(No Model.) 3 Sheets—Sheet 1.

A. LA BONTÉ.

INSEAM TRIMMING MACHINE.

No. 456,041. Patented July 14, 1891.

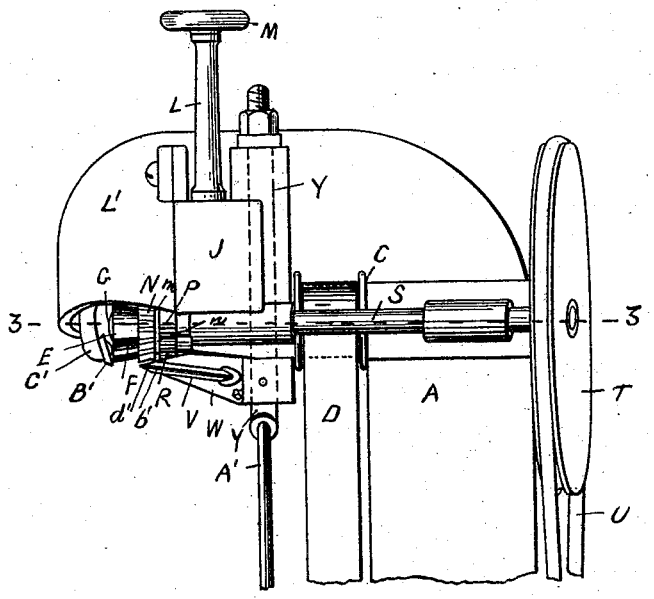

Fig. 1.

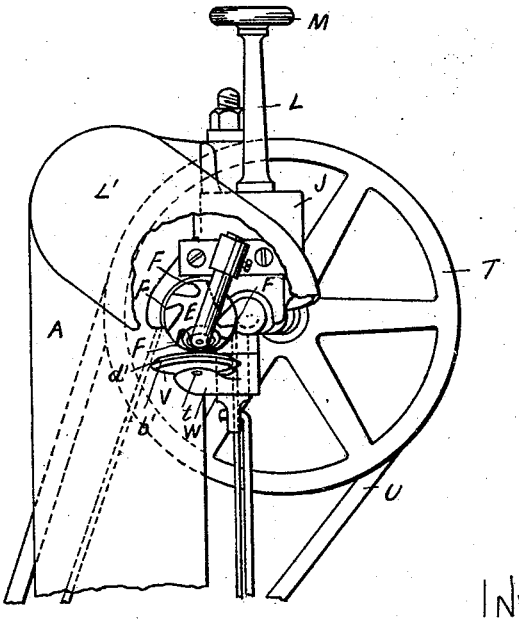

Fig. 2.

WITNESSES.
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Per Edwin W. Brown
Attorney.

(No Model.) 3 Sheets—Sheet 2.

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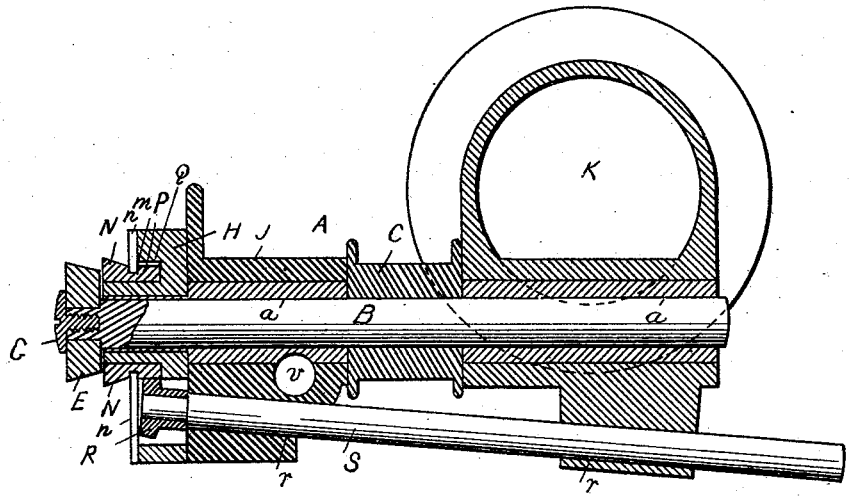

Fig. 3.

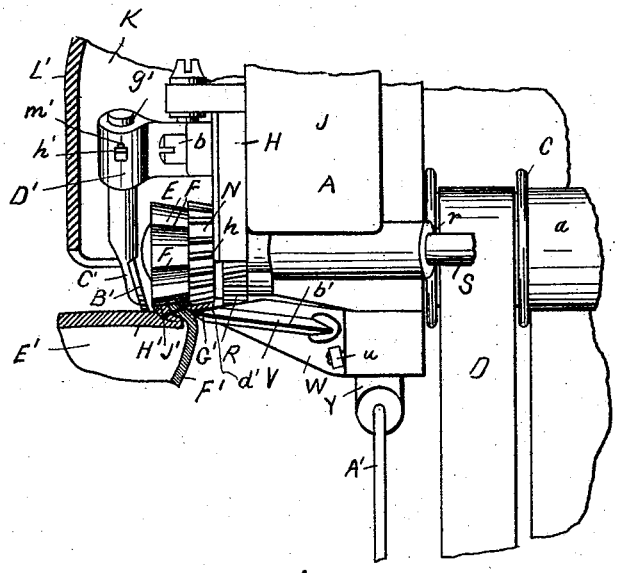

Fig. 4.

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(No Model.) 3 Sheets—Sheet 3.

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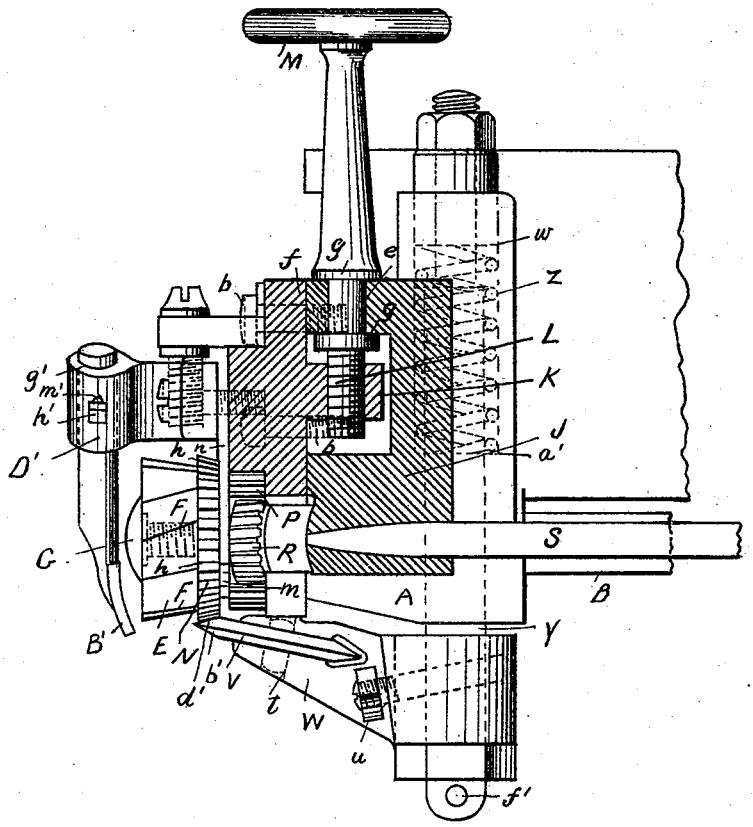

Fig. 5.

WITNESSES.

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UNITED STATES PATENT OFFICE.

ADOLPHUS LA BONTÉ, OF BROCKTON, ASSIGNOR, BY MESNE ASSIGNMENTS, TO GEORGE H. P. FLAGG, OF BOSTON, MASSACHUSETTS.

INSEAM-TRIMMING MACHINE.

SPECIFICATION forming part of Letters Patent No. 456,041, dated July 14, 1891.

Application filed November 20, 1890. Serial No. 372,036. (No model.)

To all whom it may concern:

Be it known that I, ADOLPHUS LA BONTÉ, of Brockton, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Inseam-Trimming Machines for Boots and Shoes, of which the following is a full, clear, and exact description.

The invention consists in a machine for trimming the inseam of a boot or shoe of certain construction and arrangement of parts, all substantially as hereinafter fully described, reference being had to the accompanying sheets of drawings, in which is illustrated a machine for trimming the inseam of a boot or shoe constructed in accordance with this invention.

Figures 1 and 2 are respectively side and front views of the machine; Fig. 3, a horizontal section on line 3 3, Fig. 1; Fig. 4, a detail side view; Fig. 5, a detail vertical sectional view.

In the drawings, A represents the upper portion of a standard or frame, on which are supported the operative parts of the machine, the lower portion, which is adapted to rest on the floor, not being shown.

B is a horizontal shaft adapted to turn in bearings *a* in the standard and having a small pulley C on it, on which is adapted to run a belt D, connecting it with any suitable driving-pulley. On the end of this shaft is a cutter-head E, having cutters F, and secured firmly thereon by a screw G.

H is a block secured to the head J of the standard by screws *b*, which pass through elongated vertical slots in the block and screw into the head, securing the block in place, the slots allowing of up-and-down movement of the block on the head, according to their length.

Screwing into a rear portion K of the block H, extending back into a space in the head J of the block, is a vertical screw L, which passes through a socket *e* in the portion *f* in the block-head J and having two flanges *g*, one above and the other below the portion *f*, so that the screw can be turned by its handle M freely therein, but which is prevented from vertical movement by the flanges, so that turning the screw round in one or the other direction through its connection with the block H correspondingly moves the block up or down. Attached to the front of this block is a wheel N, having its periphery beveled inwardly, and also transversely grooved or corrugated, as at *h*, which wheel is the feed-wheel. On the inner end of this wheel is a gear-wheel P, and the two wheels as one are arranged to turn in a socket Q in the head, and between the two wheels is a circumferential groove *m*, in which is disposed a pin or thin piece *n* of the head, which allows the wheels to freely turn in but prevents their accidental detachment from the head.

Engaging with the gear-wheel P is a smaller gear-wheel R, secured on the end of a horizontal shaft S, adapted to turn in suitable bearings *r* in the head, but disposed horizontally at a slight angle to the other shaft B for the better convenience in arranging it in reference to the other parts and the engagement of the gear-wheels P and R, the shaft having a pulley T and belt U for operation of the same.

The shaft C passes freely through an opening in the block H, which opening is elongated sufficiently vertically to allow for the proper movement up and down of the block H, carrying the feed-wheel.

V is a wheel pivoted at *t* in a block W, which is secured to a vertical rod Y by a screw *u*, the rod being arranged to move up and down in a socket *v* in a standard A and having in the socket a spiral spring Z, which bears against a shoulder *w* on the rod Y and a shoulder *a'* in the socket to hold the rod up. The wheel V has its edge *b'* made V shape in cross-section, and its upper side *d'* at its outer edge is arranged to be under and bear against the periphery of the feed-wheel, being held thereto by the spring Z, the wheel V being so pivoted in its block W that the side *d'* of the edge of the wheel will be parallel or nearly or substantially parallel with the periphery of the feed-wheel, as shown in the drawings. The lower end of the rod Y has an eye *f''* in it, with which connects a rod A', connected to any suitable treadle for operation thereof.

B' is a wheel pivoted in the lower end of an arm C', secured in a socket *g'* and held

by a screw h' in a bracket D', the screw passing through a vertical slot m' in the bracket, so that the wheel B' can be regulated as to its height by moving the arm up or down in its socket, and when properly adjusted securing it in such position by tightening the screw h'.

In the operation of the machine, the shafts B and S having been set in motion, the cutter-head E, with the cutters F, will be revolved very rapidly and the feed-wheel N will be turned much slower. When in operation, the boot E' to be operated upon, which has its upper F' and welt G' secured to the channeled lip J' of the inner sole H' by stitches, as usual, is then placed in the machine, first pulling down the wheel V through its rod Y and placing the welt up against the feed-wheel between it and the wheel V, and then the wheel is allowed to rise and to bear against the welt by the pressure of the spring Z, its outer edge b' resting and pressing into the rand of the boot and the sole of the boot against the wheel B', as shown in detail in Fig. 4, the boot being preferably placed so as to commence at or near the heel of one side of the boot. The boot is then held firmly by the operator, when the feed-roll will then feed the boot along under the cutters, and being also guided, turned, and controlled more or less by the operator the cutters will cut and trim off the inseam-edges of the upper, channel-lip of the inner sole and edge of the welt, as desired. By screwing in or out the screw L the block H, and through it the wheel N, will be lowered or raised, by which the edge of the upper, welt, &c., can be trimmed more or less, as desired, the boot or shoe being held up against the feed-roll by the operator and the power of the spring Z of the wheel V. The standard is made hollow, as at K', and it extends over the working parts in the form of a hood L', as shown in Figs. 1 and 2, more particularly, by which the cuttings, &c., can be made to pass through the chamber K' of the standard by any suitable air-blowing mechanism for carrying them away from the operator.

In Fig. 5 the hood portion is removed in order to show the working parts more clearly.

Any desired number of cutters can be arranged on the cutter-head, although the number shown is practical; also the wheel U can be held to its work in other ways than as shown.

I am aware of Patent No. 434,359 to Scott, dated August 12, 1890, and disclaim all claimed therein, for in Scott's machine the feed-wheel is at the outer side of the rotary cutter, and hence can act only on that part of the sole which extends outwardly from between the feed-wheel and rand-support, while in my machine it is essential that the cutter shall be at the outer side of the feed-wheel, in order that it may act on that part of the sole which is nearer the middle of the sole than the part clamped between the feed-wheel and support—that is, trim the seam which unites the welt, upper, and inner sole.

I do not claim in this application what is claimed in another application of mine, Serial No. 372,036, filed November 20, 1890; but,

Having thus described my invention, what I claim is—

In combination, a yielding support to enter the rand of a shoe, a feed-wheel opposed to the support, these parts being arranged to take the welt between them, and a rotary cutter mounted at the outer side of the feed-wheel to trim the seam uniting the welt, upper, and inner sole, and a rest at the outer side of the cutter, all substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ADOLPHUS LA BONTÉ.

Witnesses:
EDWIN W. BROWN,
CARRIE E. NICHOLS.