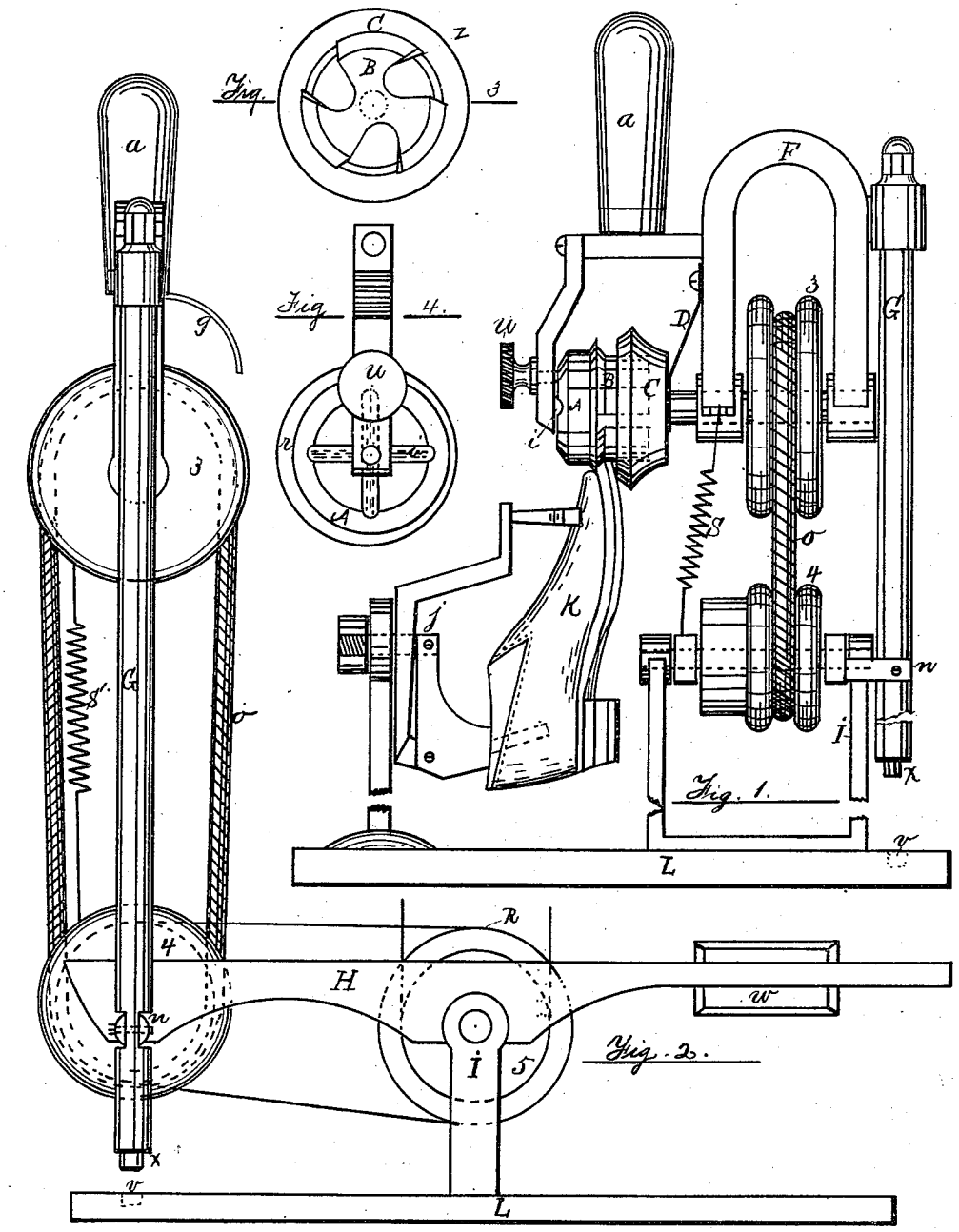
B. F. LEON.

BOOT AND SHOE SOLE TRIMMING-MACHINE.

No. 192,585. Patented July 3, 1877.



Witnesses

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BANFERD F. LEON, OF JOLIET, ILLINOIS.

IMPROVEMENT IN BOOT AND SHOE SOLE TRIMMING MACHINES.

Specification forming part of Letters Patent No. **192,585**, dated July 3, 1877; application filed May 22, 1877.

To all whom it may concern:

Be it known that I, BANFERD FRANK LEON, of the city of Joliet, in Will county and State of Illinois, have invented a Machine for Trimming the Edge of the Sole of Boots and Shoes, the description and operation of which I will proceed to explain, reference being had to the annexed drawings, and the letters and figures thereon, making a part of this specification, in which—

Figure 1 is a front elevation; Fig. 2, a side elevation; Fig. 3, a view of the cutting-knife, and Fig. 4 a view of the eccentric protecting-guard.

The object to be obtained by the use of this machine is to trim off the edge of a boot or shoe sole very quickly, and with perfect safety to the upper of the shoe, in any desired form, at a predetermined even distance from the upper.

In the drawings, B represents a revolving knife, with cutting-edges at *z*, Fig. 3, and also on its beveled flange at *m*. This revolving cutting-knife is permanent on a shaft, which receives its rotary motion from the pulley 3. A is a guard, having a flange to protect the upper from the cutting-knife B. Its flange is shown in operation in Fig. 1, being in position between the upper and the sole.

This guard A is circular; but the flange on it is eccentric with the center, so that it may be turned round that the flange may reach farther in between the upper and the sole, if desired.

Fig. 4 represents the eccentric flange at *r*. The thumb-screw *w* is to hold it permanently in place, the thumb-screw entering the grooves *i*.

C is another guard, circular in form, as shown in Fig. 3, and being loose on the shaft, so that it will slide to or from the sole of the shoe, pressing against it by means of the spring D, so as to adjust it to any thickness of sole.

The whole cutting arrangement is carried in the frame F, which is supported by the post G, which is pivoted to the frame H at the joint *n*, Fig. 2.

This whole frame F, with the post G, may be moved into any position desired, to bring the knife to any part of the sole, by means of the handle *a*.

The frame H is provided with oscillating movement, resting, at its center, on a shaft in the frame I, so as to permit the moving about of the frame F with its post G, the post G serving to keep the pulleys 3 and 4 the proper distance apart.

When not in use the lower end *x* of the post G stands in the socket *v* in the floor, for convenience.

The weight *w*, Fig. 2, is placed on the outer end of the oscillating frame H, to counterbalance the weight of the frame F and its appendages.

The power to drive the machine is applied from shafting above to the pulley 5, Fig. 3.

The shoe *k* is represented on a jack, *j*, in the process of having the edge of its sole trimmed.

s is a spring, which is used to assist in holding the frame F in its proper place, and to prevent the belt *o* from getting twisted.

The knives B being a true circle with the cutting-blades on its periphery makes a cleaner, smoother cut than when the knives are flat and screwed to any square or flat surface. The knives, being on the periphery of the circle, do not make the circle smaller when they wear off.

The guard *g* is to cause the chips to fall to the floor when the cutter is in motion.

By means of this device a single workman can trim a very much greater number of soles than a number of workmen could without it, and it thoroughly prevents any danger of cutting the upper in the operation, and also does the work with much greater precision than when accomplished by hand-work.

I do not claim to have invented the jack *j*, which holds the shoe *k*, as that is old.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is as follows:

1. The combination of the revolving flanged cutter B, eccentric circular guard A, adjustable circular guard C, thumb-screw *w*, and the adjustable frame F, all arranged and operating substantially as and for the purpose set forth.

2. The combination of the oscillating frame H, adjustable frame F, post G, springs *s* and D, pulleys 3 and 4, circular guards A and C, revolving cutter B, and handle *a*, all arranged and operating substantially as and for the purposes set forth.

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Witnesses:

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