

# UNITED STATES PATENT OFFICE.

ALBERT HULL, OF WEST WINSTED, CONNECTICUT.

## PROCESS OF BATING.

SPECIFICATION forming part of Letters Patent No. 411,034, dated September 17, 1889.

Application filed December 24, 1888. Serial No. 294,535. (No specimens.)

*To all whom it may concern:*

Be it known that I, ALBERT HULL, a citizen of the United States, residing at West Winsted, in the county of Litchfield and State of Connecticut, have invented a new and useful Process of Bating or Preparing Hides and Skins to be Tanned, of which the following is a full, clear, and exact description.

10 This invention relates to the treatment of hides and skins after they have been limed and unhaired to prepare them for being tanned or converted into leather in the usual manner, as will be hereinafter described.

15 The object of this invention is to thoroughly prepare hides and skins to be tanned or converted into leather after having been limed and unhaired by subjecting them to the action of a "bate," in order to remove all traces of lime that may remain after the hides have been washed.

20 The process of liming and unhairing hides and skins and subsequently tanning or converting them into leather being no part of my invention and quite familiar to those skilled in the art of tanning, a detailed description thereof is omitted.

25 After the hides have been thoroughly washed and as much of the lime removed therefrom as practicable by washing a further treatment is necessary in order to more completely prepare the hides for tanning and to produce a superior quality of leather. To accomplish this object in a certain, expeditious, and economical manner and without injury to the hides, they are subjected to a bate consisting of a solution of gallic acid and water, substantially as follows:

30 The proportion of acid and water to compose a proper and successful bate may be about four ounces of gallic acid in crystals to about ten thousand pounds of water, the crystals to be thoroughly dissolved and commingled with the water. In this solution the hides may be immersed from ten to twenty-four hours, which will be quite sufficient to neutralize and form a soluble combination of the lime still remaining in the hides after washing by uniting with the gallic acid.

35 After the hides have been washed to re-

move as much of the lime remaining therein as possible, and before they are subjected to the action of this solution of gallic acid and water, they are stiff and hard, which condition is produced by the direct effect of the lime still remaining therein. The result of thus "bating" the hides before tanning by the employment of a solution of gallic acid and water, as before stated, is to render them soft and flacid, and then by the usual method of "working on the beam" and subsequently rinsing in water the combination of gallic acid and neutralized or dissolved lime therein, together with any extraneous matter, will be readily and thoroughly removed therefrom and the hides rendered in proper condition to be tanned in the usual manner.

40 It may be briefly recapitulated, in order to clearly define and separate this preparatory process of bating from the subsequent and distinct process of tanning hides, that this process of bating is employed after the hides have been limed and unhaired and before the process of tanning is commenced, it being strictly a preparatory process employed in the "beam-house" to eradicate all traces of lime and to thoroughly prepare the hides for tanning.

45 I am aware that spent or exhausted tan-liquors containing gallic acid have been used to swell hides after they have been limed in the usual way. My process differs from this, inasmuch as I use a pure solution of gallic acid and water containing no acetic acid or other impurity injurious to the hide.

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

55 In preparing hides and skins to be tanned, the method of neutralizing the lime in hides and skins by subjecting them to the action of a solution of gallic acid and water and subsequently removing the gallic acid and neutralized lime therefrom by washing and working, substantially as set forth.

ALBERT HULL.

Witnesses:

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