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PRINTING OF FABRICS AND ARTICLES.

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The success of this invention is rather surprising inasmuch as, for instance, it was expected that by treating a fabric like velvet, containing cellulose acetate silk mixed with cotton with a solvent for cellulose acetate, a film would be obtained which sticks to the cotton fibre without possibility of removal in a practical way. In order to execute the invention of removing by discharge printing the cellulose acetate silk out of a mixed fabric (for instance a fabric with a cotton warp and a mixed filling consisting of alternatively two threads of "cellulose acetate" and two threads of cotton) I print, according to the well-known method or according to any other method a thoroughly mixed paste, consisting of 30 parts lactic acid, 3 parts water, 5 parts dextrin and 12 parts infusorial earth on the fabric containing the cellulose acetate "silk." The printing of this paste can be made on one side of the fabric or on both sides of the fabric. Then the fabric so printed is exposed in any appropriate fashion to a temperature, for instance, of 50° to 125° C. until the moment a sample of the cloth so printed and treated shows that by washing with water the cellulose acetate "silk" has been entirely removed at the spot where the printing took place.

This invention can be worked out with the very well-known apparati of discharge printing but the invention is not limited to that and may be used in any device which is able to get the result.

The proportions of the paste can be varied in a wide range and instead of lactic acid or other solvents of cellulose acetate, like acetic acid, acetone or higher boiling point solvents or any other suitable solvent or combination of solvents of acetate of cellulose can be used. Instead of dextrin any other suitable thickening agent can be used, for instance, starch, casein, etc., just as well as infusorial earth can be replaced by other suitable powdered materials such as blotting paper, powdered cellulose, barium sulphate or any other solid absorbent material in powdered form which has no chemical effect on the solvent used; for example if instead of lactic acid, acetone or another neutral solvent is used, powdered calcium or barium carbonate can be used.

This invention is not limited to cellulose acetate silk but also applies to the discharge printing of mixed fabrics, like velvets or other fabrics or articles containing artificial silks made of cellulose esters, like cellulose butyrate, cellulose propionate, nitrocellulose silk and so forth; in other words, it applies to silk made out of organic or inorganic esters of cellulose, as well as of ethers of cellulose, such as cellulose ethylate, methylate, benzoylate, etc.

By this invention for instance beautiful jacquard effects are obtained on mixed fabrics (consisting partly of cellulose acetate "silk" and partly of other fibres or on velvets having, for instance, a back of cotton or silk or wool or mixtures of different fibres, whilst the face of the velvet consists of cellulose acetate silk).

This invention is also applicable to fabrics, velvets or articles consisting entirely of cellulose acetate or cellulose ester or cellulose ether silk or mixtures of these silks and the fabrics so obtained with stamped out patterns in agreement with this invention can be largely used under others for the manufacture of novelties and fancy articles in the dress goods trade.

The cellulose acetate silk or cellulose ester silk or cellulose ether silk in the fabrics can according to wish be partly or totally removed according to the above invention.

What I claim is:

1. A process for the printing of mixed fabrics containing fibers of a cellulose derivative consisting in applying to portions of the fabric the mixture of a solvent for the cellulose derivative, an inert powder and a thickening agent, allowing this mixture to remain in contact with the fabric at a temperature below 125° C. until at least a part of the cellulose derivative fibers are removable by washing with water.

2. A process for the printing of mixed fabrics containing fibers of a cellulose derivative consisting in applying to portions of the fabric a mixture of lactic acid, an inert powder and a thickening agent, allowing the mixture to remain in contact with the fabric at a temperature below 125° C. until at least a part of the cellulose derivative fibers are removable by washing with water.

3. A process for the printing of mixed fabrics containing fibers of a cellulose derivative consisting in applying to portions of the fabric a mixture of 12 parts of in-

fusorial earth, 5 parts dextrin, 30 parts lactic acid and 3 parts water, allowing this mixture to remain in contact with the fabric at a temperature below 125° C. until at least a part of the cellulose derivative fibers are removable by washing with water.

4. A process for the printing of mixed fabrics containing fibers of an organic cellulose derivative consisting in applying to portions of the fabric a mixture of a solvent for the organic cellulose derivative, an inert powder and a thickening agent, allowing this mixture to remain in contact with the fabric at a temperature below 125° C. until at least a part of the organic cellulose derivative fibers are removable by washing with water.

5. A process for the printing of mixed fabrics containing fibers of an organic cellulose derivative consisting in applying to portions of the fabric a mixture of lactic acid, an inert powder and a thickening agent, allowing the mixture to remain in contact with the fabric at a temperature below 125° C. until at least a part of the organic cellulose derivative fibers are removable by washing with water.

6. A process for the printing of mixed fabrics containing fibers of a cellulose ester consisting in applying to portions of the fabric the mixture of a solvent for the cellulose derivative, an inert powder and a thickening agent, allowing this mixture to remain in contact with the fabric at a temperature below 125° C. until at least a part of the cellulose ester fibers are removable by washing with water.

7. A process for the printing of mixed fabrics containing fibers of a cellulose ester consisting in applying to portions of the fabric a mixture of lactic acid, an inert powder and a thickening agent, allowing the mixture to remain in contact with the fabric at a temperature below 125° C. until at least a part of the cellulose ester fibers are removable by washing with water.

8. A process for the printing of mixed fabrics containing fibers of a cellulose ester consisting in applying to portions of the fabric a mixture of 12 parts of infusorial earth, 5 parts dextrin, 30 parts lactic acid and 3 parts water, allowing this mixture to remain in contact with the fabric at a temperature below 125° C. until at least a part of the cellulose ester fibers are removable by washing with water.

9. A process for the printing of mixed fabrics containing fibers of a cellulose acetate consisting in applying to portions of the fabric the mixture of a solvent for the cellulose derivative, an inert powder and a thickening agent, allowing this mixture to remain in contact with the fabric at a temperature below 125° C. until at least a part of the cellulose acetate fibers are removable by washing with water.

10. A process for the printing of mixed fabrics containing fibers of cellulose acetate consisting in applying to portions of the fabric a mixture of lactic acid, an inert powder and a thickening agent, allowing the mixture to remain in contact with the fabric at a temperature below 125° C. until at least a part of the cellulose acetate fibers are removable by washing with water.

11. A process for the printing of mixed fabrics containing fibers of cellulose acetate consisting in applying to portions of the fabric a mixture of 12 parts of infusorial earth, 5 parts dextrin, 30 parts lactic acid and 3 parts water, allowing this mixture to remain in contact with the fabric at a temperature below 125° C. until at least a part of the cellulose acetate fibers are removable by washing with water.

In testimony whereof, I have hereunto subscribed my name.

CAMILLE DREYFUS.