

C. AMAZEEN.  
Leather-Skiving Machines.

No. 220,906.

Patented Oct. 28, 1879.

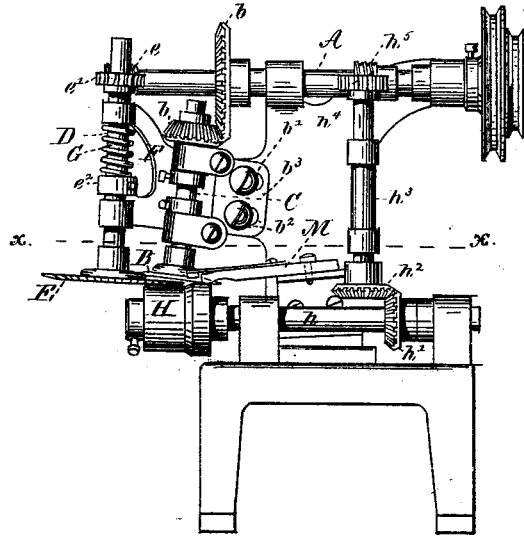


Fig. 1.

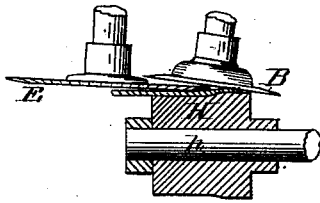


Fig. 3.

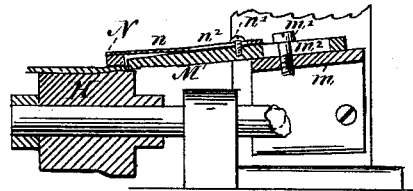


Fig. 4.

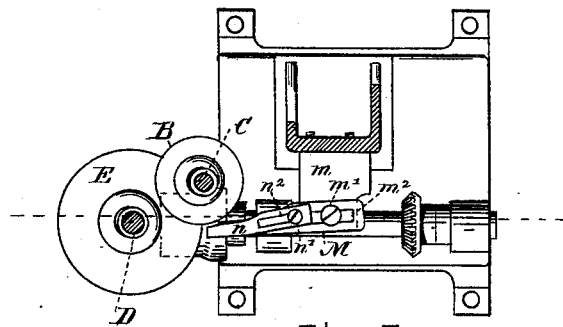


Fig. 2.

WITNESSES

A. J. Oettinger.  
Geo. F. Walker.

INVENTOR

Christopher Amazeen.  
by his Atty.  
Clarke & Raymond.

# UNITED STATES PATENT OFFICE.

CHRISTOPHER AMAZEEN, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN LEATHER-SKIVING MACHINES.

Specification forming part of Letters Patent No. **220,906**, dated October 28, 1879; application filed February 27, 1879.

*To all whom it may concern.*

Be it known that I, CHRISTOPHER AMAZEEN, of Boston, in the county of Suffolk and Commonwealth of Massachusetts, have invented an Improvement in Leather-Skiving Machines, of which the following is a specification.

Reference is made to the accompanying drawings, forming a part of this specification, in explaining the nature of my invention, in which—

Figure 1 is an end elevation of an improved skiving-machine. Fig. 2 is a horizontal section on the line *xx* of Fig. 1. Fig. 3 is a view, part in elevation and part in section, illustrating the method of operation of the skiving-knife and feed-rolls. Fig. 4, in section, represents the operation of the presser and guide.

This invention is an improvement upon the machine described in Letters Patent No. 200,682, granted me February 26, 1878; and it consists in the combination, with the mechanism therein shown, of a guide for directing the movement of the work to the cutter, and a presser for holding the work to the feed-roll. It also embraces a revolving cylindrical cutting-disk.

The main shaft *A* operates the cutting-disk *B* by means of the beveled gear *b*, and the shaft *C*, to the lower end of which the cutting-disk is secured. The main shaft also revolves the feed-disk *E* by means of the worm *e* and pinion *e'*, and shaft *D*, to the lower end of which the disk is attached. The shaft has bearings in the bracket *F*, and has a slight vertical movement therein. Between these bearings is arranged a spring, *G*, which surrounds the shaft and bears upon the collar *e''*, thereby serving to press the disk toward the roll or drum *H*. This roll *H* is arranged at the end of shaft *h*, and is of a sufficient width to suitably support the leather as it is fed to the cutting-disk. The shaft carrying this roll is provided with the gear *h'*, which is operated by a bevel-gear, *h''*, at the end of the short shaft *h'''*, which is itself operated by the pinion *h''''* and the worm *h'''''* on the main shaft.

The guide *M* is fastened to the bracket *m* by the set-screw *m'*, and is provided with a horizontal adjustment by said set-screw and slot *m''*, and is arranged to project upon the roll *H*

on a line substantially parallel with its axis. Secured to a spring, *n*, fastened to the guide by the set-screw *n'*, and having a horizontal adjustment thereon by means of said set-screw and slot *n''*, is the presser *N*, which is adapted to prevent the rocking of the work as it is presented to the cutter, and to automatically yield to conform to varying thicknesses.

The feed-disk *E* is rough upon that surface which contacts with the roll *H*, although, if desired, that portion of the roll *H* with which the feed-disk contacts may be roughened in lieu thereof, or both the feed-disk and the roll may be thus finished. The cutter consists of a thin revolving disk having a continuous cutting-edge.

It will be observed that the axis of the feed-disk is at right angles, or substantially at right angles, with the axis of the roll *H*.

It will also be observed that the revolving cutter is so arranged that its cutting-edge is substantially on a line with the axis of the roll and of the feed-disk, and that it moves much faster than the feeding devices, and cuts in a direction substantially lengthwise of the cylinder and away from the point of contact of the feed-disk and roll. The cutter is made adjustable, in order to cut leather of different thicknesses, by means of the slotted head *b''* and set-screws *b'''*.

It will be observed, further, that the guide, presser, and the point at which the material to be cut is seized by the feed-disk and roll, and the line upon which the cut takes place, are as near each other as it is possible to arrange the parts. That is, it is intended not only that the cutters shall move more rapidly than the feed-roll, and cut away from the presser, roll, and feed-disk, but also that there shall be as little space between the cutting-edge, the guide, presser, and the contacting point of the feed-disk and roll, as possible.

In operation, the end of the piece to be skived is inserted between the disk and roll, with one edge abutting against the edge of the guide, with the presser bearing upon it, and it is constantly advanced to the cutter by the feeding device, and a thin strip is skived from the margin adjacent to the edge. The width of the cut portion depends upon the thickness of the material and the angle of the cut-

ting-disk in relation to the roll. This addition of a guide and presser is of great advantage, as it enables the operator to present his work with precision, and without the exercise of the extreme care necessary if a guide or presser is not employed. The cutting-disk is also an improvement upon the cutter described in my said patent, as it cuts continuously and more smoothly. The guide may be used without the presser.

I do not confine myself to the specific construction and arrangement of the parts constituting the feeding device herein described, as any devices which will properly present the work to the cutter, and which will allow the cutter to skive across the line of feed and away from the feeding device, can be used. The essential thing necessary is, that the cutter shall cut from the feeding device sufficiently to keep that portion of the work between the cutting-edge and the feeding device always taut.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination, with a feeding device consisting of a roll and a disk, the surface of the disk adjacent to its edge being in contact with the periphery of the roll, of the guide M, all as described.

2. The combination of a feeding device consisting of a roll and a disk, so arranged that its surface, near its edge, shall contact with the periphery of the roll, and the presser N, all arranged to operate substantially as described.

3. The combination, with a feeding device consisting of a roll and a disk, the surface of the disk adjacent to its edge only contacting with the periphery of the roll, of the guide M and the presser N, substantially as described.

4. The combination of a revolving cutter

and a cylindrical bed, arranged with the axis of the cutter at right angles with the axis of the bed, with a guide, substantially as and for the purpose described.

5. The combination of a revolving cutter, a cylindrical bed, arranged with the axis of the cutter at right angles to the axis of the bed, and a presser, substantially as described.

6. The combination of a revolving cutter, a cylindrical bed, arranged with the axis of the cutter at right angles to the axis of the bed, with a guide and presser, substantially as described.

7. The combination of a feeding device consisting of a roll and a disk, so arranged that its surface, near its edge, shall contact with the periphery of the roll, a revolving cutting device, the cutting-edge, when making a cut, moving away from the feed, and an adjustable guide, all arranged substantially as described.

8. The combination of a feeding device consisting of a roll and a disk, so arranged that its surface, near its edge, shall contact with the periphery of the roll, a revolving cutting device, the cutting-edge, when making the cut, moving away from the feed, and an adjustable presser, substantially as and for the purposes described.

9. The combination of a feeding device consisting of a roll and a disk, so arranged that its surface, near its edge, shall contact with the periphery of the roll, a revolving cutting device, the cutting-edge, when making the cut, moving away from the feed, an adjustable presser, and an adjustable guide, all arranged substantially as described.

CHRISTOPHER AMAZEEN.

Witnesses:

F. F. RAYMOND, 2d,  
A. J. OETTINGER.