

(No Model.)

3 Sheets—Sheet 1.

E. DAWSON.
WELT ROUNDING TOOL.

No. 355,758.

Patented Jan. 11, 1887.

Fig. I.

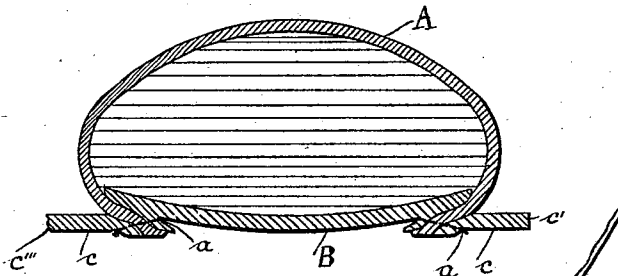
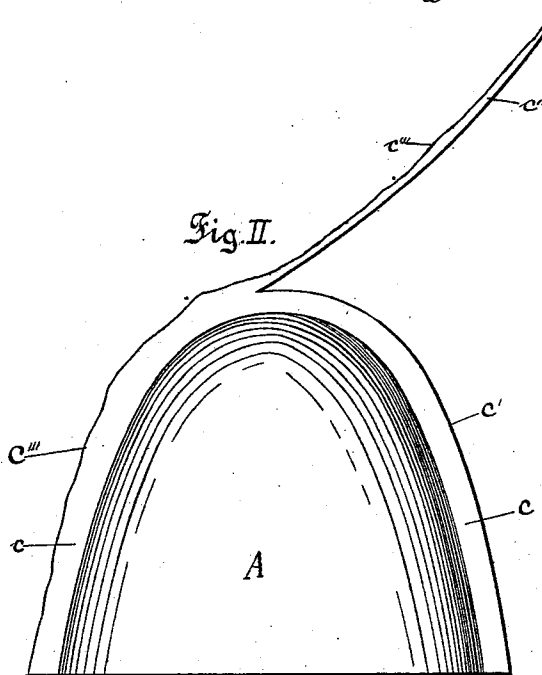


Fig. II.



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(No Model.)

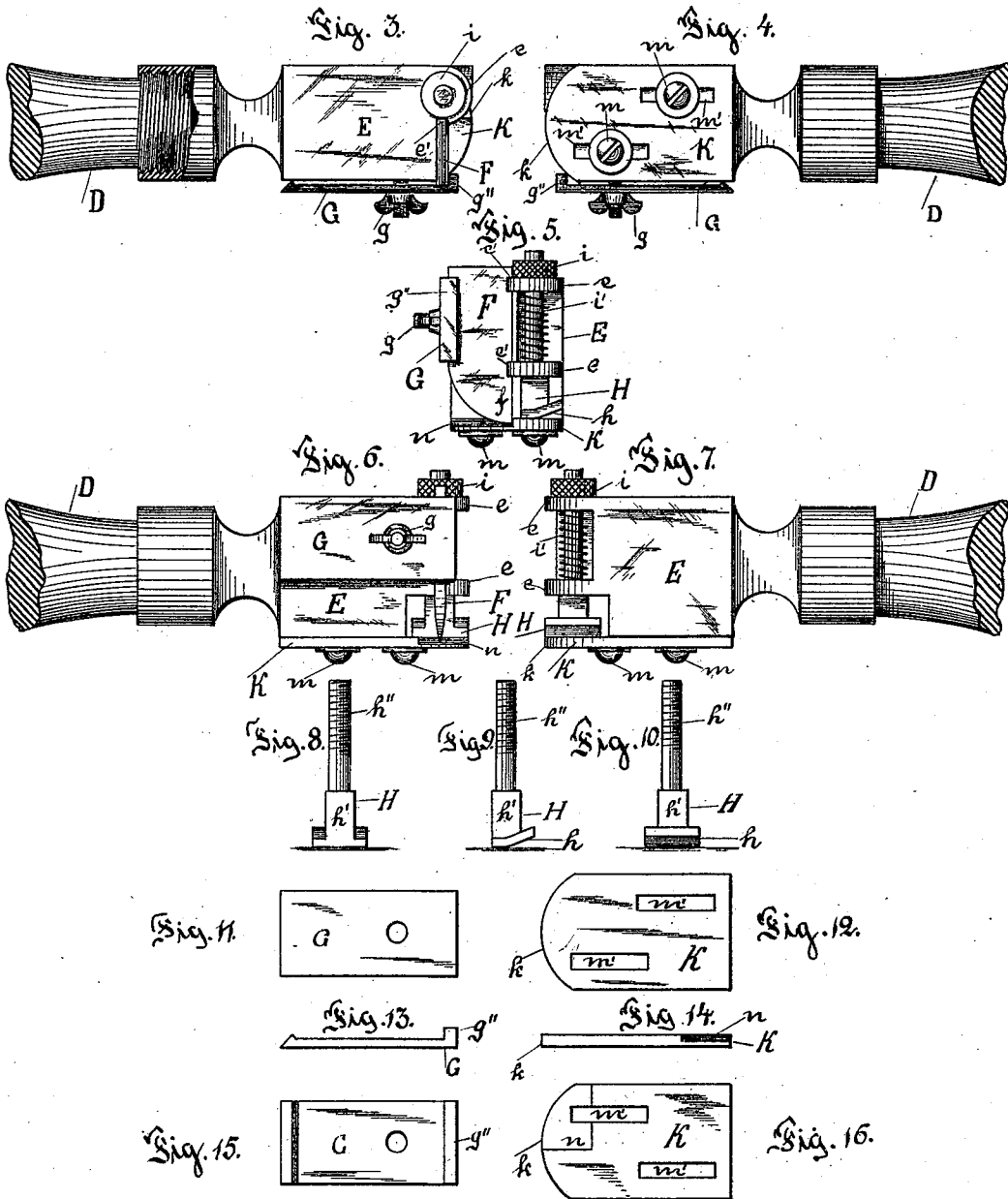
3 Sheets—Sheet 2.

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WITNESSES:

Joseph L. Newy
Anton J. Lehman

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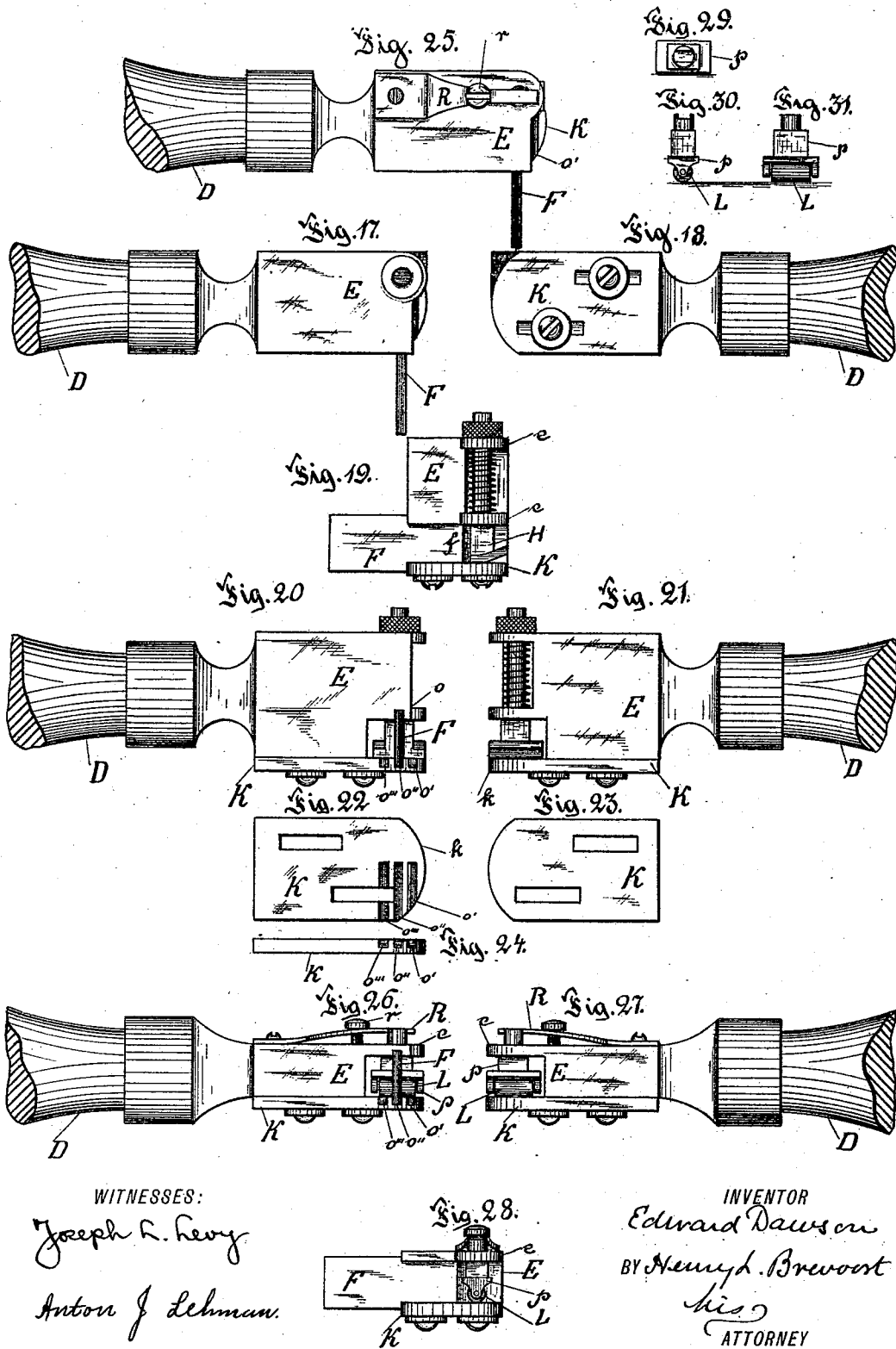
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UNITED STATES PATENT OFFICE.

EDWARD DAWSON, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-FOURTH
TO HENRY L. BREVOORT, OF SAME PLACE.

WELT-ROUNDING TOOL.

SPECIFICATION forming part of Letters Patent No. 355,758, dated January 11, 1887.

Application filed August 31, 1885. Serial No. 175,721. (No model.)

To all whom it may concern:

Be it known that I, EDWARD DAWSON, a citizen of the United States, and a resident of the city of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Welt-Rounding Tool, of which the following is a specification.

The object of my invention is to provide a tool for rounding or paring welts.

Referring to the accompanying drawings, Figure 1 shows a cross-section of a partly-finished shoe near the toe. Fig. 2 is a top view of the same.

At A is shown the upper, at B is shown the insole, and at *c* the welt, *a* showing the line of stitches which secure the insole *b*, the upper, and the welt *c* together.

The purpose of my tool is to round or pare the welt *c* so that it is even in width.

In Fig. 2, *c'* shows the pared edge of the welt, with the cut portion *c''* projecting from the toe of the shoe. It will be seen that by the use of my tool the vertical edge of the welt *c'* is trimmed by cutting from it all around the shoe a strip, *c''*, and that in this way the uneven edge *c''* is trimmed off and an even smooth edge, *c'*, is left, so that the shoe is in proper condition to have the welt *c* sewed to the outer sole of the shoe.

The rounding of the welt, which my tool is adapted for, must not be confounded with the beveling or paring of the top of the welt. For this purpose tools such as are shown in Patents Nos. 157,678, 157,947, 233,190, and 240,154 may advantageously be used.

I believe myself to be the inventor, broadly, of a welt-rounding tool in which there is combined a cutting-knife, a gage to determine the width of the welt, and a holder adjacent to the edge of the knife, and preferably in front of the cutting-edge thereof, which holds the welt as the knife cuts it.

I do not limit myself to any particular arrangement of mechanical detail, but claim this combination of parts when arranged and adapted to round or pare the vertical edge of a shoe-welt.

In the accompanying drawings I have shown

some of the best methods of carrying out my invention in practice, though other arrangements may be adopted.

Fig. 3 shows a top view, Fig. 4 shows a bottom view, Fig. 5 shows an end view, Fig. 6 shows a back view, Fig. 7 shows a front view, and Figs. 8 to 16 show detailed views, of a welt-rounder made in accordance with my invention.

D is the handle of the tool. E is the head thereof.

F is the knife, having a cutting portion, *f*. This knife is secured in position by the plate G and screw *g*. This plate is clearly seen in Figs. 11, 13, and 15, where it is shown detached from the tool. It is provided with a lip, *g'*, which embraces the knife F and holds it in position. The plate G forces the knife against two lugs, *e*, which project from the body of the tool E and into recesses, in which the front portion of the knife F is received, as at *e'*. In front of the knife is a presser-foot, H, which holds the leather in advance of the cutting-edge of the knife between its under surface, *h*, and the upper surface of the guide K.

The presser-foot or holder is clearly shown in Figs. 8, 9, and 10, where it is seen to consist of a surface, *h*, intended to bear on the leather, a square portion (marked *h'*) which keeps the presser-foot from rotating or turning, bodily retaining it in the proper position in the tool-head, and which passes through a square hole in the lower lug *e*, the upper portion of this presser-foot terminating in a cylindrical threaded portion, *h''*, the upper portion of which is provided with a nut, *i*, by means of which and the spring *v*, which bears upon the top of the square portion *h'* at the lower end and the upper lug *e* at the upper end, the pressure of the holder or presser-foot upon the welt can be regulated. The guide K has a guiding-surface, *k*, which enters the crease formed by the upper and the welt, and thus the knife F is forced to round the welt parallel with the upper. To regulate this distance, the guide K is made adjustable by means of the screw *m*, which, working in slot *m'* of the guide-plate K, enables the said plate to be ad-

justed to suit the width of welt which it is desired to cut. The guide-plate K is recessed, as at *n*, on its upper surface, so that the point of the knife F lies below the shoulder formed by the recess.

The operation of the tool is exceedingly simple. The knife being sharpened and clamped in place, the guide-plate K is adjusted so that the proper width of welt will be cut. The welt is then passed in between the presser-foot or holder H and the upper surface of the guide-plate K, and the tool is moved around the shoe, cutting a chip, as shown in Fig. 2, the knife doing the cutting, the presser-foot and guide-plate holding the welt against the strain of the knife, and the guide-plate serving to insure an even rounding or paring of the welt. The welts of shoes are usually thin and flexible, and are often made still more flexible by being wet, and they cannot be cut unless they are held adjacent to the edge of the knife, and preferably in front thereof, between surfaces adapted to hold and give sufficient stiffness to the flexible welt. If this is not done, the cutting will be uneven and irregular.

Figs. 17, 18, 19, 20, 21, 22, 23, and 24 show a modification of my invention. D is the handle, as before illustrated in the other figures. E is the body of the tool. K is the guide-plate, having its guiding-edge at *k*, as shown by letter in Fig. 22. The presser-foot H, with its adjusting-nut, spring, and square portion, is the same as in the previously-described tool, as are the lugs *e*, which carry the presser-foot. The guide-plate K is made adjustable in the same way. The knife F, however, is arranged slightly in a different relation. Its cutting-edge is shown at *f*, Fig. 19, and the knife is held in position between a slot, *o*, in the head E and either one of the three slots *o'* *o''* *o'''*, shown in the top of the guide-plate K. Thus the guide-plate may be adjusted for welts of three widths, and the knife will be held in position by the clamping action of the guide-plate forcing the knife between the surface of one of its slots *o'* *o''* *o'''* and the slot *o* in the head of the tool. The guide-plate is held and adjusted in this modification as in the previous form of tool shown and described. The projecting part of the knife is not shown in Fig. 18.

Figs. 25, 26, 27, 28, 29, 30, and 31 show still another modification, in which D is the handle of the tool, E the head thereof, F the knife, held by a guiding and clamping plate, K, having three slots in it, *o'* *o''* *o'''*, for permitting the guide-plate to be adjusted for different widths of welt. The knife being held and the guide-plate being adjustable, as in the last modification, no special description is necessary. The presser-foot or holder, however, in this case consists of a roller, L, held in a suitable holder, *p*, which has a squared portion passing through the lug *e*, projecting from the head E of the tool, and a circular portion upon which a spring, R, can bear, which spring can have its

tension properly adjusted by a set-screw, *z*. In this modification it will be seen a rolling presser-foot or holder is substituted for one which slides over the leather.

In all the modifications, however, will be found the knife, the presser-foot or holder adjacent to the edge thereof, and preferably moving in advance of the cutting-edge of the knife, a surface against which the presser or holder can force the welt, and a guide, preferably adjustable, to determine the width of the welt after the trimming operation.

In all the modifications the operation is substantially the same. The shape of the presser-foot can be varied so that it will embrace the edge of the knife, or it might be divided and lie on each side of the cutting-edge; but I prefer to have it advance in the movement of the tool in front of the cutting-edge, so that the welt will be firmly and securely held in front of such cutting-edge.

I am aware of the United States Letters Patent granted to Vrooman, No. 141,406, July 29, 1873, and I do not claim anything shown therein. I am also aware of the patent granted to Barton, No. 186,524, January 23, 1877, and I do not claim anything shown or described therein.

I reserve to myself the right to claim in another application the details of the several modified forms of tools herein shown.

What I claim, and desire to secure by Letters Patent, is—

1. A welt rounding or paring tool consisting of a knife, a presser-foot adjacent to the knife for holding the said welt, and a gage for regulating the amount cut from the welt, all arranged substantially as described.

2. In a welt rounding or paring tool, the combination, with a suitable knife, of a support for the welt, and a presser-foot for clamping the welt on the said support, all arranged substantially as described.

3. A welt rounding or paring tool consisting of a suitable handle, a knife carried thereby, a gage for regulating the amount cut from the welt, and a presser-foot adjacent to the knife and arranged above the gage to clamp the welt thereon, substantially as described.

4. A welt rounding or paring tool consisting of a suitable handle, a removable knife carried thereby, an adjustable gage, and a yielding presser-foot adjacent to the knife for holding the welt while being pared, all arranged substantially as described.

5. In a machine for rounding or paring welts, the combination, with a removable knife and an adjustable gage, of a yielding presser-foot having a square or other appropriate portion operating in combination with the head of the tool to keep the presser-foot from bodily rotating, substantially as herein shown and described.

6. In a machine for rounding or paring welts, in combination with a presser-foot and a gage,

a removable knife adapted to be clamped in position by suitable screws when the tool is in use, or to be removed therefrom when the knife is to be sharpened, substantially as
5 herein shown and described.

7. In a tool for paring or rounding welts, the combination of a handle and a tool-head, the said tool-head carrying a presser-foot, a knife, and a gage, arranged substantially as
10 herein described.

8. In a tool for rounding or paring welts, the combination of a knife, a gage, and a presser-foot or holder which holds the welt in front of the cutting-edge as the tool is advanced in paring a welt, substantially as de- 15 scribed.

EDWARD DAWSON.

Witnesses:

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