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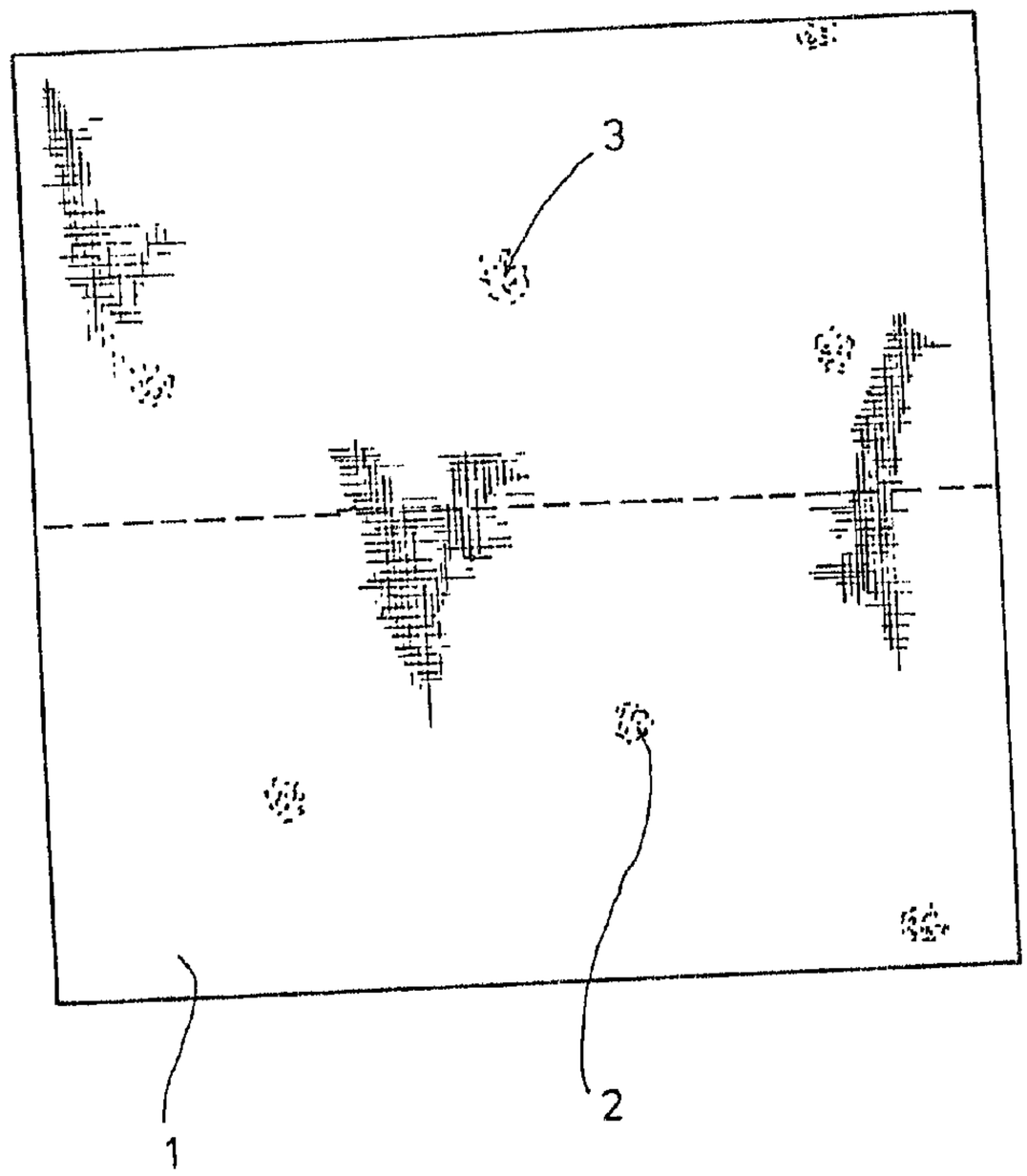
(54) Titre : LINGE A EPOUSSETER IMPREGNE DE CIRE
(54) Title: TREATED DUST-CLOTH



(57) Abrégé/Abstract:
The invention refers to a disposable dust-cloth. The cloth is part of a dry natural fiber material that is a soft open-pored puffy pulp paper, in colors ranging from light to white, with a filler fraction of less than 10%. The paper is impregnated with a biodegradable wax which has a hardness that prevents its shearing off from the natural fiber material. The wax should be a natural wax of plant or animal origin, preferably carnauba or bees waxes, or a synthetic or a chemically modified wax, preferably a paraffin, oxidized polyethylene wax or hydrogenized jojoba oil.

Abstract of the Disclosure

The invention refers to a disposable dust-cloth. The cloth is part of a dry natural fiber material that is a soft open-pored puffy pulp paper, in colors ranging from light to white, with a filler fraction of less than 10%. The paper is impregnated with a biodegradable wax which has a hardness that prevents its shearing off from the natural fiber material.

The wax should be a natural wax of plant or animal origin, preferably carnauba or bees waxes, or a synthetic or a chemically modified wax, preferably a paraffin, oxidized polyethylene wax or hydrogenized jojoba oil.

Treated dust-cloth

The invention refers to a disposable dust-cloth which is part of a dry, wax-impregnated natural fiber material.

DE-UM 85 30 439 gives the description of a gauze filter cleaning fabric consisting of spunlace bonded polyester and impregnated with medium-hard wax. Although this known cleaning fabric shows good mechanical strength and abrasion resistance, it is not fully decomposable due to the materials used for its production, and thus not very environment-friendly.

The invention aims at providing a dust-cloth of the described type which, on the one hand, can be produced at low cost and, on the other hand, is fully biodegradable and decomposable when discarded, while offering good mechanical strength and abrasion resistance as well as a good dust absorption capability.

The problem is solved by that the natural fiber material the dust-cloth is made of being a soft open-pored puffy pulp paper, in colors ranging from light to white, with a filler fraction of less than 10% and the wax being biodegradable and of a hardness that prevents its shearing off from the natural fiber material.

The preferred pulp material used for the paper is fluffpulp which is characterized by good absorbency and complete biodegradability. The preferred surface weight of the paper is 35 - 60 g/m^2. The low filler fraction of less than 10% allows the dust-cloth to be open-pored and to have a relatively low deadweight, so that it is hardly polluting to the environment when discarded. "Light and white" should be used to describe usual pastel colors which show the absorbed dust.

In order to impart good dust absorbency properties to the dust-cloth, the paper is wax-impregnated. A wax amount of 2.5 to 50 g wax per m^2 of paper has proven to be sufficient to impart good dust adhesion characteristics to the dust-cloth.

Compared to dust-cloths impregnated with a liquid, the invention offers the advantage that the cloth does not dry out and therefore need not be kept in an airproof box.

In order to fulfill the requirements of complete biodegradability, preferably degradable waxes of plant or animal origin are used for the impregnation of the paper used for the dust-cloths. Carnauba and bees waxes, for instance, are suitable for this purpose. However, synthetic or chemically modified waxes, such as oxidized polyethylene or hydrogenized jojoba oil, can also be used. In order to ensure a hardness which prevents their shearing off from the natural fiber material, the waxes should have

melting points ranging from 60° to 85°C. Dipping, spraying with heated liquid wax or the precipitation of the wax from a watery emulsion can be taken as impregnating procedures.

In order to obtain an additional germicide effect, the dust-cloth can be equipped with bactericides, pesticides and/or fungicides. Moreover, provisions can be made to add scents.

The dust-cloth can also be printed or dyed. However, one should maintain a light color in order to indicate the degree of dust saturation to the user of the dust-cloth, by the corresponding darkening with dirt.

On the whole, the dust-cloth presented by the inventors is an excellent tool for responding to the new requirement.

Due to its impregnation it is able to absorb a large amount of dust, even when dry. Due to low-cost production and due to the fact that it is completely biodegradable, thus creating no disposal problems, and also for reasons of improved hygiene, the user is encouraged in his decision to dispose of it after single use.

The f i g u r e shows a paper dust-cloth (1) with a thin wax layer (2).

The dust-cloth (1) feels like a soft paper towel, with a slightly waxy surface. It is open-pored and has areas of small puffy "knots" (3). Dust particles agglutinate and, after a certain time of usage, form a distinct, dark area, indicating to the user that the dust-cloth has been used up.

Claims:

1. Dust-cloth for single use consisting of a part of a dry natural fiber material that is wax-impregnated, characterized in that the natural fiber material is a soft, open pored, puffy pulp paper, in colors ranging from light to white with a filler fraction of less than 10%, and in that the wax is biodegradable and has a hardness sufficient to prevent its shearing off from the natural fiber material.

2. Dust-cloth according to claim 1, characterized in that the pulp material used for the paper is fluff pulp.

3. Dust-cloth according to claim 1 or 2, characterized in that the paper has a surface weight ranging from 35 to 60 g/m^2.

4. Dust-cloth according to any one of claims 1 to 3, characterized in that the wax is a natural wax of plant or animal origin, preferably carnauba or bees waxes.

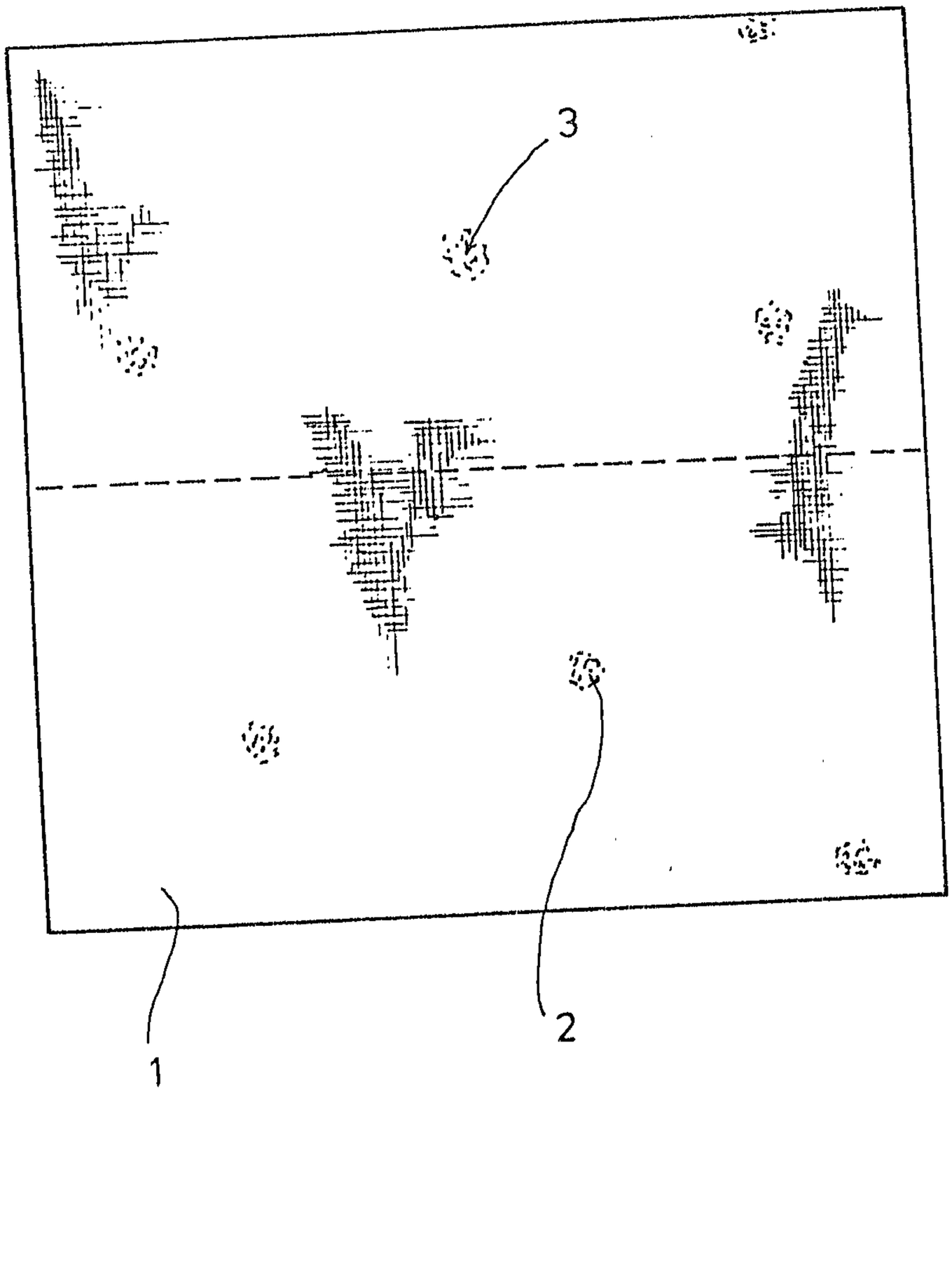
5. Dust-cloth according to any one of claims 1 to 3, characterized in that the wax is a synthetic or chemically modified wax, preferably a paraffin, oxidized polyethylene wax or hydrogenized jojoba oil.

6. Dust-cloth according to claim 1, characterized in that the paper is impregnated with 2.5 to 50 g/m^2 of wax.

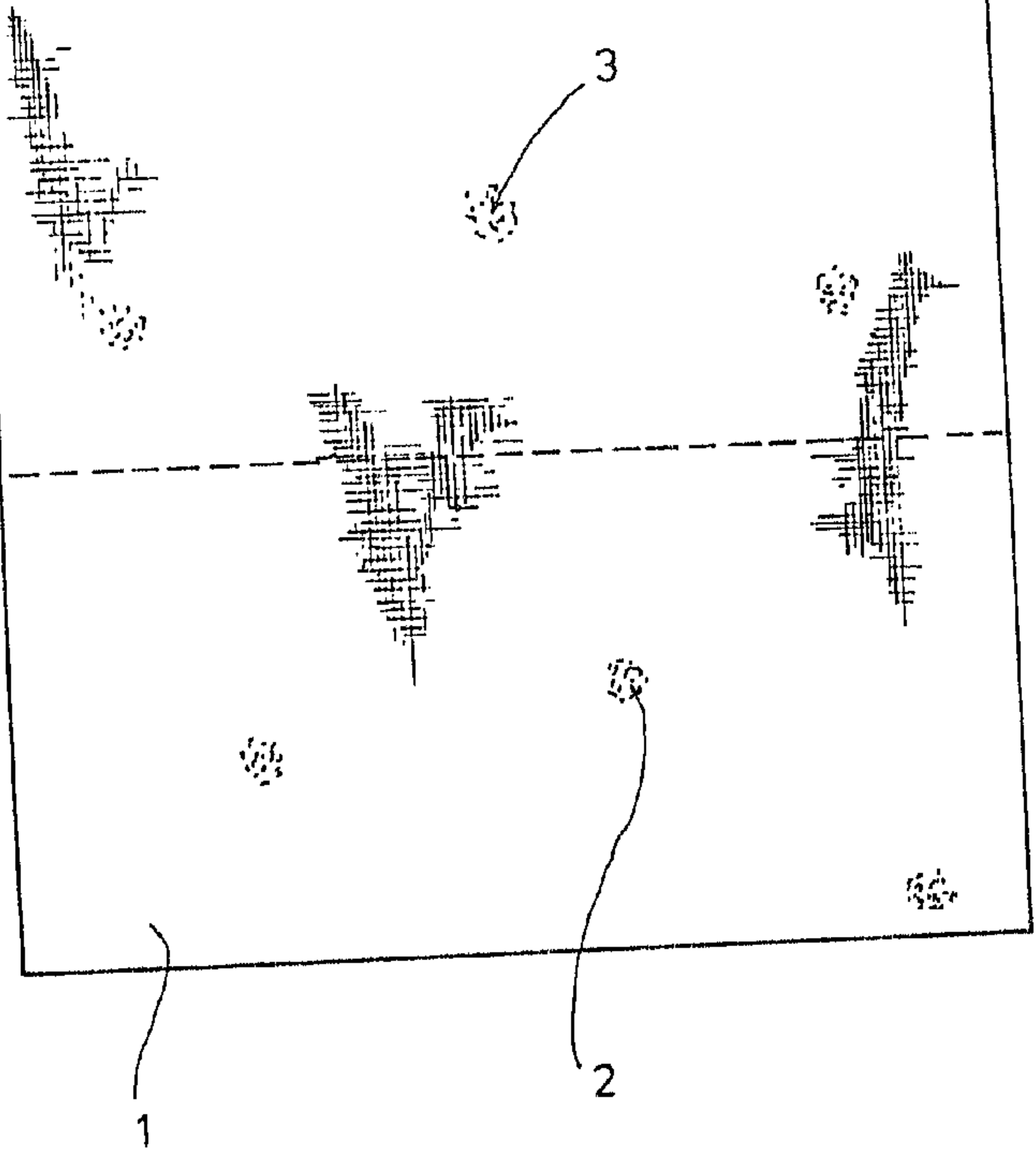
7. Dust-cloth according to any one of claims 4 to 6, characterized in that the wax has a melting point ranging from 60° to 85°C.

8. Dust-cloth according to claim 1, characterized in that the dust-cloth has one or more added compositions selected from the group comprising scents, bactericide, fungicides and pesticides.

9. Dust-cloth according to claim 1, characterized in that the dust-cloth is printed in a light color or is dyed.



Patent Agents.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