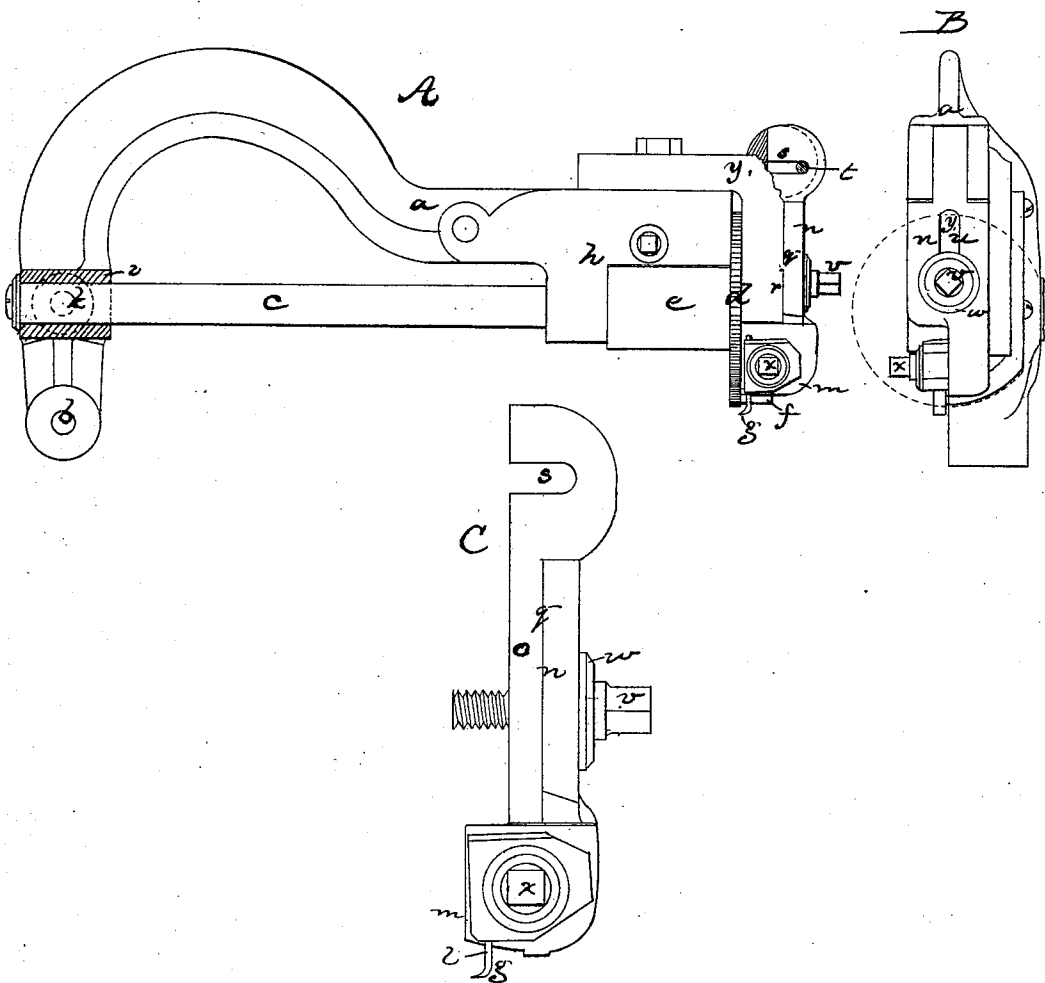


A. S. LIBBY.

Machine for Feather-Edging Soles.

No. 127,618.

Patented June 4, 1872.



Witnesses.  
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L. W. Latimer.

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# UNITED STATES PATENT OFFICE.

ASA S. LIBBY, OF LAWRENCE, MASSACHUSETTS.

## IMPROVEMENT IN MACHINES FOR FEATHER-EDGING SOLES.

Specification forming part of Letters Patent No. 127,618, dated June 4, 1872.

*To all whom it may concern:*

Be it known that I, ASA S. LIBBY, of Lawrence, in the county of Middlesex and State of Massachusetts, have invented certain Improvements in Machines for Feather-Edging Soles, &c.; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

The invention relates particularly to details of construction or arrangement of that class of feather-edging machines for skiving sole-edges in which a pivoted cutter-arm is used, the cutter being at the free end of the arm, and yielding in accordance with the varying thickness of the sole, so that a skiving of uniform thickness is removed, thereby leaving a skived surface on the sole which, at the edge of the sole, is uniformly distant from the plane of the face of the sole from which the skiving is removed.

In these machines the skiving knife or cutter has always been so applied to the machine that, to sharpen its edge, it must be removed by itself, and, as the edge requires very frequent sharpening, and as the cutting-edge has to be carefully adjusted at each reapplication of the cutter, there is a great loss of time, and it is only after repeated trials that the edge is brought to just the position required.

In my construction I apply the cutter to the foot of a face-plate, which is hung upon a pivot on the head of the arm, the plate being secured to the head by a suitable screw. The plate being affixed to the head and the cutter rightly positioned by adjustment with relation to the presser-foot and feed-wheel, the plate is removed (for sharpening the cutter) with the attached cutter, and without moving the cutter relatively to the plate or to the immediate fastenings of the cutter. The cutting edge is then sharpened without movement of the cutter, and the plate is reaffixed to the head, its pivotal connection bringing the cutter to its exact previous position.

The invention consists primarily in the removable face-plate that carries the cutter, in combination with the arm, in which is journaled the upper shaft that carries the upper feed-wheel. The feed-wheel is made adjustable vertically with reference to the presser-foot, and

the rear end of the shaft, to the front end of which said wheel is fixed, is journaled in a swiveling-bearing, which bearing permits vertical adjustment of the front bearing and the front end of the shaft journaled thereon without disturbing the fitting of the rear end of the shaft in its journal-box, this feature constituting another part of the invention.

The drawing represents, at A and B, in side and sectional elevation and in front view, the arm of a feather-edging machine embodying my invention. C is a side view of the detached cutter-plate.

*a* denotes the arm, having, at its rear end, a pivot-hole, *b*, for receiving the pin, by which the arm is pivoted to the main frame in the usual manner. *c* is the shaft that carries the upper feed-wheel *d*, said shaft being journaled at its front end in a block, *e*, which has provision for vertical adjustment, so as to vary the position of the plane of action of the feed-wheel teeth with reference to the presser-foot *f* and cutter *g*; the portion *h* of the arm *a* through which the shaft passes being slotted to permit rise and fall of the shaft. The rear end of the shaft turns in the journal-block *i*; and to provide a constant bearing for the shaft at this point, and, at the same time, permit the shaft to move in accordance with the rise and fall of its front end, this journal-block is pivoted upon a pin, *k*, that permits it to swivel vertically, as may be required. The shank *l* of the cutter *g* is held in a stock, *m*, and this stock is fastened to a plate, *n*, by a screw-bolt, *x*, loosening of which bolt permits the cutter to be withdrawn. This face-plate has a vertical tongue or tenon, *o*, fitting into a corresponding groove at the head of the arm-head *y*, the faces *q* of the plate fitting against the faces *r* of the arm-head. At the upper end of the plate is a slot, *s*, opening to the rear face of the plate, as seen at C; and on the arm-head is a pin, *t*, which, when the plate is in position, extends into the slot *h* and holds the plate in stationary position vertically, the pin fitting into the slot. Through the plate extends a slot, *u*, and through this slot, into the head *y*, passes a screw-bolt, *v*, the head of which, with a washer, *w*, fasten the plate to the arm-head *y*. When thus fastened the cutter is ready to operate, while, to remove the cutter for resharpening, it is only necessary to remove the bolt *v*, the

cutter being then sharpened without removing it from the plate *n* or disturbing its set position with relation thereto.

I claim—

1. In combination with the arm *a*, the removable cutter-plate *n*, to which the cutter or cutter-stock is fastened, substantially as described.

2. In combination with the vertically adjustable wheel *d* and shaft *c*, the pivoted journal-block *i*, substantially as shown and described.

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Witnesses:

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