

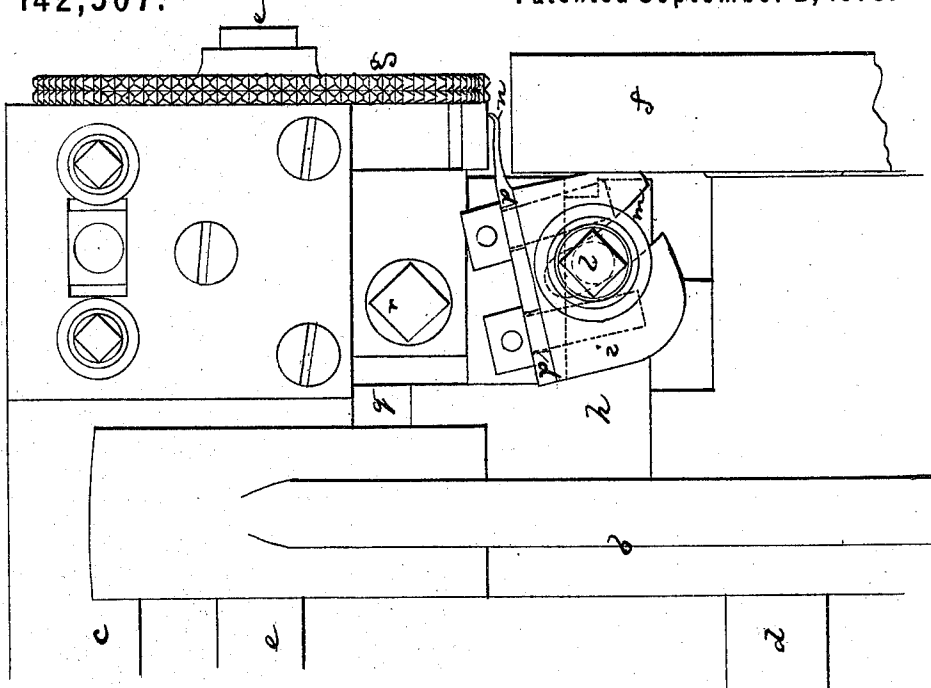


**E. P. PIERCE.**  
**Machines for Skiving and Feather-Edging Boot**  
**and Shoe Soles.**

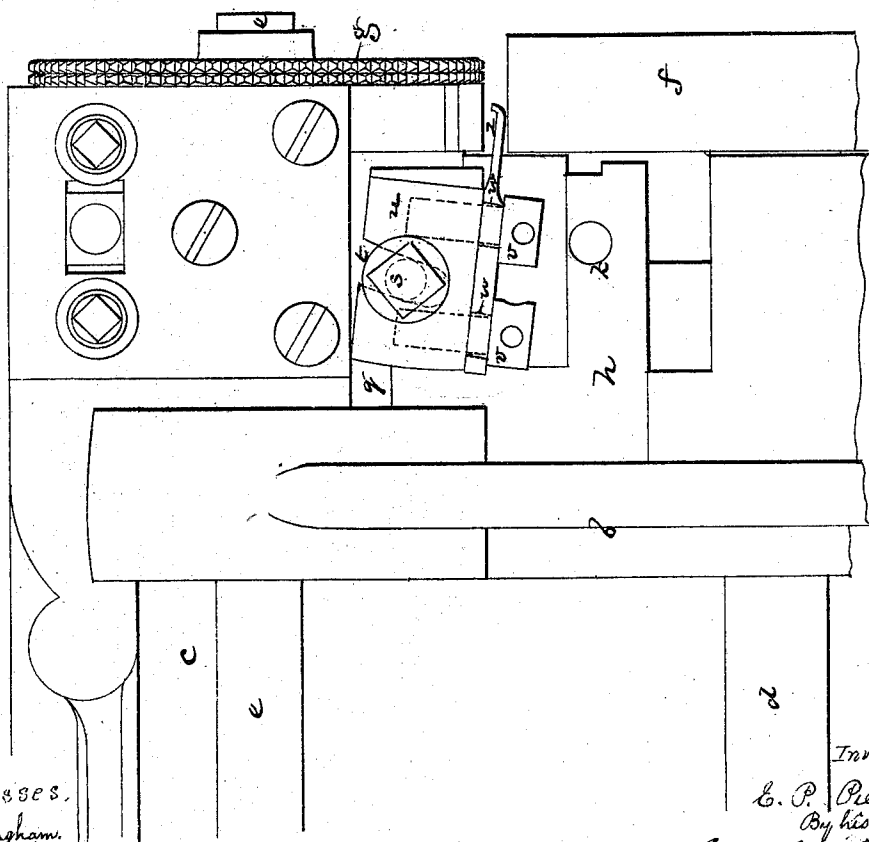
No. 142,507.

Patented September 2, 1873.

*Fig. 3.*



*Fig. 2.*



Witnesses,  
M. W. Frothingham,  
L. H. Colburn.

Inventor,  
E. P. Pierce,  
By his attys.  
Crosby & Gould

# UNITED STATES PATENT OFFICE.

EDWARD P. PIERCE, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR SKIVING AND FEATHER-EDGING BOOT AND SHOE SOLES.

Specification forming part of Letters Patent No. 142,507, dated September 2, 1873; application filed April 5, 1873.

To all whom it may concern:

Be it known that I, EDWARD P. PIERCE, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Machines for Skiving and Feather-Edging Boot and Shoe Soles; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

In skiving and feather-edging boot and shoe soles, it is sometimes desirable to cut to a definite distance from one surface of the sole without regard to the thickness of edge left, while at other times it is equally desirable to so skive or reduce the edge as to secure in the reduced edge a uniform thickness, without regard to the thickness of the rest of the sole. My invention relates to the organization of a machine for the purpose of enabling either of these results to be obtained on the same machine by simple removal of one cutter-block and the substitution of another therefor. For this purpose I make the machine with provision for securing one cutter-block, to be attached to the head or front standard of the machine, and also with provision for attaching to the lever-arm that carries the upper feed-roll another cutter-block. The invention consists in a machine thus organized for interchangeable reception and operation of the respective cutters or knives.

The drawing represents a machine embodying my construction.

Figure 1 shows the front part of the machine in side elevation, with both cutter-blocks and knives in position with relation to the respective parts of the machine to which they are directly applied. Fig. 2 shows a similar elevation, the lower cutter-block being removed, and the upper one being in position. Fig. 3 shows the lower cutter-block in position, the upper one being removed.

*b* denotes the frame or bed; *b*, the stationary upright; *c*, the pivoted arm; *d*, the bottom shaft; *e*, the upper shaft; *f*, the lower wheel; and *g*, the upper wheel of an ordinary McKay channeler, to which my invention may be applied.

As the general construction and arrange-

ment of these parts is well known, the drawing is made to show only the front part of the machine.

The standard is made with an inner vertical face, *h*, to which the lower cutter-block *i* is attached, this face having a nut-thread, *k*, extending into it, into which thread a screw-bolt, *l*, enters, this bolt passing through a vertical or curved slot, *m*, cut in the cutter-block. This slot enables the block and its cutter *n* to be removed by simply loosening the bolt and raising the block, the lever *c* being first raised. The shank of the cutter *n* is fastened to the block by screws *o*, which may pass through slots *p*, the slots *p* enabling the cutter to be adjusted forward and back, and the curved slot *m* enabling the cutting-edge to be adjusted angularly. This block being in position, and the sole being fed between the cutting-edge and the smooth wheel *f*, the cutter will then so trim the sole-edge as to leave it with a perfectly uniform thickness of edge. The lever *c* has projecting from or forming part of it a cheek-piece, *q*, in which is cut a nut-thread, *r*. Into this thread enters a bolt, *s*, which passes through a slot, *t*, in the upper cutter-block *u*, and clamps the block to the cheek, and, by starting this bolt, the block may be removed. The slot *t* is or may be curved, and the cutter *z* is fastened to the block by screws *v*, which may turn in slots *w*. The slots *w* enable the cutting-edge to be adjusted forward or back, and the curved slot enables it to be adjusted at a vertical angle. Either cutter or knife may be removed from the machine without starting the block to which it is attached.

It is difficult to adjust the cutters just right, and when they are properly adjusted the operator likes to keep them in position and use for different work two cutter-heads, rather than to change the cutters on one.

With the cutter *z* so applied, the skiving will be taken from the edge by a uniformly deep cut, so that the curve of the sole at the bottom of the cut will be uniformly distant from the surface against which the wheel *g* acts, or from which the cut is made, the edge of the sole being left irregularly thick in correspondence with such irregularity as may exist in the thickness of the sole. The front journal-box of the shaft *d* is made adjustable

vertically, so as to raise and lower the wheel with reference to the cutter *n*, to variably regulate the thickness of edge left upon the sole by the action of the cutter, the adjustment being, preferably, effected by a right and left screw, *x*, working in threads in the bed-plate and in the box. The upper shaft also is journaled at its front end in a box made vertically adjustable with reference to the arm to which the cutter-block *u* is attached. By such adjustment the wheel *g* is raised or lowered, relatively to the cutter *z*, to variably regulate the thickness of skiving removed from the sole by

the cutter *z*, or the uniform depth of cut at the edge, from the surface into which the cutter enters.

I claim—

In a feather-edging and skiving machine, means, substantially as described, for interchangeable attachment and operation of a cutter for gaging the thickness of skiving removed, and of another cutter for gaging the thickness of edge left upon the sole.

Witnesses:

E. P. PIERCE.

FRANCIS GOULD,

M. W. FROTHINGHAM.