

United States Patent Office.

WILLIAM C. STONE, OF DERBY LINE, VERMONT, ASSIGNOR TO HIMSELF
AND WILLIAM S. FOSTER.

Letters Patent No. 111,583, dated February 7, 1871.

IMPROVEMENT IN TANNING.

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, WILLIAM C. STONE, of Derby Line, in the county of Orleans and State of Vermont, have invented a new and useful Improvement in Tanning; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same.

This invention relates to improvements in tanning hides and skins, and consists in the following process and modifications thereof.

The skins to be tanned (the hair, fur, or wool having been removed by the ordinary process,) are soaked from twelve to thirty-six hours, according to size and weight, (light skins, like sheep, twelve hours; heavy, like beef-hides, thirty-six,) in a solution which I designate No. 1, consisting of one pound sal soda, one quart soft soap, and ten gallons water, sufficient being made in this proportion to cover the skins.

Then the skins are removed and "fleshed" in the ordinary way, and washed in a solution, No. 2, consisting of sal soda, one pound; soft soap, one pint; and water, one gallon; after which they are put in a vat to lie twenty-four hours, or thereabout, in a solution, No. 3, of water to which has been added one pound alum, one pound salt, one pound sulphuric acid, and one ounce sal soda to each four gallons.

On being removed from this vat they are hung up to dry, and finished in the ordinary manner with a flesh-beam and knife.

Skins to be tanned with the hair, fur, or wool on, are proceeded with in the same manner, with the exception of the bath of tanning-liquor No. 3, instead of which they are spread on a bench or table flesh-side up, and the tanning-liquor No. 3, mixed in the pro-

portion of one gallon water to the other parts, spread on with a brush or sponge, after which they are finished, as above.

In the case of skins to be colored and tanned with the hair, fur, or wool on, I proceed, as before, with the solutions Nos. 1 and 2 and the fleshing process; then, after washing them, they are dipped in vats of hot dye, say 98° to 110° Fahrenheit, until the requisite shade is obtained. They are then suffered to drain five minutes; then washed in cold water thoroughly; then spread on a table or bench and the tanning-liquor No. 3 (one gallon water to the other parts) spread on the flesh-side with a brush or sponge.

They are then hung up to dry and finished as in the first instance.

The solutions Nos. 1 and 2 are only used to soften the skins and free them from dirt, grease, &c.

The tanning is effected by the preparation No. 3, which accomplishes the work perfectly in very short time—as short as by any process known to me—leaving the leather soft, pliable, and strong, and perfectly white.

In the case of tanning pelts with the wool on, it also bleaches the wool to a pure white.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

The improved tanning process, both as applied to the tanning of skins with the hair, fur, or wool on or removed, substantially as herein specified.

WILLIAM C. STONE.

Witnesses:

N. T. SHEAFE,

H. G. BURROGE.