

(No Model.)

D. A. WILLIAMSON.
HEEL TRIMMING MACHINE.

No. 315,203.

Patented Apr. 7, 1885.

Fig. 1.

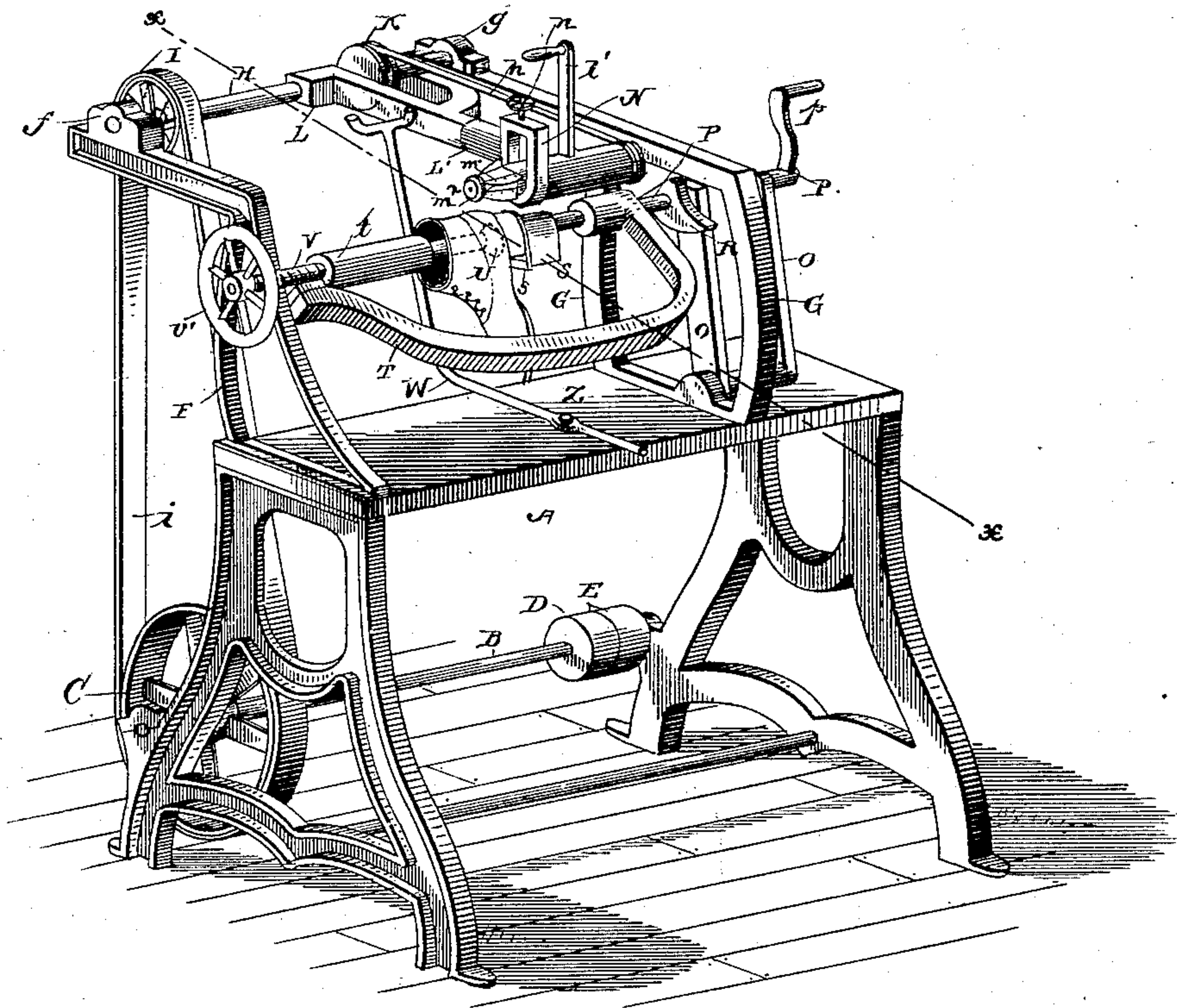
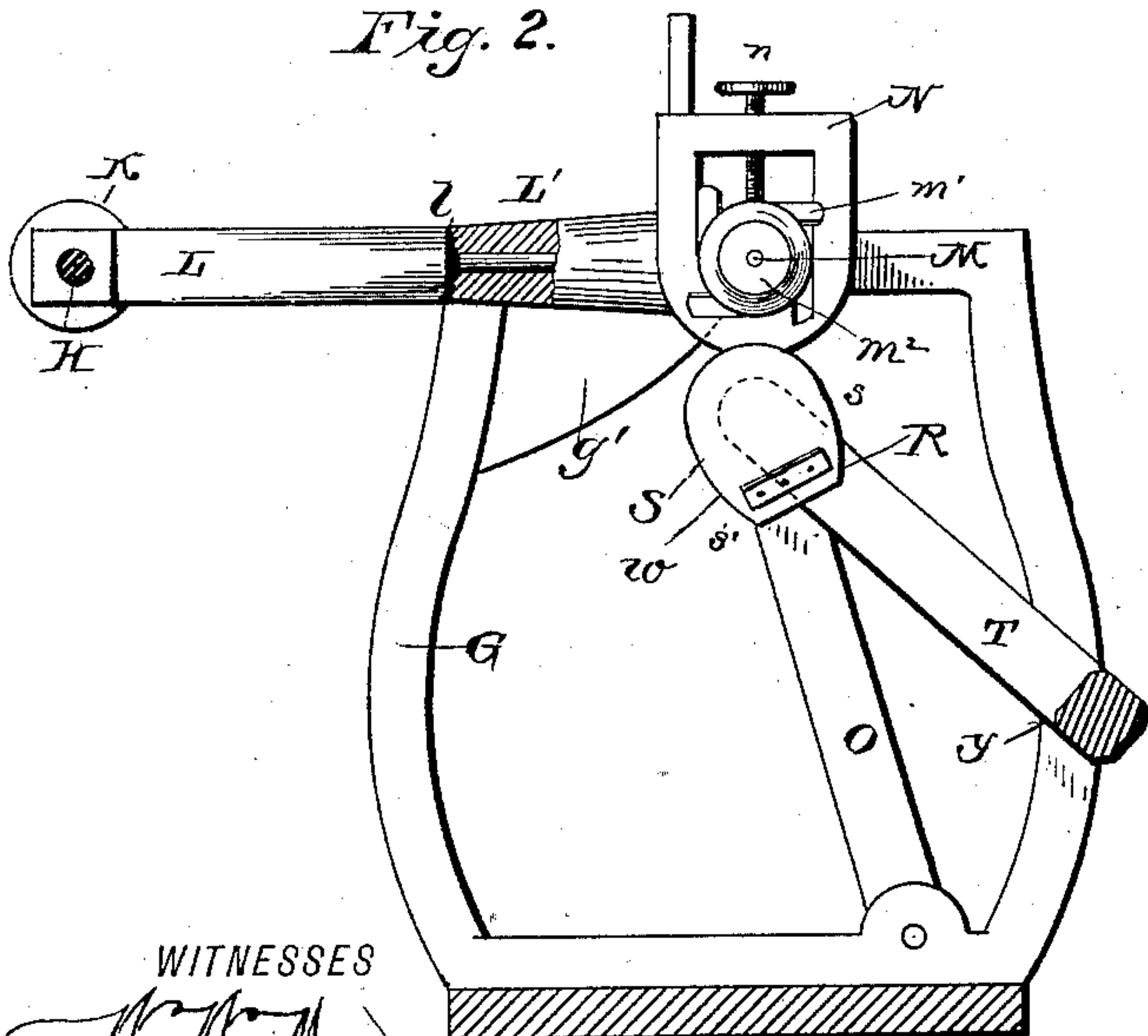


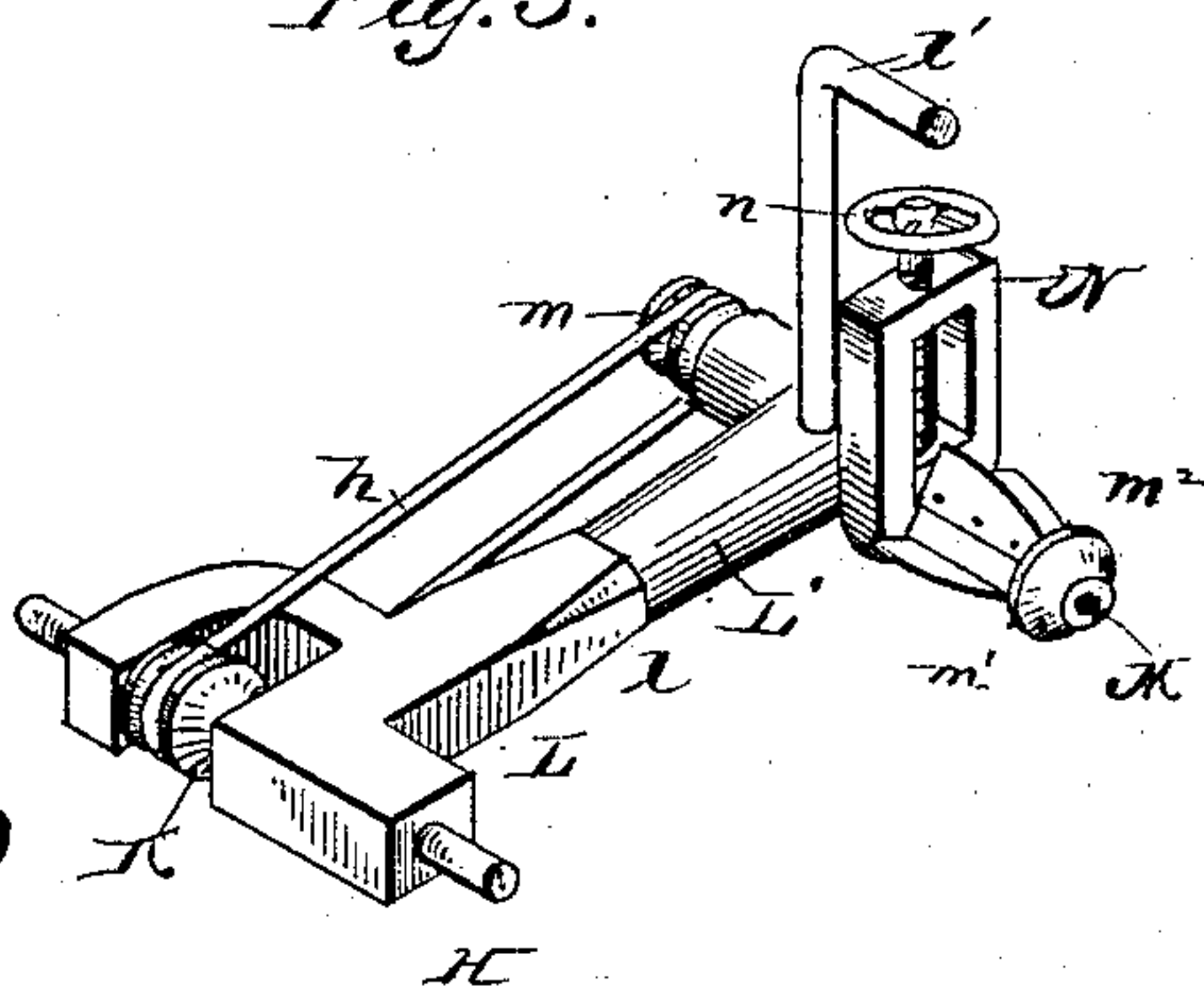
Fig. 2.



WITNESSES

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Fig. 3.



INVENTOR

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HEEL-TRIMMING MACHINE.

SPECIFICATION forming part of Letters Patent No. 315,203, dated April 7, 1885.

Application filed February 13, 1885. (No model.)

To all whom it may concern:

Be it known that I, DANIEL A. WILLIAMSON, a citizen of the United States, residing at Watsonstown, in the county of Northumberland and State of Pennsylvania, have invented a new and useful Improvement in Heel-Trimmers, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to an improvement in heel-trimmers for boots and shoes; and it consists in the peculiar construction and combination of devices that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a machine embodying my invention. Fig. 2 is a vertical transverse sectional view of the same, taken on the line x of Fig. 1. Fig. 3 is a detailed perspective of the pivoted arm and its swiveled extension.

A represents a stand, to which is journaled a shaft, B, which is provided with a large driving-pulley, C, and a fast pulley, D, and loose pulley E. On the upper side of the stand near one end is bolted a cast bracket or standard, F, which is provided with a horizontal rearward extension, to which is secured a bearing-block, f . At the opposite end of the stand, on its upperside, is bolted a cast bracket or standard, G, which is provided with a horizontal rearward extension, to which is secured a bearing-block, g .

In the blocks f and g is journaled a shaft, H, to which is made fast the pulleys I and K. The pulley I is connected with the pulley C by a belt, i .

Pivoted on the shaft H is an arm, L, to which is swiveled an extension, L', as at l . A shaft, M, is journaled in the outer end of the extension L' at right angles thereto. A fast pulley, m , is secured to one end of the shaft M, and to its opposite end is secured a cutter-head, m' , and a welt-burnisher, m^2 . The extension L' is provided with a T-shaped head, in which the shaft M is journaled, and over this head, adjacent to the cutter-head, is placed a yoke, N, which is adapted to slide vertically on the head of the extension, and is controlled by a screw, n , which extends down through the upper side

of the yoke, and has its lower end bearing on the upper side of the head of the extension L'. A bent handle-rod, l' , projects upwardly from the extension L', and by means of this bent rod, which is adapted to be grasped by the left hand of the operator, the arm may be raised or lowered, and its swiveled outer extension inclined in either direction, as will be very easily understood.

O represents a frame which is hinged to the stand A at one end adjacent to the standard G, and in the free upper end of this hinged frame is journaled a rock-shaft, P, which has a crank, p , at its outer end. A curved abutment, g' , is secured to the outer side of the standard G, and to the shaft P is fixed a curved cam-arm, R, which bears against the abutment g' . A die, S, which corresponds in shape to the heel that the machine is designed to trim, is secured to the inner end of the rock-shaft, and turns with the rock-shaft. The yoke N bears against the die when the machine is in operation. The outer side of the die is provided with a flange, s , and the outer face of the die has a stop, s' , against which is placed the square front portion of the heel to be trimmed. An arm, T, extends from the rock-shaft, and is keyed thereto, and this arm is curved, as shown, and to its outer end is pivoted a sleeve, t , the center of which is on a line with the center of the rock-shaft. A screw, V, passes through the pivoted sleeve, has a bearing-head, v , at its inner end, and a hand-wheel, v' , at its outer end, as shown.

The operation of my invention is as follows: The boot or shoe of which the heel is to be shaped and finished is placed with bottom of its heel bearing against the outer side of the die, and is clamped in place against the die by the screw V, one side of the sole of the shoe bearing against the arm T, as at y . Motion is imparted to the machine, and the operator grasps the crank p with his right hand and slowly rotates the rock-shaft, while with his left hand he grasps the handle-rod l' , and causes the cutter-head to bear against the edge of the heel to be trimmed. Motion is imparted to this cutter-head by means of a belt, h , which connects the pulleys K and m . The knives of the cutter-head shape the heel as the crank-

shaft is being turned, and when the bearing-yoke reaches the point *w* of the die the heel is finished and the shoe is removed. The adjustable yoke which bears against the side of the die regulates the depth of the cut of the cutter-head, and thus adapts the machine for use in trimming heels of any desired size. Dies of different sizes will, of course, be required in order to make different sizes of heels. The burnisher *m*² enters the seam between the heel and the upper and shapes and burnishes said seam. The arm *R* limits the movement of the rock-shaft. When the cutter-head is in motion, and it is not desired that it should bear against the heel, as when the shoe is being placed upon the machine or removed therefrom, the arm *L L'* is raised and supported upon the upper bent end of a supporting-rod, *W*, that is pivoted to the stand, as at *z*.

Having thus described my invention, I claim—

1. The combination of the rock-shaft having the die, the pivoted arm having the swiveled extension, and the cutter-head journaled to said extension, substantially as described.

2. The combination of the rock-shaft having the die, the pivoted arm having the swiv-

eled extension, the cutter-head journaled to said extension, and the sliding yoke, and the screw for controlling the yoke, substantially as described.

3. The combination of the hinged frame, the rock-shaft journaled in said frame, and having the die, and a clamp for securing the heel of the shoe against the die, with the pivoted arm having the cutter-head and the yoke for bearing against the die to guide the cutter-head, substantially as described.

4. The combination of the hinged frame, the rock-shaft journaled in said frame, and having the die, and a clamp for securing the heel of the shoe against the die, with the pivoted arm having the swiveled extension, the cutter-head journaled in said extension, and the sliding yoke for bearing against the die, for the purpose set forth, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

DANIEL AARON WILLIAMSON.

Witnesses:

LORENZO EVERITT,
JOS. R. HORESEL.