## UNITED STATES PATENT OFFICE.

NICHOLAS WILSON, OF BECKET, MASSACHUSETTS.

## IMPROVEMENT IN TREATING HIDES AND SKINS.

Specification forming part of Letters Patent No. 189,536, dated April 10, 1877; application filed January 2, 1877.

To all whom it may concern:

Be it known that I, NICHOLAS WILSON, of Becket, in the county of Berkshire and State Massachusetts, have invented a certain new and useful Improved Treatment of Hides and Skins in the Process of Tanning, of which the following is a specification:

This invention relates to the treatment of the hides or skins of animals, &c., in the process of tanning them; and consists in treating the hides or skins, after they have been subjected to the action of lime in the limepits in the usual manner, to a solution or compound substantially as hereinafter described.

In this invention the hides or skins are first subjected to the action of lime, in the usual manner. When so properly treated, they are removed from the lime-pit and placed in a tank or reservoir containing the following solution: Two (2) bushels of wheat or ground barley; fifty (50) pounds of chloride of sodi um or common salt; three (3) pounds of saltpeter; three (3) pounds of sulphate of magnesia or Epsom salt; three (3) pounds of sulphuric acid, these ingredients being thoroughly mixed with about five (5) or six (6) barrels of water, or sufficient water to cover, when in the tank, about one hundred and fifty hides or skins.

After being placed in this solution, if they are not agitated in any manner, then the hides or skins should remain in the solution about thirty-six (36) hours; but if the solution and the hides or skins are in a tank provided with a wheel, &c., for stirring or agitating them, then about five hours will be sufficient for the proper action of the solution.

When thus treated, as above described, the hides or skins are removed from the tank containing the solution, and placed in the barkliquor, when the usual and well known process of tanning them is continued.

The action of the above solution upon the hides or skins is such that the lime is entirely and completely removed, and does not destroy or reduce, or even in the least injure, the glutinous matter, which is so necessary and essential to be preserved to properly tan the hides or skins. Also, the action of the tankliquor in the tanning process is considerably hastened, less labor is required, and the leather produced is much heavier, tougher, and of better stock, and is in every way a superior article to that produced by the process here. tofore used in treating hides or skins.

It is not intended to limit the compound or solution to the exact proportions stated, as they might be varied somewhat without affeeting the general result, although the proportions as herein above given produce most

satisfactory results.

Having now described my invention, what I claim, and desire to secure by Letters Pat-

ent, is-

In the process of tanning hides or skins after they have been subjected to the action of lime for removing the hair, &c., the treating of them to a compound or solution, substantially as described.

NICHOLAS WILSON.

Witnesses: GEO. H. EARL, EDWIN W. BROWN.