W. S. HADAWAY & E. GOTT.

Leather-Skiving Machine.

No. 217,212. Patented July 8, 1879.

Fig. 1.

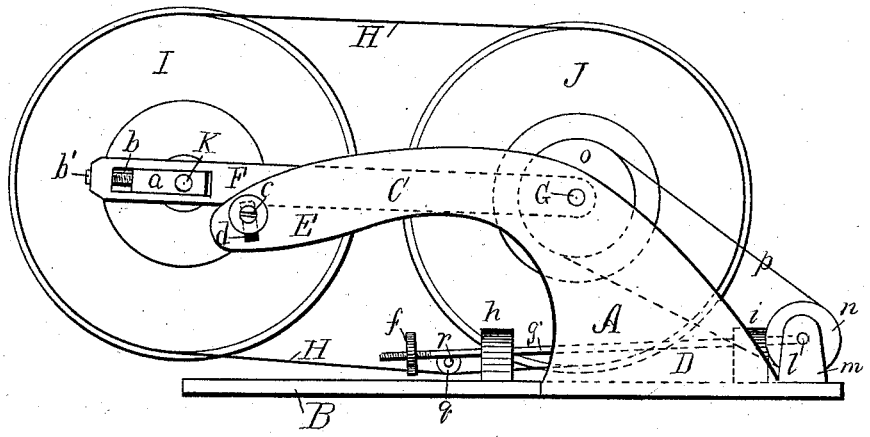


Fig. 2.

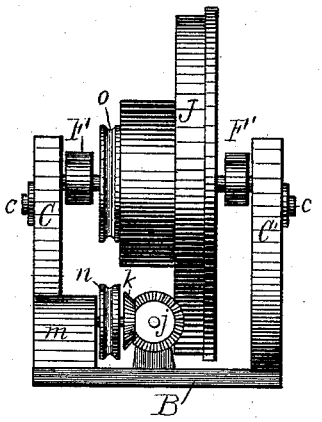
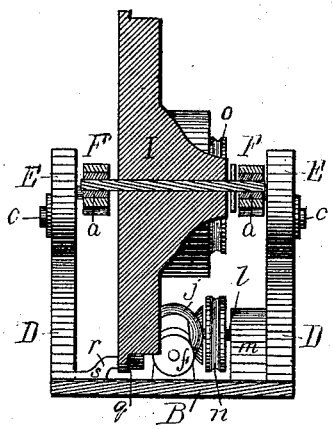


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM S. HADAWAY, OF CHILTONVILLE, AND ERASTUS GOTT, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN LEATHER-SKIVING MACHINES.

Specification forming part of Letters Patent No. **217,212**, dated July 8, 1879; application filed May 12, 1879.

To all whom it may concern:

Be it known that we, WILLIAM S. HADAWAY, of Chiltonville, county of Plymouth, and ERASTUS GOTT, of Boston, county of Suffolk, both of the State of Massachusetts, have invented certain useful Improvements in Leather-Skiving Machines, of which the following is a specification.

The drawings accompanying this specification represent, in Figure 1, a side elevation, in Fig. 2 a rear-end elevation, and in Fig. 3 a vertical cross-section, of a machine embodying our invention.

In these drawings, A represents the frame of the machine as composed of a flat base, B, and two curved standards or goose-necks, C C′, springing from the rear end of the base B, the vertical portion or base of support of each goose-neck being shown at D and its horizontal portion or arm at E. Upon the inner side of each arm E, I dispose a horizontal bar or carrier, F or F′, these carrier-bars being pivoted at their rear ends to the goose-necks by a common horizontal pivot, G, in such manner as to be susceptible of slight swinging motion thereupon with respect to the base B.

The knife for shaving or skiving the leather is shown at H as an endless band of thin steel, and is supported by and caused to travel with two or more vertical pulleys or guide-rollers, I J, disposed in line with each other midway of the carrier-bars F; the rear and stationary pulley, J, being mounted upon the pivot before alluded to, while the front and adjustable pulley, I, which we term the "tension-pulley," is mounted upon a horizontal pivot, K, supported at each end in a box, *a*, sliding in a slot, *b*, created in the forward end of each bar or carrier, the said boxes *a a* being movable longitudinally of the goose-necks, and being adjusted each by a screw, *b′*, swiveled to the goose-neck, and screwing into the end of the box. By this method of mounting the front pulley or guide-roll the tension of the endless knife is regulated.

As the leather in being shaved by the knife passes between the latter and the bed or table B, it is essential not only that the slope of the knife longitudinally of the bed may be varied to determine the slope of the scarf cut by it, but also that the distance between the knife and bed may be varied for other purposes, should occasion require. We accomplish both these results by bringing the pulley-carrying bars F F′ to the rear part of the standards C C′, and to securely hold the front end of such bars to said standards, when their proper position is determined, we employ with each a screw or bolt, *c*, which screws into it and passes through a slot, *d*, in the front end of said standard, the heads of the bolts overlapping the side boundaries of the slots *d d*.

By lowering the bars F F′, and consequently the front pulley, I, the angle or bevel of the scarf is lengthened, and vice versa, and this is accomplished without interfering with or changing the tension of the knife H, as the bars F F′, which support the tension-pulley, swing upon the same pivot as the rear pulley, J.

To feed the leather or stock below the knife and at right angles to the path of movement of such knife we employ a roughened feed-wheel, *f*, screwed upon the front end of a horizontal shaft, *g*, disposed below and parallel with the rear pulley, J, and practically in alignment with the longest plane of the knife H, such shaft being supported and revolving in standards *h i*, erected upon the base B, and driven by a bevel-gear, *j*, affixed to its rear end, which engages and is in turn driven by a second bevel-gear, *k*, affixed to the inner end of a short horizontal shaft, *l*, which is mounted in the upper part of a standard, *m*, erected upon the rear end of the said base B and in rear of the pulley J, this latter shaft *l* carrying a pulley, *n*, about which and a second pulley, *o*, affixed to the side of the said pulley J, an endless belt, *p*, travels and puts the said pulley *n*, and through it the shaft *l* and feed-wheel *f*, in rotation.

The shaft *g* passes through a slot in the standard *h*, and is depressed by a spring placed over it, in order to permit of a yielding vertical movement of the front end of the shaft and wheel, to adapt the latter to the inequalities of varying thickness in the stock.

The wheel *f* bears upon the edge of the stock and pushes the latter forward beneath the knife, which is in motion; consequently the

latter shaves or skives the edge of such stock in rear of the feed-wheel. A suitable gage to follow the feed-wheel should be secured upon the front of the shaft. If the stock is to be left thick the feed-wheel and gage should be moved to the left upon the shaft, and vice versa.

To prevent springing of the knife immediately about its point of contact with the stock we employ a roller, *q*, bearing upon the top of the knife and mounted upon a journal, *r*, making part of a post, *s*, secured to or erected upon the base B in rear of the knife, and if deemed desirable a second roller may be employed, disposed below the first, and bearing upon the under side of the knife.

We claim—

1. The endless-band knife and its supporting-pulleys, arranged substantially as described, whereby the front pulley is adjustable with respect to the bed of the machine to vary the angle or slope of the cut effected by the knife.

2. The combination of the endless knife, the two supporting-pulleys, and the swinging bars with the standards, substantially as set forth, whereby, by varying the altitude of the free ends of said bars, the slope or angle of the knife and the bevel of the scarf cut by it are varied without interfering with the tension of the knife.

3. The combination of the pulley-supporting bars and the curved standards or goose-necks, substantially as explained, whereby the bars are adjustable within or upon the standards to vary the slope of the knife with respect to the bed, and the bearings of the tension-pulley are movable within the bars to adjust the tension of the knife.

4. The combination of the pulleys I J and their supporting-bars with the standards C C′, essentially as stated, whereby the tension-pulley I may be raised or lowered to govern the bevel of the scarf without changing the tension of the knife.

5. The combination, with the knife-carrying pulleys, the endless knife, and the bed B, of the feed-wheel operating to feed the stock beneath the knife, substantially as explained.

6. The combination of the endless knife, the feed-wheel, and the guide-roll *q*, substantially as stated.

7. The guide-roll *q*, in combination with the endless knife and its supporting-pulleys and the swinging bars F F′, essentially as and for the purposes stated.

8. In combination, the knife H, pulleys I J, swinging bars F F′, curved standards C C′, feed-wheel *f*, and guide-roll *q* with the bed B, arranged and operating substantially as described.

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