

H. GAUBATZ.
LEATHER EDGE POLISHING MACHINE.
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1,063,427.

Patented June 3, 1913

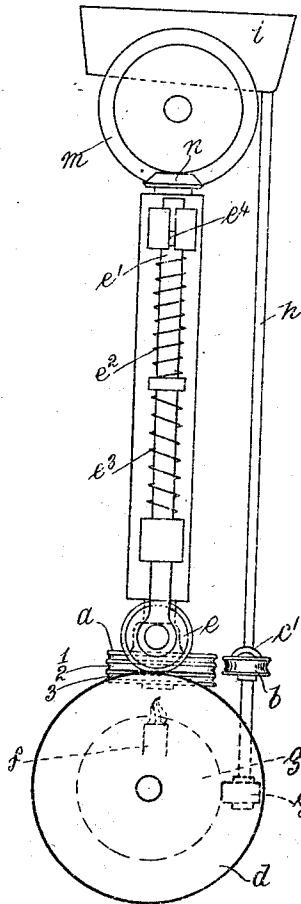


Fig. 1

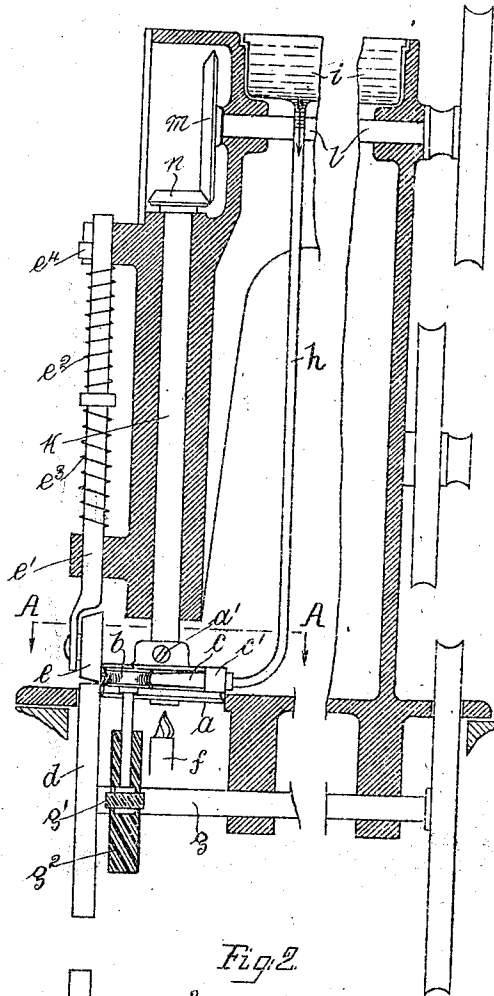


Fig. 2

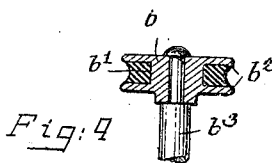


Fig. 4

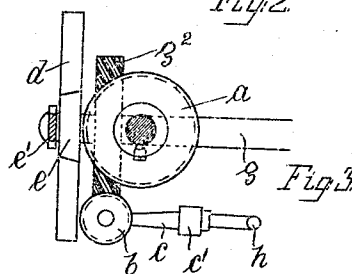


Fig. 3

Witnesses.
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UNITED STATES PATENT OFFICE.

HEINRICH GAUBATZ, OF PIRMASENS, GERMANY.

LEATHER-EDGE-POLISHING MACHINE.

1,063,427.

Specification of Letters Patent.

Patented June 3, 1913.

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To all whom it may concern:

Be it known that I, HEINRICH GAUBATZ, a subject of the Emperor of Germany, residing at 30 Alleestrasse, Pirmasens, Pfalz, Germany, have invented new and useful Improvements in Leather-Edge-Polishing Machines, of which the following is a specification.

This invention comprises improvements in apparatus for polishing edges of leather and has for its object to construct an efficient machine for coloring or blacking and polishing the edges of pieces of leather or of leather articles.

The present invention is chiefly distinguished by the arrangement or means for applying the blacking or other polish or coloring material in connection with the polishing roller, the means comprising a polish, blacking, or color receptacle.

The improvements also provide a novel construction of polishing roller and of the feed apparatus cooperating therewith.

The term polish hereinafter used includes blacking and polishes or coloring matters of any desired tint.

In order to enable the invention to be readily understood reference is made to the accompanying drawings forming part of this specification and in which—

Figure 1 is a front elevation of a machine constructed according to the present improvements, Fig. 2 is a longitudinal section of the machine taken at right angles to Fig. 1, Fig. 3 is a sectional plan, the section being taken on line A—A of Fig. 2, and Fig. 4 is a sectional elevation of the polish transferring roller.

In the arrangement illustrated the pieces or articles of leather before reaching the polishing roller *a* have polish applied to the edge to be polished by the apparatus *b* and *c* hereinafter described.

The feed mechanism consisting of the two wheels or rollers *d* and *e* conducts the articles to the polishing roller *a* which is heated for example by the flame of the lamp *f*.

The polish transferring apparatus consists of a rotating roller *b* suitably comprising an insertion of felt, cloth or similar absorbent material *b¹* lying between top and bottom flanges *b²* as shown. The disk *b* is rigidly mounted on a short shaft *b³* on the other end of which is mounted a worm *g¹* which meshes with a worm wheel *g²* mounted on the feed shaft *g*. The roller *b* is pro-

vided with polish by a nozzle *c* which may have an adjustment *c¹*, and transfers the polish to the edges of the pieces or articles of leather that are fed forward in contact with the absorbent part of the periphery of the roller. The polish is supplied to the nozzle *c* by the pipe *h* from the receptacle *i*.

It is not absolutely necessary that the disk *b* be driven from the shaft *g* for it can be rotated in any convenient manner and even by frictional contact with the edge of the leather piece or article itself.

The polishing roller *a* is preferably made in one piece with several annular grooves 1, 2 and 3 of different sizes corresponding to the different thicknesses of the leather pieces or articles to be polished.

The roller *a* is adjustable on the shaft *h* and for example by loosening the set screw *a¹* the roller *a* can be moved to a higher or lower position on the shaft *h* according to the particular groove required for a particular thickness of leather to be polished and the roller may then be readily secured in the adjusted position by tightening the set screw *a¹*. This construction of the polishing roller *a* has considerable advantages over known rollers which have been formed in halves in order to enable a fresh roller to be substituted when a different thickness of leather is to be polished. In the improved arrangement owing to the fact that the roller has only to be adjusted to a higher or lower position on its shaft and not removed, not only is a saving of time effected as regards the actual change, but there is a further saving of time due to the fact that the roller retains its heat so that after an adjustment, the roller has not to be freshly heated as would be the case if an interchange of the rollers took place as heretofore.

The feed mechanism comprises the roller *d* fixed on the shaft *g* and a roller *e* rotatably mounted on the foot of a guided rod *e¹* which is depressed by a spring *e²* and may be fitted with a buffer spring *e³* operating between a collar on the rod and the lower guide. The rod is prevented from turning suitably by a pin *e⁴* fixed radially thereto and movable in a slot in the upper guide as seen in Figs. 1 and 2. The roller *e* may be formed with a slightly beveled periphery as shown in Fig. 2. By means of the roller *e* it is possible to guide and feed the thickest leather to the polishing roller *a*. Even the edge of the eyeleted portion of an already

sewn upper can be guided by this means, so that such an edge can be properly polished which operation in such a case was theretofore performed only by hand and was therefore expensive and occupied much time.

The driving shaft *l* drives the shaft *k* of the polishing roller *a* by means of the bevel wheels *m* and *n* the polishing roller *a* being thus driven at a high speed while the shaft *g* drives the feed roller *d* at a slow speed. By the arrangement of pulleys seen to the right hand of Fig. 2 it is possible to drive the shaft *g* from the central pulley at a lower speed while the shaft *l* may be driven from the central pulley at a high or low speed as desired.

The improved arrangement hereinbefore described thus dispenses with manual application of the polish as was heretofore usual. Further it effects an economy in the time heretofore spent in changing the polishing roller and freshly heating the substituted roller, and lastly the present improvements render it possible to properly polish in the machine even very thick edges as well as the edges of sewn leather articles, and so on.

I claim:

1. A leather edge polishing machine comprising in combination a polishing roller, driving means therefor, leather feed mechanism, driving means for said feed mechanism, a polish transferring roller consisting of outer rigid faces and absorbent material interposed between such faces, said roller being arranged in advance of said polishing roller, and polish feeding means adapted to supply the periphery of the absorbent material with polish substantially as set forth.

2. A leather edge polishing machine comprising in combination a polishing roller, driving means therefor, leather feed mechanism, driving means for said feed mechanism, an absorbent polish transferring roller arranged in advance of said polishing roller, polish feeding means adapted to supply said absorbent roller with polish, and gearing between said feed mechanism and said polish transferring roller, substantially as set forth.

3. A leather edge polishing machine comprising in combination a polishing roller

having a plurality of grooves of different sizes in its periphery, adjustable fixing means for said roller adapted to secure the latter in desired position along its shaft, driving means for said polishing roller, a polish transferring roller arranged in advance of said polishing roller, polish feeding means adapted to supply said transferring roller with polish, and leather feed mechanism adapted to feed articles to be polished in contact with said rollers, substantially as set forth.

4. A leather edge polishing machine comprising in combination a polishing roller, driving means therefor, a feed roller, slow speed driving means for said feed roller, a presser foot comprising a roller adapted to cooperate with said feed roller, a polish transferring roller arranged in advance of said polishing roller, and polish feeding means adapted to supply said transferring roller with polish, substantially as set forth.

5. A leather edge polishing machine comprising in combination a polishing roller, driving means therefor, a feed roller, slow speed driving means for said feed roller, a presser foot comprising a roller adapted to cooperate with said feed roller, a presser spring and a buffer spring in operative relation with said foot, a polish transferring roller arranged in advance of said polishing roller, and polish feeding means adapted to supply said transferring roller with polish, substantially as set forth.

6. A leather edge polishing machine comprising in combination a polishing roller, driving means therefor, leather feed mechanism, driving means for said feed mechanism, an absorbent polish transferring roller arranged in advance of said polishing roller, a polish reservoir, a polish supply nozzle directed to the periphery of said absorbent roller, and a duct connecting said reservoir and said nozzle, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HEINRICH GAUBATZ.

Witnesses:

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KARL MENGES.