

UNITED STATES PATENT OFFICE.

JAMES F. CRANFORD, OF OAK HILL, ALABAMA.

COMPOSITION FOR TANNING HIDES.

SPECIFICATION forming part of Letters Patent No. 271,804, dated February 6, 1883.

Application filed November 23, 1882. (No specimens.)

To all whom it may concern:

Be it known that I, JAMES FRANKLIN CRANFORD, of Oak Hill, in the county of Etowah and State of Alabama, have invented a new and useful Composition of Matter to be Used for Tanning Hides in the Manufacture of Leather, of which the following is a specification.

My composition consists of the following ingredients, combined in the proportions stated, viz: tanners' ooze, sixteen gallons; alum, two pounds; common salt, one pound; saltpeter, one-half ounce; lye-soap, four ounces. The ooze, which is made preferably of the inside bark of mountain oak or white oak, is to be boiled to increase its strength. The tannin of the ooze may be supplied from other well-known sources besides oak-bark.

In using the above composition the hides should first be treated in the usual manner for removing all particles of flesh, and then subjected to a bath of thirty gallons of water to one peck of ashes and one peck of lime to remove the hair. Then, after the lime is washed out of them, they are to be worked with the slicker in the usual manner. They are then ready to be tanned. The hides are now placed in the above composition, where they are allowed to remain until colored through and through, which ordinarily requires from five to twenty days, according to the thickness of the hides. In small skins—such as sheep-skins—only from four to twelve hours are required. The strength of the composition is to be kept uniform, or nearly so, by adding thereto fresh supplies of the ingredients in the proportions

named. After the hides are thoroughly tanned they are to be placed in clear water and allowed to remain two or three days, and then worked again with steel and stone slickers in the usual manner. They are afterward partially dried and oiled, then slightly shaved, "dubbed," and broken with a hand-board, and finally worked off on the flesh side with a stone slicker and on the grain with a glass slicker.

By the use of the above composition I am able to produce a good quality of leather in a much shorter time than has ever before been done, so far as I am aware.

I am aware that the several ingredients of my invention have been variously compounded with other elements to form compositions for the treatment of hides, and I therefore do not claim the said ingredients, except as forming the above-named composition.

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

The herein described composition of matter to be used in tanning hides, consisting of tanners' ooze, alum, common salt, saltpeter, and lye-soap, substantially in the proportions specified.

JAMES FRANKLIN ^{his} X CRANFORD.
mark.

Witnesses:

A. L. WOODLIFF,
JAMES AIKEN.