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2,245,289

PRODUCTION OF EMBOSSED EFFECTS ON PARCHMENTIZED FABRICS

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FIG. 2



FIG. 1

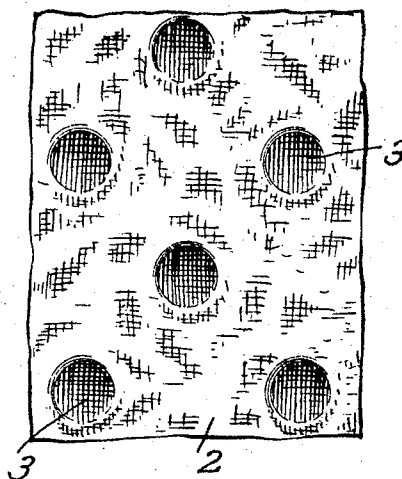


FIG. 3

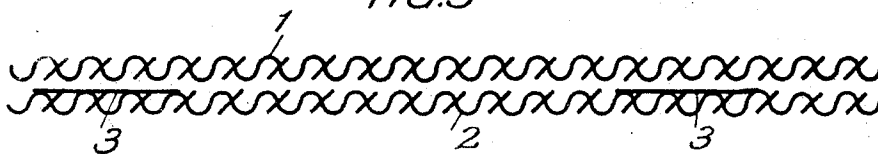
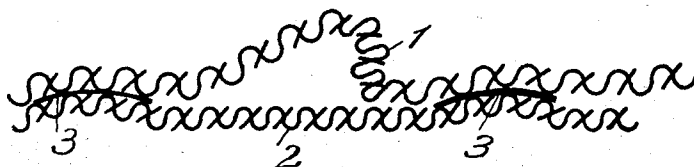


FIG. 4



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PRODUCTION OF EMBOSSED EFFECTS ON
PARCHMENTIZED FABRICSHermann Müller, Herisau, Switzerland, assignor
to Aktiengesellschaft Cilander, Herisau, Swit-
zerlandApplication December 17, 1938, Serial No. 246,444
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7 Claims. (Cl. 154—2)

This invention relates to the production of embossed effects on parchmentized fabrics.

There are quite a number of known methods which have for their purpose the production of embossed effects sometimes called "cloqué-effects" on fabrics. Such fabrics can be produced, for example by binding together two warps, that is, by special modes of weaving, by producing a double cloth, one cloth of which is a crepe fabric and the other a plain fabric.

It is further known, to produce embossed cloths by printing certain portions of a cotton fabric with a resist and subsequently treating the fabric with caustic soda lye of mercerising strength, whereby the unprotected fabric portions are strongly shrunk by action of the caustic soda lye, whereas the fabric portions protected by the resist from attack by the caustic soda lye do not shrink, but are pouted or crimped.

Cloqué-fabrics the embossed portions of which are parchmentized are obtained, as is well known in that the resists protecting against parchmentizing acid are printed on cotton fabrics at certain portions thereof, and then the fabric is subjected to a treatment with parchmentizing acid, whereby the fabric is provided partly with stiff transparent portions and partly with pliant non-transparent portions. Now, if fabrics thus treated are subjected to a treatment with caustic soda lye of 30° Bé. without stretching the same the threads in the pliant non-parchmentized fabric portions shrink and contract, whereas the stiff parchmentized portions are pouted, thereby producing the cloqué-effect.

From this it follows that the state of the art up to the present is limited to the production of embossed fabrics, that is, cloqué-effects on non-parchmentized (non-transparentized) cloths and on cloths which are parchmentized (transparentized) only at certain portions.

The present invention has for its object a method of producing cloqué-effects on fabrics the whole surface of which, inclusive of the portions having this effect, are parchmentized.

It has now been found that if a parchmentized cotton cloth or a parchmentized cloth made of material of other vegetable or of animal origin is superposed on a non-parchmentized back cloth made either of cotton or of another material which can be shrunk by means of acid or alkali respectively and is of animal or of vegetable origin, and then the two layers of cloth are printed at certain portions thereof with an adhesive insoluble in water, alkali and acid and are subsequently subjected to the action of a

shrinking agent, such as caustic soda lye or mineral acid without stretching the double cloth, a compound fabric is obtained the whole parchmentized constituent structure of which is embossed. In this way a parchmentized cloqué-fabric is obtained.

By means of this method it is also possible to produce quite a number of variant compound fabrics depending upon whether colored or printed transparent fabrics are combined with a white back cloth or, vice versa, white transparent fabrics are combined with colored or printed back cloths.

In the accompanying drawing the method according to the invention is illustratively exemplified, in which

Fig. 1 is a view of two layers of cloth connected together by means of adhesive as seen from above prior to the shrinking;

Fig. 2 shows the same piece of fabric after the shrinking;

Fig. 3 is a schematic section through both layers of cloth prior to the shrinking, and

Fig. 4 is a corresponding section after the shrinking.

The non-shrinking layer of cloth is designated by 1 and the shrinkable or shrunk cloth by 2, whereas the places where the cloths are connected together by means of adhesive are designated by 3.

Example

A bleached colored transparentized (parchmentized) muslin fabric is superposed in dry state on a bleached non-transparentized and thus non-parchmentized muslin fabric, whereupon the superposed layers of cloth are printed at certain portions with an adhesive which is insoluble in water, alkali and acid and is composed as follows:

	Grams
Polyvinyl acetate (artificial resinous product)	400
Solvent	300
Pure anone of 94%	300
	1000

After being printed, the goods are dried either on heating plates or in a drying chamber. The two layers are then definitely fixed together at the printed portions by means of the adhesive. Thereupon this double cloth is treated with caustic soda lye of 30° Bé. at normal temperature for 2 to 4 min. without being stretched by passing the fabric through caustic soda lye of this con-

centration and letting it lie on a depositing surface until the non-transparentized back cloth is contracted to a considerable extent and the transparent cloth is pouted. Thereupon the sodium lye is washed out and neutralized with diluted mineral acid and then the neutralization acid is removed and the fabric dried without or with only little stretching or tensioning.

As adhesives other artificial resinous products insoluble in water, alkali and acid may be used and as back cloths any fabrics may be employed which can be shrunk by treatment with concentrated caustic soda lye or other alkalies or acids.

Various changes and modifications may be made in the practice of my invention without departing from the principle or spirit thereof, by adding customary practice and established knowledge of the art to the present disclosure and the scope of the appended claims is not to be regarded as limited except as specified therein.

I claim:

1. In a method of producing embossed effects on parchmented fabrics, the steps comprising taking a parchmented front cloth having substantially no shrinkage when treated with chemical shrinking agents, applying to said front cloth a non-parchmented cloth which shrinks when treated with said chemical shrinking agents, printing certain portions of the double cloth thus obtained with an adhesive insoluble in water and the chemical shrinking agents, and subjecting said double cloth in dry condition without stretching to the action of a chemical shrinking agent to such an extent that the non-parchmented back cloth is shrunk and the parchmented front cloth, which does not shrink, is embossed.

2. In a method of producing embossed effects on parchmented fabrics, the steps comprising taking a parchmented front cloth of animal origin having substantially no shrinkage when treated with chemical shrinking agents, applying to said front cloth a non-parchmented back cloth capable of shrinking when treated with said chemical shrinking agents, printing certain portions of the double cloth thus obtained with an adhesive insoluble in water and the shrinking agent, and subjecting said double cloth in dry condition without stretching to the action of a chemical shrinking agent to such an extent that the non-parchmented back cloth is shrunk while the parchmented front cloth does not shrink but becomes embossed.

3. In a method of producing embossed effects on parchmented fabrics, the steps comprising taking a parchmented front cloth having substantially no shrinkage on treatment with chemical shrinking agents, applying a non-parchmented back cloth of animal origin capable of shrinking when treated with said chemical shrinking agents, printing portions of the double cloth thus obtained with an adhesive insoluble in water and the chemical shrinking agent, and subjecting said double cloth in dry condition without shrinking to the action of said chemical shrinking agent to

shrink the non-parchmented back cloth while the parchmented front cloth is not shrunk thereby and becomes embossed.

4. In a method of producing embossed effects on parchmented fabrics, the steps comprising taking a parchmented front cloth of vegetable origin having substantially no shrinkage when treated with chemical shrinking agents, applying thereto a back cloth capable of shrinking when treated with said chemical shrinking agents, printing certain portions of the double cloth thus obtained with an adhesive insoluble in water and the chemical shrinking agent, and subjecting said double cloth in dry condition without stretching to the action of a chemical shrinking agent so that the non-parchmented back cloth is shrunk while the front cloth is not shrunk thereby but becomes embossed.

5. In a method of producing embossed effects on parchmented fabrics, the steps comprising applying to a parchmented front cloth, having substantially no shrinkage on treatment with chemical shrinking agents, a back cloth of vegetable origin which shrinks when treated with said chemical shrinking agents, printing portions of the double cloth thus obtained with an adhesive insoluble in water and the chemical shrinking agents, and subjecting said double cloth in dry condition without stretching to the action of a chemical shrinking agent to such an extent that the non-parchmented back cloth is shrunk while the parchmented front cloth is not shrunk thereby and becomes embossed.

6. In a method of producing embossed effects on parchmented fabrics, the steps comprising applying a parchmented front cloth, having substantially no shrinkage on treatment with an alkali lye shrinking agent, to a non-parchmented back cloth which shrinks when treated with said shrinking agent, printing portions of the double cloth thus obtained with an adhesive insoluble in water and said alkali lye shrinking agent, and subjecting said double cloth in dry condition without stretching to the action of said alkali lye to such an extent that the non-parchmented back cloth is shrunk while the parchmented front cloth is not shrunk and is embossed.

7. In a method of producing embossed effects on parchmented fabrics, the steps comprising applying to a parchmented front cloth, having substantially no shrinkage when treated with a mineral acid shrinking agent, a non-parchmented back cloth which shrinks when treated with said acid shrinking agent, printing certain portions of the double cloth thus obtained with an adhesive insoluble in water and the mineral acid shrinking agent, and subjecting said double cloth in dry condition without stretching to the action of said mineral acid to such an extent that the non-parchmented back cloth is shrunk while the parchmented front cloth is not shrunk and is embossed.

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