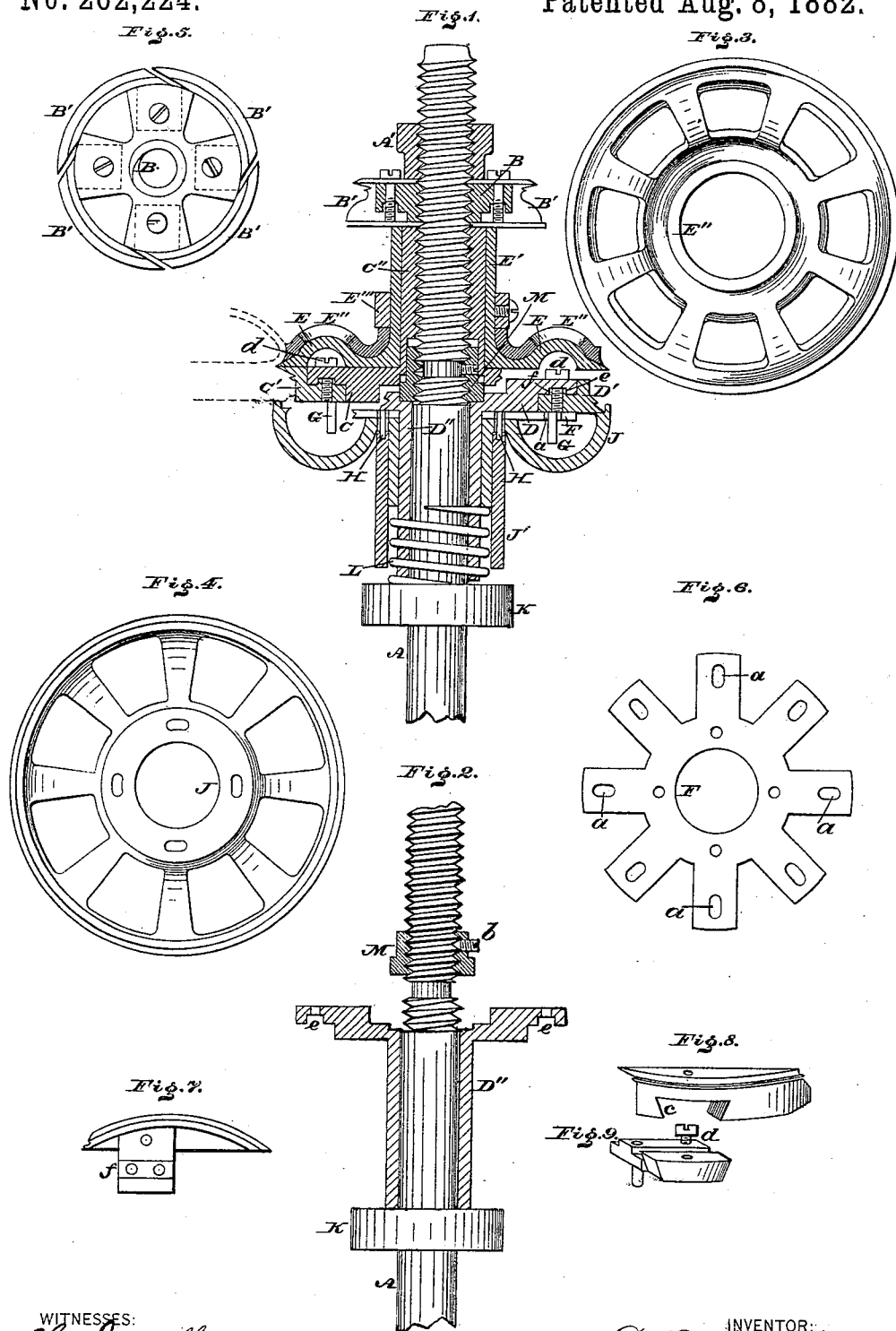


(Model.)

D. F. HALLAHAN.  
EDGE TRIMMER AND BURNISHER.

No. 262,224.

Patented Aug. 8, 1882.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

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## EDGE TRIMMER AND BURNISHER.

SPECIFICATION forming part of Letters Patent No. 262,224, dated August 8, 1882.

Application filed September 27, 1880. (Model.)

*To all whom it may concern:*

Be it known that I, DANIEL F. HALLAHAN, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Edge Trimmers and Burnishers, which improvement is fully set forth in the following specification and accompanying drawings, in which—

10 Figure 1 is a longitudinal section of the trimmer embodying my invention. Fig. 2 is a view of a portion thereof. Figs. 3, 4, 5, and 6 are views of detached portions thereof. Fig. 7 is a plan view of one of the cutters. Figs. 8 and 9 are perspective views of portions thereof.

Similar letters of reference indicate corresponding parts in the several figures.

20 My invention consists of certain improvements in trimmers and burnishers for the soles of boots or shoes, as will be hereinafter fully set forth and definitely claimed.

Referring to the drawings, A represents a shaft, which is properly mounted, and to which 25 rotary motion is imparted in any suitable manner.

To the threaded portion of the upper or outer end of the shaft is fitted a spider, B, to which are secured knives or cutters B' for trimming 30 the shanks of boots or shoes.

C represents a spider to which are secured knives or cutters C', and D represents a spider to which are secured knives or cutters D'. The spider C has a hub, C'', which is screwed 35 to the shaft A, and the spider D has a hub, D'', which is fitted to the shaft A, it being noticed that the knives or cutters C' D' have their cutting-edges in reversed order, so as to trim the upper and lower edges of the fore part 40 of the boot or shoe.

Encircling the hub of the spider C is the hub E' of the rand-guide E, and loosely encircling said hub E' is a guide, E'', the rand-guide abutting against the spider C, said loose 45 guide E'' being retained in position by a collar, E''', fixed to the hub of the rand-guide.

It will be seen that the additional guide E'' is located over or around the rand-guide E, the position of the implement in operation being 50 preferably horizontal, though shown upright in the drawings.

Fitted on the hub D'' of the spider E is the knife-adjuster F, consisting of a disk provided with radial slots a near the periphery, into which slots project pins G, which are secured 55 to the knives or cutters C' D'.

Projecting from the side of the adjuster F, opposite to the spiders C D, are pins H, which pass through slots in the guide J and are securely connected to the sleeve J' on the hub 60 of said guide, it being noticed that the guide is below or behind the spiders C D.

To the shaft A is fitted a collar, K, and encircling the shaft, adjacent to the collar, is a coiled spring, L, which is interposed between 65 the collar and the hub of the guide J and bears against them.

A portion of the inner face of the hub and body of the spider C is removed for the location and inclosure of a nut, M, which is screwed 70 on the shaft A.

In fitting together the parts of the implement, holding the same in vertical position, the spider D, with guide J, is slipped on the shaft A from below, the spring L is located, 75 and the collar K secured on the shaft, the spring being compressed by the collar. The nut M is then screwed on the shaft from above, and held in position by a flush-screw, b, which is passed through said nut and tightened 80 against the shaft without tightening against the spider D, and consequently the collar K, said nut M serving to prevent movement and shaking of the spider between the nut and the collar K, without, however, preventing rota- 85 tion of the spider on the shaft while the cutters are being adjusted for a light or heavy cut.

The spiders C B are successively screwed on the shaft A to full extent from above, and 90 it will be seen that the spider B acts as a nut to clamp the hubs of the spider C and rand-guide E, thus firmly holding said spider C and guide E securely and steadily in position.

A nut, A', is finally screwed on the shaft 95 above the spider B, and tightened against said spider B, for preventing loosening and displacement of the same, it being noticed that the implement is compact and firm and its parts are securely connected.

It will be seen that when power is communi- 100 cated to the shaft A the cutters B' C' D' rotate

therewith, and the shank of the boot or shoe may be presented to the cutters B' for trimming the same. The fore part of the boot or shoe may be presented to the cutters C' D' so as to trim the upper and lower edge of said fore part.

The guide E'', which revolves on the hub of the rand-guide E, rolls over the form of the last on the outside of the boot or shoe near the sole, thus acting as a guide to steady the boot or shoe, so that the latter may be held firmly in position and the sole may be left the exact form of the last after it has been acted on by the cutters. This result would not be accomplished were the rand-guide permitted to revolve in the seam between the upper and sole of the boot or shoe.

By applying a wrench or other suitable tool to the sleeve J' or guide J the ring or adjuster F may be turned forward or backward, and thus all of the knives C' D' may be advanced simultaneously or set back, thus adjusting them for a heavy or light cut.

Access to the bolts or screws d, which secure the knives to the spiders C D, is had through openings in the guide E'' and rand-guide E, said bolts being loosened before operating the adjuster F, and tightened after the same.

The arms of the spiders are mortised, as at e, and the cutters are formed with tenons f, which are adapted to enter said mortises e, whereby the cutters are held firmly in position and prevented from shaking or displacement, and likewise guided when moved for purposes of adjustment, their motion in the latter case being right-lined or traverse.

The shank of each cutter is made separate

from the body thereof and fitted thereto by a dovetailed joint, e, as in Figs. 8 and 9, and held by a screw, rivet, or other device. By this provision the cutting portion or body may be removed, when dull or worn, for purposes of sharpening or replacement, and the cutter may be more conveniently and cheaply constructed.

The several cutters may be removed, and in lieu thereof I may employ burnishing tools or bits without changing the other parts of the implement.

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

1. The shaft A, in combination with the tool-carrying spiders B C and the rand-guide E, said spider C having a hub, C'', which encircles the shaft A, and the rand-guide having a hub, E', which encircles said hub C'', the spider B tightening against both hubs C'' E', substantially as and for the purpose set forth.

2. The cutters C' D', in combination with an adjusting device consisting of the disk F, with radial slots, the pins G, and the rotatable sleeve, substantially as and for the purpose set forth.

3. The shaft A and spider D, with hub D'', in combination with the inclosed nut M and collar K, substantially as and for the purpose set forth.

4. The rotary cutter and rand-guide, in combination with an additional rotary guide loosely fitted over said rand-guide, substantially as and for the purpose set forth.

DANIEL F. HALLAHAN.

Witnesses:

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