

UNITED STATES PATENT OFFICE.

ROSWELL CRANE AND WM. BALDWIN, OF ANAMOSA, IOWA.

IMPROVEMENT IN TANNING.

Specification forming part of Letters Patent No. **30,390**, dated October 16, 1860.

To all whom it may concern:

Be it known that we, ROSWELL CRANE and WILLIAM BALDWIN, both of Anamosa, in the county of Jones and State of Iowa, have invented a new and Improved Process for Tanning; and we do hereby declare that the following is a full, clear, and exact description of the same.

This invention consists in treating the hides with a simple composition of lye and terra-japonica in the proportion hereinafter specified, increasing the terra-japonica and diminishing the lye at subsequent stages of the process until the tanning of the leather is completed.

To enable others skilled in the art to fully understand and use our invention, we will proceed to describe it.

The hides are first prepared in the usual way, and they are now treated with a solution of terra-japonica in lye, as follows: One gallon (1 gal.) of lye of sufficient strength to bear up an egg, with one gallon (1 gal.) of water, are put into an iron kettle, and twenty pounds (20 lbs.) of terra-japonica are dissolved in this liquid by a gentle heat. When thoroughly dissolved the mixture is put into the vat and diluted with ninety gallons (90 gals.) of water. This liquor is sufficient for twenty-five sides of hides, which are put into the vat, the whole being well stirred. On every third day we add ten pounds (10 lbs.) of terra-japonica dis-

solved in a half-gallon ($\frac{1}{2}$ gal.) of lye and sufficient water to keep the hides covered, and this is repeated until the hides are two-thirds tanned. Sufficient terra-japonica is now added, dispensing with the lye, until the hides are well tanned, when the leather is finished in the usual manner.

By thus combining lye with terra-japonica for tanning upper-leather we obtain a leather whose body is firmer and more impervious to water, with a smoother surface and higher finish, than can be obtained by any other process, bark not excepted; and in tanning sole-leather the lye used does not affect the glutinous substance of the hide, and it gives a greater weight to the leather. The lye employed according to our process raises the hide sufficiently for speedy tanning, thereby dispensing with all acids or salts which are generally used in other processes.

What we claim as new, and desire to secure by Letters Patent, is—

The process of tanning leather herein shown and described, consisting in the use of a compound composed of terra-japonica and lye, in the proportions and manner herein specified.

ROSWELL CRANE.
WM. BALDWIN.

Witnesses:

J. J. DICKINSON,
THOS. E. BILLING.