

J. DEEBLE.

Dies for Forming Ox-Shoes.

No. 145,633.

Patented Dec. 16, 1873..

fig. 1

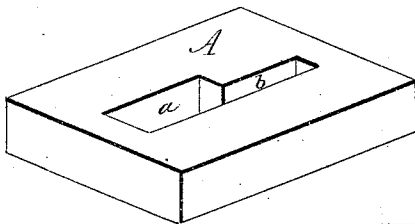


fig. 2

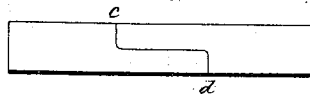


fig. 3

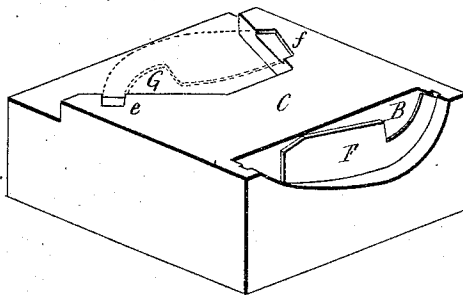


fig. 4

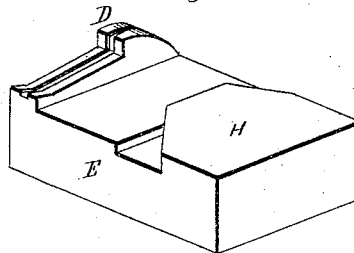
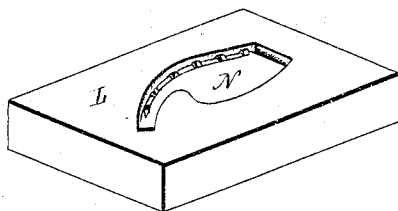


fig. 5



Witnesses.
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UNITED STATES PATENT OFFICE.

JOHN DEEBLE, OF PLANTSVILLE, CONNECTICUT, ASSIGNOR OF THREE-FOURTHS HIS RIGHT TO THE ATWATER MANUFACTURING COMPANY, OF SAME PLACE.

IMPROVEMENT IN DIES FOR FORMING OX-SHOES.

Specification forming part of Letters Patent No. **145,633**, dated December 16, 1873; application filed November 22, 1873.

To all whom it may concern:

Be it known that I, JOHN DEEBLE, of Plantsville, in the county of Hartford and State of Connecticut, have invented a new Improvement in Dies for Forging Ox-Shoes; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view of the blanking-die; Fig. 2, the blanks; Fig. 3, the lower shaping-dies; Fig. 4, the corresponding upper dies; Fig. 5, the finishing-die.

This invention relates to an improvement in dies for the manufacture of ox-shoes; and consists in the series of dies, as hereinafter described, by which the blank is cut from the bar, the shoe shaped and finished without waste of material.

A, Fig. 1, is the blanking-die, through which a perforation, *a b*, is formed, in length corresponding to the blank to be produced, the portion *b* half the width of the other portion *a*. A punch is formed to correspond to this die, so that the blank bar, Fig. 2, laid upon this die

will be cut, as denoted by the line *c d*. The bar is rolled at the required width for this die, and by thus cutting the blank no waste follows. This blank is then placed into a cavity or part, B, of the die C, lying edgewise. Onto this a projection, D, on the upper portion E of the die is struck, and bends the blank, as seen at F, Fig. 3. From this the partially-formed shoe F is removed, and the two ends laid into the notches *e f*, over a cavity, G, in the die C, and a corresponding projection, H, on the other part E of the die brought down thereon, forcing the partially-formed shoe into the cavity G, and turning up the calk at the toe and heel. This blank is then placed in the finishing-die L, in which a cavity, N, corresponds to the out or under side of the shoe, with projections to form the groove and indicate or form the perforations for the nails, as seen in Fig. 5. The partially-formed shoe placed in this die is struck with the flat surface upon the upper side, completing the shoe ready for use.

I claim as my invention—

The series of dies A C E L, as herein described, for the manufacture of ox-shoes.

Witnesses: JOHN DEEBLE.

WILSON W. KNOWLES,
ALBERT HITCHCOCK.