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METHOD OF TREATING SILK

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This invention relates to the treating of silk, and more particularly to the treatment of silk for the purpose of producing crepe effects.

According to the instant invention, crepe effects are produced on silks by shrinking predetermined areas thereof. This is accomplished by applying a resist to certain areas thereof and then immersing the silk fabric in a bath containing a shrinking agent, whereby the shrinking agent acts on the exposed portions of the fabric. Subsequently, after the shrinking agent is removed, the resist is finally removed.

As the shrinking bath, the instant invention prefers an 18° Bé. hydrochloric acid solution, though, of course, it is obvious that other materials, such as sulphuric acid, phosphoric acid, formic acid, nitric acid, etc., may be used.

The bath is preferably maintained at room temperature and the material maintained in contact therewith for approximately 1 to 2 minutes.

The resist, as hereinafter more fully explained, is of such a nature that it can be applied by the usual printing machine and set by passage through the drier rollers located adjacent the exit end of the printing machine and usually constituting an appurtenant part thereof. The resist is furthermore characterized in that it can at the end of the process be removed by washing with an aqueous solution containing an alkali or soap and then with water.

In one embodiment, the instant invention contemplates an aqueous emulsion of a wax for producing the resist on the material. Any aqueous wax emulsion, such as the paraffin wax emulsions now extensively used for waterproofing, may be used. As an illustrative composition which has given satisfactory results may be mentioned a wax emulsion comprising, for example, 50 parts of paraffin, 10 parts of stearic acid, 2 parts of triethanolamine and sufficient water to produce a highly viscous emulsion. Such an emulsion may be prepared in any convenient manner, such as by subjecting the various constituents to a high speed agitator or to the action of a colloid mill.

Instead of a wax emulsion, the instant invention also contemplates the use of a soap as the resist. In the preferred embodiment of such a procedure, the instant invention contemplates applying a thick aqueous emulsion of a soap, such as potassium abietate, formed from the reaction of potassium salt and rosin to the silk fabric by a printing machine and thereafter setting it by passage through the drying rollers thereof. When this soap is brought in contact

with the acid, i. e. hydrochloric, which constitutes the shrinking agent, a reaction is effected whereby the free fatty acid (abietic acid) and potassium chloride are produced. The fatty acid is sufficiently inert with respect to the shrinking acid so as not to be materially affected thereby or in any way affect the function of said acid. It is obvious that soaps other than the one specifically mentioned may be used with equal success.

Another important feature of the instant invention resides in the easy and cheap removal of the resist at the end of the process. As hereinbefore mentioned, this is secured by treating the fabric, such as by washing the same with an aqueous solution containing an alkali or soap and then with water.

A fabric treated in accordance with the method hereinbefore described and dried exhibits very distinctive crepe effects.

From the foregoing it is obvious that the instant invention provides a method of producing crepe effects which is simple to carry out as well as cheap and economical. By virtue of the nature of the resists employed the usual printing machine, together with the appurtenant drier rolls thereof, may be employed. Consequently no special equipment is necessary. Moreover, the resist at the end of the process is removed by washing with an aqueous solution containing an alkali or soap and then with water. Therefore, no volatile solvents are necessary.

In the claims the term "oleaginous substance" is intended to cover waxes and soaps of the types herein described.

Since it is obvious that various changes and modifications may be made in the above description without departing from the nature and spirit thereof, this invention is not restricted thereto except as set forth in the appended claims.

I claim:

1. A method of producing crepe effects which comprises printing a silk fabric with an aqueous emulsion of a substance, of the class which consists of waxes and soaps, setting the substance to form a resist by passing the printed fabric through the drier rolls of the printing machine, subjecting the treated fabric to a shrinking agent, and finally removing the resist.

2. A method of producing crepe effects which comprises printing an aqueous emulsion of a substance, of the class which consists of waxes and soaps, on predetermined areas of a silk fabric, setting the substance to form a resist by passing the printed fabric through the drier rolls of the

printing machine, subjecting the treated material to a shrinking agent, and finally removing the resist by washing with a soap solution and water.

3. A method of producing crepe effects which
5 comprises printing an aqueous emulsion of a wax on predetermined areas of a silk fabric, setting the wax by passing the printed fabric through the drier rolls of the printing machine, subjecting the treated material to a shrinking agent, and finally
10 removing the wax by washing with a soap solution and water.

4. A method of producing crepe effects which
comprises printing an aqueous emulsion of a soap on predetermined areas of a silk fabric, setting
15 the soap by passing the printed fabric through the drier rolls of the printing machine, subjecting the treated material to a shrinking agent, and

finally removing the soap by washing with a soap solution and water.

5. A method of producing crepe effects which
comprises printing an aqueous emulsion of a wax on predetermined areas of a silk fabric, setting
5 the wax by passing the printed fabric through the drier rolls of the printing machine, subjecting the treated material to a shrinking agent, and finally removing the wax.

6. A method of producing crepe effects which
10 comprises printing an aqueous emulsion of a soap on predetermined areas of a silk fabric, setting the soap by passing the printed fabric through the drier rolls of the printing machine, subjecting the treated material to a shrinking agent, and finally
15 removing the soap.

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