

UNITED STATES PATENT OFFICE.

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PROCESS OF TANNING AND DRESSING LEATHER.

SPECIFICATION forming part of Letters Patent No. 464,423, dated December 1, 1891.

Application filed March 23, 1891. Serial No. 386,087. (No specimens.)

To all whom it may concern:

Be it known that we, DANIEL W. BROWN, ISAAC CLARK, and JAMES F. BROWN, citizens of the United States, residing at South Fork, in the county of Howell and State of Missouri, have invented a new and useful Process of Tanning and Dressing Leather, of which the following is a specification.

Our invention relates to an improvement in compositions of matter used in connection with processes of tanning and dressing hides; and it has for its objects to provide compounds that will act speedily and effectively in tanning and dressing the hides and a process that combines economy of ingredients with superior advantages over other compounds and processes in its penetrating properties and beauty of finish.

The composition of matter used in the process for tanning consists of the following-named elements combined in substantially the proportions herein stated: gambier, (*Uncaria Gambir*), ten pounds; sulphuric acid, one pound; golden seal, (*Hydrastis Canadensis*), in powder, one-half pound; sweet fern, (*Comptonia asplenifolia*), extract, two pounds; water, fifteen gallons.

In mixing the above ingredients the gambier (*Uncaria Gambir*) is dissolved independently in water and then put in mixture with the other ingredients by ordinary mechanical means, the sulphuric acid being of course the last ingredient.

The compound having the function of dressing the hides after passing through the tanning process is composed of the following-named ingredients combined in substantially the proportions stated: soft water, six gallons; sulphuric acid, one-half pound; alum, one pound; corn-starch, one pound.

The above ingredients are mixed in the ordinary manner.

The first step in the process of treating the hides or skins is to immerse the same in the tanning-mixture and let remain about one-half hour, then expose to the air for a period of fifteen minutes. Being again returned to the mixture, they are allowed to remain for about twelve hours longer, when the same

are again raised and exposed to the air for another period of fifteen minutes. This step is repeated three times in the next twelve hours, then once a day, when the same again is exposed to the air for the same period before mentioned for about eight days, after which they are supposed to be sufficiently tanned to be subjected to the next step of the process. Having removed the hides from the tanning-mixture after the treatment above described, the same are then subjected to the action of the dressing-mixture, in which it is first allowed to remain about one hour, is washed in clean water, and hung in the shade until the same is about half dry. Then the hides are pulled and worked with the hands until thoroughly dry, when the same will be sufficiently dressed and will come out soft, white, and pliable.

A slight change in the dressing process is adhered to in the treatment of furs or skins with the hair on. In such a case the skins are immersed in the dressing compound and let remain twelve hours, are then taken out, washed in clear water, and hung up until half dry, as before described. They are then combed and carded out until a fine finish appears on the furs, which is obtained in a very short time.

Having described our invention, what we claim, and desire to secure by Letters Patent, is—

A composition of matter for tanning hides, composed of gambier, (*Uncaria Gambir*), sulphuric acid, golden seal, (*Hydrastis Canadensis*), sweet fern, (*Comptonia asplenifolia*), and water, combined substantially in the proportions herein described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

D. W. ^{his} × BROWN.
ISAAC ^{mark} CLARK.
JAMES F. BROWN.

Witnesses:

J. B. DEATHERAGE,
WILLIE SALES.