.

On the accompanying drawings, Figure 1 represents a plan view of my improved nail-plate. Fig. 2 represents a cross-section on the line A B. (Shown in Fig. 1.) Fig. 3 rep-

resents a modification of my improved nail-plate, and Fig. 4 represents a cross-section on the line C D. (Shown in Fig. 3.) Fig. 5 also represents another modification of my improved nail-plate, and Fig. 6 represents a cross-section on the line E F. (Shown in Fig. 5.)

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

a a represent the nail-plate, provided with ridges or projections *b b* on one or both sides, as shown in the drawings. *c c c c* represent depressions or indentures for the purpose of forming the point or bevel of the nails *d d d*, when punched from the said nail-plate. In Fig. 1, the depressions or indentures *c c c* are shown as located in two rows, each depression in one of the rows being located between two successive depressions in the opposite row. It will be seen, by reference to said Fig. 1, that the nails *d d d* project beyond each other, from opposite sides, in the direction of the length of the nail, a distance equal to the distance between the middle of each row of depressions *c c c*. This is very advantageous, as by so doing I am able to produce longer nails from a less amount of stock and with less waste than by using only one single row of depressions, as shown in Fig. 3.

However, for certain kinds of nails it may be desirable to cut the nails out from a nail-plate, as shown in Fig. 3, in which one single row of depressions is made, and in which the nails are punched out directly opposite each other in rows, as shown.

Fig. 5 shows a nail-plate of a width equal to the length of one single nail only, and having, in consequence, the depressions *c c* located on the thin edge of the plate. Another modification (not shown in the drawing) is making a plate of twice the width, as shown in Fig. 5, and having a ridge or projection in the middle, and provided on two opposite sides with depressions or indentures for the formation of the bevels or points—in fact making a nail-plate of double the width, as shown in Fig. 5, with a ridge or projection in the center for the formation of the heads of the nails, and having

depressions or indentures on two opposite sides, for the formation of the bevels or points of the nails.

Having thus fully described the nature of my invention, I wish to secure by Letters Patent, and claim—

A nail-plate, provided with a series of indentures or depressions, *c c c*, for the formation of the bevels or points of the nails when

punched therefrom, substantially as herein set forth and described.

In testimony that I claim the foregoing as my own invention I have affixed my signature in presence of two witnesses.

JOSEPH M. LAUGHLIN.

Witnesses:

ALBAN ANDRÉN,
HENRY CHADBOURN.