

UNITED STATES PATENT OFFICE.

JAMES W. HITT, OF LISLE, ASSIGNOR TO THEODORE L. CORWIN, OF
MARATHON, NEW YORK.

PROCESS OF TANNING.

SPECIFICATION forming part of Letters Patent No. 401,434, dated April 16, 1889.

Application filed January 14, 1889. Serial No. 296,329. (No specimens.)

To all whom it may concern:

Be it known that I, JAMES W. HITT, of the town of Lisle, county of Broome, and State of New York, have invented a new and useful
5 Process to be Used in Connection with the Ordinary Method of Tanning Leather, of which the following is a full specification.

By this method there is a saving of much of the labor, shortening of the time, reduction of the cost, and improvement of the
10 quality of the leather.

It is well known that by the ordinary processes of tanning the hides, after the hair has been removed, are placed in weak liquor, and
15 for a period of from three to four months require much handling and frequent change of baths of different degrees of strength, till finally they are thoroughly tanned. Much care has to be exercised lest too strong liquor
20 be used, in which case the tannic acid of the liquor will act on the grain of the hide, rendering it crisp and brittle, materially impairing its value. The preparation I use unites
25 with ordinary tanning-liquors in such a way as to render the action on the gelatine and fiber of the hide harmless, and at the same time admits of their remaining in the vat in which they are first placed until completely
30 tanned.

The skins having been depilated, I prepare a sufficient quantity of liquor, either from oak or hemlock bark, of 18° to 20° of strength of the barkometer to cover fifty skins, that being the usual number placed in each vat. To this
35 liquor I add a solution made as follows, viz: I take four pounds of saltpeter, (nitrate of potassium,) four pounds of alum, (sulphate of alumina and potassa,) five pounds of Glauber's

salt, (sulphate of sodium,) and these I dissolve in hot water. Having added this solu-
40 tion to the bark-liquor, I submerge the skins in the mixture, agitating the skins and liquor once an hour for the first twelve hours. After this is done I let them remain in the vat six days, unless they are very heavy, in which
45 case they may remain eight days in the vat, at the end of which time they will be found to be thoroughly tanned. They are then to be washed, dried, and finished in the usual
50 manner, unless they are to be sold in the rough or made into sole-leather, in which case I rinse them in a vat containing sufficient water, to which is added three pounds of pure cream of tartar. This does not enhance the
55 value of the leather more than to give it a nice, clean, bright appearance.

I am aware that alum, Glauber's salt, and cream of tartar have all been separately used in connection with tanning. I am not aware that they have ever been used in combination
60 or in the manner in which I use them.

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

The improved mode of tanning heretofore
65 described, which consists in submitting the depilated hides to a mixture of saltpeter, alum, and Glauber's salt in admixture with a bark-liquor, in the proportion and manner and during the time substantially as set forth.
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In testimony hereof I have set my hand this 10th day of January, 1889.

JAMES W. HITT.

In presence of—

T. L. CORWIN,
HENRY E. WILSON.