

United States Patent Office.

W. WINDOES, OF FOND DU LAC, WISCONSIN.

Letters Patent No. 80,693, dated August 4, 1868.

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, W. WINDOES, of Fond du Lac, in the county of Fond du Lac, and State of Wisconsin, have invented a new and useful Improvement in the Manufacture of Leather; 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.

My invention consists of a tanning process, certain steps of which are new, and conducive to better results than those processes heretofore practised.

In manufacturing leather, I employ the usual means of removing the hair, "plumping" the skin, so called, and the usual process of liming and baiting in the ordinary manure-bait.

I then employ a combination-dump, composed of—

Brown sugar, two pounds.

Wheat bran, eight quarts.

Soft water, six pails.

In this compound the skins are permitted to ferment thoroughly. They are then taken out and worked over the beam, and afterwards rinsed in warm water, when they are ready for the tanning-liquor.

The sugar and bran act to thoroughly soften the skin, and cleanse it of putrefying matters, and render it exceedingly pliable and soft.

The tanning-liquor is an aqueous solution of alum, saltpetre, and common salt, mixed with other ingredients, in the following proportions:

Alum, two pounds.

Saltpetre, four ounces.

Common salt, half pound.

Water, (blood-warm,) five gallons.

The yolks of thirty eggs.

Wheat flour, four quarts.

The skins are placed in this liquor, and stirred for about thirty minutes, and left to soak therein for about twenty-four hours. They are then taken out and hung up to dry.

They are then stretched on a frame, and colored in the usual manner.

This process is more particularly designed for tanning calf-skins, kid-skins, goat-skins, sheep-skins, and other light skins.

The quantities of the ingredients above taken are sufficient for treating about twenty ordinary-sized calf-skins, or their equivalent in smaller skins.

The principal features of the improvement consist in the sugar and bran-dump, and the saltpetre and alum-solution.

The almost entire substitution of the salt in the liquor by the saltpetre, obviates the necessity of washing the leather previous to the coloring it, as it is ready to color on being dried from the tanning-liquor, and will not sweat when laid down in a damp place, as is the case with leather tanned without a saltpetre-solution in the place of a salt-solution.

The leather tanned by this process is, to a considerable extent, water-proof, and will not get hard by the exposure of daily wear.

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

1. The employment of a sugar and bran-dump, in combination with the usual tanning process, all substantially as and for the purpose set forth.

2. The alum and saltpetre tanning-liquor, in combination with the preceding process, or other equivalent processes, all substantially as set forth.

The above specification of my invention signed by me, this 26th day of November, 1867.

W. WINDOES.

Witnesses:

W. T. BIRDSALL,

S. T. BISHOP.