UNITED STATES PATENT OFFICE.

HUGH SMITH, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN THE TREATMENT OF LEATHER.

Specification forming part of Letters Patent No. **165,129**, dated June 29, 1875; application filed December 16, 1874.

To all whom it may concern:

Be it known that I, HUGH SMITH, of the city of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Leather; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same.

This invention consists in producing from split or buffed leather a perfect imitation of grain leather or morocco, made from any kind of skins or hides, by the use of certain compounds, which are hereinafter more fully described; and first consists of glue, one-quarter to one pound, dissolved in one gallon of water, and boiled, after which is added thereto one-quarter to one pound of starch or flour, and the whole mixture is again allowed to boil, after which aniline colors or paints of any kind may be added; also, use from one to four pounds of glycerine or other fatty substance, and mix therewith any desired colors of paints to correspond with the colors of the dyes. The whole is mixed together. Of this compound, one or more coats may be used previous to stamping or embossing the leather under treatment, the object of which is to fill up the pores, and bind down the fiber or nap on the surface thereof; and if it is not required to be water-proof, it may be finished with one or more coats of a suitable varnish.

And my second compound, which I use to make the leather more flexible and water-proof, consists in a sirupy solution of the following ingredients, and in about the following proportions, viz: One pound of gum-shellac dissolved in two quarts of alcohol, and added thereto or used separately; one pound of india-rubber or other equivalent gum, also dissolved in one gallon of naphtha, (the latter should be dissolved in a separate vessel previous to mixing with the former,) and added thereto a sufficient quantity of glycerine to soften, together with the proper or desired coloring matter. If this mixture should be too thick, it may be reduced by adding wood-alcohol or its chemical equivalent until the desired result is obtained.

These compounds are to be applied to the leather in the known manner, and for the purpose of coverings or coatings thereto.

The leather is first split or buffed in the ordinary manner, and dyed, if preferred, any desirable color. It is then secured to frames, or spread or sticked out upon a table, preparatory to having the coloring matter and compound applied, which is done with a sponge, brush, swab, or any other suitable device, and well rubbed in upon the surface of the split or buffed side of the leather, one or more coats, either warm or cold, being applied, until a uniform color and smooth surface are produced, which, after being properly dried, is stamped or embossed, to imitate the natural grain of the leather or morocco or other design, as the case may be, the first preparatory coating to be applied previous to the stamping or embossing process.

I claim—

As an improvement in the art of treating leather, the compounds composed of the ingredients named, in about the proportion given, for the purpose specified.

In testimony that I claim the foregoing as my own invention I affix hereto my signature in presence of two witnesses.

HUGH SMITH.

Witnesses:
GEO. H. WILSON,
NATHAN HARPER.