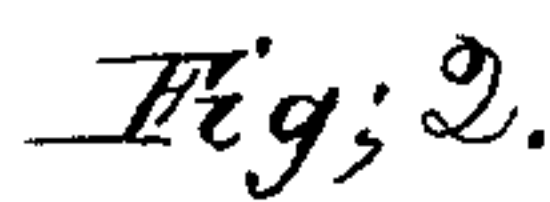


## Preparing Hides.

*N<sup>o</sup> 80,018.*

*Patented July 14, 1868.*



Witnesses,  
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# United States Patent Office.

CHRISTIAN SCHMITZ OF PHILADELPHIA, PENNSYLVANIA.

*Letters Patent No. 80,018, dated July 14, 1868.*

## IMPROVED MACHINE FOR STRETCHING AND SOFTENING SKINS.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, CHRISTIAN SCHMITZ, of the city and county of Philadelphia, in the State of Pennsylvania, have invented a new and useful Machine for Stretching and Softening Skins; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is an elevation,

Figure 2 a top view, and

Figure 3 a central transverse section of my machine.

The nature of my invention consists in using a number of parallel and adjustable blades fastened to a bench, and a lever with parallel rollers pivoted to the same bench, so that a hide or skin laid across said blades can be stretched by moving the lever, with its rollers, between said blades while holding the ends of the skin, and allowing only so much to be drawn in from the outside as to prevent the skin from being torn, by which operation the skin is stretched and softened more completely and much sooner than can be done by hand.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

Upon a platform, A, made of timber or other suitable material, I place a bench, B, and a head, C, for inserting the supporting-blades D D D, as seen very plainly in section in fig. 3.

The said blades are fitted in slots in the top of bench B, and also in slots in the head C, which slots are of different depths, to facilitate a proper location of set-screws *c c c*, for the adjustment of the blades.

A lever, E, pivoted to a fulcrum, F, which is supported upon the bench B, is flattened and slotted at *f*, in such manner that in being moved down it will go between the blades D D D without touching them, and allowing sufficient room around the blades to work the thickest kind of hide through without danger of injuring it.

This slotted portion of the lever is provided with rollers G G, and bearings *g g* fastened to the lever, said rollers being parallel to the slot, and also to the blades aforementioned.

So far the machine is completed, and can be worked by hand at the free end of the lever E, or by foot with the aid of a treadle and connecting-rod, or by steam or other power, for which purpose the connecting-rod H, fulcrum K, and lever I, to be worked from a crank, eccentric, or cam, may, perhaps, answer as well as any other connections.

The operation of my machine is as follows:

Take a skin or hide dressed in alum, with or without the hair, and lay it across the supporting-blades, then vibrate the lever up and down. The downward movement of the lever brings the rollers G G in contact with the skin, and causes them to press down, and in consequence of the resistance offered by friction in moving over the edges of the blades D D D, stretch the said skin to a certain extent, according to the wish of the operator, who can easily, by bearing more or less on the ends of the skin, regulate the amount of tension. He will, of course, apply more or less energetic action to one part of the skin than to another, as his experience and judgment may dictate.

It is evident that this process of stretching provides, also, for the cleaning and softening at the same time, exactly the same as if it were done by hand, only with considerable saving of time.

The blades may be provided with the same kind of edges or scrapers, &c., as the hand-tools, to make them just as effectual.

The number of blades and rollers is variable, as well as the way of adjusting them.

This whole arrangement may be reversed, by making the rollers stationary and fastening the blades to the moving-lever, without altering or affecting the results of the operation of my machine.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States of America, is—

1. An instrument having a set of parallel, or nearly parallel, stationary blades or supports, and a set of parallel rollers, operated by a lever or otherwise, for the purpose of stretching leather, as set forth.

2. The arrangement of the blades D D D upon the supporting-head C, so as to adapt them for adjustment by means of the set-screws *c*, substantially as set forth.

To the above I have signed my name, this first day of June, 1868.

CHRISTIAN SCHMITZ.

Witnesses:

WM. A. WIEDERSHEIM,

H. HYNEMAN.