

# UNITED STATES PATENT OFFICE.

DANIEL BRYAN, OF WALTON, LIVERPOOL, ENGLAND.

## PROCESS FOR HARDENING LEATHER.

No. 857,153.

Specification of Letters Patent.

Patented June 18, 1907.

Application filed December 27, 1906. Serial No. 349,600.

*To all whom it may concern:*

Be it known that I, DANIEL BRYAN, a subject of the King of England, and a resident of 49 Langham street, Walton, Liverpool, in the county of Lancaster, England, china merchant, bookseller, and general dealer, have invented a certain new and useful Process for Hardening Leather, of which the following is a specification.

10 This invention has reference to a process for hardening leather.

According to my invention, I first place the leather in cold water and keep it in the same cold water for about 24 hours, by which time the leather has, usually, become limp and soft. The leather is then taken out of the water and permitted to dry slowly and quite naturally (that is without any artificial heat that would soften the fatty properties of the leather) in the open air, or in any dry place for about 24 hours when it becomes dry and spongy. The leather is then hammered until it is reduced to the thickness and strength required, and afterward allowed to lie in a dry place for a few days to set, after which it is ready for use and will neither expand or contract in the wear.

The leather is for use principally for the soles and heels of boots and shoes of all kinds, but also for any other purpose where such hardened leather is especially useful. It is especially useful for any outdoor employment, or, for fishing, shooting, golfing, or any purpose where dampness has to be encountered by the feet.

35 Having now described my invention, what I claim as new, and desire to secure by Letters Patent is:—

A process for hardening leather in which the leather is steeped in cold water for a period of about twenty four hours; then slowly air dried for a period of about twenty four hours; then hammered; and then allowed to lie in a dry place to set.

45 In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DANIEL BRYAN

Witnesses:

JOHN H. WALKER,  
JOHN STEVENS.