

(No Model.)

H. H. ARNOLD.
LEATHER SKIVING TOOL.

2 Sheets—Sheet 1.

No. 412,063.

Patented Oct. 1, 1889.

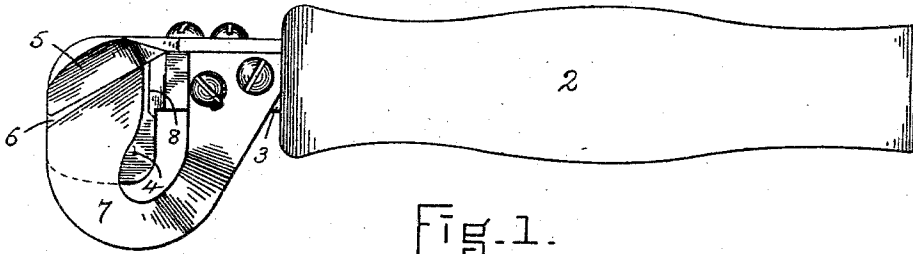


Fig. 1.

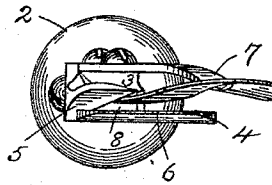


Fig. 2.

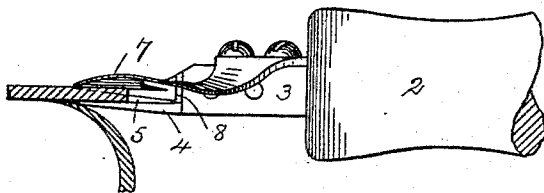


Fig. 3.

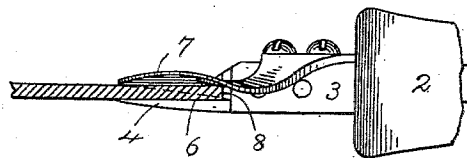


Fig. 4.

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Fig. 5.

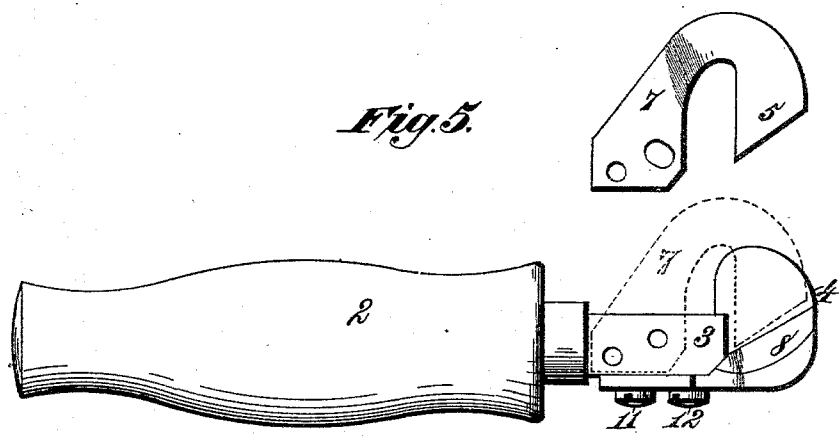
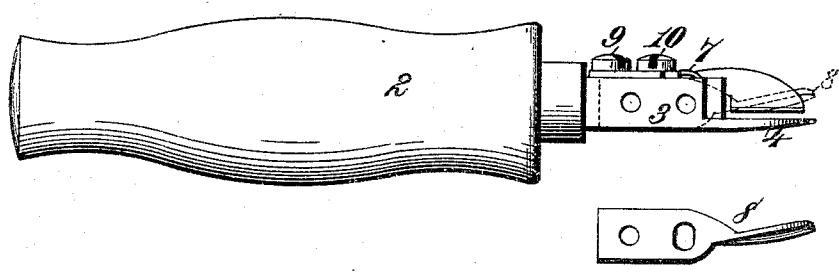


Fig. 6.



Witnesses,
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UNITED STATES PATENT OFFICE.

HENRY HERBERT ARNOLD, OF ROCKLAND, ASSIGNOR OF ONE-HALF TO
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LEATHER-SKIVING TOOL.

SPECIFICATION forming part of Letters Patent No. 412,063, dated October 1, 1889.

Application filed March 9, 1889. Serial No. 302,638. (No model.)

To all whom it may concern:

Be it known that I, HENRY HERBERT ARNOLD, a citizen of the United States, residing at Rockland, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Leather-Skiving Tools; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to leather-skiving implements or tools employed manually in the manufacture of boots and shoes to skive or scarf the edges of soles or surface of welts after the latter have been secured to the shoe.

My improvements consist in the combination, with the knife and its guide, of a spring-guard.

Said improvements further consist in making said guard separable from the knife and adjustable with reference thereto.

This tool, as above premised, is equally adapted in its construction for two purposes—either to the scarfing or skiving of a welt or the edge of a sole, as is desired.

The spring-guard before referred to is located in such position that when the tool is operated said guard shall move upon one side of the leather in advance of the knife-edge, and thus holds the leather firmly down upon the horizontal guide which supports said leather upon the opposite side. Since said guard is a spring one, the end which is free and bears upon the welt or sole is enabled to yield to any inequalities in the leather, and thus holds the latter constantly against the guide as the tool is advanced along and about the edge of the leather in process.

The drawings represent in Figure 1 a plan, and in Fig. 2 an end elevation. Fig. 3 is a side elevation showing a portion of a welt in position between the guide and the spring-guard. Fig. 4 shows the implement in position for skiving the edge of a sole. Fig. 5 is a plan of the tool, showing the adjustability of the spring-guard, the latter shown removed. Fig.

6 is a side elevation to illustrate the adjustment of the knife with respect to the guide.

In said drawings, 2 represents a hand-grasp, of wood or other suitable material, within which is inserted at one end a tool-stock 3. The operative end is squared in part and terminates in a flat lip or horizontal guide 4, transversely of said stock. This guide is, moreover, rounded upon its corners and tapered toward the extremity to permit it to travel about the upper of the shoe and pass along at the junction of the latter with the welt, as shown in Fig. 3 of the drawings, and without injuring or defacing it.

Laterally and adjustably of the stock is secured a cutter or knife 5, which is adapted to be positioned above the horizontal guide 4, with its cutting-edge inclined with respect to the upper face 6 of said guide. By this means the proper taper is given to the skive.

Upon the upper part of the stock and at right angles to the shank of the cutter is secured a hook-shaped spring-guard 7, preferably made of a flat piece of steel. Said guard is likewise located above the horizontal guide, and its free end is brought around—the metal composing it being bent upon itself—and juxtaposed to the knife, the cutting-edge of the latter coinciding approximately with the extremity of the free end of said guard.

In Fig. 6 of the drawings is shown the arrangement for securing such adjustment, the shank of the knife being slotted to permit the knife to swing upon its pivotal bolt or screw 11, while the fastening-screw 12 in said slot serves to clamp said knife in any desired position. By further reference to said Fig. 6 it will be seen that the guide-plate 4 lies in a horizontal plane while the knife swings in a vertical plane, and thus any change in the position of the knife upon its pivot will alter the angle which said knife bears to said horizontal guide 4, and thereby the desired obliquity in the skive is produced. Moreover, the latter is preferably adjustably fastened to the tool-stock, and thus, as the knife is worn away or reduced in the process of sharpening, said guard can be moved and advanced to maintain its proper position relatively to the cutting-edge of the knife in such a way as

to hold the leather against the horizontal guide upon the opposite side of the material and keep the latter fixed as the knife advances through it.

5 It is evident that in the use of the tool and gradual wearing of the knife-edge the proper relation of the latter and the free extremity 5 of the guard will be disturbed unless such parts are adjustable. To counteract
10 such wear, I have provided suitable adjustment for the guard, similar to that for the knife. By reference to Fig. 5 the guard is shown, when in position, as held to the knife-stock by bolts or screws 9 10. The latter 10
15 passes through a slot in the fixed end 7 of said guard and serves as the adjusting-screw. The former 9 serves as a pivot and permits the guard to swing in a horizontal plane. Thus
20 as the knife-edge wears away the free end of said guard can readily be caused to approach and be properly adjusted with respect to said knife-edge by relaxing the screws 9 10.

The operation of this tool is as follows, presuming the knife has been previously adjusted to properly skive a welt: The tool is
25 preferably positioned horizontally and the welt inserted between the horizontal guide, which is now beneath, and the spring-guard, which is above the welt, the tool being held
30 so that the outer end of said guide shall rest upon the upper of the shoe and be kept snugly at the junction of the latter with the welt in the act of skiving.

By reference to the drawings it will be observed
35 that the end of the body of the tool-stock is squared off and stands at right angles to the horizontal guide, which extends therebeyond. Thus a shoulder or vertical guide 8
40 is formed coincident with the innermost part of the cutting-edge of the knife, which ceases at that point. Thus it is evident that the tool is equally well adapted for skiving a sole,
45 as will now be explained by reference to Fig. 4 of the drawings.

In the operation of trimming a welt the latter is inserted only a short distance between the spring-guard and the horizontal
50 guide, or until the projecting end of the latter contacts with the upper of the shoe where it is attached to the welt or insole; but in trimming a sole the latter is thrust between the horizontal guide and the spring-guard until
55 the edge of said sole abuts against the shoulder or vertical guide 8 before mentioned. The knife is then properly adjusted, the thickness or thinness of the outer edge of the sole being determined by the distance the
60 knife-edge, at a point coincident with the vertical guide 8, stands above the horizontal surface of the guide 4 immediate thereto. Thus it will be seen that in skiving a sole the edge
65 of the latter is maintained continuously against the shoulder or vertical guide 8, while the advantages obtained by holding the sole between the spring-guard and the horizontal
70 guide 4 are obvious for the following reasons: As the tool is advanced the spring-guard al-

ways precedes by a trifle the cutting-edge of the knife and serves to hold the leather forcibly
70 down against the horizontal guide 4, thus preventing the material composing the welt or the sole in process from rising or lifting as the knife progresses. Owing to the varying
75 thickness of the leather the end of the guard is free to yield, due to the inherent elasticity of the metal from which it is made. Thus, by
80 having the leather held fixed between the guide and the guard said leather remains in the same position relatively to the knife, and a very even and accurate cut is obtained. The shaving or trimming passes out over the
85 knife between the edge of the latter and the free end of the spring-guard.

What I desire to claim is—

1. A hand-tool for skiving leather, composed
85 of a tool-stock squared at the end in part to form a vertical guide and terminating in a fixed horizontal lip or guide, a knife secured to said stock, but above the horizontal guide,
90 and a yielding guard likewise affixed to said tool-stock above the horizontal guide and with its free end juxtaposed and in front of the cutting-edge of said knife, and forced down
95 toward said edge by elastic pressure, substantially as herein described.

2. In a skiving implement, a tool-stock, the
100 fixed horizontal terminal guide thereon, a vertical guide 8, formed by the upright end portion of said stock, and the knife adjustable upon said stock with respect to the horizontal
105 guide and above the latter, combined with a spring-guard also affixed independently to said stock and with its free end in front of the knife-edge and adjustable therewith, substantially as and for purposes herein set
110 forth.

3. In combination with a tool-stock 3, the
110 horizontal guide 4 transversely thereon, and the knife 5, fastened to said tool-stock above said horizontal guide and adjustable with the latter, a spring-guard 7, composed of a steel
115 plate provided with a free yielding end equal in width to the cutting-edge of the knife and approximately coincident therewith, but in front of it, the leather traveling between the horizontal guide and the spring-guard, substantially as herein specified.

4. The combination, with a tool-stock 3, the
120 horizontal guide 4 transversely thereon upon one side of the material in process, a spring-guard, as described, upon the opposite side of said material, and the adjustable knife
125 co-operating therewith, of a vertical guide 8, composed of the end of the tool-stock between the horizontal guide 4 and the innermost cutting-edge of the knife, substantially as herein stated.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY HERBERT ARNOLD.

Witnesses:

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