

# UNITED STATES PATENT OFFICE.

SIMEON GUILFORD, OF LEBANON, PENNSYLVANIA.

## IMPROVEMENT IN THE PROCESS OF TANNING HIDES, &c.

Specification forming part of Letters Patent No. 2,332, dated November 10, 1841.

*To all whom it may concern:*

Be it known that I, SIMEON GUILFORD, of the borough and county of Lebanon, in the State of Pennsylvania, have invented a new and Improved Mode of Bating Hides in the Process of Tanning; and I do hereby declare that the following is a full and exact description.

The process of bating hides and skins consists in preparing a liquor or fluid which shall extract the lime contained in the hides before they are subjected to the tan-vat. For this purpose the dung of fowls, &c., and the muriate of ammonia have been used.

My improvement consists in using the sulphate of alumina—common alum in solution with water—for the purpose of extracting the lime and saponaceous matter with which the hides are saturated. The acid of the alum unites with the lime, and the astringent properties of the alum add to the cohesion and strength of the hides as they come out of the lime, and at the same time distend and thicken them, and cause them more readily to imbibe the tannin of the bark, of which something less is required in consequence of the use of the alum bating-liquor.

I am aware that alum has been used in curing and dressing sheep-skins, &c.; but what I claim as an improvement in the art of tanning

is the use of alum in solution, in the process called "bating," for the purposes above described.

To enable those skilled in the art to make use of my invention, I will state that the quantity of alum used in solution with water to form the alum bating-liquor may be varied, but should be about six pounds for five hundred pounds of dry hides, and a proportionate quantity when the hides are green or undried. The time necessary for the hides to remain in the alum bating-liquor may vary from one to four hours, or more, to suit the strength of the liquor and the thickness of the hides, which experience will dictate. So much water is used to dissolve the alum as may be necessary to fully cover and immerse the hides. The alum may be used in connection with a solution of the dung of fowls.

What I claim as an improvement in the art of tanning, is—

The use of alum in the process of tanning with bark, and for the purpose of bating the hides, as specified above.

SIMEON GUILFORD.

Witnesses:

J. C. GOODHART,  
SAMUEL BOWMAN.