## UNITED STATES PATENT OFFICE.

## JAMES L. MARTIN, OF TERRELL, TEXAS.

## PROCESS OF TANNING.

No. 825,852.

Specification of Letters Patent.

ratented July 10, 1906.

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To all whom it may concern:

Be it known that I, James L. Martin, a citizen of the United States, residing at Terrell, in the county of Kaufman and State of Texas, have invented a new and useful Process of Tanning, of which the following is a specification.

This invention relates to a process of tan-

ning.

An object of the invention is in a ready, expeditious, and economical manner to tan hides of any weight and in the shortest possible space of time compatible with effective work.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in a novel process of tanning, as will be hereinafter fully described and claimed.

In carrying the invention into effect there is employed a novel ooze which contains an ingredient that operates rapidly, effectively, and without detriment to the hide to tan it.

The ingredient consists of persimmon-bark, which is included in an ooze containing other well-known ingredients having high tanning properties. The ooze consists of broom-weed, gum-gambier, alum, common salt, and persimmon-bark in about the following proportions, by measure and weight: broom-weed ooze, ten gallons; gum-gambier, four pounds; pulverized alum, one pound; common salt, two pounds; persimmon-lark, three pounds.

To make ten gallons of broom-weed ooze, 35 take fifteen gallons of water, and to this add thirty pounds of broom-weed. This mixture is boiled from one to two hours until onethird of the water has been evaporated, leaving ten gallons of ooze ready for use. The 40 gum-gambier is dissolved in as small an amount of water as possible and when dissolved is poured into the broom-weed ooze. The alum and salt are both poured into the mixture while still warm, and the mixture is 45 then stirred until the alum and salt are thoroughly dissolved. The freshly-peeled persimmon-bark is added at the same time the hides are put into the ooze and will have imparted its strength to the mixture within a 50 period of twelve hours.

In carrying out the procedure the hide is first soaked in clear water, as usual, to render it soft. It is then removed from the waterbath and fleshed in any approved manner and is then depilated by subjecting it to a bath 55 consisting of water in sufficient quantity to cover the hide or hides, to which is added, by measure, slaked lime and ashes in the proportion of two-thirds of lime and one-third, of ashes, by measure, to the bulk of the water, 60 and this is stirred until it becomes a thin batter. The hide is allowed to remain in this bath until the hair will slip, which will take from three to thirty hours. During this procedure where the hide is large it should be 65 aired for three minutes three times a day. When the hair is loosened or in a condition to slip, the hide is removed, depilated, and then placed in clear water, the water being changed, preferably, about three times. This is done in 70 order to remove the lime, so that in the subsequent handling of the hide the operator's hands will not be injured thereby, and to determine when the lime is all out of the hide it will only be necessary to press it with the 75 finger, and if the dent made thereby remains it is evident that the lime has entirely disappeared. The hide is then placed in the abovedescribed ooze and remains therein until thoroughly tanned, which will require from 80 about six hours for thin hides to ten days for heavy hides, these periods obtaining in warm weather; but in cool weather it will take about a quarter longer time for proper tanning.

To give the desired color to the hide, any 85 well-known coloring agent may be employed for the purpose, and as this forms no part of the present invention detailed description thereof is omitted. After the hide has been properly tanned it is treated in the usual or 90 any preferred manner to give it the finish.

I claim—

1. The herein-described method of tanning which consists in subjecting the hide to an ooze containing persimmon-bark.

2. The herein-described process of tanning which consists in subjecting the hide to an ooze consisting of broom-weed, gum-gambier, alum, common salt, and persimmon-bark.

3. The herein-described method of tanning 100

which consists in subjecting the hide to an ooze consisting of the following ingredients in substantially the proportions specified by measure and weight-broom-weed ooze ten 5 gallons, gum-gambier, four pounds, pulver-ized alum, one pound, common salt, two pounds, persimmon-bark, three pounds.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JAMES L. MARTIN.

Witnesses:

G. G. KERR,

G. W. CLARK.