C. W. SCHWANENGEL.
Leather Skiving-Machine.

No. 208,041. Patented Sept. 17, 1878.

Fig. 1.

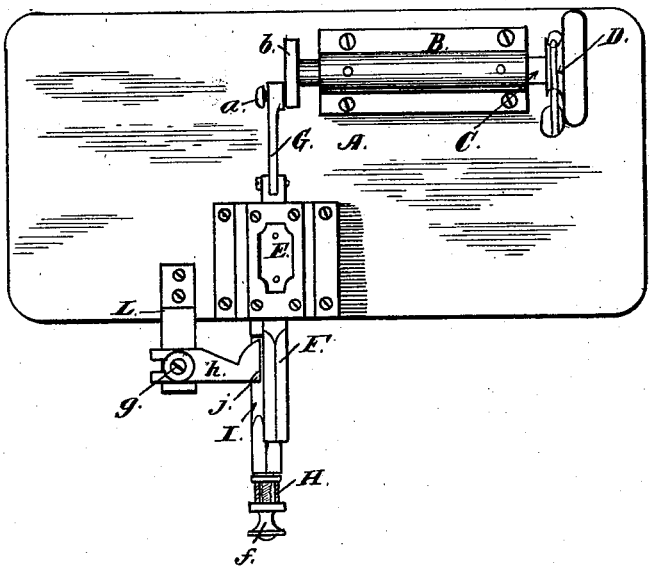


Fig. 2.

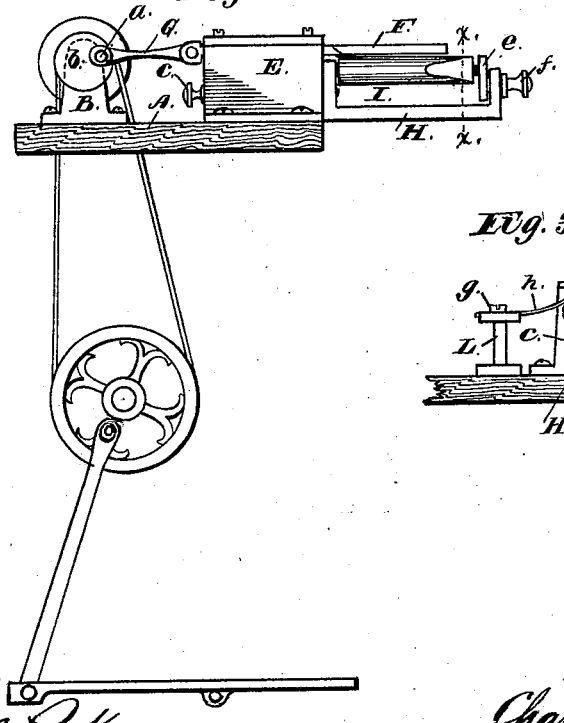
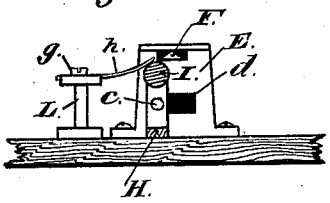


Fig. 3.



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UNITED STATES PATENT OFFICE.

CHARLYS W. SCHWANENGEL, OF DAYTON, OHIO.

IMPROVEMENT IN LEATHER-SKIVING MACHINES.

Specification forming part of Letters Patent No. **208,041**, dated September 17, 1878; application filed July 29, 1878.

To all whom it may concern:

Be it known that I, CHARLYS W. SCHWANENGEL, of Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Leather-Skiving Machines; and I do hereby declare the following to be a full, clear, and exact description of the same.

This invention has for its object the production of an improved machine for skiving off the edges of a piece of leather, gradually thinning it toward the edges, which are left comparatively sharp. Machines of this description are especially useful to book-binders and pocket-book manufacturers.

The machine consists, essentially, of a table on which is a properly-constructed bearing, in which a horizontally-reciprocating knife works over a guide and supporting-roller made adjustable. The knife may be operated by a crank-shaft and pitman, driven either by a treadle or by power directly applied.

The novelty of the invention consists in the construction and application to a skiving-machine of the reciprocating knife; and in the combination, with said knife, of a guide and supporting-roller; and in other details, all as will be herewith set forth and specifically claimed.

In the accompanying drawings, Figure 1 represents a plan view of my improved machine. Fig. 2 is a side elevation of the same. Fig. 3 is a front elevation of the table and operating devices through the line *x x* of Fig. 2.

The following description, with reference to the accompanying drawings, will fully explain the construction and operation of my improved machine:

Upon any suitably-constructed table A, near its rear edge, is a journal boxing or bearing, B, in which is fitted a horizontal shaft, C, driven by the pulley D, connected either with the treadle fly-wheel shown or with line-shafting. E is a second bearing-boxing, arranged upon the front edge of the table, as shown, and in which is located the horizontal reciprocating knife F. This latter, as seen in Figs. 1 and 3, is a triangular blade having double-cutting edges, and its rear end is connected by a pitman, G, with a wrist-pin, *a*, upon a disk, *b*, which is keyed upon the shaft C, so that the revolution of the shaft causes the knife to reciprocate in its bearings. Upon the front face of the box E is a rectangular frame, H, which is supported by a bolt, *c*, passed through a horizontal slot, *d*, in the box, and sufficiently wide to permit of the frame being shifted from side to side, as desired. In the top of the inner end of the frame, just under the knife, is pivoted a roller, I, whose outer end is journaled in a vertically-sliding piece, *e*, which is adjustably clamped to the outer standard of the frame H by a thumb-screw, *f*, working in a vertical slot.

By this arrangement the roller may be adjusted up or down to vary its angle with the knife. Upon a standard, L, attached to the table at the side of the box E, is secured, by a set-screw, *g*, a spring guide-strip, *h*, of the shape shown, which extends over the roller and has its edge coincident with, but a little above, the edge of the knife, as indicated. The outer corner, *j*, of this guide-plate is bent up slightly.

The operation of the machine is as follows: The piece of leather the edge of which is to be trimmed so as to render it thin and sharp is slipped under the guide *h* upon the roller, which is set at the proper angle, and is brought in contact with the reciprocating knife, operated either by the treadle or by power, as before described. The operator then draws the leather under the knife, which shaves it off by a succession of cuts.

By making the roller-frame adjustable it can be arranged on either side of the knife, and the guide-spring can also be shifted to correspond, thus making the machine adaptable to either right or left handed operators, or to suit the grain of the leather.

If desired, the knife may be tapering from point to butt, or vice versa, so that in operation a drawing cut is obtained.

The roller may be either round or prismoidal, the latter form being preferable for coarse or thick leather.

Having thus fully described my invention, I claim—

1. In a leather-skiving machine, a double-edged knife having a transverse reciprocating

motion, and adapted to cut at a right angle to its line of motion in either direction, as set forth.

2. In a leather-skiving machine, the combination, with the double-edged transversely-reciprocating knife, of the roller I, as and for the purpose set forth.

3. In a leather-skiving machine, the combination, with the double-edged transversely-reciprocating knife, of the roller I and guide *h*, as and for the purpose specified.

4. The combination, with the double-edged transversely-reciprocating knife, of the roller I, supported in an adjustable frame, whereby it can be shifted to either side of the knife, as specified.

Witness my hand this 20th day of July, A. D. 1878.

CHARLYS W. SCHWANENGEL.

Witnesses:

P. H. GUNCKEL,

CHAS. M. PECK.