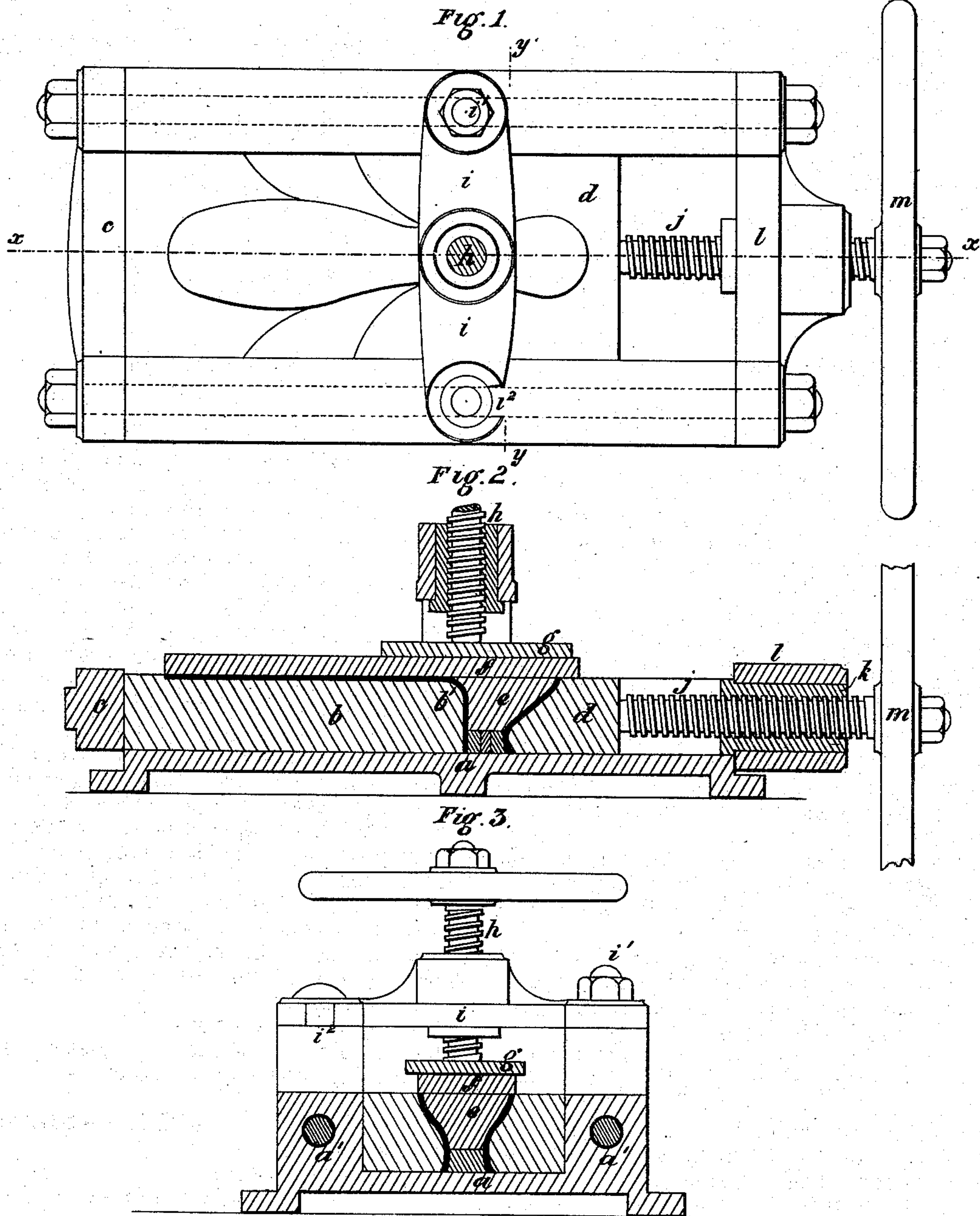


J. LANHAM.

Dies for the Manufacture of Boot and Shoe Heels.

No. 157,689.

Patented Dec. 15, 1874.



Witnesses:
Harry Black
H. C. Matthews

Inventor,
John Lanham
By H. B. Beadle Res.
Atty.

UNITED STATES PATENT OFFICE.

JOHN LANHAM, OF LONDON, ENGLAND, ASSIGNOR TO EBENEZER POCOCK
AND CHARLES F. GARDNER, OF SAME PLACE.

IMPROVEMENT IN DIES FOR THE MANUFACTURE OF BOOT AND SHOE HEELS.

Specification forming part of Letters Patent No. **157,689**, dated December 15, 1874; application filed
November 3, 1874.

To all whom it may concern:

Be it known that I, JOHN LANHAM, of London, England, shoemaker, have invented Improvements in Apparatus for the Manufacture of Boots and Shoes, of which the following is a specification:

My said invention relates to novel apparatus for shaping the heels of boots and shoes.

This improved apparatus is more especially designed for the shaping of boot and shoe heels formed as described in the specification of my former Letters Patent, dated May 26, 1874, No. 151,296.

This apparatus is constructed as shown in the accompanying drawing, which I will now describe.

Figure 1 is a plan of my improved shaping apparatus. Fig. 2 is a longitudinal section on the line *xx*, Fig. 1. Fig. 3 is a transverse section on the line *yy*, Fig. 1.

The said apparatus has a base-plate, *a*, of cast-iron or other suitable metal, and this plate has an upwardly-projecting flange or wall, *a'*, at the sides. The base-plate *a* supports a fixed bar, *b*, which is held in place by the cross-bar *c*, and which is properly shaped at its end *b'* to receive and support the inner side of the heel, as clearly shown in Fig. 2. *d* is an external adjustable die, which is forced against the back of the heel. *e* is another die or block, which is introduced into the cavity of the heel, as shown in the same figure. The said internal and external dies are shaped as shown to

give the required contour or configuration to the heel. The internal die *e* is attached to a plate or slab, *f*, of metal or other suitable material, which is held in place by another plate, *g*, and by a screw, *h*, passed through an adjustable cross-head, *i*. The latter turns on a pivot, at *i*¹, at one side of the apparatus, and its free end is formed with a slot, *i*², or other suitable contrivance, which allows it to be conveniently secured and released to permit the ready introduction and removal of the work. I may, however, in some cases, use a fixed cross head or bar in place of the adjustable cross-head. The external die *d* is adjusted by a screw, *j*, passed through a nut, *k*, in a cross-bar, *l*, secured, like the cross-bar *c*, to the sides of the apparatus. The said screw is provided with a suitable hand-wheel, *m*, or a handle, whereby it is conveniently manipulated. The bar *b* and dies *d* and *e* may be made of a number of plates, sheets, or layers, so that their thickness or depth may be varied to suit different-sized heels.

I claim as my invention—

The combination of the bar *b*, dies *d* *e*, with the adjusting-screws *j* *h*, as described.

JOHN LANHAM.

Witnesses:

ALFRED POCOCK,
121 Bishopsgate Street, E. C.

W. J. CLEMENTS,
121 Bishopsgate Street, E. C.