2 Sheets—Sheet 1.

A. J. JOHNSON.

Machine for Finishing Boot and Shoe Heels.

No. 221,734. Patented Nov. 18, 1879.

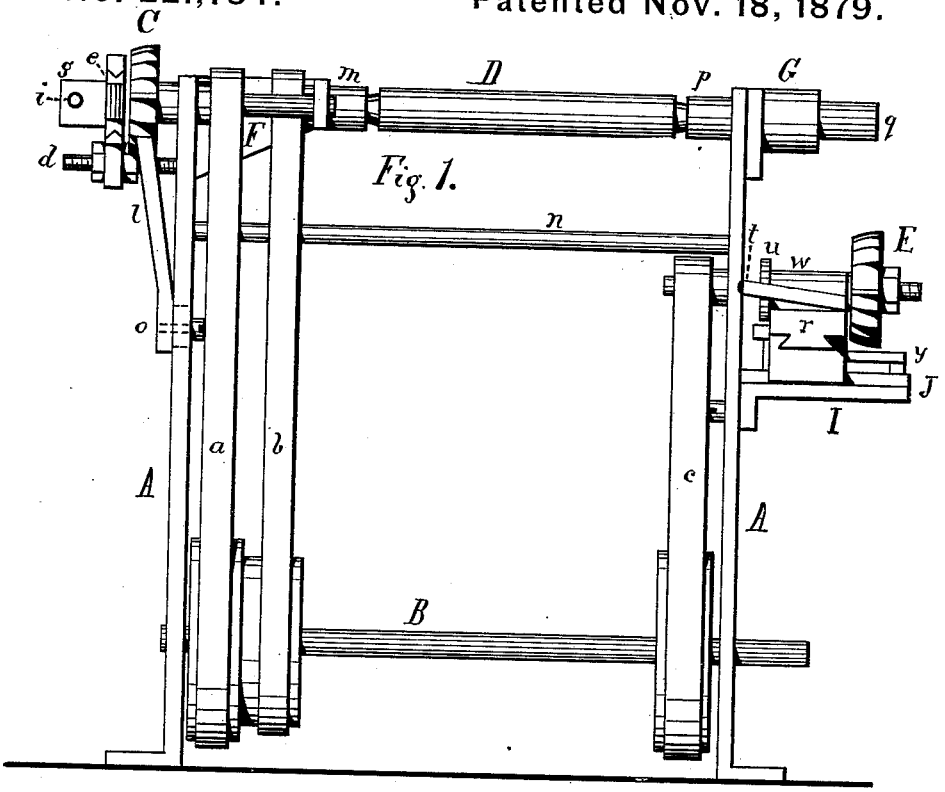

Fig. 1.

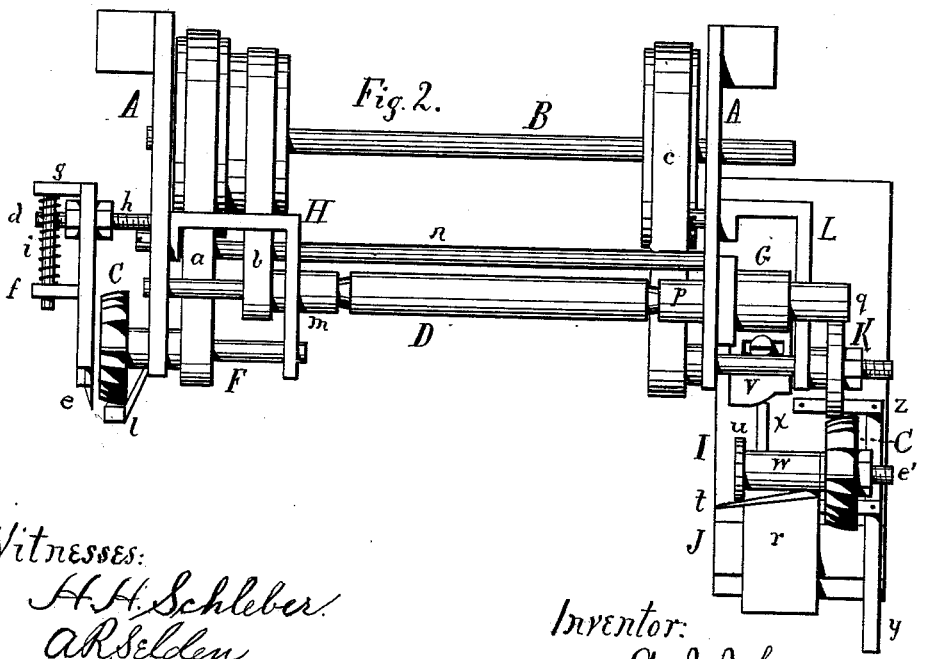

Fig. 2.

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Inventor:
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Fig. 3.

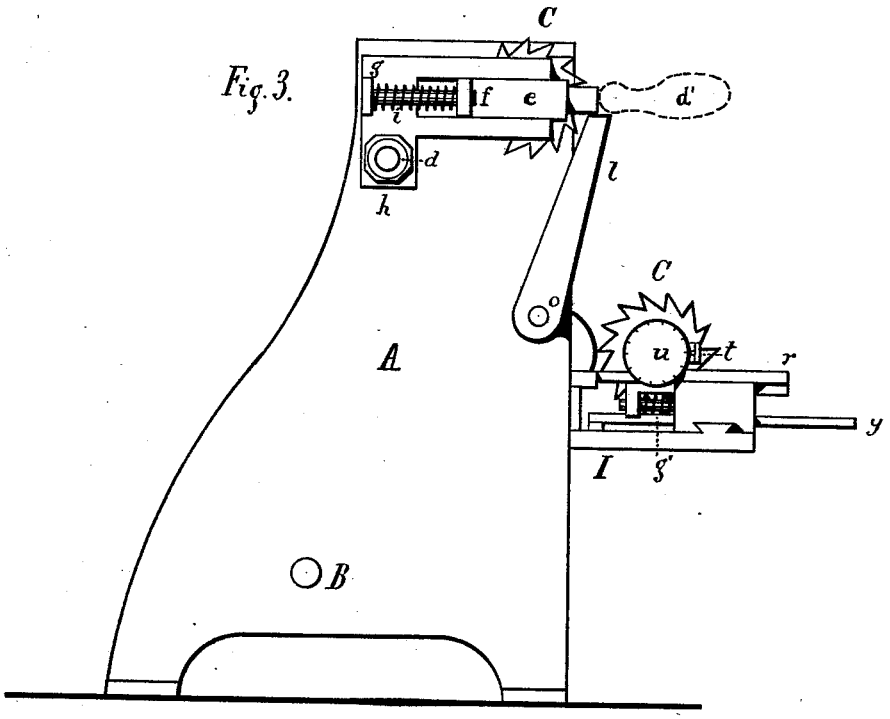
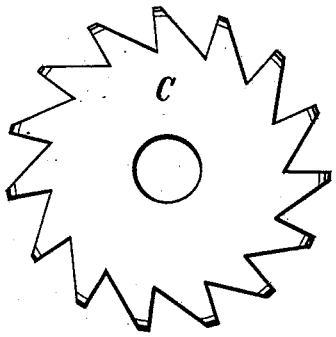


Fig. 4.



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Inventor:
A. J. Johnson,
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UNITED STATES PATENT OFFICE.

ALMERON J. JOHNSON, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN MACHINES FOR FINISHING BOOT AND SHOE HEELS.

Specification forming part of Letters Patent No. **221,734**, dated November 18, 1879; application filed November 25, 1878.

To all whom it may concern:

Be it known that I, ALMERON J. JOHNSON, of Rochester, in the county of Monroe and State of New York, have invented an Improvement in Machines for Finishing Boot and Shoe Heels, of which the following is a specification.

My invention relates to a machine for finishing the edge or periphery of boot and shoe heels; and it consists in the combination of a rotary cutter, a yielding guard or guide at the front of the same, and a fixed adjustable support located in front of the cutter and adapted to bear upon the periphery of the heel, so that the heel may be presented to the cutter by hand without jacking or clamping the shoe; and it also consists in a manner of adjustably supporting the yielding guide.

In the accompanying drawings, Figure 1 represents a side elevation of a heel-finishing machine containing my improved trimming devices. Fig. 2 is a plan view, and Fig. 3 a side view, of the same. Fig. 4 is a side view of the cutter.

In the accompanying drawings, A A represent the frame of my machine, and B the driving-shaft. The two side frames, A A, are connected together by suitable cross-bars *n*, Figs. 1 and 2.

The rotary cutter C is supported on the outer end of a suitable mandrel, F, revolving in boxes on the side frame and the supporting-bracket H, and driven from the shaft B by belt *a*. The cutter C is made of any desired form corresponding to that of the heels to be dressed, and the boot or shoe is supported under the action of the cutter by a rest, *l*, attached to the side frame, A, as shown in dotted lines at *d'*, Fig. 3.

The rest *l* is made adjustable to suit any size of cutter or heel by means of a screw, *o*, Figs. 1 and 3, passing through a slot in the side frame. The rest *l* may be adjusted lengthwise of the machine by placing washers between it and the frame A, or in any other convenient manner.

Outside the cutter the guard *e* slides parallel to the diameter of the cutter in grooves in the supporting-piece *g*, which is carried by a screw-stud, *d*, secured in the side frame, and provided with nuts *h*, by which the position of the guard may be adjusted with reference to the cutter C.

A spiral spring, *i*, bearing against an arm on the supporting-piece *g* and a lug, *f*, on the guard *e*, allows the guard to yield back and the work to approach the cutter.

In the operation of this device the heel to be dressed is presented to the cutter, the guard *e* entering the seam between the heel and the upper, in which position it remains while the heel is revolved by the operator, and subjected all around its periphery to the action of the cutter, the guard *e* yielding to allow of the removal of the desired amount of material from the surface of the heel, while serving to hold the same in the proper position with reference to the cutter.

The heel is supported during the dressing operation by the rest *l*, upon which it is firmly held by the operator while being revolved.

The operator receives the work from the nailing-machine, and dresses it upon the cutter C by the aid of the guard *e* and the supporting-rest *l*, so that it is ready for polishing and blacking.

A side view of the cutter is given in Fig. 4. The teeth should not have too much rake or inclination forward, as in that case the stock may be pulled in by the cutter.

I do not claim the combination of a revolving cutter and a yielding guard to prevent injury to the upper.

The drawings represent my improvements applied, as is the case in practice, to a machine adapted to completely finish the heel; but the devices other than those herein claimed form no part of my invention.

I am aware that rotary cutters are old, and that sliding guides are old, and also that frames, clamps, and jacks of various kinds have been used to hold shoes and present their heels to rotary cutters; but I believe myself to be the first to combine the cutter and guide with a rest adapted to bear upon the periphery of the heel, so that heels may be trimmed without first clamping or jacking the shoe.

I claim—

1. The combination of the rotary cutter, the yielding guide arranged at the front of the cutter, and the fixed adjustable support lo-

cated in front of the cutter and guide and adapted to bear upon the periphery of a boot or shoe heel, whereby a boot or shoe may have its heel presented to the action of the cutter by hand, and without being first jacked or applied to clamping devices.

2. The combination of the rotary cutter C, adjustable support *l*, yielding guide *e*, and adjustable support *g*.

ALMERON J. JOHNSON.

Witnesses:
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GEORGE EASTMAN.