

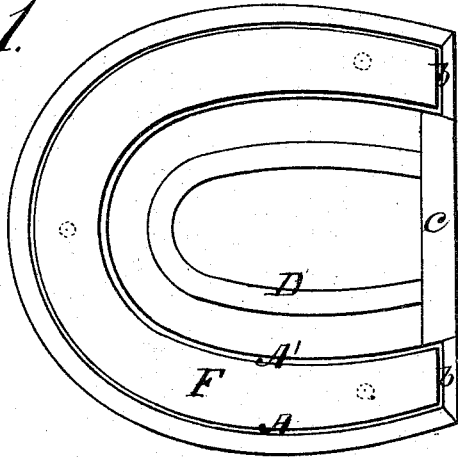
C. H. BRIGHAM.

Die for Cutting Boot and Shoe Rands.

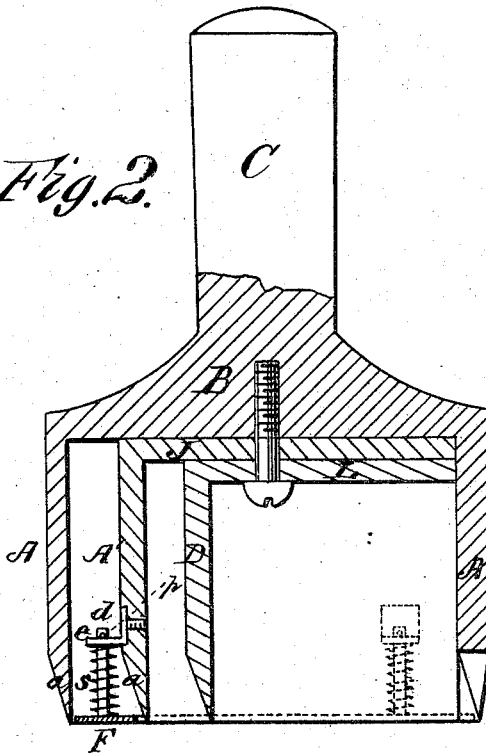
No. 164,963.

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*Fig. 1.*



*Fig. 2.*



WITNESSES  
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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN DIES FOR CUTTING BOOT AND SHOE RANDS.

Specification forming part of Letters Patent No. **164,963**, dated June 29, 1875; application filed February 27, 1875.

*To all whom it may concern:*

Be it known that I, CHARLES H. BRIGHAM, of Marlborough, in the county of Middlesex and State of Massachusetts, have invented a new and valuable Improvement in Dies for Cutting Boot and Shoe Rands; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a plan view of my die, and Fig. 2 is a sectional view of the same.

This invention has relation to devices for cutting boot and shoe rands; and the nature of the invention consists in two or more horseshoe-shaped blades, arranged, the one within the other, at a suitable distance apart, the said blades having end cutters and an ejector actuated by springs arranged between the said blades, as will be hereinafter more fully described.

In the annexed drawings, A A' designate two horseshoe-shaped cutting-blades, having chisel-edges *a*. Blade A is rigidly but removably secured to a strong metallic plate, B, into which is socketed or otherwise suitably secured a handle, C, blade A' being arranged within blade A and rigidly secured to a plate, J, which is then removably attached in any convenient manner to plate B.

When the die thus formed is forcibly brought down upon a piece of leather or leather-board the blades A A' will cut out of the body of the same a horseshoe-shaped blank, commonly known to the trade as a rand, and when two or more pieces of leather are arranged one above the other an equal number of blanks will be simultaneously formed. The contiguous ends of cutters A A' being connected by chisel-edged cutters *b*, the blanks will be turned out complete and ready for use.

D represents a third horseshoe-shaped blade, rigidly secured to a plate, L, which blade is arranged within blade A', and is removably attached in any suitable manner to plate J. The cutting-edge of this blade is flush with

those of cutter-blades A A', and when it is fixed in position, as above described, two sizes of rands are cut out at one and the same time by a single stroke, the outer edge of the smaller rand being cut by the intermediate blade A'. A recess or depression, *c*, is cut in the end of the device, for the purpose of conveniently extricating the inner or smaller rand; but for the purpose of removing the larger rand I use a preferably metallic horseshoe-shaped plate, F, of such dimensions that it shall be received between cutter-blades A A' in the position shown in Fig. 1. This plate is provided with a suitable number of rods, *d*, projecting upwardly therefrom, upon which are arranged helical springs *s*, and which pass through metallic guides *e*, rigidly secured to the outer edge of cutter A', and are held to their engagement therewith by means of a pin, *p*, or a nut applied upon their upper screw-threaded ends.

When the blades A A' are brought forcibly down upon the leather to be cut into rands by any suitable motor the ejector-plate will yield, allowing the rand to be received between them; but the moment the die is raised the recoil of the said springs will force the blank outward from between the said cutters, which latter will be then ready for a second cutting.

When it is desirable to cut a blank or rand of a single size the inner cutter D may be detached, and the remaining cutters A A' alone will then be operated.

What I claim as new, and desire to secure by Letters Patent, is—

In an apparatus for cutting heel-rands for boots and shoes, the combination of a series of semicircular cutters, A A', end cutters *b b*, and spring-ejector F, adapted to cut at one operation rands varying in size, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

CHARLES H. BRIGHAM.

Witnesses:

A. C. WEEKS,  
EDWARD F. JOHNSON.