

UNITED STATES PATENT OFFICE.

SAMUEL W. PINGREE, OF METHUEN, MASSACHUSETTS.

IMPROVEMENT IN TANNING HIDES.

Specification forming part of Letters Patent No. **15,303**, dated July 8, 1856.

To all whom it may concern:

Be it known that I, SAMUEL W. PINGREE, of Methuen, in the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Preparing Hides and Skins for being Tanned; and I do hereby declare that the same is fully described and represented in the following specification.

It is well known that every skin consists of three distinct layers, those of the two external surfaces being usually termed the "corium" and the "cuticle" or "epidermis," the hair being embedded in the latter. Now, it should be borne in mind that the epidermis of the skin does not combine with tannin, and in the common process of tanning a skin it has to be removed with the hair in order to allow the tanning-liquor to pass into the skin.

In carrying out my invention I take the hide or skin after it has been washed and beamed and the surplus flesh removed from the inner surface of the corium, in the ordinary way, and by means of a currier's skiving-knife I remove the inner layer of the skin, which, like the epidermis, offers an impediment to the entrance of the tan-liquor into the hide. By removing the inner layer of the skin the tanning-liquor can obtain free access to the remainder of the skin, and, besides, the process of tanning is greatly facilitated. Therefore my invention of removing the inner layer of the skin will be found to be of great service when the epidermis and hair are to remain on the opposite side of it. This is never done in the ordinary process of tanning. The influence of the previous preparation of the hide is seen in the tanning process, and particularly in the process of plumping the hide, the way being open for the liquor to enter the hide when it

is to be tanned with the hair on. The desired effect is secured long before the attachment of the hair can be effected, so as to loosen the hair.

The "film" or inner layer of the hide may be used for the manufacture of glue, and becomes very valuable for such purpose.

When the hide varies in its thickness, as is generally the case, I not only remove the inner layer, but so much of the next or middle layer as will reduce the hide to an equal thickness throughout. All the parts so removed may be used for the manufacture of glue. When the hide is reduced to an even thickness all parts of it will tan equally in the same time; but in the common processes of tanning the thinner parts of the hide receive more tannin than the thicker parts, and as it becomes necessary to keep the hide immersed in the tanning-liquor long enough to tan the thicker parts of it much time is wasted, which by my process may be saved, and, besides, the hide is injured by the inequality of the absorption of the tannin.

Having thus described my invention, I claim—

When the hide is to be tanned with the hair either on or off, as the case may be, removing or skiving off the inner layer thereof or the same and a part or parts of the middle layer of it preparatory to immersing such hide in the tanning-liquor.

In testimony whereof I have hereunto set my signature this 29th day of May, 1856.

SAMUEL W. PINGREE.

Witnesses:

R. H. EDDY,
F. P. HALE, Jr.