

UNITED STATES PATENT OFFICE.

FERDINAND LUDWIG WERNER FRENAY, OF MENTZ, GERMANY.

PROCESS OF MAKING FINELY-VEINED MARBLING ON LEATHER.

SPECIFICATION forming part of Letters Patent No. 584,932, dated June 22, 1897.

Application filed April 2, 1896. Serial No. 585,975. (Specimens.) Patented in Germany December 7, 1895, No. 87,905, and in Austria April 26, 1896, No. 46/1,619.

To all whom it may concern:

Be it known that I, FERDINAND LUDWIG WERNER FRENAY, a subject of the King of Prussia, Emperor of Germany, and a resident of Mentz, Germany, have invented a new and useful Improvement in Processes of Making Finely-Veined Marbling on Leather, (for which I have obtained a patent in Germany, No. 87,905, bearing date December 7, 1895, and in Austria, No. 46/1,619, bearing date April 26, 1896,) of which the following is a specification.

This invention consists in a process for producing a new sort of finely-veined flowered marbling (bouquet-marble) on hides of leather. In previous processes the dry hide was stretched upon a board laid slanting, washed with a solution of potash, then with water, and immediately afterwards sprinkled with a solution of sulfate of iron. Through the blending of the two last-named liquids the well-known long-streaked black-brown branched marbling was made.

In order to take from the marbling the common long-streaked branch-leather appearance and give it a flowery finely-veined structure, thus making it more suitable for leather goods of smaller size, the procedure is as follows: Over a table or board corresponding to the size of the hide a layer of plaster-of-paris, mixed in water, is spread, the surface of which is studded with small stones (garden-gravel) or similar bodies, whereby a number of projections and cavities are formed. In order to make this surface impervious to the effect of the above-named liquors, it is coated over with spirit-varnish. Such a plate provided with irregular projections can also be made of metal or other material. The hide to be marbled is now well softened in water and placed dripping, the flesh side down, the grain side up, upon the plate provided with projections and firmly pressed upon it, so that all the unevenness of the plate appears upon the grain surface of the hide. The purpose of these projections upon the hide is to prevent the running off of the colors, liquors, &c., laid on, as below described, whereby small flowery marblings form. The hide taken out of the water and being pressed against the described plate is now further treated, without allowing it to dry, with a ten-per-cent. solution of

carbonate of potassium. This solution of potash is applied to the hide by means of a sponge or such like and is intended to make the colors afterward sprinkled upon the wet hide more brilliant.

Instead of a ten-per-cent. solution of potash, also liquid ammonia (containing about four per cent. ammonia) or caustic lye (six-per-cent. solution) may be employed, but in no case two or three of these substances should be used at the same time.

The treating of the hide with liquid ammonia is too expensive and is not employed. The treating with caustic lye can only be employed for certain kinds of leather, while the solution of carbonate of potassium has proved very conformable to the purpose.

After having now treated the hide as described with about a ten-per-cent. solution of potash and liquid ammonia or caustic lye the color intended to be used (red, blue, green, orange, &c.) is dissolved in rectified alcohol and then sprinkled upon it, water poured over it, and a twenty-per-cent. solution of sulfate of iron immediately sprinkled upon it. In this way veins immediately form, which run without affecting the color previously sprinkled on and produce in conjunction with the latter a new finely-flowered marbling. This is of durable color and does not wash off. The water poured on the hide after the color dissolved in rectified alcohol has been sprinkled upon it does not wash off this color and has only the purpose to flux it and thereby to produce the finely-veined marbling. The marbled hides are now dried and either, if to be unglazed, rubbed down with sandpaper, or, if a high gloss is desired, a gloss is given by a calendering-machine.

What I claim is—

A process for making a finely-veined marbling on tanned skins by pressing the well-softened hide upon a plate provided with projections, then marbling the same with easily-flowing colors and finally making disappear the projections by a calendering or other convenient machine as and for the purpose set forth.

FERD. LUDWIG WERNER FRENAY.

Witnesses:

W. HAUSING,
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