

(No Model.)

J. DEEBLE.

DIE FOR TRIMMING OX SHOES.

No. 336,901.

Patented Mar. 2, 1886.

Fig. 1.

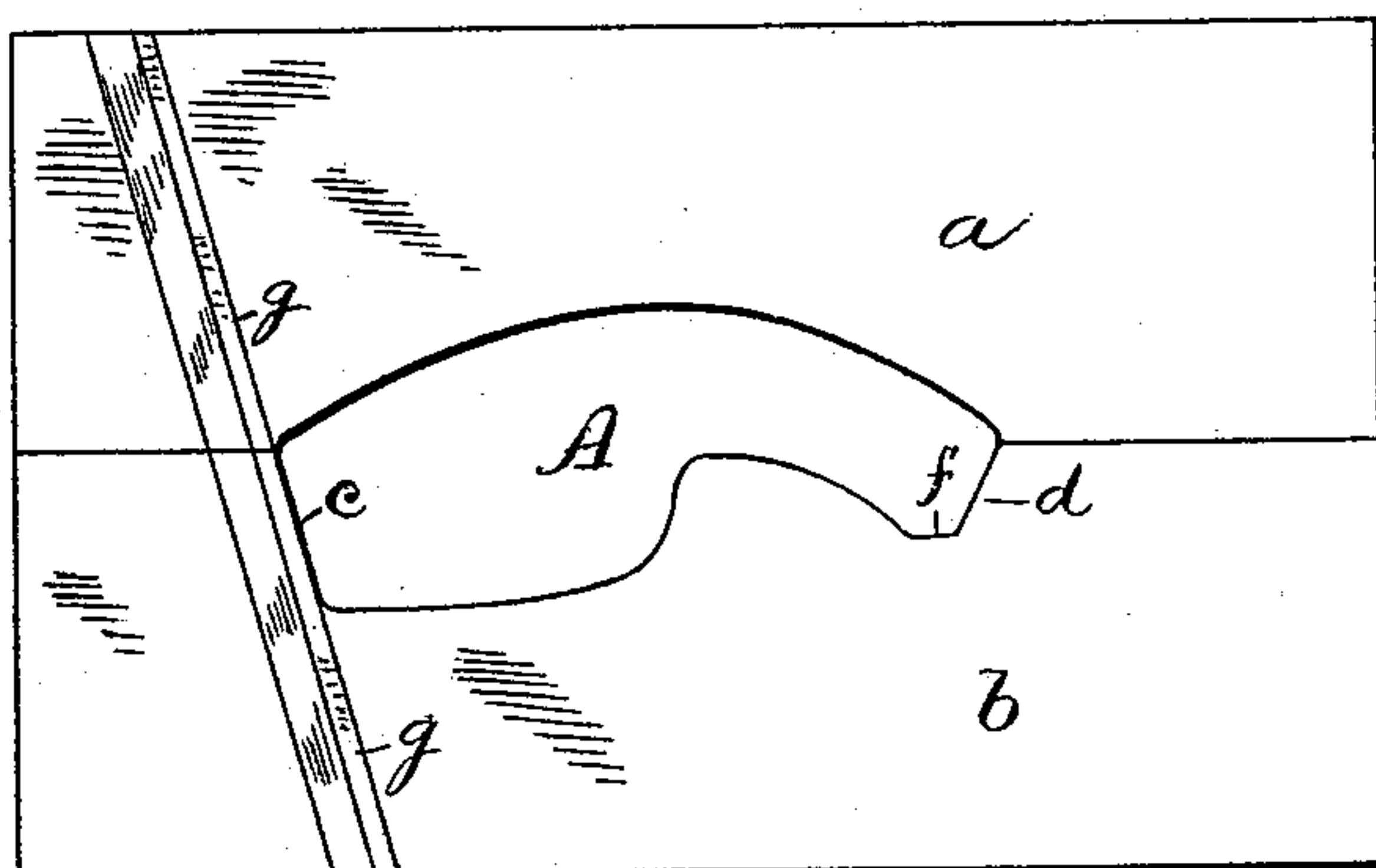
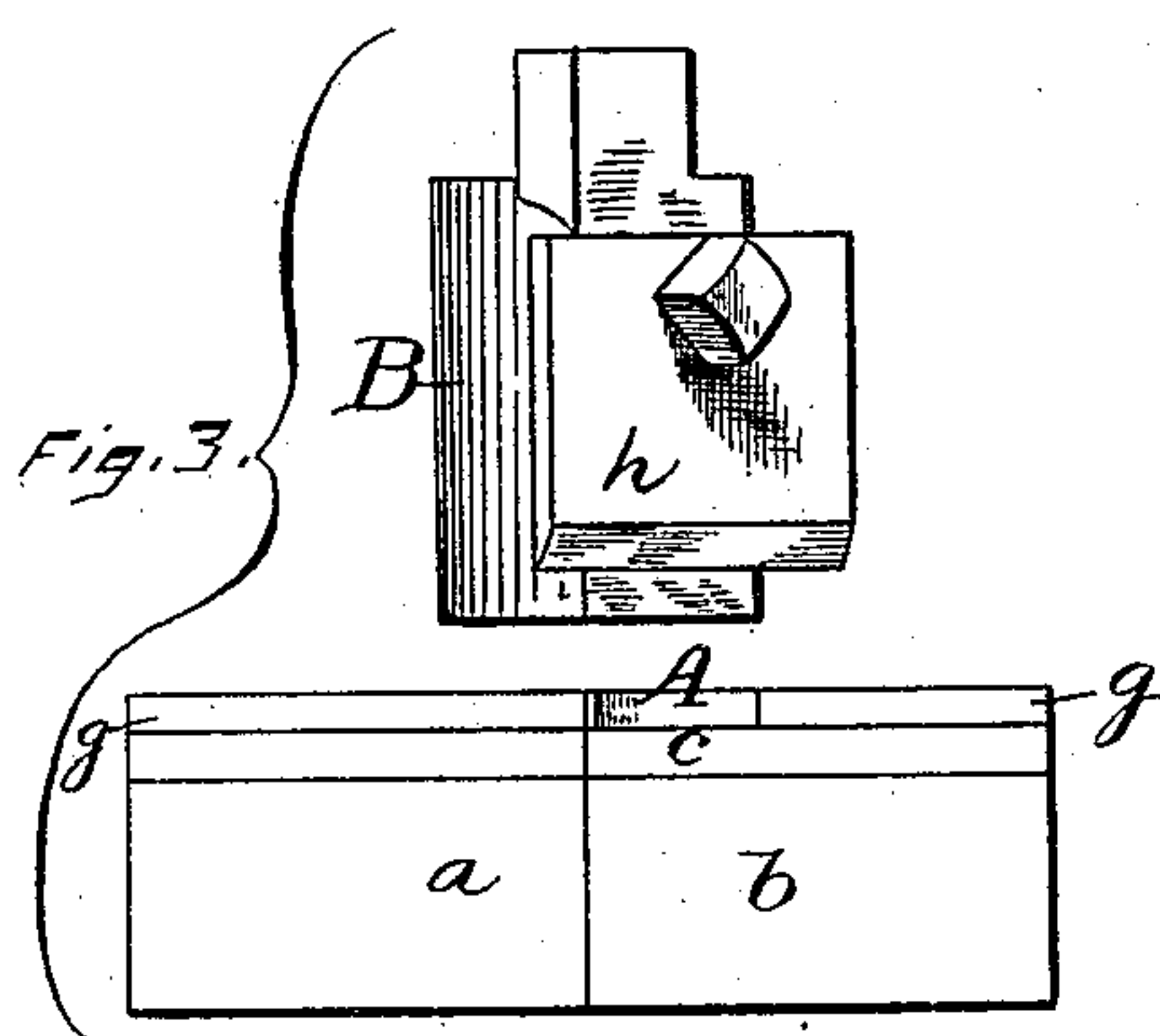
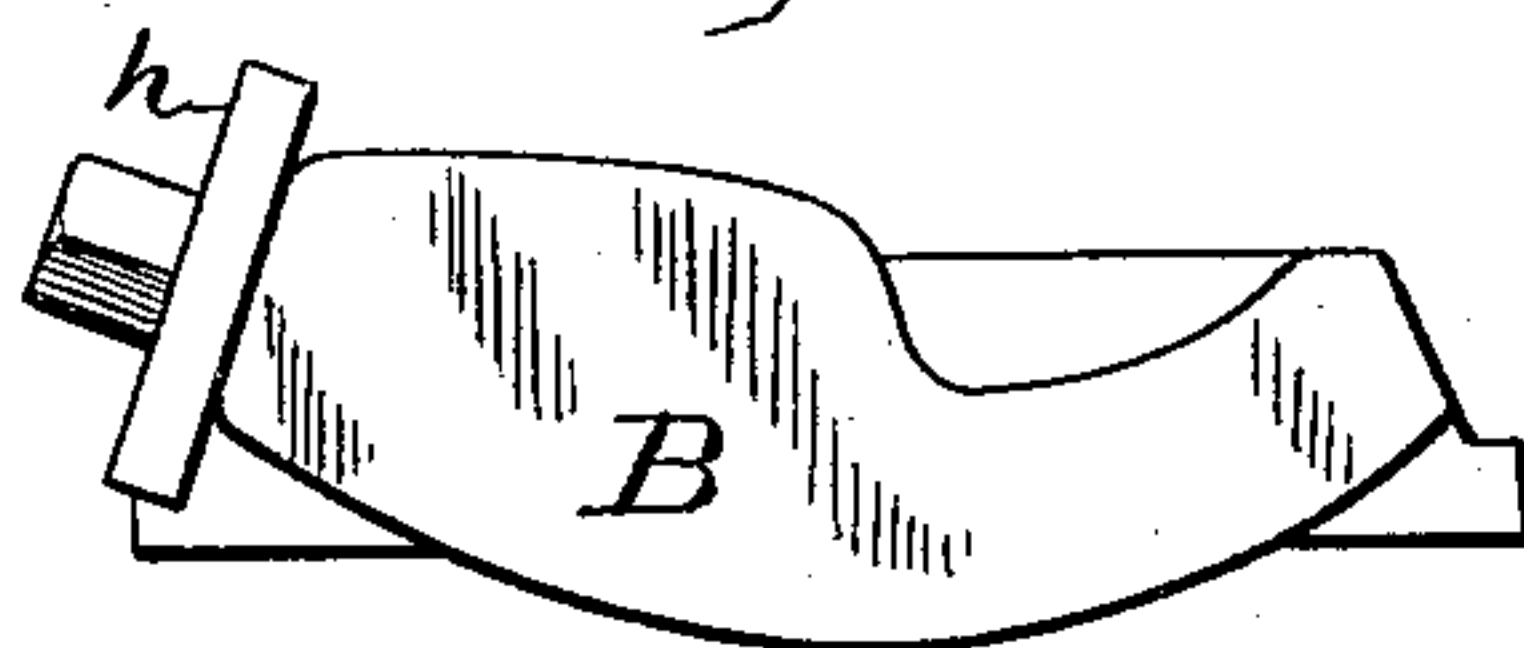


Fig. 2.



Witnesses.
John Edwards Jr.
Milton H. Barrett

Inventor,
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By James Shepard
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UNITED STATES PATENT OFFICE.

JOHN DEEBLE, OF SOUTHTON, CONNECTICUT, ASSIGNOR OF ONE-HALF
TO JULIUS B. SAVAGE, OF SAME PLACE.

DIE FOR TRIMMING OX-SHOES.

SPECIFICATION forming part of Letters Patent No. 336,901, dated March 2, 1886.

Application filed October 12, 1885. Serial No. 179,665. (No model.)

To all whom it may concern:

Be it known that I, JOHN DEEBLE, a citizen of the United States, residing at Southington, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Dies for Trimming Ox-Shoes, of which the following is a specification.

My invention relates to improvements in dies for trimming off the fin or surplus metal from ox-shoes which have been forged in "drop dies," and the objects of my improvement are to give a better form to the shoe, to so construct the die as to render it more durable, and to provide for severing the entire bar at the same time that the shoe is trimmed.

In the accompanying drawings, Figure 1 is a plan view of my die. Fig. 2 is a reverse plan view of the punch for use therewith, and Fig. 3 is a front elevation of both the die and its punch.

I form the die-block in two parts, *a b*, and cut the die A in the adjoining edges of said parts with the heel end *c*, which corresponds to the heel end of the shoe extending obliquely across the front end of the die-block at such an angle that the corners corresponding to the outside corners of the toe and heel of the shoe are on the line of division between the two parts *a* and *b*. This causes the seam or dividing line at both ends of the die to lie at the greatest possible angle to the cutting-edge of the die; and to render the die more durable and less liable to become defective than would be the case if the heel end extended less obliquely across the block and the dividing line came through the curved edge, which corresponds to the outer edge of the shoe, as has been the case, so far as I know, with ox-shoe trimming-dies when heretofore made in two parts. I make the end *d* of the die, which corresponds to the toe end of the shoe, extend obliquely across the die-block, but slanting in the opposite direction from that of the heel end *c*, in substantial conformity to the ordinary shoe having oblique calks, and in connection therewith I form a corner-cutting face, which extends in the longitudinal direction of the die and obliquely to said end *d*. This face is for trimming off the inner corner of the toe at an oblique angle to the toe calk, and thereby pre-

vent the shoes, when set, from clicking at the toes. For convenience in forging, the shoe is formed fuller at this inner corner than the shape of the trimming-die, so that the latter is depended upon rather than the forging-die to shape the contour of this part of the shoe; consequently the face *f* not only cuts off the fin, but actually cuts into the shoe when made in the form which I prefer to forge it. The remaining portion of the cutting-edge of the die is designed for trimming off the fin only. The upper face of the die-block at the heel end *e* is lower than that of the remainder of the cutting-edge, as shown in Fig. 3, thereby forming vertical shoulders *g g*, one at each side of said heel end *e*, and from said shoulder toward the front (toward the left, as shown in Fig. 1) the rest of the block is cut down so as to be out of the way. The punch B is fitted to the die A after the usual manner of cutting-dies and punches, and on the part which corresponds to the heel end *e*, I secure a cutting-blade, *h*. That portion of this blade which confronts the shoulders *g g* is designed to act therewith like shears.

The shoes to be trimmed are formed on the end of a bar of metal and connected thereto by a thin web or "sprue," as it might be called from analogy. The die and punch are mounted in any ordinary punching-machine, and the untrimmed shoe placed over and partly within the die A. The punch B is then forced into said die, and the shoe is trimmed on the cutting-edge of the die A, including the heel end *c*. The punch descends far enough to bring the blade *h* against the upper edge of the vertical shoulders *g g*, and thereby the metal in the bar outside of the die A is cut, and the fin as well as the shoe is completely severed from the bar, so that the bar is ready for reheating for forging another shoe.

I am aware that cutting-dies and punches for trimming off the surplus metal or fin from drop-forged ox-shoes are old, and that it is old to make the die-block in two parts. I am also aware that it is not new to attach a cutting-blade to one end of a punch for trimming the fin from drop-forged articles and severing the fin from the bar at the same time; but so far as I know such a cutting-blade has never been

used in connection with a die and punch for trimming ox-shoes. All of said prior art is hereby disclaimed.

I claim as my invention—

- 5 1. The trimming die A, having a cutting-edge corresponding to the contour of an ox-shoe formed in a block consisting of two parts, and with the part corresponding to the heel end of the shoe extending obliquely across the
10 block, and with the corners corresponding to the outer corners of the toe and heel of the shoe on the dividing line of said parts, substantially as described, and for the purpose specified.
- 15 2. The die for trimming ox-shoes, having its cutting-edge of the general form of an ox-shoe with oblique toe calks, and having also

the corner-cutting face *f*, extending longitudinally with said die and obliquely to the toe end thereof, for the purpose of cutting off the inner corner of the toe of the shoe at an oblique angle to the toe-calk, substantially as described.

3. The herein-described die and punch jointly for trimming ox-shoes, said die having the vertical shoulders *g g* at each side of the heel end *c*, and said punch having the blade *h* at the corresponding end, substantially as described, and for the purpose specified.

JOHN DEEBLE.

Witnesses:

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