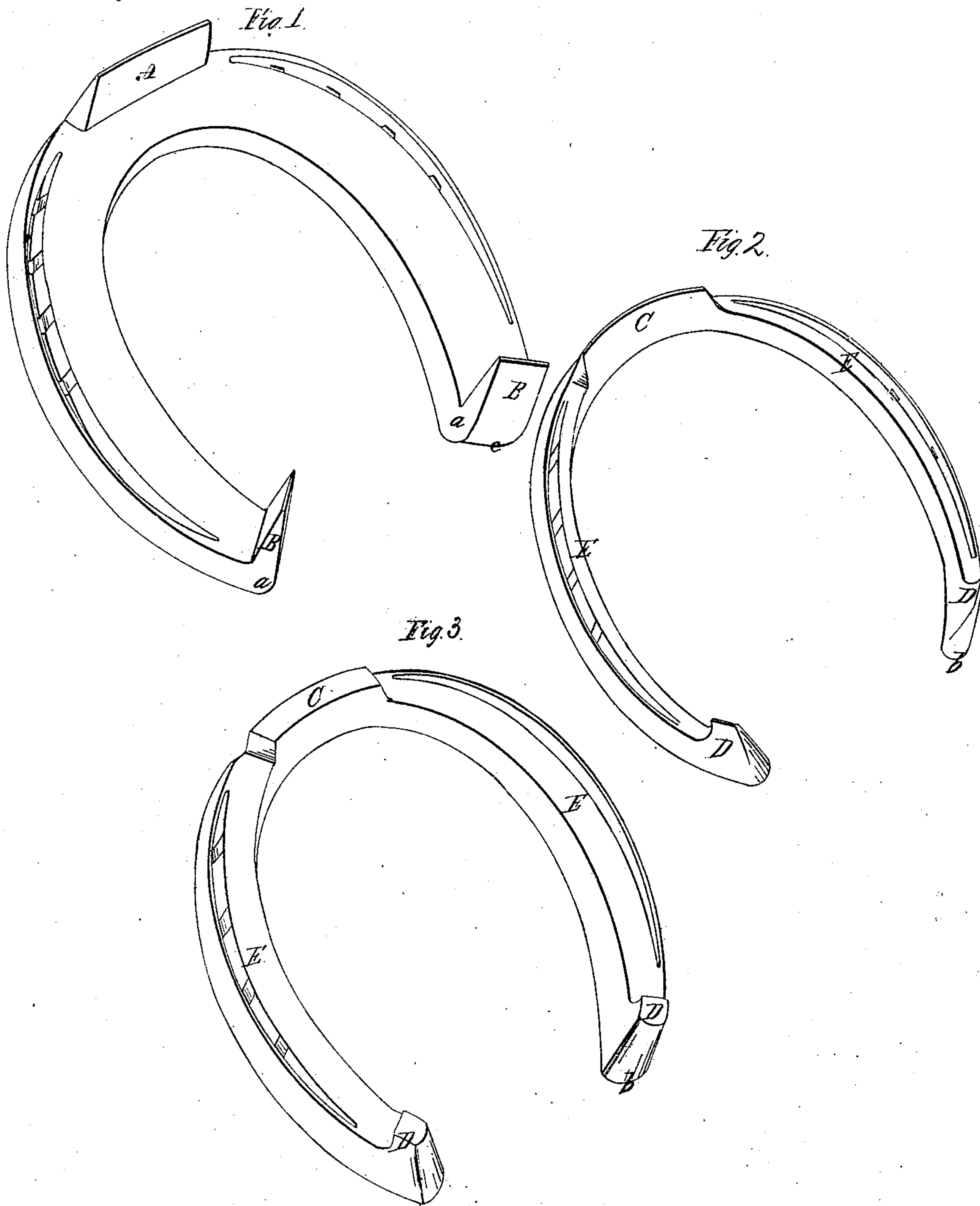


E. Wheeler,

Horseshoe.

N^o 19,526.

Patented Mar. 2 1858.



UNITED STATES PATENT OFFICE.

ELBRIDGE WHEELER, OF MARLBOROUGH, MASSACHUSETTS.

IMPROVEMENT IN HORSESHOES.

Specification forming part of Letters Patent No. **19,526**, dated March 2, 1858.

To all whom it may concern:

Be it known that I, ELBRIDGE WHEELER, of Marlborough, in the county of Middlesex and State of Massachusetts, have invented a new and Improved Horseshoe, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a view of a horseshoe made in the ordinary way by hand, having sharp calks; Fig. 2, a view of one of my improved machine-made shoes with sharp calks; Fig. 3, one of the same make of shoes with blunt calks.

In hand-made shoes as ordinarily constructed many objections are found to exist, some of which I will mention. The toe-calk A, Fig. 1, is formed by welding onto the shoe, after it is shaped, a piece of iron or steel, which is then hammered down to the required shape. This consumes considerable time, and unless very well done the calk is liable to be torn off from the shoe, besides which the great heat to which the toe part of the shoe must be subjected to enable the smith to weld on the calk often injures the iron around that part of the shoe. The heel-calks B, Fig. 1, are formed by bending over a portion of the heel part of the shoe and then drawing the ends down into shape. This requires the iron to be bent over so short that the fibers of the iron at *a* are often strained and broken to such a degree as to endanger the breaking off of the calk. These objections I have overcome in my improved manufacture of horseshoes by forming the calks and the shoe itself of one piece of metal by drawing down the shoe and without welding or turning up.

That others skilled in the art may understand and use my invention, I will proceed to describe the manner in which I have carried out the same.

Referring to Figs. 2 and 3 of the drawings, the blanks from which these shoes are formed

are forged in the improved forging-machines for which I obtained Letters Patent of the United States, dated January 27 and September 1, 1857. The blank is drawn down to the proper width and to a thickness equal to the thickness of the shoe and the height of the calk, the proper level being given to it to form a sharp calk, as in Fig. 2, or a blunt one, as in Fig. 3. It is then passed through the machine, where certain indentations or recesses are made in the rolls to correspond to the toe-calk C and the heel-calks D, when the portion of the blank between these parts is rolled down, as at E, to the thickness required for the shoe, and the projections C and D are left, forming the calks. Thus at one operation the blanks are formed with the calks attached, making one homogeneous piece of metal in which the parts are not liable, as in the hand-made shoe, to be torn asunder. Another advantage I may state that a shoe thus made possesses. The plane of the inner surface of the shoe, or that which comes in contact with the hoof, may be carried out flush to the extreme rear end of the heel, thus forming a snug joint between this part of the shoe *b*, Figs. 2 and 3, and the heel of the hoof, instead of an open one, as would be the case with a shoe like Fig. 1, where this part of the shoe is rounded off as at *c*, leaving an open joint, into which dirt may be forced, tending to loosen the shoe, or where the toe of the hind shoe may strike (as is liable to happen with horses that over-reach) and the fore shoe be torn off.

What I claim as my invention, as a new article of manufacture, and desire to secure by Letters Patent, is—

The within-described horseshoe, the calks and shoe being of one piece of metal, formed by drawing down the shoe and without welding or turning up.

ELBRIDGE WHEELER.

Witnesses:

THOS. R. ROACH,
P. E. TESCHEMACHER.