

# UNITED STATES PATENT OFFICE.

GEORGE W. CHILDS, OF NEW YORK, N. Y.

## LEATHER-DRESSING PROCESS.

No. 929,552.

Specification of Letters Patent.

Patented July 27, 1909.

Application filed September 24, 1907. Serial No. 394,304.

*To all whom it may concern:*

Be it known that I, GEORGE W. CHILDS, of New York city, in the county and State of New York, have invented a certain new and useful Improvement in Leather-Dressing Processes, whereof the following is a specification.

My invention is particularly applicable to the manufacture of leather, such as sole leather, which it is desired shall attain the greatest degree of solidity possible with the necessary degree of flexibility. All processes for making such leather have heretofore involved two stages:—First, the hides are subjected to the action of a liquor comprising active tannic material until combined with all of the tannin with which they are capable of combining; and, second, the leather thus tanned is then subjected to a loading process which usually consists in impregnating the leather with concentrated bark extract.

It is the object of my invention to impregnate the hides contemporaneously with an active tannic material and with an inert (non-tannic) loading material, so that the required effect is produced in much less time than if said materials were applied successively as heretofore, and said inert loading material being less costly than the active tannic material heretofore employed for loading purposes, the cost of the dressed leather is correspondingly less than heretofore.

The process herein contemplated is applied to the hides after they have been plumped with a tanning liquor, until they are colored through, and is preferably continued until they have absorbed all of the dressing which it is possible for them to absorb. Dressing of the desired character may be conveniently formed by mixing sapped or exhausting tanning liquor, preferably free from mineral impurities and containing a high percentage of inert solid matter, with fresh tanning liquor or bark extract containing active tannic material, and then concentrating the mixture until it is from 1.05 to 1.3 specific gravity, as described and claimed in Letters Patent of the United States #882,490, granted to me March 17, 1908. Said dressing may be utilized as fol-

lows:—Hides which have been plumped in vats with any suitable tanning solution until they are colored through, are placed in a rotary drum, and said dressing, preferably heated, introduced to said drum, conveniently through a hollow axle or trunnion thereof, and the revolution of said drum continued until said dressing is absorbed by the hides. The hide substance having then combined with all of the tannin with which it will combine, and the pores of the leather being filled with said dressing; when dried, the residue of the dressing in the leather not only renders the latter more solid than if it had not been impregnated with said dressing, but also adds materially to its final weight. It may be observed that if said dressing were of less specific gravity, there would not be sufficient solid residue thereof when the leather is dried to obtain the result desired. Moreover, if said dressing were of a greater specific gravity it would not be absorbed by the leather. Leather treated as last described, may then be bleached, oiled, dried, dampened, and rolled in the usual manner.

I do not desire to limit myself to all of the details of procedure above enumerated, as various modifications may be made therein without departing from the essential features of my invention as defined in the appended claims.

I claim:—

1. The process for treating leather after it has been tanned, which consists in impregnating the leather with a liquid dressing of from 1.05 to 1.3 specific gravity, containing inert solid matter residue of waste tanning liquor, mixed with active tannic material.

2. The process for treating leather after it has been tanned, which consists in impregnating the leather with a liquid dressing of from 1.05 to 1.3 specific gravity containing inert solid matter residue of waste tanning liquor mixed with active tannic material, and, while the leather is still moist from the tanning process.

3. The process for treating leather after it has been tanned, which consists in impregnating the leather with a liquid dressing of

from 1.05 to 1.3 specific gravity, heated  
above atmospheric temperature, and contain-  
ing inert solid matter residue of waste tan-  
ning liquor mixed with active tanning liquor,  
5 and, while the leather is still moist from the  
tanning process.

In testimony whereof I have hereunto

signed my name at New York city, N. Y.  
this the thirteenth day of September 1907.

GEORGE W. CHILDS.

Witnesses:

HENRY W. HEALY,  
JNO. P. ANDERSON.

It is hereby certified that in Letters Patent No. 929,552, granted July 27, 1909, upon the application of George W. Childs, of New York, N. Y., for an improvement in "Leather-Dressing Processes," an error appears in the printed specification requiring correction, as follows: In line 42, page 1, the word "exhausting" should read *exhausted*; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 10th day of August, A. D., 1909.

[SEAL.]

F. A. TENNANT,  
*Acting Commissioner of Patents.*