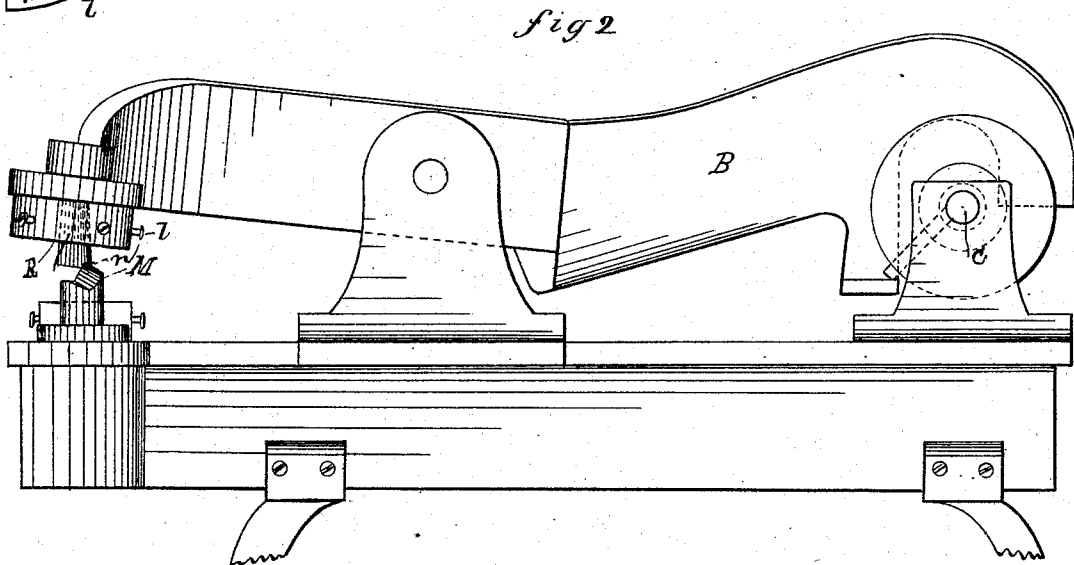
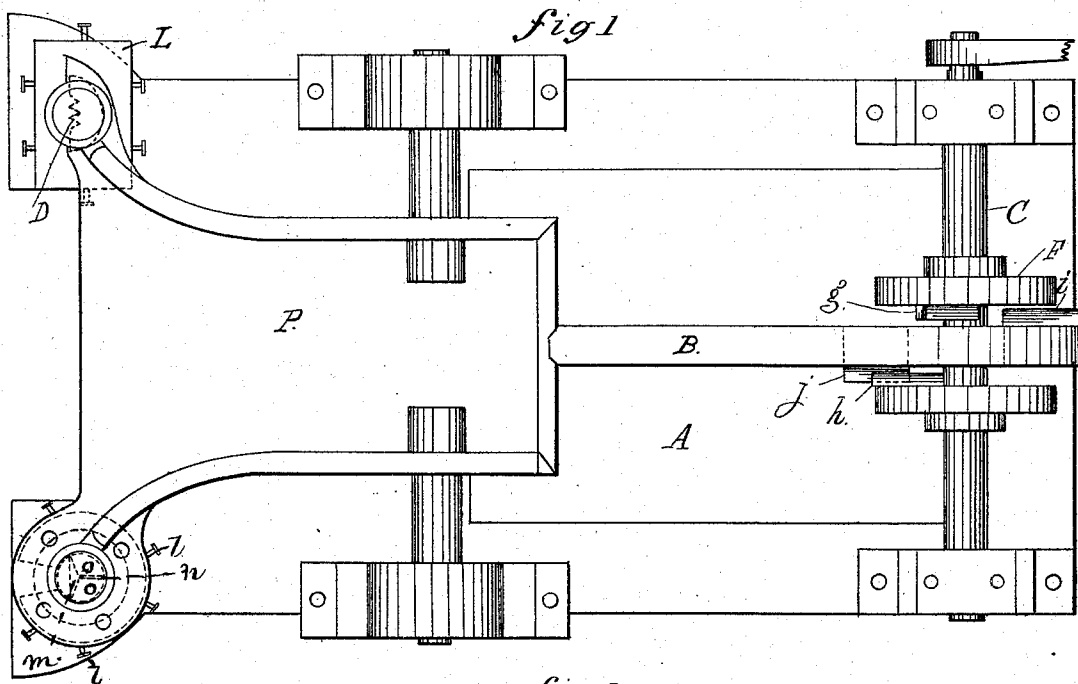


J. R. MOFFITT.

Machines for Trimming Boot and Shoe Heel Counters.

No. 158,385.

Patented Jan. 5, 1875.



Witnesses
J. T. Smallwood
Harry Coleman

Inventor
John R. Moffitt
by John J. Hale
his atty.

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fig 3

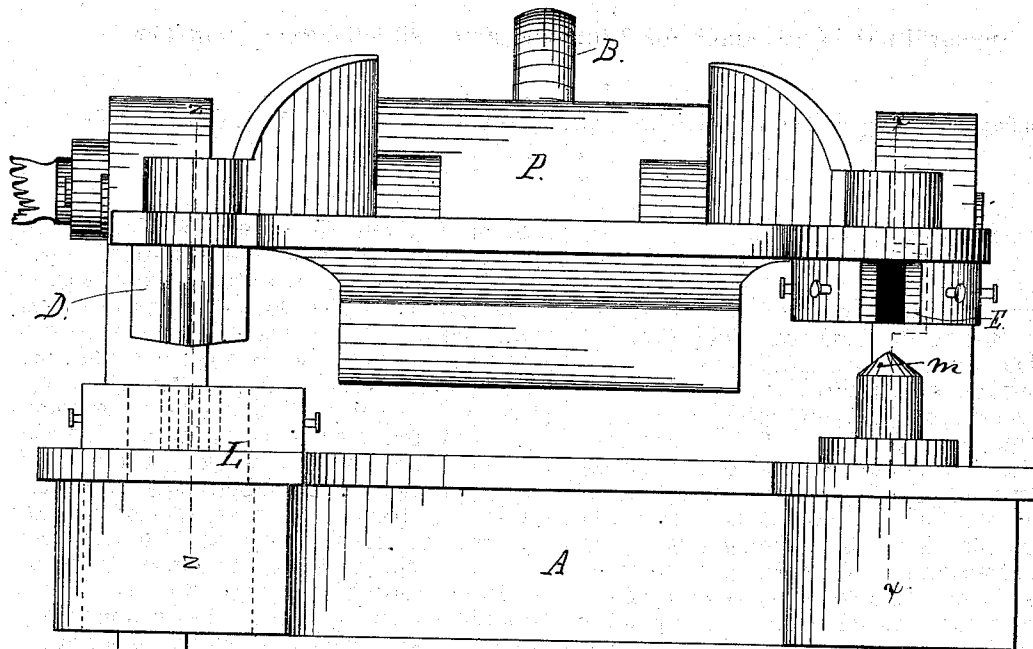


fig 4

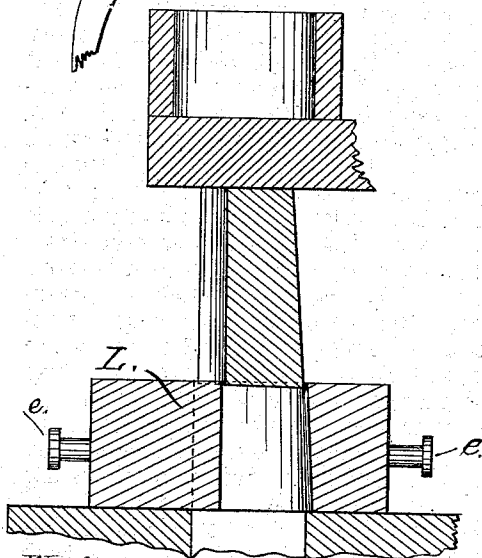
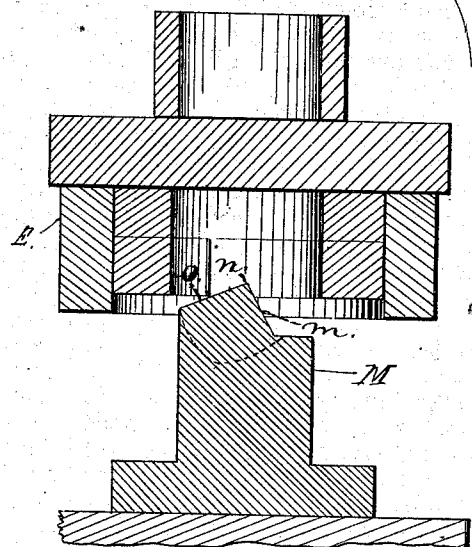


fig 5



Witnesses
G. Y. Smallwood.
Harry Coleman.

fig 6



Inventor.
John R. Moffitt
by his attorney
John J. Ballou

UNITED STATES PATENT OFFICE.

JOHN R. MOFFITT, OF CHELSEA, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR TRIMMING BOOT AND SHOE HEEL COUNTERS.

Specification forming part of Letters Patent No. **158,385**, dated January 5, 1875; application filed August 21, 1874.

To all whom it may concern:

Be it known that I, JOHN R. MOFFITT, of the city of Chelsea, State of Massachusetts, have invented Improvements in Machines for Making Blanks for Counters and Trimming Heel-Counters for Boots and Shoes, of which the following is a specification:

My present invention consists, primarily, in combining with the frame of the machine a punch for cutting out the blanks for counters and a trimming-die for trimming the edges of the formed or shaped counters, the punch and the movable part of the trimming-die being both secured upon and operated by the same stock or lever. It further consists in the devices for actuating such lever, whereby, while it is actuated positively and quickly to give it its operative movements, it yet remains at rest during about half a revolution of the driving-shaft to give ample time to put the counter on or off, or to insert or remove the sheet from which the blanks are cut; and it further consists in a peculiar construction of the parts of the trimming-die, the stationary part being formed at its acting end to fit into and hold a counter, and the moving part acting in conjunction therewith to cut or trim off the surplus material from the counter so held.

In the drawings, Figure 1 is a plan view of a machine constructed according to my invention; Fig. 2, a side elevation; Fig. 3, a front view; Fig. 4, section through *z z* of Fig. 3; Fig. 5, section through *X X* of Fig. 3. Fig. 6 is a blank.

A is the bed of the table; B, a lever; C, the main shaft which actuates it; D, the punch for cutting blanks, secured on one of the forward arms of the lever; and E the moving or working part of the trimming device, secured upon the other of the forward arms of the lever. F is a disk on the shaft C, having, on its opposite sides, the wipers *g h*, which, at intervals during the revolution of the shaft, come into contact severally with the parts *i j* of the rear arm *k* of the lever, one of these wipers serving to elevate the lever, and the other one serving to depress it. In the table is made an opening, in or over which is placed the hollow part L of the die, adapted in shape to receive the punch D, which, as will be seen, is, in cross-section, made in the

form of the blank to be cut, but having its bottom face slightly inclined upward in opposite directions from its center in order to give a shearing cut, and to avoid the strain which would ensue if the entire perimeter of the cutting-edge of the punch were to commence cutting at the same moment. The vibrating path of the punch D also serves, to some extent, to effect the same purpose. The die L is made in sections, as shown, each section being arranged to be slightly adjustable inward to compensate for wear, set-screws *l* being provided for this purpose. The trimmer E is also made sectional, and with its parts similarly adjustable by set-screws *e*, as shown. M is the stationary part of the trimming devices, shaped as shown, to receive and hold a counter which has previously been pressed or molded to shape, but which has edges or corners requiring to be trimmed off. It is evident that, to cut and trim to the precise ultimate shape while the material is in the sheet form is not possible, as the operation of molding or pressing to the shape of a counter will more or less stretch or change the lines of the edges. It is also evident that, to trim by hand would be so tedious and costly as to be altogether impracticable; and it would be too expensive and dilatory to have several styles and sets of cutters to trim the several parts of so irregularly-shaped an article as a counter; hence, the necessity for devising my apparatus for trimming by one action the entire counter after it has received its shape. The counter, therefore, is placed upside down on the stationary die or punch M, the flat or under side of the counter resting on the inclined flat face *m*, and the rounded portion resting on the top *n*, and on the rounded back *o* of this die or punch M. Just below that portion of this die which is thus shaped to accord with a trimmed counter the die-stock is of a form to enter snugly into the hollow part of the moving die E, when the latter descends, and this descending action cuts and trims off the surplus material by means of the square cutting-edges, leaving the counter ready for use. A tray, P, on the lever will hold, if desired, a supply of blanks or untrimmed counters. It will now be seen that, by the same shaft and lever, the blanks may be cut ready

to go to the press or rolling apparatus for shaping into counters; and the counters may also be trimmed; and that the same period of rest given to the lever for the blank-cutting answers also for the trimming, thus happily adapting the mergement in one machine of these two sets of devices, for these two steps of the manufacture of counters, with much economy and simplification, and saving the duplication of machinery. The wipers on the shaft and the parts *ij* may be adapted to give a reciprocating movement instead of a vibratory one, if desired. The punch D and the die L I have shown notched on their shorter side or edge, as it is preferable to cut the blank with one or more such notches to facilitate the after shaping. The die L is made in parts or sections, whereby they may be, by means of adjusting-screws or their equivalents, adjusted inward or outward, so that, in case of wear, they may be shifted in position to compensate for wear, or to insure a sharpness of cut by the punch. The notched part is preferably made separately adjustable, because the wear on it is greater than on the unnotched parts.

I claim—

1. The combination, with the lever B, carrying the punch D and die E, of the die L and stationary punch M, substantially as shown and described, and for the purposes set forth.

2. In combination with the dies, the revolving wipers *gh* and the parts *ij* of the lever B, one of the wipers operating to elevate and the other to depress the lever, as and for the purpose described.

3. In a machine for making and trimming heel-counters, the stationary punch M, adapted for holding the shaped article to be trimmed, in combination with the moving die L, substantially as and for the purpose described.

4. In combination with a punch having a contour adapted for punching a notched blank for heel-counters, a sectional die having its notched part or parts adjustable, substantially as and for the purpose set forth.

JOHN R. MOFFITT.

Witnesses:

JON. F. BARRETT,
R. KENNEY.