

UNITED STATES PATENT OFFICE.

AUGUST HESTHAL, OF SAN FRANCISCO, CALIFORNIA.

PROCESS OF PREPARING SKINS.

SPECIFICATION forming part of Letters Patent No. 282,316, dated July 31, 1883.

Application filed March 29, 1883. (No specimens.)

To all whom it may concern:

Be it known that I, AUGUST HESTHAL, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented a certain Improved Process of Preparing Animal-Skins for Use in the Arts, of which the following is a specification.

My invention relates to the process of dressing animal-skins; and it consists in the employment of the composition hereinafter described, by which I treat and prepare the skins without the use of lime or sulphuric acid, the object of my invention being to produce a leather that shall be tough and pliable to render it of use in the manufacture of shoes, such as button-piece linings, stays, and other small articles.

The skins to which my process is specially applicable are deer, sheep, lamb, and kid skins; but it can be used to treat larger skins with good effect.

In treating animal skins according to my process the following-named compositions or solutions are employed, in the manner hereinafter described: No. 1. Two pounds of caustic soda, one pound of borax, and sufficient water to cover the skins—say one hundred gallons. No. 2. Five pounds of hard soap, one gallon straits oil, one-half pound caustic soda, and seventy-five gallons water. No. 3 consists of five gallons of naphtha and one pound of soda-ash.

The skins, after being properly cleaned, are taken from the beam-house and immersed in the solution No. 1, contained in a suitable drum, in which the skins are run for a half-hour and then removed and hung up to dry. They are then immersed in the solution No. 2 long enough to become soft and wet through, after which they are put into a drum with a part of the composition No. 2 and run for about a half-hour, being then removed and dried as before. I next soften the skins up in the composition No. 2 and let them drip; then put them in the drum with the composition No. 3 and run for about one-half an hour; then put the skins back into the composition No. 2 and let them soak for one hour, and then take them out and hang up to dry, after which they are soaked and dried in this manner two or three times in composition No. 2 until they are properly prepared, as

some skins may be need to have this part of the process repeated a greater number of times than others. After the skins are treated in this manner and have become leather, they are put in a very weak solution of composition No. 2, in order to thoroughly soften them, and in this wet condition they are dyed in different colors; or, if white leather is required, they are allowed to dry without further treating. In this manner I produce a leather which is much superior in strength and pliability to any now in use, as when sewed together it does not crack, nor do the stitches pull out; and as I am enabled to prepare the skins without the employment of lime and sulphuric acid, I leave the fibers of the skins in their natural state and strength.

The proportions of the ingredients given in the above solution Nos. 1, 2, and 3 are estimated for about one hundred and twenty sheep-skins, the treatment of which, as above described, consists of, first, a drumming of the skins from the beam-house with solution No. 1 for one-half an hour; second, an immersion and drumming for one-half an hour of the skins in solution No. 2, and then drying the same; third, a softening up of the skins in solution No. 2, dripping them and running them in solution No. 3, and putting them back in solution No. 2 one or more times, the skins to be dried each time, and then putting them in a very weak solution of No. 2 before coloring.

The length or number of immersions and the proportions of the above ingredients may be changed as the nature of the skins may seem to require without affecting the process.

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

The process of dressing hides, consisting in treating them, first, with a liquor composed of water, caustic soda, and borax; second, with a liquor composed of water, hard soap, straits oil, and caustic soda; third, with a liquor composed of naphtha and soda-ash, in about the proportions as herein described.

In testimony that I claim the foregoing I have hereunto set my hand and seal.

AUGUST HESTHAL. [L. S.]

Witnesses:

CHAS. E. KELLY,
WILMER BRADFORD.