F. M. CARTER.

Skiving-Machines for Leather.

No. 210,183. Patented Nov. 26, 1878.

Fig:1.

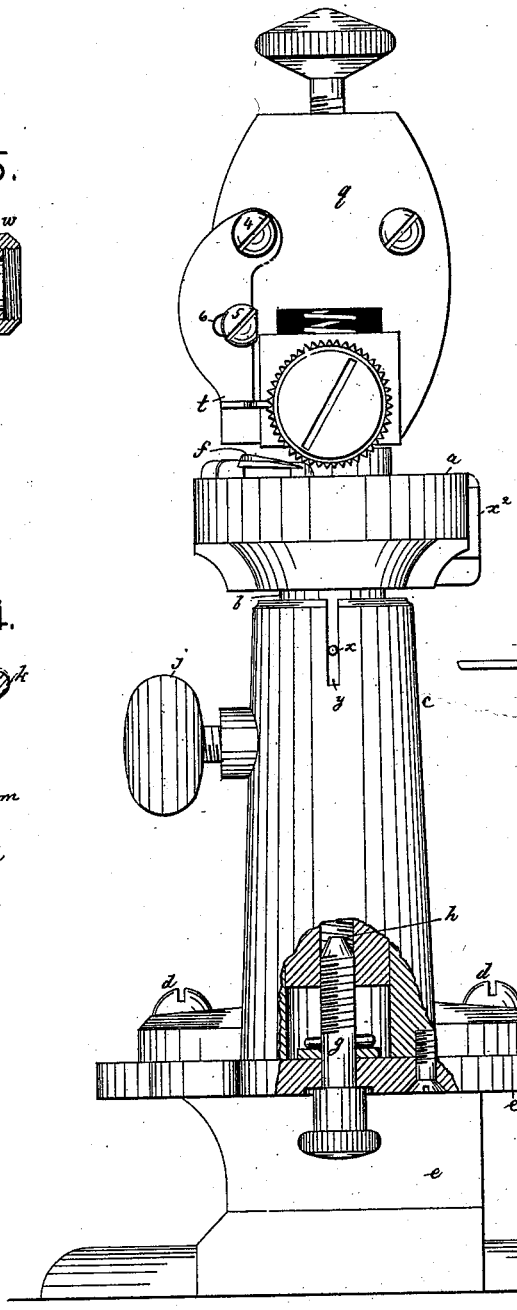


Fig:2.

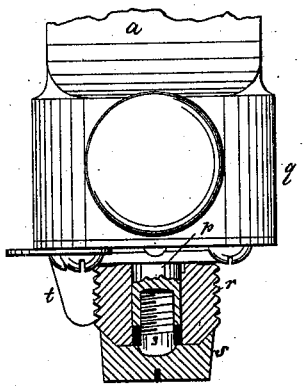


Fig:5.

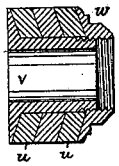


Fig:6.

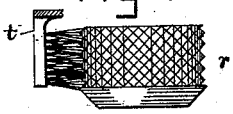


Fig:4.

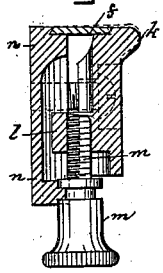
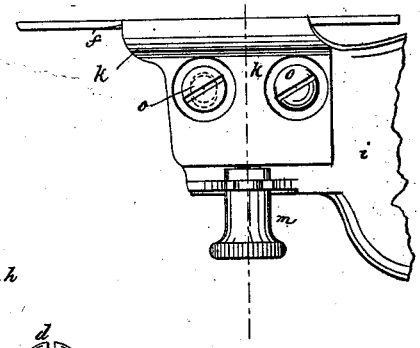


Fig:3.



Witnesses.

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UNITED STATES PATENT OFFICE.

FRANCIS M. CARTER, OF MARLBOROUGH, MASSACHUSETTS.

IMPROVEMENT IN SKIVING-MACHINES FOR LEATHER.

Specification forming part of Letters Patent No. **210,183**, dated November 26, 1878; application filed August 17, 1878.

To all whom it may concern:

Be it known that I, FRANCIS M. CARTER, of Marlborough, county of Middlesex, State of Massachusetts, have invented an Improvement in Skiving-Machines, of which the following description, in connection with drawing forming a part thereof, is a specification:

This invention relates to machines for skiving leather and other materials, and is an improvement upon the machine represented in United States Letters Patent No. 205,726, heretofore granted to me. The said patented machine shows a post or horn with a small surfaced top to support the material being skived and permit it to be grasped and turned close to the feeding mechanism and cutting-blade, as is necessary when turning corners and skiving small curves.

In this my present invention the cutting blade or knife, the apparatus for adjusting it to its various positions, and the feed-operating shaft and its supporting and operating devices are all substantially as in my former patent, except as to the devices for adjusting the cutting-edge of the knife as to its pitch or rate, which will be hereinafter described.

This invention consists in making the small supporting-surface at the top of the post vertically adjustable with relation to the cutting blade or knife, to permit the said surface to be raised or lowered, according to the thickness of the material being operated upon, the knife remaining at the same inclination with relation to the top of the supporting-surface when cutting both thick and thin leather. This adjustment of the supporting-surface, rather than the knife, results in the saving of time, and enables the leather or other material to be skived of uniform distance back from its edge.

The invention also consists in the combination, with the feeding-wheel, of a clearer, to prevent the leather from adhering to its surface; also, in the combination, with the feeder, of a smoothing-wheel to remove wrinkles from the material being skived as it approaches the edge of the knife, thereby holding the material firmly and smoothly just as it is to be cut.

Figure 1 represents, in front elevation and partially in section, a skiving-machine embodying my invention; Fig. 2, a top view of the front part of the machine, the feeding and smoothing wheels being in section; Figs. 3 and 4, a side elevation and section of the knife-holder; Fig. 5, a modified form of feed-wheel, and Fig. 6 shows a modified form of clearer.

The supporting-surface *a*, upon which is placed the material to be skived, has a shank, *b*, fitted within the tubular post *c*, attached by screws *d* to the frame *e* of the machine; or it may be cast to the frame. This supporting-surface and shank are made vertically adjustable, so as to place the top of the support in proper position with relation to cutting-edge of the knife *f*, according to the thickness of the material being skived, by a screw, *g*, so held in the frame *e* that it may rotate, but not move longitudinally, the threads of the said screw being fitted to enter a screw-threaded portion, *h*, of the shank, as shown in Fig. 1.

When the knife *f* has been set by the adjustment of the knife-holder *i*, so as to skive the material to the desired distance back from its edge, and when it is desired to skive thicker or thinner material for the same distance back, or to make the skiving removed uniform for all thicknesses of material, it is only necessary to raise or lower the supporting-surface by means of the screw or adjusting device *g*. A set-screw, *j*, is employed to hold the shank *b* in adjusted position.

The knife *f* (see Fig. 1) is shown with its cutting-edge somewhat lower than its back edge. The front edge is held by a holder, *k*, provided with a threaded lug, *l*, which is entered by a screw, *m*, held by the portion *n* of the knife-holder *i*, so that it can rotate but not reciprocate, and so that by turning the said screw the portion *k* of the holder gives less or more rate or pitch to the knife than shown in Fig. 1. This screw *m* serves in this case the purpose of the cam-screw described in my patent referred to.

The portion *k* of the holder is held against the knife by means of screws *o o*, which extend through elongated openings in *k* and fit snugly-threaded holes in *n*. The shaft *p*, (see Fig. 2,) which extends outward beyond the head *q*, as in my patent referred to, has a feeding-wheel, *r*, provided with teeth, and outside of and beyond said feeding-wheel is a smooth-

ing-wheel, *s*, made in this instance of my invention as a screw, with a threaded shank, 3, which enters a threaded hole in the end of the shaft which confines the wheel *r* in position; or it may be made in the form of a nut, to screw on the end of the shaft, instead of a threaded shank to enter the shaft.

To prevent the teeth of this wheel *r* from becoming clogged or stopped, which in a measure destroys its operation, I have arranged a clearer, *t*, and, as shown in Fig. 2, have provided it with teeth to enter corresponding recesses in the feeding-wheel and keep the teeth of the latter free and clear. This clearer is pivoted to the head *q* by the screw 4, and is held in adjusted position by the screw 5, which enters a slot, 6, in the clearer.

Instead of this toothed clearer, I may employ a brush-like clearer, as shown in Fig. 6. For some classes of work wherein a toothed feeding-surface would be apt to injure the material, I employ a feeding-wheel, such as shown in Fig. 5, it being composed of rings or washers, *u*, of leather, placed on a collared sleeve, *v*, a nut, *w*, screwed upon the sleeve, holding the washers in place, thereby making a substantially smooth-surfaced feeding-wheel, yet it having the property of adhering to the material sufficiently to feed it.

The periphery of the smoothing-wheel irons or presses out all wrinkles in the material, and presents the latter evenly in front of the cutting-edge of the knife. A stud, *x*, on the shank *b*, entering a slot, *y*, in the post, insures vertical movement and prevents rotation of the shank. The supporting-surface *a* is provided with an adjustable gage, x^2, as in my patent referred to.

I claim—

1. The combination, with the knife and feeding mechanism, of a non-revolving supporting-surface, *a*, for the material being skived, a shank, *b*, connected therewith, a post to receive and guide the shank in a vertical direction, and adjusting devices to raise and lower the said supporting-surface with relation to the knife and feeding mechanism, according to the thickness of the material being skived, substantially as described.

2. In a skiving-machine, the combination, with the feeding-wheel, of a clearer, to operate substantially as described.

3. In a skiving-machine, the combination, with the knife and the supporting-surface for the material being skived, of a feeding and a smoothing wheel, to operate substantially as described.

4. The knife-holder *i n* and knife and the screw *o*, combined with the portion *k* of the knife-holder, provided with the threaded lug *l* and with the screw *m*, to operate substantially as described.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

FRANCIS M. CARTER.

Witnesses:
A. C. WEEKS,
THOS. O'KEEFE, Jr.