3 Sheets—Sheet 1.

M. A. HOLTON.

Leather-Skiving Machine.

No. 220,286. Patented Oct. 7, 1879.

Fig: 1.

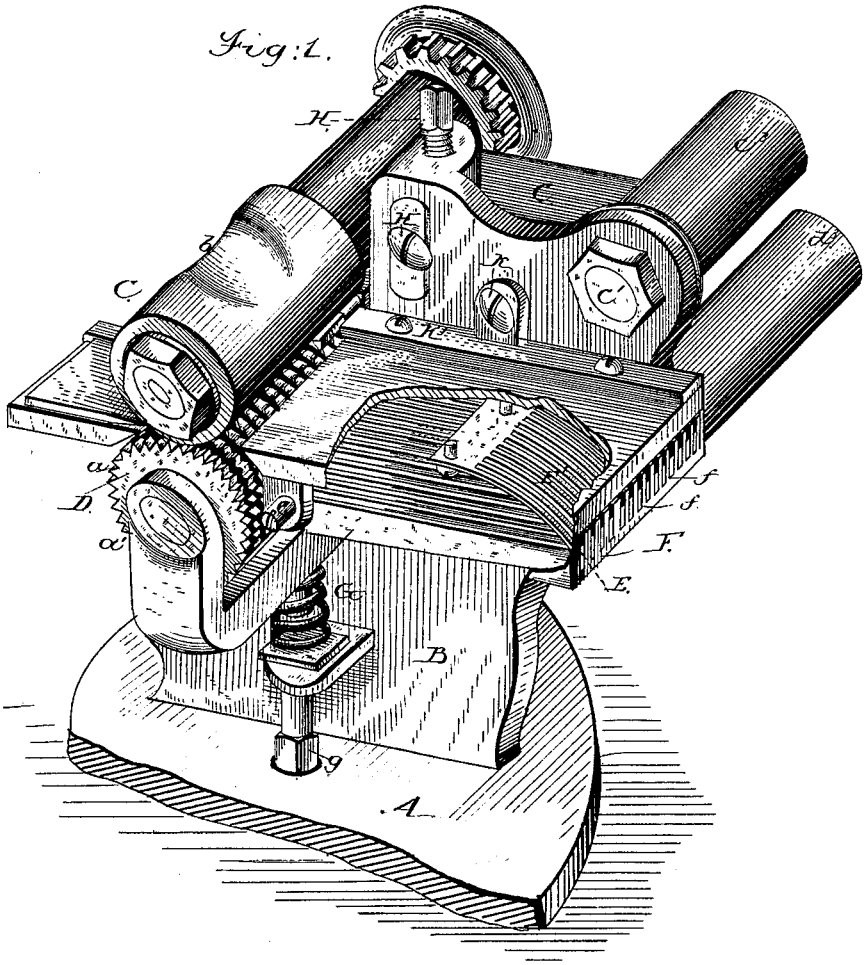
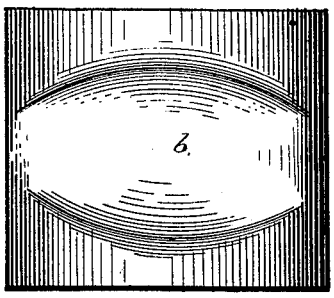


Fig: 4.



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by his attys.

A. H. Evans & Co.

M. A. HOLTON.

Leather-Skiving Machine.

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Fig. 2.

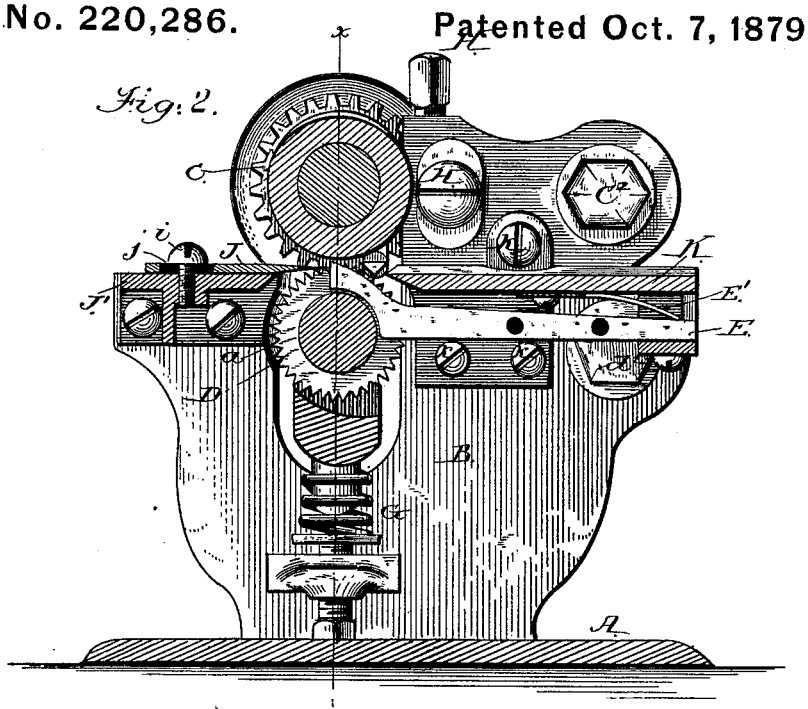
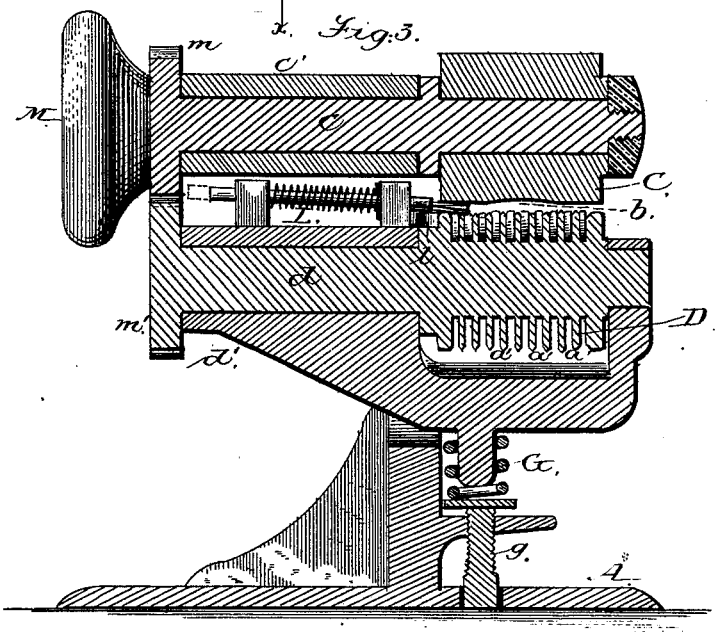


Fig. 3.



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3 Sheets—Sheet 3.

M. A. HOLTON.

Leather-Skiving Machine.

No. 220,286. Patented Oct. 7, 1879.

Fig. 5.

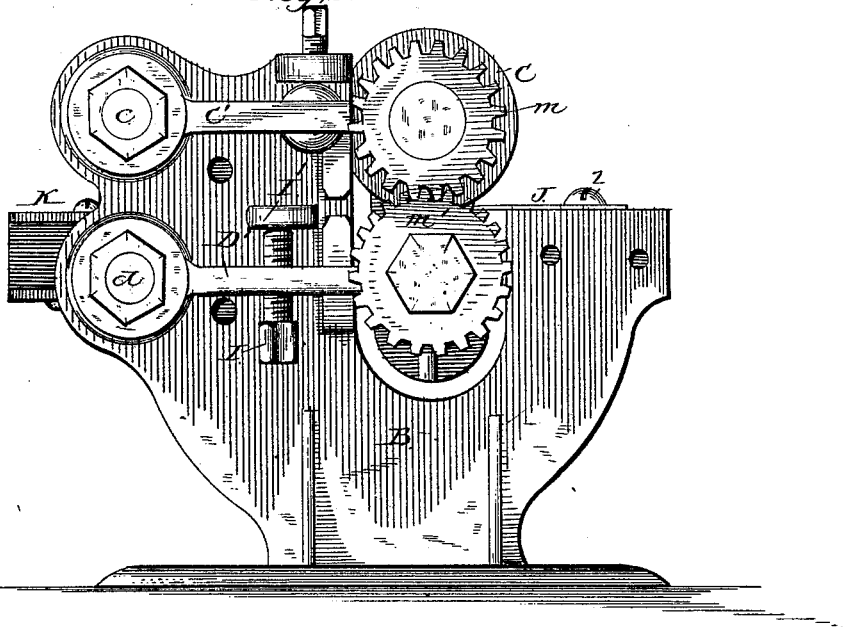
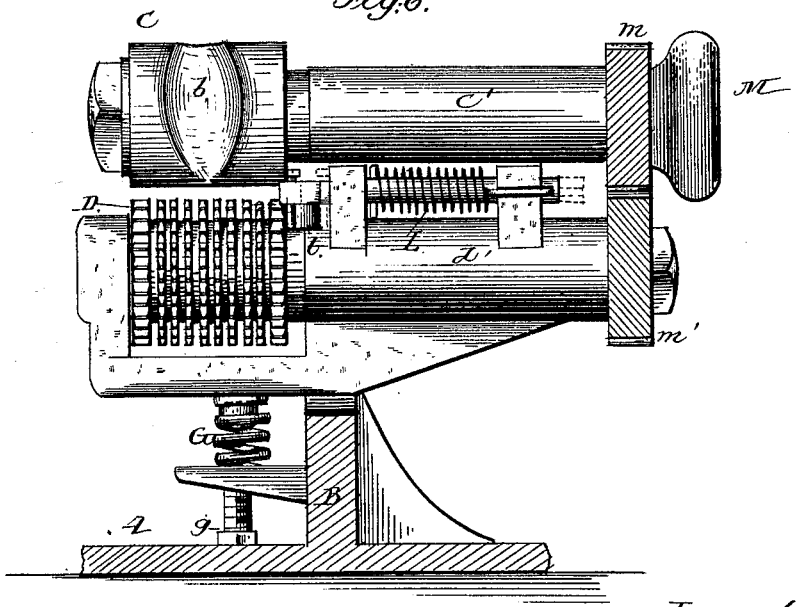


Fig. 6.



Witnesses:

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UNITED STATES PATENT OFFICE.

MERRITT A. HOLTON, OF FITCHBURG, MASSACHUSETTS.

IMPROVEMENT IN LEATHER-SKIVING MACHINES.

Specification forming part of Letters Patent No. **220,286**, dated October 7, 1879; application filed August 8, 1879.

To all whom it may concern:

Be it known that I, MERRITT AUSTIN HOLTON, of Fitchburg, in the county of Worcester and Commonwealth of Massachusetts, 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 thereof, reference being had to the accompanying drawings, making a part of this specification, and in which—

Figure 1 represents a perspective view with a portion of the feeding or relieving table broken away to show the mechanism arranged underneath it. Fig. 2 is a longitudinal vertical section. Fig. 3 is a transverse section. Fig. 4 is a top or plan view of the impression-roll. Fig. 5 is a side view. Fig. 6 is a broken-away sectional view, showing the transverse spring-stop and a cam on feed-wheel D for operating said stop.

My invention relates to certain new and useful improvements in the class of machines especially adapted for skiving leather or other similar articles, having for its object skiving leather so as to leave an irregular surface; and the invention consists, essentially, of a pair of rolls for binding the material to be skived, so as to bring the parts to be skived or cut in a line with the edge of the knife.

It also consists in novel means for feeding the material at the proper time to the rolls.

It further consists in novel means for holding material to be passed between the rolls against the irregular roll, and pressing the material into the impression on it.

It finally consists in the general construction and arrangement of parts, as will be hereinafter fully described and claimed.

To enable others skilled in the art to make and use my invention, I will proceed to describe the exact manner in which I have carried it out.

In the drawings, A represents the base, and B a vertical forked standard, upon which the operating mechanism is mounted. C and D represent rolls, mounted on shafts *c d*, journaled in the boxes c^1 d^1, formed on the forward ends of the pivoted arms C′ D′, secured to the standards by bolts c^2 d^2, passing through boxes c^3 d^3, formed on the rear ends of said arms, the upper roll, C, having an impression, *b*, on its surface corresponding to the impression of the material to be skived, varying in depth according to the thickness of the material to be skived.

The lower or feed roll, D, is provided with a corrugated or serrated surface, *a*, and is provided with annular grooves *a′*, in which fit the forward ends of a series of arms, E, journaled or pivoted on the bolt or rod *e*. The rear ends of said arms rest in the grooves *f* of the bar F, and the forward ends of said arms are held in contact with or against the surface of the leather as it passes beneath the roll C by means of the bent or curved springs *e′* pressing down upon their rear ends. The object of the arms E is to press the material passing between the rolls into the impression of the roll C. A spring, G, arranged under the box of the lower roll, D, regulated by a set-screw, *g*, is to allow for the unevenness of the material passing between the rolls.

The screws H H are for adjusting the roll C, the arm C′ of which swings upon the bolt c^2, and thus determines the thickness of the piece skived. The screw I, passing through the arm D′, and striking against the projection I′ on the standard B, is to prevent the roll D, as it swings on the bolt d^2, from coming into too close proximity with the knife J and the roll C. The knife J rests on a table, K, secured to the standard B in front of the rolls, said knife being provided with elongated slots *j j*, and is adjustably secured upon said table, so as to be moved toward or from the roll by set-screws *i i*.

K represents a horizontal table, secured to the standard B, in rear of the rolls, by screws *k k*, and upon this table the material to be skived is placed and fed to the rolls, said table being provided with a guide-fork.

L represents a transverse spring-stop, arranged in front of the table K, and between the rolls C and D, against which the material to be skived rests, said stop being actuated or moved transversely by means of a cam, *l*, arranged on the inner periphery of the roll D. This cam is arranged on roll D so that it will engage with a shoulder or stud on said spring-stop L and move it transversely away from the rolls,

and permit the material to be carried between the rolls just as the impression on the roll C comes around to said stop.

The shaft *c* is provided at one end with a hand-wheel, M, for revolving the roll C, and a gear-wheel, *m*, mounted on said shaft *c*, and meshing with a gear-wheel, *m'*, mounted on the shaft *d* of the lower roll, communicates motion thereto. The rolls C D move at a uniform rate of speed, and revolve so that their points of near contact will be toward the edge of the knife.

The operation of my improved machine is as follows: The leather or like substance is placed upon the table K so that the forward end thereof rests against the spring-stop L. The rolls are then revolved, and as the impression in roll C comes around to said stop it is thrown away from the rolls, so that the material is carried forward between the rolls C D (and the portion to be skived forced into the impression of the roll C by the spring-arms E) and against the knife, to be skived or cut in a manner corresponding with the impression in the roll C.

I am aware that skiving-machines with a plain cylindrical feeding-roll and spring presser-feet carrying a plate have heretofore been used; but these presser-feet, having no independent movement, would not operate as the series of independent presser-feet operate in my machine. They cannot follow the irregularities of the surface of roll, and so press the leather into these irregularities to make the cutting conform thereto, while each presser-foot in my machine forces the leather against that part of the roll opposite it, and makes it conform to the irregularities of the roll.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a leather-skiving machine, the roller C, having an irregular surface, in combination with a series of independently-operating spring presser-arms to hold the leather against the irregularities of the roller, substantially as set forth.

2. The irregular-faced roller C, in combination with the slotted feed-roll D, presser-arms E, springs *e'*, and knife J, substantially as and for the purpose described.

3. The irregular-faced roller C, in combination with the feed-roller D, cam *l*, spring-stop L, and knife J, substantially as set forth.

4. The combination, with the arm D', carrying the roll D, of the adjusting-screw I and projection or stop I', substantially as and for the purpose specified.

MERRITT AUSTIN HOLTON.

Attest:

H. M. FRANCIS,

E. P. LORING.