UNITED STATES PATENT OFFICE.

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PROCESS OF CLEANING WHITE LEATHER GOODS.

SPECIFICATION forming part of Letters Patent No. 776,830, dated December 6, 1904.

Application filed January 21, 1904. Serial No. 189,974. (No specimens.)

To all whom it may concern:

Be it known that I, WILLIAM FORGER, a citizen of the United States, and a resident of New York, county of New York, and State of New 5 York, have invented certain new and useful Improvements in Processes of Cleaning and Bleaching White Leather Goods, of which the following is a specification.

This invention relates to the process of 10 cleaning and bleaching white leather goods, such as white kid gloves and the like.

The object of the invention is by an improved process to greatly decrease the amount of time and labor heretofore expended in 15 cleaning and bleaching articles of the character aforesaid and at the same time to prevent all damage and shrinkage of the material, which was heretofore so apt to be inci-

dent to such a process.

In the practice of my invention for cleaning white kid gloves I first subject the gloves to the action of a bath composed of benzin, oleic acid, and ammonia. To prepare this bath, I mix the said ingredients together in 25 the following proportions: Benzin, fortynine gallons and three quarts; aqua-ammonia, 26°, one pint; oleic acid, one pint. These I stir together until they are thoroughly mixed. I then allow the mixture to rest until the wa-3° ter of the aqua-ammonia has settled to the bottom. This I then draw off and the remaining fluid I use for the said bath. In this I manipulate the gloves twice for fifteen minutes each time. In the next place I manipu-35 late the gloves for two minutes in a bath of benzin, oleic acid, ammonia, and alcohol. To prepare this bath, I first mix together two gallons of benzin, one-half of a gallon of oleic acid, and one-quarter of a gallon of aqua-ammonia, 26°. These I thoroughly mix by agitation. I then allow the mixture to settle and then draw off the water of the aqua-ammonia from the bottom. Then I add to them one-quarter of a gallon of wood-alcohol and again agitate 45 until all are fully mixed. While the gloves are treated with this bath the fluid of the first baths has been allowed to settle. When the gloves are withdrawn from the bath of benzin, oleic acid, and alcohol, they are again

5° treated twice with the fluid of the first-named

baths, which may be easily poured off from any sediment it accumulated during its first application. The gloves should be twice manipulated in this fluid for five minutes each time. Thus far the baths have been used to 55 remove the grease and dirt only. The gloves are bleached and further cleaned as follows: Then I manipulate the gloves in a bath composed of benzin and chlorid of calcium, (CaCl₂.) To prepare this bath, I mix together 60 twenty gallons of benzin and three pounds of chlorid of calcium. The vessel which is used for this bath should be such that while the benzin chlorid of calcium and the gloves are all agitated together the benzin from off 65 the chlorid of calcium will pass freely to all the parts of the gloves; but the solid parts of the chlorid of calcium cannot come into contact with the gloves. This agitation is to be continued for one-half of an hour. If there 70 should be any moisture or residuum of perspiration remaining in the gloves which was not removed by the former baths, this will effectually remove it from them. The gloves are then withdrawn from this last-named bath and 75 rinsed in clear benzin, after which they may be dried in any approved and well-known way. The gloves will now be found to be thoroughly cleaned, very white, very pliable, and elastic and in no wise shrunk by the process.

It is evident that all kinds of leather goods. the color of which would not be injured by the process and which are of such size as to to be manipulated in the baths, may be successfully treated in this way.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The process of cleaning and bleaching leather goods consisting in manipulating them 90 twice, for the time specified in a bath composed of benzin, oleic acid, and ammonia, then manipulating them for the time specified in a bath of benzin, oleic acid, ammonia, and alcohol, then again twice manipulating them 95 for the time specified in the first-named bath, then manipulating them for the time specified in a bath composed of benzin and chlorid of calcium, and lastly rinsing them in benzin, substantially as herein described.

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2. The process of cleaning and bleaching leather goods, consisting in manipulating them twice, for fifteen minutes each time in a bath composed of forty-nine gallons and three quarts of benzin, one pint of oleic acid, and the ammonia contained in one pint of aquaammonia, then manipulating them for two minutes in a bath composed of two gallons of benzin, one-half of a gallon of oleic acid, and the ammonia in one-quarter of a gallon of aqua-ammonia 26° and one-quarter of a gallon of alcohol, then manipulating them twice, five minutes each time in the said first-named

bath, then manipulating them for half an hour in a bath composed of benzin twenty gallons, 15 and chlorid of calcium three pounds, and lastly rinsing them in benzin, substantially as herein described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 14th day of Janu-

ary, 1904.

WILLIAM FORGER.

Witnesses:

O. D. Trussell,

B. Patterson.