

# UNITED STATES PATENT OFFICE.

E. DANIELS, OF LA FAYETTE, WISCONSIN.

## IMPROVEMENT IN TANNING HIDES.

Specification forming part of Letters Patent No. **16,355**, dated January 6, 1857.

*To all whom it may concern:*

Be it known that I, EDWIN DANIELS, of La Fayette, in the county of Walworth and State of Wisconsin, have invented a new and Improved Process for Tanning Leather; and I do hereby declare that the following is a full and exact description thereof.

For twenty cow-hides: First, I take fifteen pounds of catechu dissolved in sufficient water to cover the hides, and steep the hides therein one day. I then take out the hides and add fifteen pounds more of catechu and four ounces of niter or saltpeter. In this solution I let the hides remain from three to five days, according to their thickness and condition.

Secondly. I prepare a new liquor by dissolving twenty pounds of catechu and four pounds of alum in sufficient water to cover the hides. In this solution the hides are allowed to remain three days.

Thirdly. I prepare another liquor by dissolving fifteen pounds of catechu in sufficient water to cover the hides, and adding thereto one pound and a half of sulphuric acid, taking care to mingle it well with the solution. In this last solution the hides are kept one day, at the expiration of which time they are found to be thoroughly tanned.

For any greater or less number of hides, or for different kinds of hides and skins, the quantities of the tanning ingredients will vary proportionally.

Instead of catechu, other astringent substances containing the equivalent amount of tannin may be used.

The solutions are prepared by heating in vessels made of copper or some material not to be corroded thereby. All the scum which rises while heating should be taken off. The liquors should in each instance be allowed to cool to about the temperature of blood before immersing the hides therein. During the entire process the hides should be taken out of the solution and hung up to drain from one hour to two hours every day.

I am aware that saltpeter and alum have before been used in different proportions in other processes for tanning leather; and I am also aware that sulphuric acid has been used in various ways in other processes for tanning. Therefore I do not claim the use of any of these substances in any way or process substantially different from the process above described; but

What I claim as my invention, and desire to secure by Letters Patent, is—

The use of saltpeter, alum, and sulphuric acid, respectively, in solutions of catechu or other substance containing an equivalent amount of tannin, substantially in the proportions, order, and manner herein specified.

In testimony that the above is a true specification of my improved process of tanning leather I hereunto set my hand this 29th day of July, 1856.

EDWIN DANIELS.

Witnesses:

CLINTON DANIELS,  
SUSAN WYLIE.