(No Model.)

A. E. PERRY.

KNIFE HOLDER FOR SOLE ROUNDING MACHINES.

No. 518,789. Patented Apr. 24, 1894.

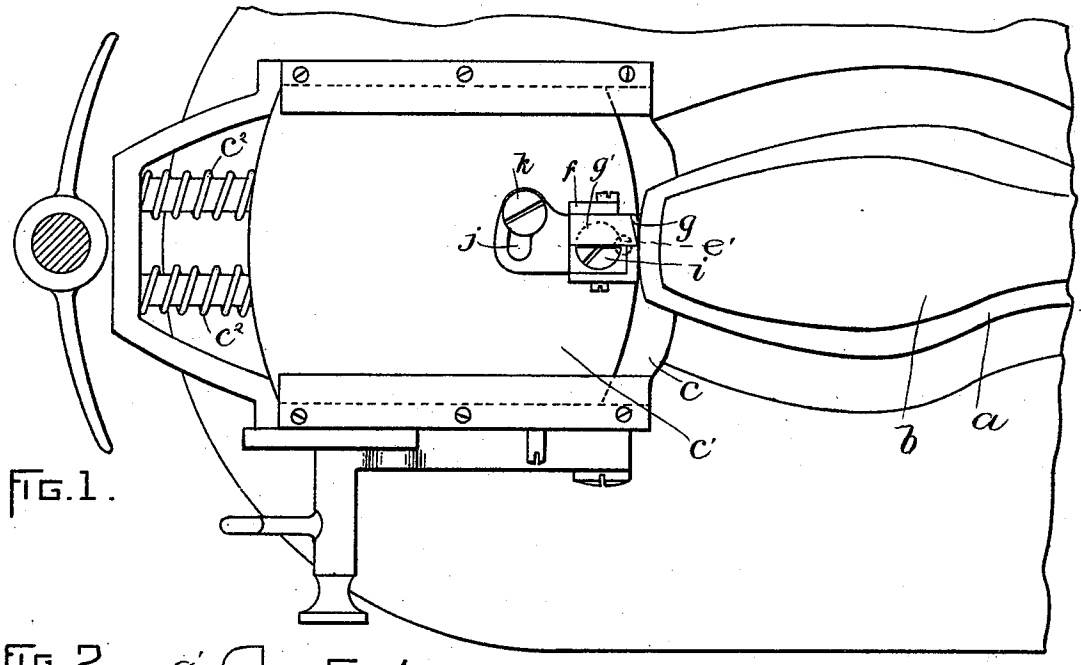


FIG. 1.

FIG. 2.

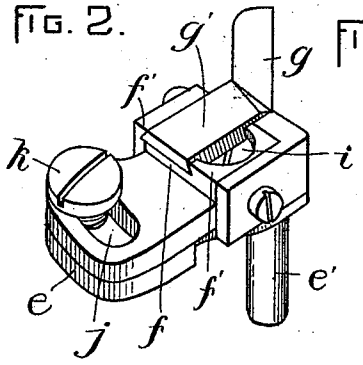


FIG. 4.

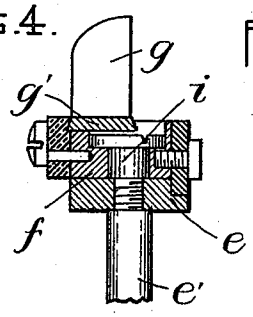


FIG. 3.

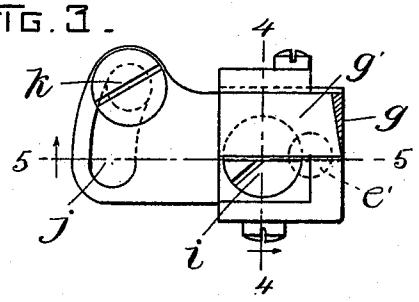


FIG. 5.

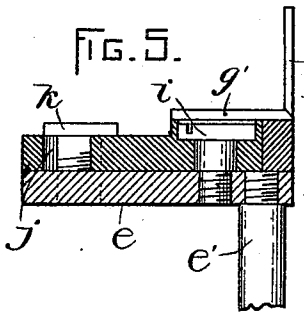


FIG. 7.

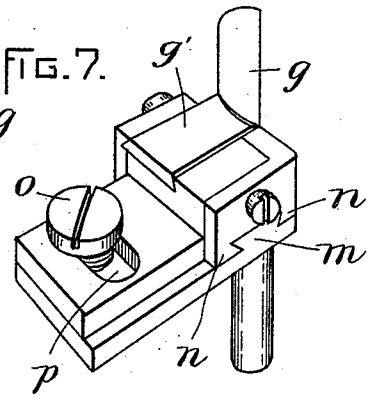
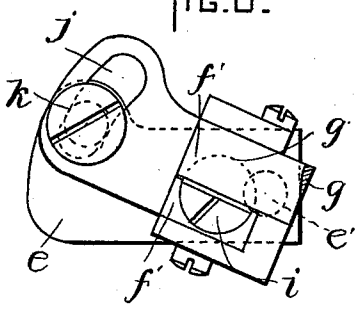


FIG. 6.



WITNESSES:
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UNITED STATES PATENT OFFICE.

AUSTIN E. PERRY, OF WAKEFIELD, ASSIGNOR TO GEORGE H. P. FLAGG, OF BOSTON, MASSACHUSETTS.

KNIFE-HOLDER FOR SOLE-ROUNDING MACHINES.

SPECIFICATION forming part of Letters Patent No. 518,789, dated April 24, 1894.

Application filed December 2, 1893. Serial No. 492,617. (No model.)

To all whom it may concern:

Be it known that I, AUSTIN E. PERRY, of Wakefield, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Knife-Holders for Sole-Rounding Machines, of which the following is a specification.

This invention relates to sole-rounding machines, which employ a fixed pattern against which the sole to be trimmed or "rounded" is clamped, a carriage which travels around the pattern, and a knife-holder pivotally connected to the carriage and provided with a trimming-knife which is caused, by the movement of the carriage and by the pivotal connection of the holder to the carriage, to trim the sole along the edge of the pattern.

In machines of this class, it is very important that the cutting edge of the knife be kept abreast or even with the pivot that connects the knife-holder to the carriage, so that the cutting edge will not be behind said pivot when in operation, it being well-known that when the cutting edge is behind the pivot the trimming is imperfect, particularly at the toe of the sole, and more particularly when the sole has pronounced angles at the toe, as in so-called square-toed soles. The wear of the knife naturally causes the cutting edge to gradually recede from its proper position abreast the pivot, and it therefore becomes necessary to adjust the knife from time to time to compensate for wear of its cutting edge.

My invention has for its object to provide improved means for adjusting the knife, so that its cutting edge may be readily kept in the proper relative position without material loss of time in the operation of adjusting.

The invention consists in a knife-holder comprising in its construction a base having a stud or pivot adapted to enter and turn in a bearing in the carriage of the machine, a top-plate having means for holding the knife and mounted adjustably on the base so that the knife may be adjusted in the direction of its cutting movement to compensate for wear of its cutting edge, and means for positively securing the top-plate to the base in any position to which it may be adjusted.

Of the accompanying drawings, forming part of this specification: Figure 1 represents a top view of portions of a sole-rounding machine provided with a knife-holder embodying my invention. Fig. 2 represents a perspective view of the holder. Fig. 3 represents a top view of the holder, showing the knife in section. Fig. 4 represents a section on line 4—4, Fig. 3. Fig. 5 represents a section on line 5—5, Fig. 3. Fig. 6 represents a top view of the holder, showing the position of the top-plate after the knife has been adjusted forward. Fig. 7 represents a perspective view of a modification.

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

In the drawings: *a* represents the fixed pattern; *b* the clamp which secures the sole to the pattern; *c* the base of the carriage, the same being caused by suitable mechanism to travel around the pattern; and *c'* the sliding portion of the carriage, the same being movable on the base *c* and pressed by springs c^2 c^2 toward the pattern. Said parts constitute elements of a sole rounding machine, the construction and operation of which are well-known, the knife which is mounted on the slide *c'* being caused to move along the edge of the pattern and to move in and out and thus follow the curvatures of the pattern.

My improvements relate wholly to the knife-holder, which is pivotally connected to the slide *c'*.

e represents the base of the holder, the same having a downwardly-projecting stud or pivot *e'*, which is formed to turn freely in a bearing or socket formed for its reception in the slide *c'*, the pivot and socket constituting a pivotal connection which enables the knife-holder to turn freely in a horizontal plane, and also to be readily removed from the slide *c'*.

f represents the top-plate, to which the knife *g* is directly attached. Said plate has suitable means for holding the knife, said means being here shown as dove-tail ribs or gibs, to which the dove-tail shank *g'* of the knife is fitted, and is adjustable on the base *e* in the direction required to adjust the cutting edge of the knife in the direction of its cutting movement. The preferred construction whereby said adjustment is permitted is shown in Figs. 1 to 6 inclusive, the top-plate being connected to the base by a pivot *i*,

which is located at one side of the cutting edge of the knife, or at the opposite side of the knife from the pattern *a*, its arrangement being such that a swinging movement of the top-plate on said pivot will move the knife substantially in the direction of its cutting movement. In the rear portion of the top-plate, is formed a segmental slot *j*, through which passes a clamping-screw *k*, engaged with a tapped socket in the base, the head of said screw bearing on the top-plate and positively holding it in any position to which it may be adjusted. It will be seen that, by loosening the screw *k* and turning the top-plate on its pivot, the knife may be readily adjusted to bring its cutting edge forward and thus compensate for wear, which without such adjustment would bring the cutting edge back of the pivot, the proper position of said edge being abreast of said pivot, as shown in Figs. 1 and 3.

Fig. 6 shows the position of the top-plate after it has been adjusted to a considerable extent to compensate for wear of the knife.

Fig. 7 shows a modification, in which the top-plate has a rectilinear instead of a swinging adjustment, the base having a dove-tail guide *m*, and the top-plate dove-tail ribs *n n* fitting said guide. In this case, the top-plate is secured by a clamping-screw *o*, passing through a straight slot *p* in the top-plate.

I claim—

1. A knife-holder for sole-rounding machines, comprising in its construction a base having a stud or pivot whereby it may be pivotally connected to the carriage of the machine, a top-plate having means for holding the knife and mounted adjustably on the base so that the knife may be adjusted in the direction of its cutting movement to compensate for wear of its cutting edge, and means for positively securing the top-plate to the base in any position to which it may be adjusted.

2. A knife-holder for sole-rounding machines, comprising in its construction a base having a stud or pivot whereby it may be pivotally connected to the carriage, a top-plate having means for holding the knife and pivoted to the base at a point back of the cutting edges of the knife so that a movement of the top-plate on its pivot will cause an adjustment of the knife substantially in the direction of its cutting movement, and a clamping-screw engaged with the base-plate and passing through a segmental slot in the top-plate, whereby the latter may be positively secured in any position to which it may be adjusted.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 24th day of November, A. D. 1893.

AUSTIN E. PERRY.

Witnesses:

C. F. BROWN,

A. D. HARRISON.