(No Model.)

E. F. MAXWELL.

ROTARY SEAM RUBBING TOOL.

No. 561,017. Patented May 26, 1896.

FIG. 2

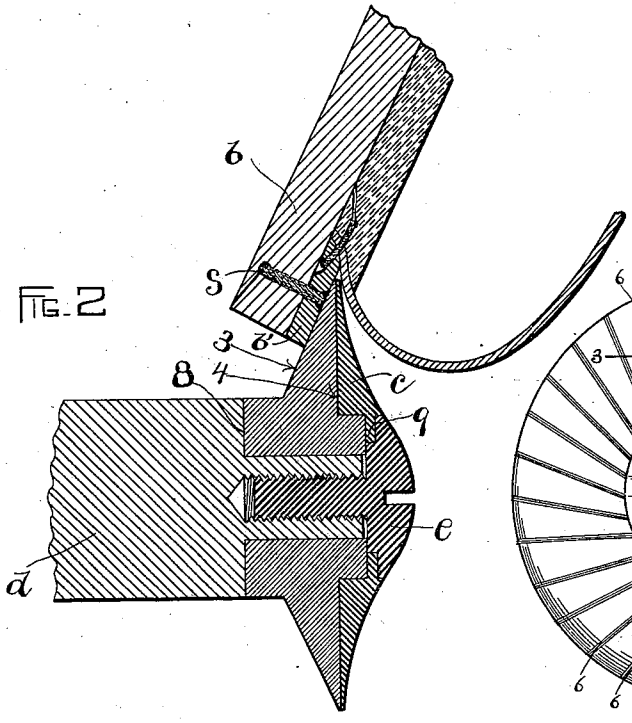


FIG. 1.

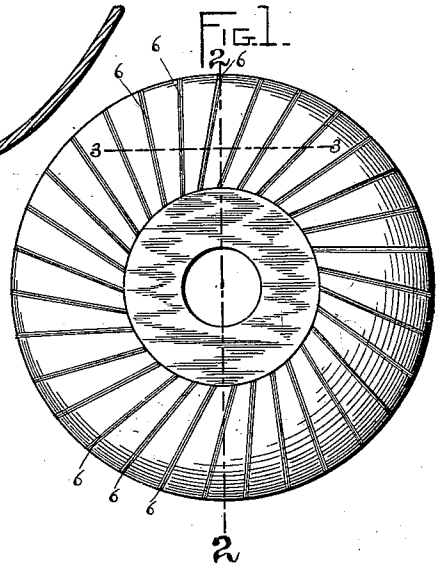


FIG. 3.

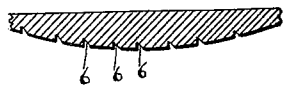


FIG. 4.

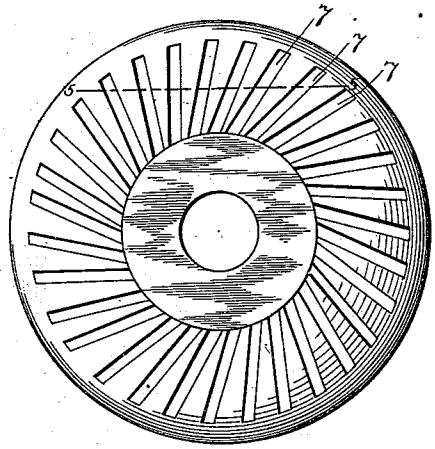
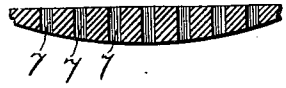


FIG. 5.



WITNESSES:
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UNITED STATES PATENT OFFICE.

EDWIN F. MAXWELL, OF WEST BRIDGEWATER, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO CHARLES F. MAXWELL, OF NORTH BROOKFIELD, MASSACHUSETTS.

ROTARY SEAM-RUBBING TOOL.

SPECIFICATION forming part of Letters Patent No. 561,017, dated May 26, 1896.

Application filed January 9, 1896. Serial No. 574,875. (No model.)

To all whom it may concern:

Be it known that I, EDWIN F. MAXWELL, of West Bridgewater, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Rotary Seam-Rubbing Tools, of which the following is a specification.

This invention relates to tools for rubbing down the exposed surface of the welt of a welted boot or shoe and the line of stitches that connect the welt with the outer sole.

The invention has for its object to provide a simple, durable, and efficient rubbing-tool adapted to be operated by power, the work of rubbing down said stitches having been performed by hand heretofore.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a side view of my improved rubbing-tool. Fig. 2 represents a section on line 2 2 of Fig. 1, showing the tool attached to a shaft. Fig. 3 represents a section on line 3 3 of Fig. 1. Fig. 4 represents a side view of a modification. Fig. 5 represents a section on the line 5 5 of Fig. 4.

The same letters and numerals of reference indicate the same parts in all the figures.

My improved seam-rubbing tool is a thin-edged disk *a*, having a thickened central portion or hub 2, a beveled outer face 3, and an inner face 4, the said faces meeting at an acute angle at the margin of the disk. The beveled face 3 is formed so that when the tool is rapidly rotated said face will rub down the exposed portions of the stitches that attach the outer sole *b* to the welt *b'* and impart a smooth surface to the exposed side of the welt, outside of the stitches, the boot or shoe being presented to the tool as indicated in Fig. 2, so that the margin of the tool enters the welt-crease and is in rubbing contact with the entire exposed surface of the welt and with the exposed portions of the stitches. I prefer to treat the face 3 so that it will perform the described function by forming radial corrugations 6 6 in it, as shown in Figs. 1 and 3, although the result will be practically the same if slots or orifices 7 7 are formed in the disk *a*.

c represents an upper guard, which is mounted to turn loosely beside the tool *a* and is formed to enter the welt-crease with the said tool and prevent the latter from rubbing against the upper, the guard being held from rotating by contact with the upper.

The rubbing-tool and guard are secured to a shaft *d*, which may be rotated by power applied in any suitable way, the tool being rigidly affixed to the shaft, while the guard is loose thereon. I have here shown a screw *e* as the means for securing the tool and guard, the head of the screw bearing against the hub of the rubbing-tool and clamping the said hub against a shoulder 8 on the shaft. The head of the screw has a marginal recess which receives a narrow flange 9 on the guard, said flange fitting loosely in the recess of the head, so that the guard is not clamped thereby.

The described rubbing-tool is adapted to rapidly and effectively rub down the stitches on the outer surface of a welt, the result being quite as satisfactory as hand-rubbing, and much more rapid and economical.

I claim—

1. As a new article of manufacture a rubbing-tool for application to the seam in the welt of a boot or shoe, the same consisting of a disk having a central hub portion adapted for engagement with the shaft of a machine, a frusto-conical rubbing-surface around the said hub portion and formed with radiating rubbing edges, and a flattened side forming with the said conical surface a thin marginal edge, substantially as and for the purpose described.

2. In a machine of the character described, the combination of a rotating shaft; a rubbing-tool consisting of a disk having a central hub portion adapted for engagement with said shaft, a frusto-conical rubbing-surface around the said hub portion and formed with radiating rubbing edges, and a flattened side forming with the said conical surface a thin marginal edge; a guard of similar general form to said rubbing-tool and loosely engaging the shaft with its flattened side against that of the latter and its thin

margin coinciding with that of the said tool; and means for loosely confining the said guard on the shaft and for fastening the tool thereto, substantially as described.

3. A machine for rubbing welts of boots and shoes, the same comprising a positively-rotated shaft; a rubbing disk or tool thereon consisting of a central hub, a thin edge or margin adapted to enter the crease between the welt and upper, and an annular rubbing-face between the said edge and hub; an upper guard having a thin edge or margin adapted to enter the crease between the welt and upper beside the rubbing-tool, and recessed at its center to fit over the outer end of the hub of the rubbing-disk, said guard having an inwardly-projecting flange; and a screw entering the end of the shaft and bearing with its head against the hub of the rubbing-tool to clamp the latter to the shaft, said screw-head being recessed to loosely receive the flange of the guard, substantially as and for the purpose described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 4th day of January, A. D. 1896.

EDWIN F. MAXWELL.

Witnesses:
LOUIS C. SOUTHARD,
LOUIS K. SOUTHARD.