

(No Model.)

2 Sheets—Sheet 1.

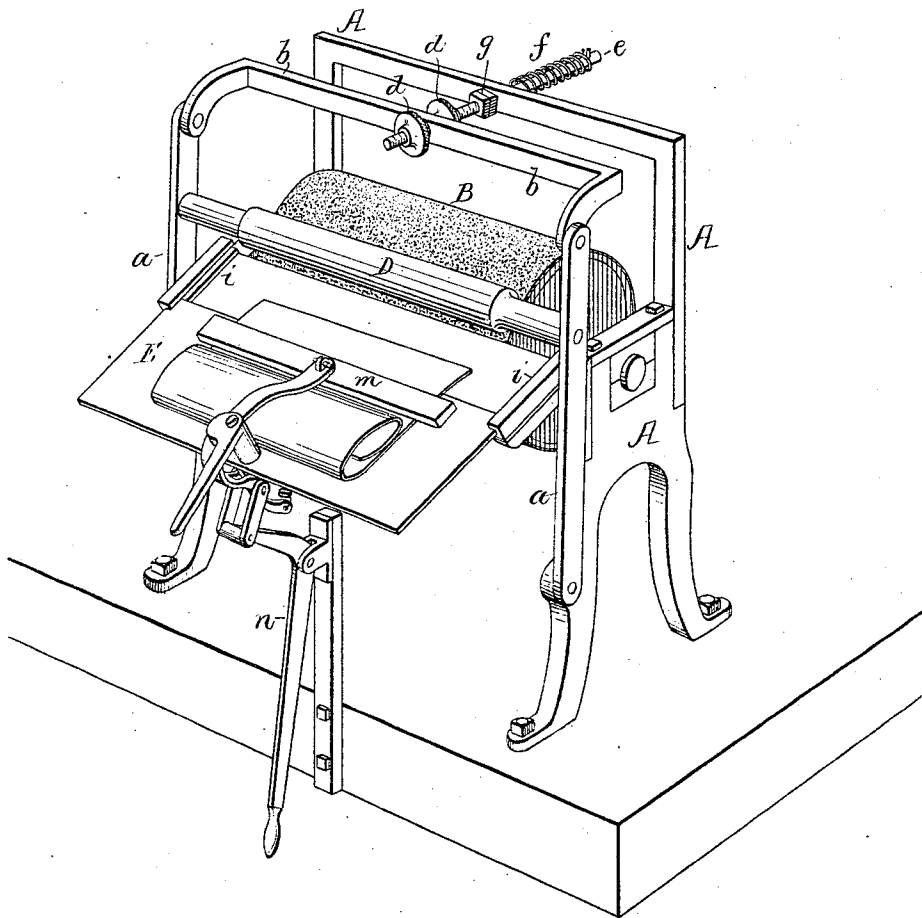
A. Y. ANDREWS & H. BURK.

Leather Skiving Machine.

No. 242,579.

Patented June 7, 1881.

FIG. 1.



Witnesses:

Harry Smith  
James F. Tobin.

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Adolphus Y. Andrews  
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by their Attorneys  
Howson and Fox



# UNITED STATES PATENT OFFICE.

ADOLPHUS Y. ANDREWS AND HENRY BURK, OF PHILADELPHIA, PA.

## LEATHER-SKIVING MACHINE.

SPECIFICATION forming part of Letters Patent No. 242,579, dated June 7, 1881.

Application filed January 17, 1881. (No model.)

To all whom it may concern:

Be it known that we, ADOLPHUS Y. ANDREWS and HENRY BURK, citizens of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Skiving Leather and in the Machinery Therefor, of which the following is a specification.

Our invention relates to the preparation of strips or sheets of leather for use in book-binding and in the manufacture of pocket-books, &c., such strips or sheets having a portion reduced in thickness; and the object of our invention is to so effect this reduction that the portion so reduced will present a uniform level surface and will be of equal thickness throughout.

In the accompanying drawings, Figure 1, Sheet 1, is a perspective view of a machine employed in carrying out our invention; Fig. 2, Sheet 2, a vertical section of the same; Fig. 3, a view of a modified form of machine, and Fig. 4 a view of a strip of leather drawn to an enlarged scale and illustrating the work of the machine.

In Figs. 1 and 2 of the drawings, A represents a suitable frame-work, to bearings in which is adapted the shaft of a drum, B, having a surface of sand-paper, emery-paper, or other abrading-surface properly secured thereto, and preferably furnished with a backing of some elastic or semi-elastic material.

D is a roller of hard wood or metal, adapted to bearings in opposite arms *a a*, pivoted to the frame A at their lower ends and connected at the top to a transverse yoke, *b*, which is confined between a pair of thumb-nuts, *d*, on a threaded rod, *e*, the latter passing through a central opening in the yoke and through a similar opening in the top bar of the frame A, between which and a pin at the outer end of the rod intervenes a spiral spring, *f*. The arms *a* and yoke *b* thus form a pivoted roller-carrying frame acted on by the spring *f* through the medium of the rod *e*, the tension of the spring being regulated by the adjustment of the nuts *d d* on the rod. The approach of the roller D toward the surface of the drum B is limited by the contact of one of a pair of jam-nuts, *g*, on the rod *e* with the top bar of the frame A, these nuts being adjusted on the rod as the desired thickness of the skived portion of the leather may suggest.

To inclined guides *ii* on the frame A is adapted a sliding table, E, which is provided with a clamp, *m*, for the sheet of leather to be acted upon, this table being moved to and fro in its guides by manipulating a bell-crank lever, *n*, hung to a stud on the base of the machine, and connected to a lug on the slide by means of a link.

The operation of the machine is as follows: The drum being rotated in the direction of the arrow, Fig. 2, and a sheet of leather properly clamped to the table, with its front edge projecting beyond the same, as in Fig. 1, the table is moved upward, and the projecting edge of the leather subjected to the action of the abrading-drum, the roller D bearing upon the back of the sheet and keeping the face of the same firmly pressed against the surface of the drum. The roller is at liberty to yield under control of the spring *f* to accommodate itself to inequalities in the thickness of the portion of the sheet of leather acted upon, and the table E is moved backward and forward to the desired extent until all that portion of the sheet which has to be acted upon has been reduced to a uniform thickness predetermined by the adjustment of the nuts *g* on the rod *e*. The sheet is then released from the control of the clamp and readjusted on the table E, or a new sheet of leather substituted therefor.

The machine above described is constructed for skiving the edges of a straight sheet of leather.

In Fig. 3 we have shown another form of machine similar in principle to that above described, but differing therefrom in some of the minor details, the drum B and roller D being contracted in width, and the table E, frame A, and clamp *m* being recessed, so that the machine is adapted for skiving the center of a sheet, the opposite edges of which retain their original thickness. In this machine, also, the spring for imparting a yielding pressure to the roller or abutment D and the adjusting-nut for determining the limit of the movement of the said roller toward the abrading-drum are arranged somewhat differently from those in the machine first described. The strip or sheet of leather is firmly held by the clamp, and a uniform action of the abrading-drum upon all parts of the reduced portion of the strip is thus insured, the reduced portion being of

equal thickness throughout and presenting a smooth and uniform surface. (See Fig. 4.)

We claim as our invention—

- 5 1. The combination, in a skiving-machine, of an abrading-drum, B, and a movable roller or abutment, D, with a clamping device for retaining the leather and presenting it to the said abrading-drum.
- 10 2. The combination, in a skiving-machine, of the abrading-drum B and a movable roller or abutment, D, with a clamping device and a table, E, carrying the same, and adapted to guides on the frame of the machine, all substantially as set forth.
- 15 3. The combination of the table E, adapted to guides on the frame of the machine, and the clamping device, with a bell-crank lever, *n*, by which the said table may be moved, substantially as described.

4. The combination of the abrading-drum 20 journaled to the fixed frame, the pivoted frame carrying the roller or abutment D, and consisting of arms *a a* and yoke *b*, pivoted to the said arms, with the threaded rod *e*, passing through the yoke and fixed frame, and pro- 25 vided with nuts and a spring, *f*, all being constructed substantially as specified.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

ADOLPHUS Y. ANDREWS.  
HENRY BURK.

Witnesses:

JAMES F. TOBIN,  
HARRY SMITH.