

# UNITED STATES PATENT OFFICE.

JOHN M. MULLER, OF NORTH BECKET, MASSACHUSETTS.

## IMPROVEMENT IN SOFTENING DRY HIDES.

Specification forming part of Letters Patent No. 59,627, dated November 13, 1866.

*To all whom it may concern:*

Be it known that I, JOHN M. MULLER, of North Becket, in the county of Berkshire and State of Massachusetts, have invented a new Mode of Softening Dry Hides; and I do hereby declare that the following is a full, clear, and exact description thereof.

The object of my invention is to soften dry hides, so that the hair and flesh can be removed, preparatory to the tanning process, without liability of having the hides putrefy or become otherwise injured during such treatment.

The invention consists in the use of a liquor which is composed of soft soap and sal-soda dissolved in a suitable quantity of water, in which solution the hides are soaked both before and after the process of depilation, as will be hereinafter described.

For softening hides, removing the hair and flesh, and drenching, I use the same liquor, as follows: For one hundred sides I use, say, three quarts of soft soap and one pound of sal-soda dissolved in a sufficient quantity of water to cover the hides. This liquor should be strengthened for every other pack of one hundred sides by the addition of three pints of soft soap and one-half pound of sal-soda, and the liquor should be removed from the vat only when its smell becomes offensive.

By this process no damage is done to the hides in any season of the year, whereas by the old process, in dog-days, the hides are frequently damaged or entirely destroyed with water-holes before they are properly softened.

When the hides have been softened the hair may be removed in the usual manner, after subjecting them for four or five days to another application of the same liquor. When the hair has been removed the hides should be drenched twelve hours in the same liquor, after which they are ready for the tan-liquor.

The advantage of the liquor above described is, that it does not destroy the life or strength of the hides, like other compounds which have been used, but makes the leather heavier and more solid. It prepares the hides for receiving the tannin equally from both sides, whereas the liquors commonly used for softening hides prepare the leather to receive the tan only from the grain side, requiring a longer time to complete the process.

The use of lime for softening hides has many objections, which are overcome by my new liquor. The lime dissolves a portion of the membrane, which would make good leather, and hence the leather is liable to be light and too soft.

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

Treating hides before tanning in a liquor which is composed of the within-described ingredients, mixed together in about the proportions mentioned.

JOHN M. MULLER.

Witnesses:

W. H. HARRINGTON,  
JUSTUS ALDRICH.