G. HOUGHTON.

DIES FOR COMPRESSING THE HEELS OF BOOTS AND SHOES.

No. 180,030. Patented July 18, 1876.

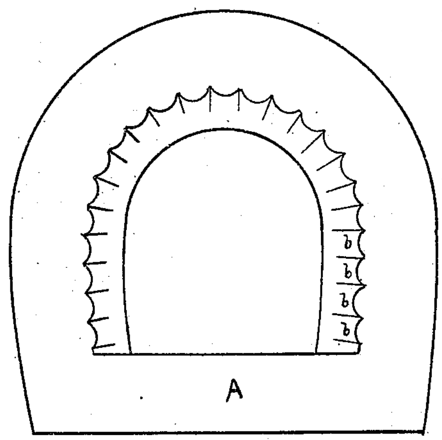

Fig. 1

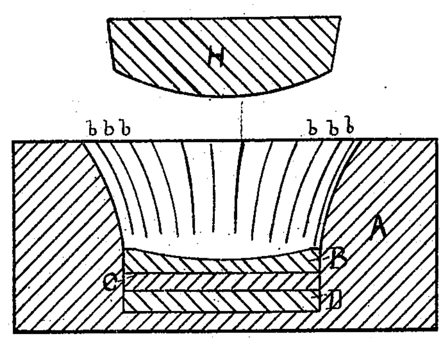

Fig. 2

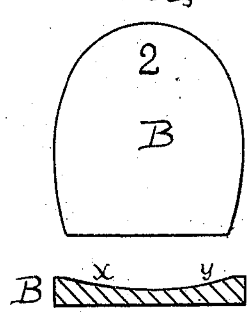

Fig. 3

Witnesses
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GEORGE HOUGHTON, OF HUDSON, MASSACHUSETTS.

IMPROVEMENT IN DIES FOR COMPRESSING THE HEELS OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. **180,030**, dated July 18, 1876; application filed June 10, 1874.

To all whom it may concern:

Be it known that I, GEORGE HOUGHTON, of Hudson, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Dies for Compressing Heels, of which the following is a specification:

My invention consists in forming a corrugated die for compressing heels of boots and shoes.

The object of the corrugations is that the heel may be "pressed" by a single act of pressure. In doing this I am enabled to produce a heel having its periphery "upset" so as to close the joints between the lifts in the same manner as was formerly effected by the workman's blows on the edge of the heel with the peen of his hammer.

Figure 1 is a plan of the die, showing its corrugations. Fig. 2 is a vertical section of the die; also showing the rubber elastic pieces at the bottom and the concaved base-piece at the bottom of the die forming the top of the heel, the follower also being shown. Fig. 3 is a plan and section of the base-piece.

The die is formed of steel, as shown in the drawings, and has corrugations *b b b b*, and is provided with elastic pieces C and D, Fig. 2, and a metallic base-piece, B, which is made concave on its upper surface, as shown at X Y, Fig. 3, so that the heel in being pressed will be made convex and in this condition applied to the shoe. The object of convexing the top surface of the heel is to provide for the depressing effect of fastening the heel to the shoe or boot, as in practice it is found that if the top of the heel is made flat the action of fastening it on will cause it to become concave, and thus require much more sand-papering to reduce it to an even surface. My method—that is, making it convex—provides the heel with a convex surface, which, in the process of fastening on, becomes depressed to a level, and hence the surface requires but little sandpapering to prepare the same for the finish. The base-piece B, Fig. 3, may have a designating-number, as shown (2), Fig. 3, sunk into its surface. H, Fig. 2, is a follower, which leaves the under side of the heel concaved to fit the sole. The pieces C and D, Fig. 2, are of rubber, and serve to spring the heel out of the die when the follower H is withdrawn.

I claim as my invention—

The heel-die A, provided with corrugations *b b*, substantially as described, and for the purpose set forth.

GEORGE HOUGHTON.

Witnesses:

FRANK G. PARKER,

WILLIAM EDSON.