

UNITED STATES PATENT OFFICE.

EDWARD P. NESBIT, OF PRIORY ROAD, COUNTY OF SURREY, ENGLAND.

TREATMENT OF HIDES AND SKINS FOR TANNING AND OTHER PURPOSES.

SPECIFICATION forming part of Letters Patent No. 359,360, dated March 15, 1887.

Application filed September 9, 1886. Serial No. 213,139. (No specimens.) Patented in England June 9, 1886, No. 7,744; in France August 27, 1886, No. 178,216; in Belgium September 16, 1886, No. 74,557; in Canada October 9, 1886, No. 25,096, and in Italy October 13, 1886, XL, 414, and January 29, 1887, XLI, 387.

To all whom it may concern:

Be it known that I, EDWARD PLANTA NESBIT, a citizen of England, residing at Priory Road, in the county of Surrey, England, have
5 invented a new and useful Improvement in the Treatment of Hides and Skins for Tanning and other Purposes, (for which I have obtained patents in France, dated August 27, 1886, No. 178,216; in Belgium, dated September 16, 1886,
10 No. 74,557; in Italy, by original patent dated October 13, 1886, Vol. XL, No. 414, and by patent of extension dated January 29, 1887, Vol. XLI, No. 387; in Canada, dated October 9, 1886, No. 25,096, and in Great Britain, by
15 an application for patent dated June 9, 1886, No. 7,744,) of which the following is a specification.

This invention has for its object to provide novel, economical, and rapid means for the
20 removal of the lime contained in hides and skins from which the hair has been removed by lime treatment.

In preparing hides and skins for tanning and other purposes--such as making glue--
25 the preliminary operation is ordinarily effected by treatment with lime, the presence of which latter substance seriously interferes with the action of the tanning or other agents subsequently applied to them, involving loss of time
30 and incurring expense in its removal.

In carrying my invention into effect the hides or skins, after the removal of the hair therefrom, are placed in water contained in a suitable vessel which can be closed air-tight.
35 Into this vessel, while the contents thereof are agitated, I force carbonic-acid gas, so as to saturate the water in which the hides are immersed. As the hides are agitated in the carbonated water, the latter acts to dissolve out the lime.
40 The excess of carbonic acid has the effect of bringing the lime into a state of solution in the water, thereby removing it from the hides

or skins, which, on being separated from the solution and washed with clean water, are at once prepared and ready for the tanning or
15 other operations.

The treatment with carbonic-acid gas could be carried on in an open vessel, but not so effectively or economically, as much of the carbonic-acid gas might escape without acting on
50 the lime.

I am aware that it has heretofore been proposed to neutralize the lime in hides by burning sulphur and carbon in the chamber where the hides are hung to produce carbonic-acid
55 and sulphurous-acid fumes; but such is not my invention, which differs therefrom in that I dissolve the lime from hides or skins agitated in a body of water by saturating the latter with carbonic-acid gas, thereby carbonating the
60 water, which dissolves out the lime.

Having thus described my invention, what I claim is—

The method herein described of removing lime from hides or skins, which consists in
65 immersing the hides or skins in a body of agitated water, preferably in a closed vessel, and forcing into such water, while in agitation, carbonic-acid gas to carbonate the water and dissolve out the lime from the hides or skins,
70 substantially as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 27th day of August, A. D. 1886.

E. P. NESBIT.

Witnesses:

OLIVER IMRAY,
Patent Agent, 28 Southampton Buildings, London, W. C.

JNO. P. M. MILLARD,
Clerk to Abel & Imray, Consulting Engineers and Patent Agents, 28 Southampton Buildings, London, W. C.