UNITED STATES PATENT OFFICE.

ALBERT H. STONE, OF NEW YORK, N. Y.

DEPILATING HIDES AND SKINS.

SPECIFICATION forming part of Letters Patent No. 291,953, dated January 15, 1884.

Application filed November 2, 1883. (No specimens.)

To all whom it may concern:

Be it known that I, ALBERT H. STONE, a citizen of the United States, residing at New York city, in the county and State of New York, have invented a new and useful Improvement in Depilatories, of which the following is a specification.

My invention relates to depilating skins for obtaining wool and hair for useful purposes and preparing the skins for leather; and it consists of a new combination of materials for effecting the removal of the hair or wool without injury to it or to the skins, employed in the manner as follows: I use sixty-eight parts of sulphide of sodium in combination with equal parts of pure sulphur and carbon, preferring about sixteen parts each of the sulphur and carbon, but varying the same as may be found best, to be applied in solution varying in strength from 6° to 24° Baumé, without lime or any other ingredient. I apply this solution to the flesh side of each skin separately, with a Tampico brush, swab of burlap, or any other suitable distributer, fold the skins with the flesh side in, and allow them to remain until the depilatory has taken effect. Then, after the skins have been depilated, I rinse them thoroughly in cold water, either by hand, wheel, or centrifugal machine, and lime them from one to seven days in limes of medium strength, handling the skins quickly and frequently until ready to work out; or, if it is desired to dispense with the use of the lime entirely, I immerse the skins, after being depilated, in a weak solution of sulphide of sodium—from 4° to 10° Baumé—and allow them to remain from three to eight days, when they will be ready to work out on the beam, and good results in leather will be obtained.

The employment of my invention as above described avoids the disadvantages of the processes now in common use, as follows: In the old sweating process the wool will not come loose until decomposition takes place to a greater or less extent, and unless the greatest care is observed the skins will sometimes be allowed to lie a little too long, or the heat will be a little too great, which spoils the skins for making leather, and at the best the skins are more or less impoverished, and make inferior leather. In the liming process, either when applied in the consistency of cream to the flesh side of the skin or by immersing the skin with the hair or wool on in lime-water, the damage is chiefly to the wool, by reason of the contact of the lime therewith when wet, which renders it less valuable for most manufacturing purposes than wool free from lime, and the same objection exists, and to a greater extent, against the use of lime and red arsenic, also used, which render the wool harsh to the touch, and, if kept long in bags or piles, destroy all the nature of the wool, causing it to be dry and brittle and to lose its weight; and, besides, wool that has had the least bit of lime or lime and arsenic will never scour perfectly white, but will always retain a yellow cast, and will not take certain bright aniline dies. The lime and the lime and arsenic processes are so dependent on the weather that the time required to sufficiently start the wool to allow of its removal is so very uncertain that a puller never knows how many or how few skins can be handled, and in extremely cold weather it is almost impossible to work at all. The employment of my invention avoids these disadvantages. Its use is not materially injurious to either wool or skins; the results are always certain and uniform; much less labor and handling of skins suffice to do the work; the products in wool, hair, and leather are more merchantable and valuable, and the leather has a fine close grain and tougher fiber, with no impoverishment nor loss of weight.

By the employment of my invention the wool may be removed in the complete fleece, instead of separate bunches or handfuls, and so that the fleece may be rolled and kept intact to be sorted by the manufacturer instead of the pullers, which is desirable and important to manufacturers.

In applying my improved depilatory I spread the skins, flesh side up, carefully on a table or elevated platform having a level and smooth surface, where the operator may exercise greater care in applying it to all parts, and particularly in effecting uniform application along the edges by holding them out smoothly and evenly with one hand while using the swab or brush with the other, than can be done

in the common practice of laying the skins on the floor or in a pile one upon another. Thus I obtain better effects from the depilatory and avoid applying any of it to the hair or wool, to which it is more or less injurious, though much less so than lime, the solution being capable of brushing off readily like water, while lime is of a sticky nature, which prevents it from being removed; and, besides, the effect of lime spreads in the hair or wool, so that a large pile will be injured by a small batch of lime, while my depilatory will not at the most do any damage except to what it may be directly attached.

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

The improved depilatory, consisting of sulphide of sodium in combination with pure sulphur and carbon, substantially as described.

ALBERT H. STONE.

Witnesses:
W. J. MORGAN,
A. P. THAYER.