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LIST OFPATENT CLAMMS Issued fiom the United Brates Patent offc

















 d detaching the grass or grain irom the belts. volume 8.$]$






















































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upon is next for ward movement, as set orth.






 [Our readera will find a notice of thls useful tivention on page 276, last Volume.



 Coarryprar Cory Drrecron-By Gideon. B. Snith of















We would state, that we have seen a working model of this padde wheel tested with a moded of those in common
use, and the test was favarable to the new wheel. We use, and the test was favorable to the new whee.. We
Fould like to see this wheel fairly tried for some time on a stea: ship or steamboat, in order that all its qualities
might be fully tested, in omparison with the common




 [This is a very simple improvement and is likely to
take the place of spiral knives which have been somuch in wse : it operates on the same principle but under a diferent conestruction.3
Conx Sngurf-By L. Hi Davis of Kennet Soure. Pa.
















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stances, which facilitate the action of the tan nin, and, at the same time, prevent the extractive matter of the decoction from injuring the leather. One of the most convenient sources of taunin is the ordinary "Terra Japonica," or ca techu of commerce, and it is especially adapted to my process, as the chemical substances which
are mixed with it prevent it from having any injurious effect upon the leather, however strong the decoction be made. 'fo tan with this sub stance, prepare a solution of one hundred and seventy pounds of japonica in a sufficient quan tity of soft water to receive one hundred cal skins. This solution is best prepared by steep ing the japonica in hot water and straining the liquor through a cloth when cold. To this li quor add eleven pounds of sulphate of potash and six pounds of alum (double sulphate of alumina and potash.) The bated skins are immersed in this liquor afterthe grain has been set by a weak tanning liquor, a greater or less period, according to their thickness and porosity. Sbeep skins are thoroughly tanned by an immersion of fr $m$ one to ten hours in the liquor. Calf skins requite to be immersed from one to six days, and hides require a proportionably longer period, which varies from six to twenty days.there is still nuch tonin left in the liquor as well as a part of the alum, and the whole of the sulphate of potash; it is therefore brough up to its origmal tamin strength by the addition of japonica alone, and is employed to tan a succeeding parcel of skint
In the process above described, the sulphate of potash induces so rapid an action of the tannin upon the skin that the extractive matter of liquor is mate liquor is made, has not time to act; this is pe-
culiarly the case when japonica is the substance enuloyed, as it is well known that if bated skins be submitted to a liquor made from it alone, in the ordinary manner, they are spoiled, for the catechuic acid injures the animal fiber, while, by combining sulphate of potash with the liquor, the injurious influence of this acid is prevented The alum improves the quality of the leather, as with portion of the alumina of the alum combines with the gelatine of the skin and adds greatly
to the impermeability of the leather. Alum is not essential in tanning calf skins.
If japonica cannot readily be obtained, tanning liquor may be prepared from sumac, or the various barks generally employed, by adding to the decoction sulphate of potash alone, or sul phate of potash and alum.
Leather tanned by the process above descri bed is remarkable for its pliability, strength and impermeability. The former of these proper ties is believed to result from the absence of vegetable extractive matter; the strength results from the fact of the animal fiber being uninjured by the process; and the impermeability is due both to the thorough action of the tannin and to the alumina combined with the leather
Having thus described my process of tanning leather, what I claim as my invention, and desire to secure by Letters Patent, is the combi nation of sulphate of potash with the tanning liquor, substantially in the manner and for the purpose herein set forth.
[We have tested, for six months, a calf skin tanned by this proeess, in a pair of boot uppers. It has proved to be excellent wearing leather It was stated to be tamned by this process in six days; but the skin was no doubt a good one indep
We carmot-in a chemical point of viewsee what superior effects can be produced in tanning by the sulphate of potash, any more than the chloride of sodium (common salt,) the use of which has been long known to tanners, excepting some change takes place in the sulphated skins and produces a vulcanizing effect-which change cannot take place by the process described, so far as our experience and reasoning extend.

## Bedouin Arabs Distanced.

When, on the 6th of June, a loconotive was un for the first time on the Egyptian Railroad, the Bedouins galloped alongside on their horses for some time, until they found they had

