

UNITED STATES PATENT OFFICE.

JOEL CARTER AND ALANSON C. KEITH, OF JERSEY CITY, NEW JERSEY,
ASSIGNORS TO THEMSELVES, JAMES L. BALDWIN, AND LEVI DEDER-
ICK, OF SAME PLACE.

IMPROVEMENT IN TANNING HIDES.

Specification forming part of Letters Patent No. 125,020, dated March 26, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that we, JOEL CARTER and ALANSON C. KEITH, both of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and Improved Process of Tanning, of which the following is a full and exact description.

Our process is adapted to producing all varieties of leather, for tanning hides and skins with the hair on, and for dressing furs.

In carrying our invention into practice, we prepare a solution composed of the following ingredients in substantially the proportions named: Carbonate of soda, three pounds; nitrate of potash, three ounces; chloride of sodium, three ounces; prussiate of potash, three ounces; acetate of lead, three ounces; green vitriol, three ounces; soft water, nine gallons. In place of the carbonate of soda, three gallons of common ley may be used, if preferred. Pulverize the ingredients and dissolve them in the water while hot. The skins to be tanned must be fleshed in the usual manner, whether green or dry. If dry, they must be soaked in water until softened. They are then immersed, without unhairing, in the above solution, which is kept at a lukewarm temperature, and are handled or agitated to expose all parts equally to the action of the liquid. The time which they are required to remain in the solution to become tanned varies with the kind and thickness of the skin from thirty minutes to two hours. After having been in the solution a sufficient time they are taken out, when it will be found that the hair or wool is loosened and the grain raised, so that either or both may be removed, if desired; after which the skins are hung up to dry.

If it be desired to preserve the wool, hair, or fur on the skins, they should be handled with care and immediately on removal from the solution rinsed in cold water, which will have the effect to reset the hair and prevent depilation.

The skins having been tanned and dried, either with or without depilation, must now be treated with the following composition: Soft-soap, one gallon; fish-oil, one quart; borax, one ounce; chloride of soda, four ounces;

alcohol, four ounces; all of which ingredients are thoroughly mixed in two quarts of hot soft water. The dried skins intended for leather must be immersed in this compound until they again become soft, when they are to be wrung out and made pliable by rubbing or beating in a machine; but skins which are dressed with the hair, wool, or fur on must be washed with the composition on the flesh side only, and this repeated as many times as are necessary to render them somewhat soft, and in a condition to be worked soft by rubbing or beating, as above. The tanning liquid does not affect the hand injuriously, and acts as a disinfectant of any fetid or offensive odor that appertains to the skins, whereby the natural oil and impurities of wool are decomposed and furs are cleansed and rendered fit for wear; the treatment also serving as a preventive against the attacks of the moth.

An important advantage of our process consists in unhairing and tanning by one operation, whereby much labor and expense is saved; and while the action of the tanning liquid is such as to render the depilation easy, yet the effect of chilling by rinsing in cold water so effectually resets the hair, wool, or fur as to render it firmer than by nature.

Claims.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. A tanning solution, composed of the ingredients herein set forth, substantially in the proportions named.
2. Tanning and unhairing by the same operation, substantially as herein described.
3. The finishing composition, substantially as herein set forth.
4. The process of tanning and drying leather, pelts, and furs by means of the tanning solution and finishing composition, in combination, substantially as set forth.

In witness whereof we have hereunto signed our names in the presence of two subscribing witnesses.

JOEL CARTER.
ALANSON C. KEITH.

Witnesses:

LEVI DEDERICK,
JOHN J. BUNDSCHUH.