UNITED STATES PATENT OFFICE.

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PROCESS FOR THE EXTRACTION OF GLUE FROM MINERAL-DRESSED OR CHROME-TANNED LEATHER.

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To all whom it may concern:

Be it known that I, ALBERT RUDOLF WEISS, Jr., a subject of the King of Prussia, German Emperor, residing at Hilchenbach, Province of Westphalia, Kingdom of Prussia, Germany, Dammstrasse 217, have invented certain new and useful Improvements in Processes for the Extraction of Glue from Mineral or Chrome Tanned Leather, of which the following is a full, clear, and exact description.

My invention relates to a new and improved process whereby the glue is extracted from mineral dressed materials, for instance chrome-tanned leather. Up to the present such leather could only be detanned by treating it with acids, sometimes after having been first soaked in alkali. After detanning the glue could be extracted. I have found however, that it was sufficient to treat mineral or chrome-dressed leather with alkali, for instance with lime, soda or other basic-substances at a suitable temperature. It was then partly detanned or dechromed; after such treatment it was possible, to extract a part of the glue by simply boiling the leather with water. The quantity of glue extracted is materially increased if the mineral dressed leather is treated with the base at temperatures up to a 100° C. or more for instance at a 110 to 125° C. Further experiments have shown, that leather is also detanned (and that without destroying the glue contained therein) at the higher temperature mentioned, if salts of alkali having alkaline qualities for instance soda or earth alkali are employed instead of the caustic alkalies or the caustic earth alkalies. The phosphoric salts have shown themselves to be particularly efficacious. The process may be of course combined in such manner, that the leather is first treated with lime and when partly detanned, boiled with salts of alkaline qualities or alkaline reaction, that continue the dechroming at higher temperatures, the hydroxids and the alkaline salts may be employed simultaneously.

The following examples show my process in detail:

Ia: Mineral dressed or chrome tanned leather is thoroughly mixed with milk of lime, and then left to itself for 48 hours at the temperature of 35° C.: the superfluous lime with the liquid containing the chrome, is removed by washing and the material boiled down in the well known manner, to obtain the glue.

Ib: The mineral or chrome dressed leather is treated with a solution containing ½% of caustic baryta (hydroxid of barium) or caustic strontia (hydroxid of strontium say) for 12 hours at 26° C. The superfluous caustic baryta or strontia together with the liquid containing the chrome, is then removed by washing, and the material thus detanned worked for the purpose of isolating the glue.

Ic: The treatment is the same as in the *Ib*, only that a lye containing a quarter percent. of hydroxid of potassium or sodium is used instead of the baryta or strontia.

II: Mineral or chrome dressed leather is treated with a lye of earth alkali or of the hydroxid of a light metal at a 100° C. and then boiled down for glue.

III: Raw material or chrome dressed leather is thoroughly mixed with water and then calcium-mono-phosphate or another phosphate of calcium added thereto. The whole is then boiled down at the temperature of a 110 to 120° C. for glue. The phosphate may be also replaced by finely or coarsely ground raw bones. Instead of raw bones scoured bones *i. e.* bones treated with acid may be used.

What I claim as my invention and desire to secure by Letters Patent is:

1. A process for extracting glue from mineral dressed and chrome tanned leather, consisting in treating the leather with combinations of the light metals showing alkaline qualities and then boiling it down for the purpose of isolating the glue.

2. A process for extracting glue from mineral dressed and chrome tanned leather, consisting in treating the leather with the hydroxids of the light metals and then boiling it down for the purpose of isolating the glue.

3. A process for extracting glue from mineral dressed and chrome tanned leather consisting in boiling leather with the alka-

line salts of the light metals at temperatures up to 125° C. till the glue is isolated.

4. A process for extracting glue from mineral dressed and chrome tanned leather, consisting in treating the leather with hydroxid of the light metals and then boiling it with alkaline salts of the light metals at temperatures up to 125° C. till the glue is isolated.

ALBERT RUDOLF WEISS, JUN.

Witnesses:
JEAN GRUND,
CARL GRUND.