

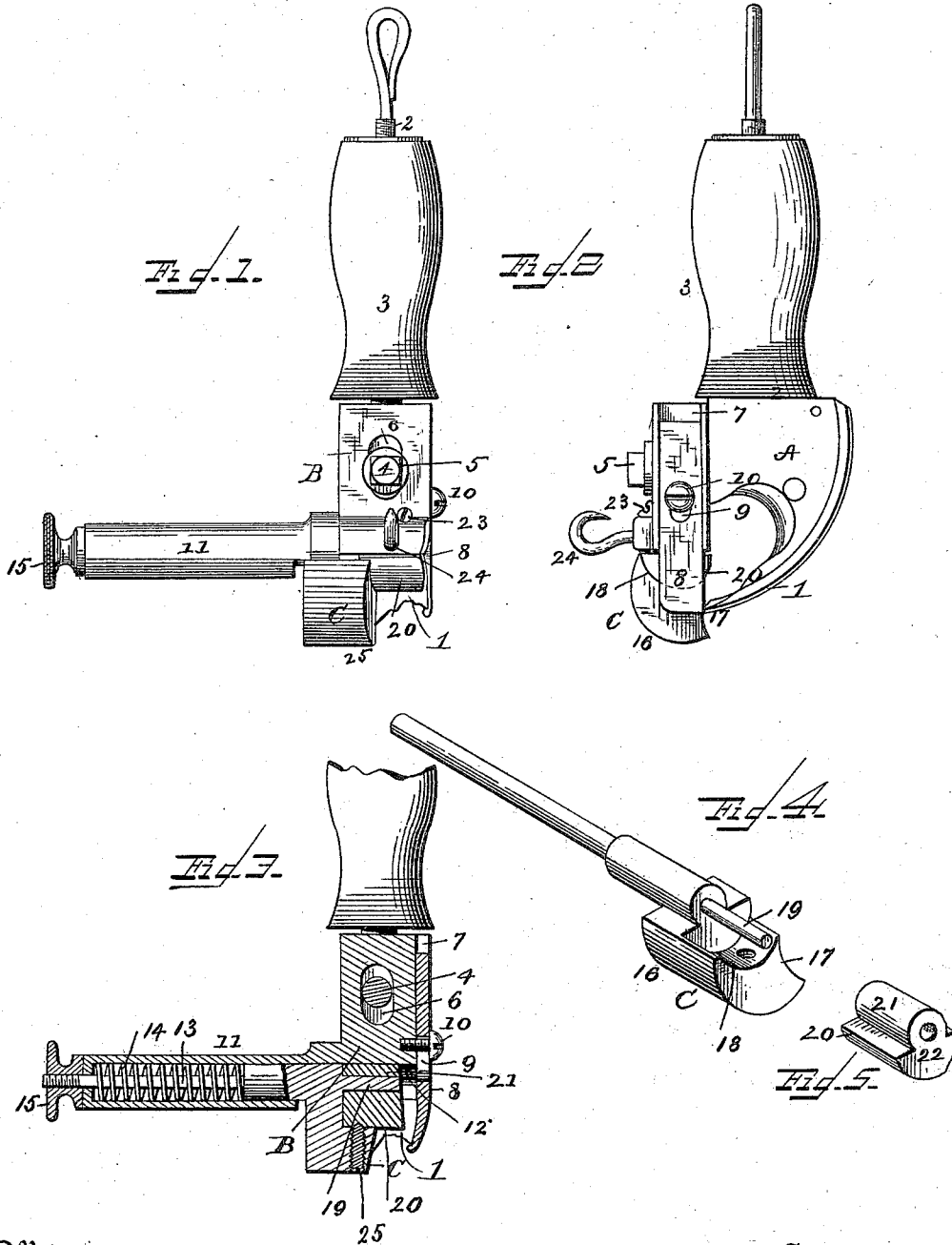
(No Model.)

A. J. AVERY.

EDGE PLANE FOR TRIMMING THE SOLE EDGES OF BOOTS OR SHOES.

No. 363,107.

Patented May 17, 1887.



Witnesses
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UNITED STATES PATENT OFFICE.

ANDREW J. AVERY, OF NORWAY, MAINE.

EDGE-PLANE FOR TRIMMING THE SOLE-EDGES OF BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 363,107, dated May 17, 1887.

Application filed March 3, 1887. Serial No. 229,571. (No model.)

To all whom it may concern:

Be it known that I, ANDREW J. AVERY, a citizen of the United States of America, residing at Norway, in the county of Oxford, in the State of Maine, have invented certain new and useful Improvements in Edge-Planes for Trimming the Edges of Boot or Shoe Soles, of which the following is a specification.

My invention has relation to improvements in implements or tools for trimming the edges of the soles of boots or shoes, of that class carrying a planing-knife and an adjustable bottom guard and rand-guide.

In tools of the kind named the bottom guard and gage has heretofore been formed of a single piece which is made laterally adjustable, and the objection to them or deficiency in them is that in drawing back the bottom guard and gage a slot or opening is formed between the guard and gage and the rand-guide, into which the edge of the sole is forced, and the shoe or boot thereby injured by the displacement. I overcome this difficulty by making the bottom guard and gage independently adjustable and operative.

My invention therefore consists in the novel construction of parts and their combination, as will be hereinafter more fully described, and specially pointed out in the claims, as required by the statute.

I have fully illustrated my improvements in the accompanying drawings, forming a part hereof, wherein—

Figure 1 is a front elevation of the tool. Fig. 2 is a side elevation thereof. Fig. 3 is a sectional view taken on the line *xx* of Fig. 2. Fig. 4 is a perspective of the bottom guard removed from the casing, and Fig. 5 is a perspective of the gage-piece.

In the drawings similar parts appearing in the different figures are designated by the same notations of reference; and reference being thereto had, the letter A designates the stock, which carries the planer or knife 1, adjustably secured to the convex surface thereof by any usual means. From the upper part of the stock A is projected a handle-shank, 2, which has the handle 3 fitted and secured thereon, as shown. From the side of the stock is projected a threaded bolt or lug, 4, having fitted thereto a threaded nut 5. On this threaded bolt is ar-

ranged the adjustable stock, as hereinafter specified.

The letter B designates the adjustable stock, which is formed with a slot, 6, to take the bolt 4 of the handle knife-stock, and by means of which the stock may be adjusted to take a deep or shallow cut. In the side of the adjustable stock is a dovetail groove, 7, in which is fitted the rand-guide 8, which is formed with a slot, 9, to set over the stem of a set-screw, 10, and is thus adjustable. From the side of the stock is formed a hollow sleeve, 11, in the bore of which is arranged the stem or shank of the bottom guard. At the part 12 the adjustable stock is cut away, leaving a section of the bore open in the side, and the surface of the metal thus exposed serving as seats for the shoulders of the bottom guard.

The letter C designates the bottom guard. This is formed with a stem, 13, to pass within the bore of the sleeve of the adjustable stock, and about this stem is arranged a coil-spring, 14, which tends to throw the bottom guard in the direction of the rand-guide at all times. The end of the stem of the bottom guard is threaded and passes through the open end of the sleeve and is fitted with a thumb-nut, 15, which adjusts the bottom guard as desired.

The bottom guard is substantially of the form shown in Fig. 4, having an outer convex surface, 16, an inner concave portion, 17, and a chambered part, 18, the surface of which conforms to the contour of the face of the gage. From the center of the head of the stem is projected a bearing-pin, 19, which carries the gage. The gage 20 is shown in Fig. 5. This is formed of a single piece comprised of a sleeve, 21, the bore of which sets over the bearing-pin 19 of the bottom guard, and the bearing-piece 22, the face of which is formed to set loosely but accurately in the seat or chamber 18 of the bottom guard.

It will be seen that the bottom guard may be drawn back or adjusted to any point of its limits without moving the gage, so that a solid face will at all times be interposed between the rand-guide and the bottom guard, and thus it will be impossible for the sole to get in between the gage and the rand-guide or be otherwise subjected to an uncertain cut.

To hold the gage from all possibility of being

displaced when the bottom guard is drawn back, I let a set-screw, 23, through the adjustable stock, so that its point will bear on the sleeve of the gage, and thus it will be held firm and tight in place. However, the rod-hook 24 may be let through the stock and serve the same purpose as the special set-screw 23. Whenever it is desirable to set the gage and the bottom guard together, I provide to accomplish that purpose a set-screw, 25, let through the bottom guard with its end to press the gage, and thus lock it on the bearing-pin, and both gage and bottom guard then move in unison.

15 The use of this implement is well known to the trade, and does not require a further statement of its operation.

I am aware that an implement of the kind has heretofore been made, wherein the bottom guard and gage are formed in a single piece; and, as stated hereinbefore, it is the difficulties attending this construction that my improvements are designed to overcome; and

What I claim is—

25 1. In an edge-plane, the combination of the

handle-stock A, carrying the planer-knife, the adjustable stock B, carrying the rand-guide and formed with a sleeve, 11, the bottom guard, C, adjustably arranged in the sleeve of the adjustable stock, and a detached gage, 20, seated in the adjustable stock between the bottom guard and the rand-guide, substantially as described. 30

2. In an edge-planer, the combination of the handle-stock A, carrying the planer-knife, the adjustable stock B, carrying the rand-guide and formed with a sleeve, 11, the bottom guard, C, having its stem adjustably arranged in the sleeve of the adjustable stock and having a bearing-pin and gage-seat in its stock end, and a gage-piece arranged on the bearing-piece of the bottom guard between the guard and the rand-guide, substantially as described. 35 40

In witness whereof I have hereunto set my hand in the presence of two attesting witnesses. 45

ANDREW J. AVERY.

Attest:

HOWARD D. SMITH,
HIRAM P. ELLIOTT.