

# UNITED STATES PATENT OFFICE.

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## SUBSTITUTE FOR PATENT-LEATHER.

No. 907,087.

Specification of Letters Patent.

Patented Dec. 15, 1908.

Application filed March 14, 1907. Serial No. 362,323.

*To all whom it may concern:*

Be it known that I, SCHEYER NATHAN, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Substitute for Patent-Leather, of which the following is a full, clear, and exact description.

This invention relates to certain improvements in a material adapted to be used as a substitute for patent leather and the process by which said material may be manufactured. The material is adapted for use for all purposes for which patent leather is normally employed, but is more particularly adaptable for use in the manufacture of ladies' belts and other similar articles requiring strength and flexibility.

As the base or body of my improved material I preferably employ a strong grade of cotton commonly known as "drill". Sheets of the woven fabric are first stretched upon and fastened to suitable wooden frames or other devices to securely hold the fabric in place while it is being treated to the several coatings hereinafter referred to. The fabric is then covered and saturated with a suitable filling material which is absorbed in the pores of the fabric to form a smooth surface. This filling material may be of various different substances, but is preferably composed of a paste made from flour and including glue to prevent the paste from falling off after it has become dried. Flexibility may be secured by adding a small quantity of soap and the paste may, if desired, be thickened by the addition of lamp black. If it is desired that the resulting product should be very stiff and rigid the quantity of glue in the filling material is increased, while if great flexibility is desired the quantity of glue is decreased and the quantity of soap is increased. This filling material may be applied to one side only of the fabric, or may, if desired, be applied to both sides, depending upon whether a double faced or single faced product is desired. I may apply the coat of filling material before the fabric is secured to the frame in order that a better saturation may be secured, or I may apply the filling afterwards as above described.

After the fabric has been saturated and coated with the filling material it is thoroughly dried and then treated to a plurality

of surfacing and finishing coats. The material employed in the first few coats applied after the filling material has been dried preferably is formed by mixing lamp black and raw umber in linseed oil and boiling for a considerable length of time. The resulting product is diluted with naphtha and applied to the surface of the fabric by means of brushes. In forming the mixture, I take approximately fifty gallons of raw linseed oil mixed with about six pounds of lamp black and with about six pounds of raw umber, both the lamp black and umber being finely pulverized. The mixture is then boiled at a high temperature for a considerable length of time and then diluted with about fifty gallons of naphtha. A plurality of coats of this mixture are applied, and after each coat the frames and the fabric tacked thereon are placed in an oven and kept at as high a temperature as the fabric will stand for about seven hours, in order to thoroughly dry and harden the coating material. Ordinarily about four coats will be all that is necessary to provide a fine glossy coat or finish, and I then apply preferably two somewhat similar coats but containing the desired coloring material.

In preparing the substance for the last two coats, I preferably take about the same quantity of raw linseed oil and raw umber as specified for the first coats, but replace the lamp black by a suitable coloring material. If a black finish is required, I preferably use Chinese blue, which when applied to the surface or coating with the lamp black mixture will produce a glossy black finish. This mixture of linseed oil, raw umber and the coloring material is boiled as before and diluted with naphtha. After each of these coats the fabric is heated in an oven for about twenty-four hours to harden and dry the same, and I employ as high a temperature as possible to secure this end but without danger of burning or charring the combustible materials of the resulting product.

As previously stated, it is evident that one or both surfaces of the fabric may be coated as above described, but in case only one surface is treated I preferably give the back surface an extra coating of a filling material formed of flour, soap and raw umber. This coating serves to give the back of the article a smooth flexible surface though not a glossy or highly finished one. If desired I may em-



ploy a rubber composition as the main filling material instead of that above referred to.

By treating a woven fabric in the manner above described, I produce a high and glossy  
5 finish which is unaffected by the bending of the fabric and which does not crack or break upon exposure to hard usage.

Having thus described my invention, I claim as new and desire to secure by Letters  
10 Patent:

1. The process of manufacturing a substitute for patent leather, consisting in stretching a sheet of woven cotton fabric and holding it in a stretched condition, treating  
15 the fabric with a gelatinous filling material to give it a smooth surface, applying to said surface when dry a plurality of flexible coatings containing boiled linseed oil, raw umber, and a coloring substance, and heating the  
20 fabric after each coating.

2. As a new article of manufacture, a flexible substitute for patent leather, comprising a woven cotton body, a gelatinous filling material included within the interstices thereof.

and a plurality of coatings of boiled linseed 25 oil, raw umber, and a coloring substance.

3. The process herein described of manufacturing a substitute for patent leather, consisting in applying a gelatinous material to the fabric to fill the pores thereof and to  
30 form a smooth surface, applying to the said surface when dry a plurality of coatings consisting of raw linseed oil, lamp black and raw umber, boiled and diluted with a hydrocarbon, subjecting the treated fabric, after each  
35 coat to heat at a high temperature, applying a plurality of coatings consisting of raw linseed oil, raw umber and a coloring material, boiled and diluted with a hydrocarbon, and subjecting the whole after each coat, to heat  
40 at a high temperature.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SCHEYER NATHAN.

Witnesses:

JNO. M. RITTER,  
CLAIR W. FAIRBANK.