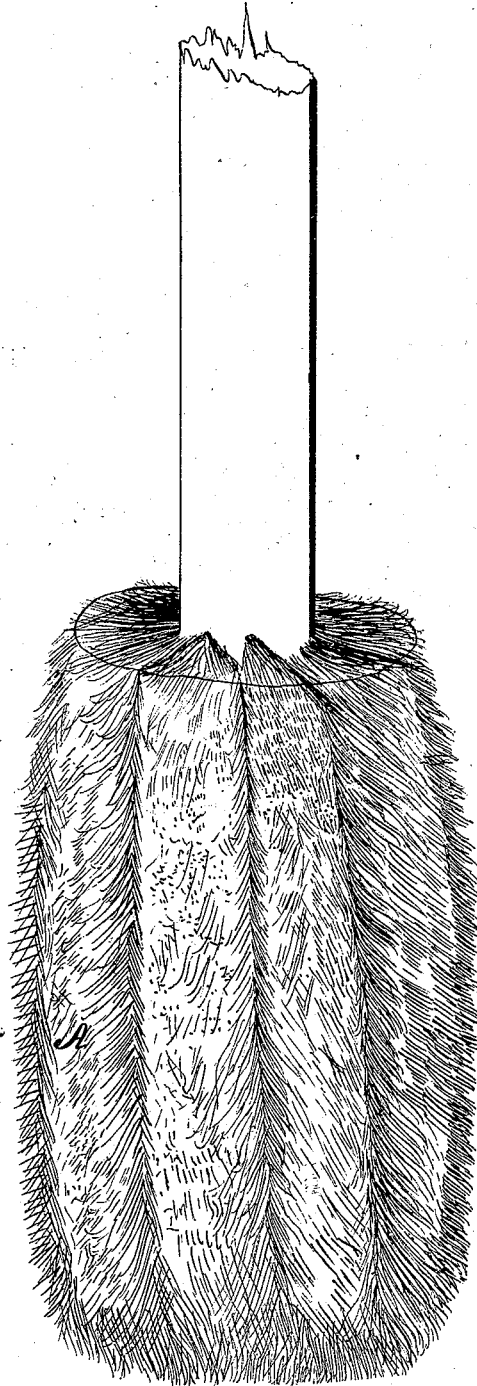


Downing & Smith

Tanners' Tool.

N^o 1576.

Patented Apr. 30, 1840.



UNITED STATES PATENT OFFICE.

R. T. DOWNING, OF MONROE COUNTY, AND GEO. D. SMITH, OF PHILADELPHIA COUNTY,
PENNSYLVANIA.

PROCESS OF TANNING.

Specification of Letters Patent No. 1,576, dated April 30, 1840.

To all whom it may concern:

Be it known that we, RICHARD T. DOWNING, of the county of Monroe, and GEORGE D. SMITH, of the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in the Art of Tanning, and that the following is a full and exact description of their said invention or discovery and of the manner and process of making, constructing, and using the same.

In the process of tanning leather by suspending hides in liquor on what is termed "Brown's patent reels" or any other mode of suspending or immersing the hides in liquor, it has been found impossible to produce thereby a desirable color or bloom; as is produced by handling leather up and down in liquor at first and subsequently by laying away in liquor with a stratum of bark between seach hide or half-hide. In consequence of this apparent deficiency in the system of tanning by suspending hides in liquor until they are tanned, the most approved tanners of that class have had to resort to the expedient of laying away their leather in vats suitable for the purpose, with strata of bark between as before described, thus incurring additional expense and loss of time.

Now it has been discovered by the applicants that immediately upon the suspension of the hides in the liquor, a sediment commences to collect upon the grain or surface of the hide, and to adhere to it so firmly as to prevent the natural action of the bleaching or blooming properties of most bark and other liquors containing the tannin principle, upon the removal of which obstruction the liquor acts upon the hide so as to form the most perfect and uniform color and bloom, similar or superior to that which is obtained by means of laying away with bark as aforesaid. The removal of

this sediment also facilitates the operation of tanning and increases the pliability of the leather. For this purpose we have constructed a cleansing brush made by the insertion of stiff bristles say from three to four inches long (depending on the space between the hides) on each side of a board from one to one and a half inches thick, six to ten inches wide and eighteen to twenty four inches long made in the form of a paddle with a handle about seven feet long. This brush is furnished with bristles all around it as shown at A, in the drawing. When used this brush is placed between two sides suspended as aforesaid, and placed grain to grain and worked up and down by hand by which the sediment is prevented from collecting on the surface of the leather.

What we claim as our invention or discovery is—

An improvement in the art or process of tanning by cleansing the hides while suspended in bark or other liquor containing the tannin principle, by means of a brush with a long handle, made and used as above set forth, in order to prevent the collection of any sediment, dirt, or impurity upon the surface or grain of the leather, and thus to allow the liquor to act, producing gradually from the commencement of the process the desirable color or bloom, and giving the tannin a freer access through the pores to unite with the gelatin of the hide.

R. T. DOWNING.
GEO. D. SMITH.

Signed by Richard T. Downing in the presence of:

ARTHUR HOWELL,
THOMAS WEBSTER.

Signed by George D. Smith in the presence of:

M. T. BRYANT,
SAML. SCATTERGOOD.