(No Model.)

S. H. RANDALL.

BEVEL EDGER.

No. 524,767. Patented Aug. 21, 1894.

FIG. 1.

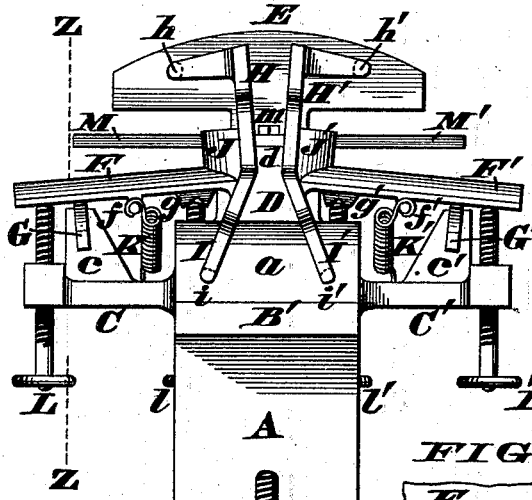


FIG. 2.

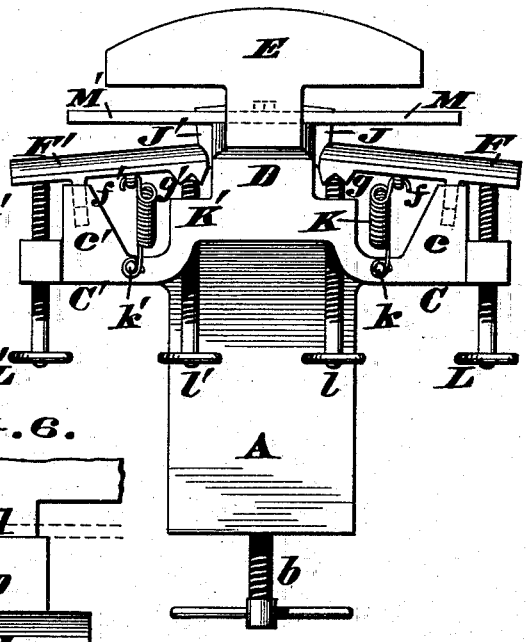


FIG. 6.

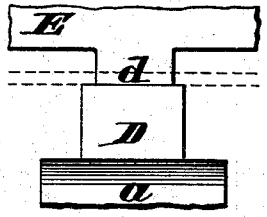


FIG. 3.

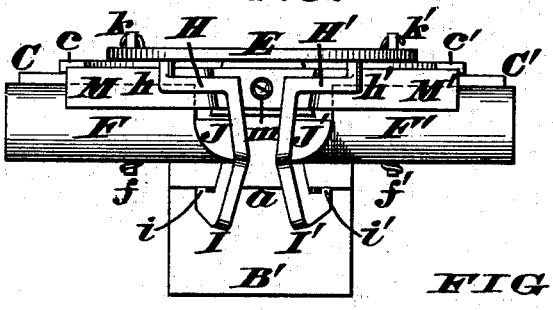


FIG. 4.

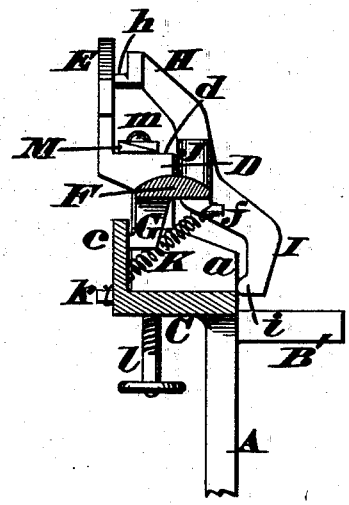
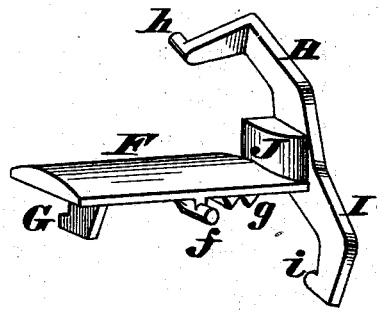


FIG. 5.



Attest.
Ida Stitz
Chas. Speer.

Inventor.
Silas N. Randall.
by James F. Layman.
Atty.

UNITED STATES PATENT OFFICE.

SILAS H. RANDALL, OF WYOMING, ASSIGNOR TO RANDALL & CO., OF CINCINNATI, OHIO.

BEVEL-EDGER.

SPECIFICATION forming part of Letters Patent No. 524,767, dated August 21, 1894.

Application filed December 8, 1893. Serial No. 493,157. (No model.)

To all whom it may concern:

Be it known that I, SILAS H. RANDALL, a citizen of the United States, residing at Wyoming, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Bevel-Edgers; and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the annexed drawings, which form part of this specification.

My invention comprises a light, simple and handy machine wherewith both edges of leather straps, or other similar pieces of work can be readily beveled or chamfered off at any desired inclination, the peculiar construction of said machine, and the method of operating it being hereinafter more fully described.

In the annexed drawings, Figures 1. 2 and 3 are, respectively, a rear elevation, a front elevation, and a plan of the machine. Fig. 4 is a vertical section of the upper portion of the machine, said section being taken at the line Z—Z, of Fig. 1. Fig. 5 is a perspective view of a work plate detached from the main frame. Fig. 6 is an elevation of the upper portion of this frame.

The main frame of the machine consists of a standard A, having a pair of horizontal flanges B, B′, in the rear, a screw *b* being engaged with the lower flange B, for the purpose of clamping the machine to a table or bench. Projecting laterally from this standard are brackets C, C′, having at their front edges vertical extensions *c. c′.* whose duty will presently appear. That portion of the standard immediately above the flange B′ is vertical, as seen at *a*, in Fig. 4, and above this part, *a*, is a neck D, the top of which latter has a horizontal ledge *d*, that supports a double-bladed knife. Above, and in front of this neck, is a flat plate E, integral with said neck and the standard A.

F is one of a similar pair of work-plates, the upper surface of which is convex, as more clearly seen in Fig. 5, while its under surface is flat and has in the rear a lug *f*, and in front another lug G, which latter constantly bears against the vertical extension *c*. Furthermore, this plate F, has near its inner end a notch *g* and an arm H I, bent in the manner shown, the upper portion H of said arm having a lug *h* that bears against the plate E, and the lower part I has a lug *i* that bears against the flat face *a*, of the standard.

J is a rounded guide, at the junction of plate F, and its arm H I. K is a pulling spring, one end of which is connected to the lug *f*, while its other end is attached to a lug *k* projecting from the front of bracket C. These devices are duplicated on the opposite side of the standard A, as seen at F′. *f′*. G′. *g′*. H′. *h′*. I′, *i′*. J′, K′ and *k′*.

L is a set screw, engaged with the bracket C, and supporting the outer end of work-plate F, the inner end of the same being sustained by a screw *l*, whose point enters the notch *g*. The other work-plate F′ is similarly supported upon screws L′ *l′*.

M M′ is a double-bladed knife secured to the ledge *d* by a screw *m*, or otherwise and having its cutting edge presented toward the rear of the machine.

By referring to Fig. 4, it will be noticed that the spring K tends to pull the work-plate F both down and forward, but the forward pull is resisted by the lugs *h. i.* of the arm H I, coming in contact with their respective bearings E. *a.* and also by the other lug G resting against the extension *c*. The downward pull is resisted by the screws L. *l.* and by properly setting them the work-plate can be held at any desired position, the screw *l* being used to regulate the thickness of the cut, while the other screw L determines the pitch or inclination of said cut. The other plate F′ is set in a precisely similar manner, and during these adjustments the lugs G. G′. *h. i. h′. i′.* describe short arcs across the extensions *c. c′.* bearing *a* and plate E, the notches *g. g′.* being now the centers on which the pair of plates turn.

The straps or other piece of work is inserted in the open-ended throat existing between the plate F and knife M, the under side of said strap being in contact with said plate, while its inner edge is held snugly against the guide J. The operator, who stands in front of the machine, draws the strap toward him, and in so doing bevels its edge by contact with the rear cutting edge of knife M. When this operation is

finished, the opposite edge of the strap is beveled or chamfered off by the other knife M′. By thus employing a double-bladed knife, and using a pair of independent work-plates, and setting them at different inclinations, one edge of a strap can be chamfered off at a greater or less angle than the other edge. Consequently, this independent setting of each work-plate saves considerable time in adjusting the machine, and renders it available for a greater range of material.

From the above description it is evident my machine can be adjusted for all kinds of work by simply turning four screws, and therefore, it can be operated by unskilled men or boys. It is also evident that all its parts are very readily constructed, and if they are damaged, a new part can be applied to the machine in a few minutes.

I claim as my invention—

1. In a bevel-edger, wherein the leather is advanced by hand, in contradistinction to those machines using feed-rolls, the combination of a frame; a guide; an unadjustable knife; a stationary work-plate under the latter; and devices for inclining said plate, from end to end; for the purpose described.

2. The combination, in a bevel-edger, of a frame; a guide; a stationary knife; a work-plate having three bearings; a pair of screws supporting said plate; and a spring that holds said bearings in movable contact with said frame, and pulls said plate down on said screws; for the purpose described.

3. In a bevel-edger, wherein the leather is advanced by the operator, in contradistinction to those machines using feed-rolls, the combination of a frame; a pair of stationary guides; a fixed double-bladed knife; a pair of work-plates; and a pair of screws for each plate; wherewith either one of the latter can be set independently of the other plate, and at a different angle, for the purpose described.

4. The combination, in a bevel-edger, of a frame; a guide; a stationary knife; a work-plate under the latter; a pair of screws for inclining said plate, from end to end; and an opening between the outer extremities of said knife and plate to admit the insertion of a strap, all as herein described.

5. In a bevel-edger, wherein the leather is advanced by hand, in contradistinction to those machines using feed-rolls, the combination of a frame; an unadjustable knife; a stationary work-plate under the latter; and devices for inclining said plate, from end to end, for the purpose described.

6. The combination, in a bevel-edger, of a frame; a guide; a stationary knife; and a work-plate F, having a lug *f*, notched projection *g*, bent arms H, I, provided, respectively, with bearings *h*. *i*. and another bearing G, and having a guide J; all of said mentioned parts being integral with said plate, as herein described.

7. The combination, in a bevel-edger, of the frame A, having two flat surfaces, *a*, E, and lateral brackets C, C′, provided with vertical extensions *c c′*; the work-plate F, on one side of the machine, and provided with three bearings G. *h*. *i*; the spring K, that pulls said plate down and forward; the set screws L *l*, that support said plate; the work-plate F′, on the opposite side of the machine, and provided with three bearings G′. *h′*. *i′*; the spring K′ that pulls this plate F′, down and forward; the set screws L′, *l′*, that support said plate; the guides J, J′; and the double-bladed knife M, M′, which knife is secured to said frame; all as herein described.

In testimony whereof I affix my signature in presence of two witnesses.

SILAS H. RANDALL.

Witnesses:

JAMES H. LAYMAN,

SAMUEL M. QUINN.