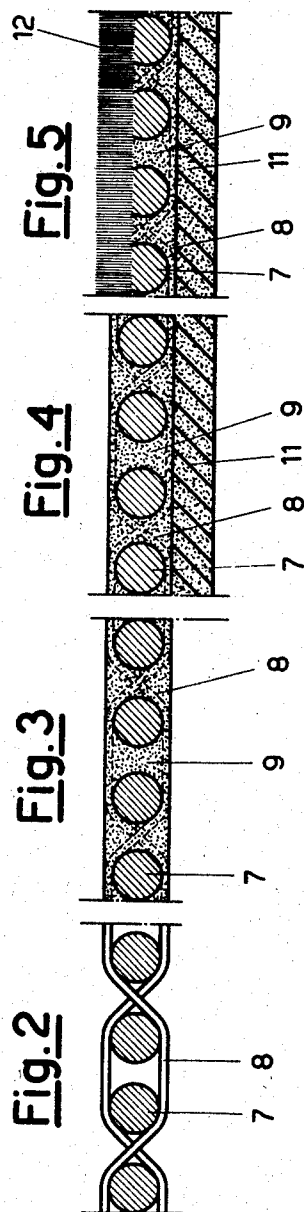
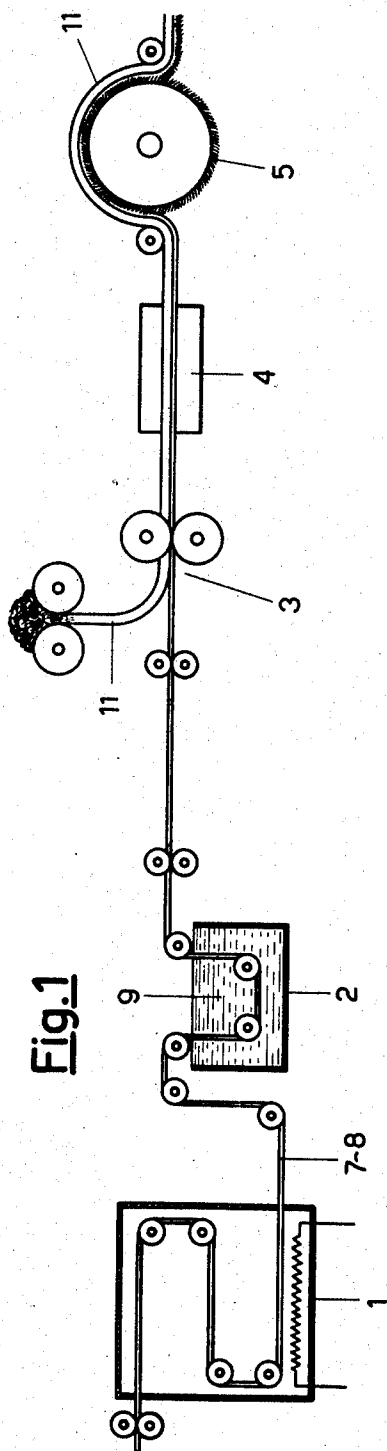


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PROCESS FOR OBTAINING A VELVET-LIKE
COATING OR COVERING MATERIAL
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PROCESS FOR OBTAINING A VELVET-LIKE COATING OR COVERING MATERIAL

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2 Claims. (Cl. 28—72)

This invention relates to methods for preparing velvet-like products.

It is an object of the present invention to provide a process for producing a covering or coating material having the appearance of velvet.

The fabrics of certain synthetic fibres such as polyamide fibres possess considerable strength, very great durability and are readily cleaned and thus have all of the requirements desirable in carpets. An article of this kind, however, has to be very sturdy and heavy and, consequently, if manufactured entirely of said synthetic material, it would turn out to be so costly as to be impractical.

The present invention proposes to create a coating or covering material for the purposes specified above, having the appearance of velvet and being provided with all of the advantages mentioned above and moreover provided with a thickness and sturdiness that render it suitable as a covering for floors and at a very moderate cost as compared with usual carpets of animal or vegetable fibres.

The process according to the present invention consists in heat treating a textile of synthetic or artificial fibres, laminating it with a sheet of thermoplastic material with the application of heat at a temperature not higher than that at which the textile article was treated previously and subjecting the material obtained to napping.

With this process, it is possible to obtain a material which appears to have the appearance of a rug, and the product has considerable strength due to the layer of plastic material.

In the process according to the present invention, the textile material is first heat-treated at a temperature at least equal to that of subsequent treatment so as to resist any deformation and so that the finished product remains free from distortion.

An example of a process according to the invention is hereinafter described merely by way of illustration with reference to the accompanying drawing, wherein:

Fig. 1 is a diagrammatical view of the manufacturing process,

Fig. 2 is a sectional view of the fabric as it appears during preliminary heat-treatment,

Fig. 3 is a sectional view of the fabric as it appears during passage of the fabric through a rubber solution bath,

Fig. 4 is a sectional view of the fabric after a coupling of said fabric and a rubber sheet, and

Fig. 5 is a sectional view of the finished material as it appears after the napping operation.

According to the process as illustrated in Figs. 1 and 2, a polyamide fabric, composed of a row of parallel threads 7 coupled by thin weft threads 8 is, as a first step, subjected to a heat-treatment, shown at 1. This heat-treatment is at a temperature of 150° C. and for a duration of 20 minutes. Then the heat-treated fabric is passed through a bath of rubber solution, this phase being represented by 2 in Fig. 1, whereby the fabric is impregnated with rubber which fills all the interstices between the threads, as shown by 9.

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A thicker layer 11 of rubber compound of uniform thickness is joined to the thus formed product as indicated by 3 in Fig. 1. The composite material, shown in Fig. 4, is vulcanized at a temperature of 145° C. for 15 minutes, this being step 4 in Fig. 1.

The final step 5 is the napping of the composite material, which is performed by passing said material through a napping machine of conventional type, the rollers of which are fitted with reasonably stiff pins; the napping is applied, of course, to the side other than the one constituted by the rubber base and is of such an intensity as to affect a part of the threads 7, as shown in Fig. 5, wherein 12 are the raised fibres.

As a consequence of the last described operation, the threads constituting the fabric are broken and made fluffy, so as to produce a velvet-like finish; at the same time part of the rubber which impregnates said threads is removed since it is scraped away by the napping pins.

The product thus obtained is shown, as aforesaid, in Fig. 5.

As indicated above, the textile material is constituted by synthetic or artificial fibres such as, for example, polyamide fibres, polyvinyl fibres and other analogous fibres. The plastic material may be, for example, rubber, polyvinyl chloride or any other suitable thermoplastic material.

The textile material may be dyed or not, prior to being coupled with the plastic material, or one may effect a dyeing of the finished material before or after the napping with conventional methods.

After napping it is also possible to effect a shearing operation if so desired.

What is claimed is:

1. A process for manufacturing a velvet-like material which is essentially composed of a synthetic textile material bonded to a thermoplastic backing comprising heat-treating the synthetic textile material at a predetermined temperature, impregnating the textile material with a compound of thermo-plastic material, laminating the impregnated textile material with a thermoplastic backing, curing the composite material thus obtained at a temperature which is less than said predetermined temperature, and napping said textile material in part.

2. A process for manufacturing a velvet-like material which is essentially composed of a synthetic textile material bonded to a thermoplastic backing comprising heat-treating the synthetic textile material, impregnating the textile material with a compound of thermoplastic material, laminating the impregnated textile material with a thermoplastic backing, curing by heating the composite material thus obtained, napping said textile material at least in part, and maintaining the temperature and duration of said preliminary heat-treating of the synthetic textile material at magnitudes greater than that of the temperature and duration of the curing.

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