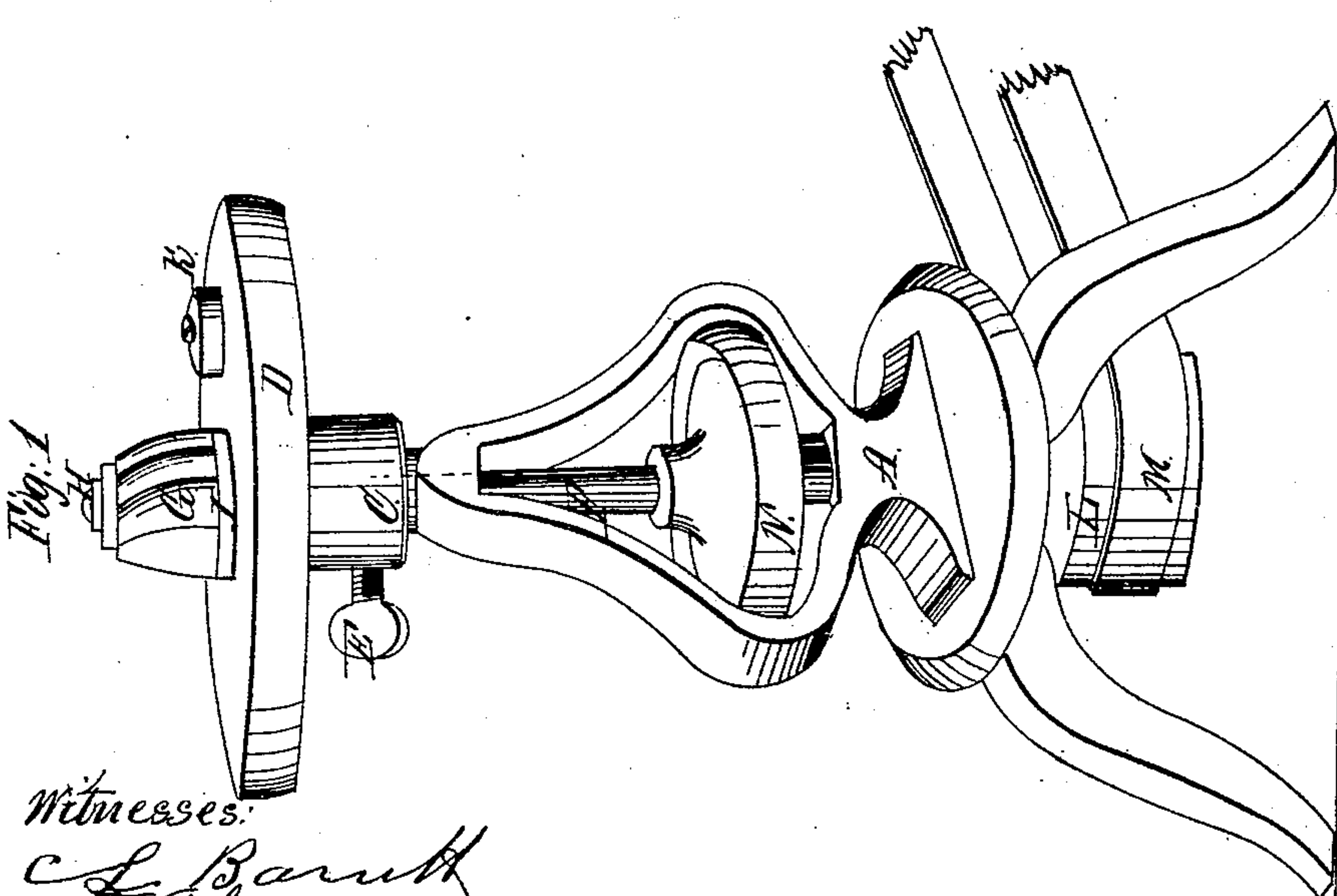


Heel Trimmer.

Patented Aug. 11, 1868.



Witnesses:
 L. Barrett
 Franklin Barrett

Inventor
C. A. Helms

UNITED STATES PATENT OFFICE.

CHARLES H. HELMS, OF POUGHKEEPSIE, NEW YORK.

IMPROVED HEEL-TRIMMER.

Specification forming part of Letters Patent No. 80,953, dated August 11, 1868.

To all whom it may concern:

Be it known that I, CHARLES H. HELMS, of Poughkeepsie, Dutchess county, and State of New York, have invented certain new and useful Improvements in Machines for Trimming the Heels of Boots and Shoes; and I do hereby declare that the following is a full description of the same.

The nature of my invention consists—

First, in combining, with the spindle, a burr-cutter, having attached to its base, or in contact therewith, and of the same diameter, a collar or shoulder, of metal, for the purpose of limiting the depth of cut made by the burr.

Second, in combining with the spindle, and stand or frame in which it runs, an adjustable table-board, for the purpose of adapting the burr-cutter to the varying depths of the heels of boots and shoes.

Third, in combining, with the upper face of the adjustable table-board, a stud or roller, for the purpose of steadying or supporting the heel of the boot or shoe while being trimmed by the cutter.

Fourth, in combining an adjustable table-board with a burr-cutter, having a base-plate in contact therewith, or attached thereto, for the purpose of trimming the heels of boots and shoes.

But to describe my invention more particularly, I will refer to the accompanying drawings, forming a part of this specification, the same letters of reference, wherever they occur, referring to like parts.

Figure 1 is a perspective view of the machine.

Figure 2 is a vertical cut-section of the same.

Letter A is the stand or frame of the machine, which may be made of iron or other material, as circumstances may require.

On the head of the stand or frame is formed a stud, B, having screw-threads cut thereon, so as to engage into a female-screw, C, formed in the lower side of a table-board, D. The object of this arrangement is to admit of the rapid and easy adjustment of the height of the table with reference to the varying depths of the heels of boots and shoes to be trimmed on the machine.

For the purpose of holding the table-board at any required set, a binding-screw, E, is in-

serted through the sides of the female screw, so as to bind upon the sides of the male screw, and thus hold it firmly in place.

Through the center of the table-board, and stand or frame, is secured, in suitable bearings, a spindle, F, having on its upper end (which projects above the upper surface of the table-board) a burr-cutter, G, and secured thereto by a cap-screw, H, or by any other proper means, for holding the burr firmly on the spindle.

To the base of the burr-cutter (either loosely or permanently attached thereto) is adjusted a collar or shoulder, of metal, J, having a smooth periphery, and of about the same diameter as the diameter of the burr-cutter at its base.

The object of this attachment to the base of the burr-cutter is to control the depth of cut made by the burr on the boot or shoe-heel, and thus, whatever the shape of the "top-lift," (as it is technically called by the shoetrade,) when pressed against the collar, becomes the guide for the shape of the heel, and thus the burr-cutter, as it revolves, trims away the balance of the heel as fast as it is rotated on the table. To do this, and keep the heel firmly and steadily up to the face of the burr-cutter, a stud or guide-roller, K, is adjusted, by a set-screw, upon the upper surface of the table-board, and in such a position as to form a solid support for the heel to bear against whilst being rotated against the cutter.

For the purpose of rotating the cutter, a pulley, L, is secured to the lower end of the spindle F, and by means of any suitable belting, M, a communication is made with a driving-power to propel the machine. N is a balance-wheel, secured to the spindle, for the purpose of giving steadiness of motion to the cutter.

Having now described my invention, I will proceed to set forth what I claim, and desire to secure by Letters Patent of the United States.

1. I claim the spindle F, in combination with the burr-cutter G, having a collar or shoulder of metal, J, at its base, substantially as hereinbefore described.

2. I also claim the combination of the stand or frame A with the adjustable table-board

D and spindle F, substantially as hereinbefore set forth.

3. I also claim, in combination with the adjustable table-board D, the stud or guide-roller K, substantially as hereinbefore set forth.

4. I also claim the combination of the ad-

justable table-board D with the burr-cutter G and collar J, substantially as hereinbefore set forth, and for the purposes described.

C. H. HELMS.

Witnesses:

C. L. BARRITT,
FRANKLIN BARRITT.