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(54) **Brush for the surface treatment of materials**

(57) Brush for the surface treatment of materials comprising at least one bundle of abrasive bristles (2) fixed to a support (1) which has substantially the shape of a prismoid having the bases and two opposite side

surfaces of trapezoidal shape. A multiplicity of groovings, arranged parallel to the height of the bases of the support (1), is made on the upper base of the support (1), in each grooving being inserted one end of a bundle of abrasive bristles (2).

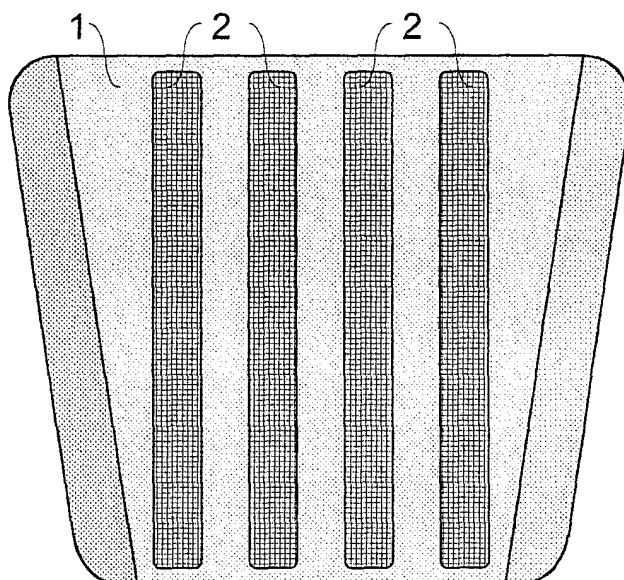


Fig. 1

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Description

[0001] The present invention relates to a brush for the surface treatment of materials, and particularly to a brush that can be used in combination with polishing machines for marbles and stones in order to confer them an antiquated appearance.

[0002] Machines for the surface treatment of materials, particularly marbles or stones, which comprise brushes provided with abrasive bristles useable for conferring them an antiquated appearance, are known. These known machines are disadvantageous because they are relatively expensive both in purchase and in maintenance, since the brushes wear out unevenly and therefore they must be often replaced.

[0003] Object of the present invention is therefore to provide a machine for conferring an antiquated appearance to the surfaces of the materials to be treated, which is free from said disadvantages. Said object is achieved by a brush whose main features are disclosed in the first claim and other features are disclosed in the subsequent claims.

[0004] As a matter of fact, thanks to the particular shape of the bristle support, the brush according to the present invention can be mounted in polishing machines comprising some rotating disks, each being provided with a plurality of seats whereinto the interchangeable abrasive blocks which carry out the polishing process are mounted. With this arrangement, buying a special machine intended only for conferring an antiquated appearance is superfluous, since said polishing machines, generally available in every workshop which carries out surface treatment of materials, can be used for this purpose.

[0005] Another advantage of the brush according to the present invention lies in the lower maintenance cost in case of uneven wear, since it is enough to substitute only the most consumed brushes, and not the whole assembly thereof like with the known brushes

[0006] According to a particular aspect of the invention, the abrasive bristle bundles are arranged in a substantially radial orientation with respect to the rotation center of the rotating disks, so that the risk of scratching the materials to be treated is avoided.

[0007] Finally, the particular shape of the abrasive bristles and the kind of material used for the production thereof are particularly suitable for the brush according to the present invention to be used for conferring an antiquated appearance to the surface of the materials to be treated.

[0008] Further advantages and features of the brush according to the present invention will be evident to those which are skilled in the art by the following detailed description of one embodiment thereof with reference to the accompanying drawings, wherein:

- figure 1 shows a top view of said embodiment; and
- figure 2 shows a front view of the embodiment of

figure 1.

[0009] With reference to said figures, the brush according to the present embodiment of the invention is shown to comprise a support 1 of plastic material, which has a substantially prismoidal shape whose bases and two opposite side surfaces have a trapezoidal shape. A multiplicity of parallel groovings, particularly four groovings, are made on the upper base of support 1, in each grooving being inserted and glued, for instance by means of a two-components epoxy glue, one end of a bundle of abrasive bristles 2 having an elliptical section, preferably made of the material named Tynex® of the company DuPont®. The grain of abrasive bristles 2 can be freely chosen according to the desired effect, however it has been observed that a pleasant antiquated appearance can be conferred to most materials by using abrasive bristles having a grain whose index is included between 46 and 320. The groovings whereinto the bundles of bristles 2 are inserted are preferably arranged parallel to the height of the bases of support 1, so that when the brush according to the present invention is mounted on a rotating disk of a polishing machine, said groovings are arranged according to a substantially radial orientation with respect to the rotation center of the disk.

[0010] Further modifications and additions can be made by those skilled in the art to the herewith described and illustrated embodiment by remaining in the scope of the invention itself.

Claims

1. Brush for the surface treatment of materials, characterized in that it comprises at least one bundle of abrasive bristles (2) fixed to a support (1) which has a substantially prismoidal shape having bases and two opposite side surfaces of trapezoidal shape.
2. Brush according to the preceding claim, characterized in that a multiplicity of groovings is made on the upper base of the support (1), in each grooving being inserted one end of bundle of abrasive bristles (2).
3. Brush according to the preceding claim, characterized in that the groovings, whereinto the bundles of abrasive bristles (2) are inserted, are arranged parallel to the height of the bases of support (1).
4. Brush according to one of the preceding claims, characterized in that the abrasive bristles (2) have an elliptical section.
5. Brush according to one of the preceding claims, characterized in that the abrasive bristles (2) are made of the material named Tynex® of the compa-

ny DuPont®.

6. Brush according to one of the preceding claims, characterized in that the grain index of the abrasive bristles (2) is included between 46 and 320.

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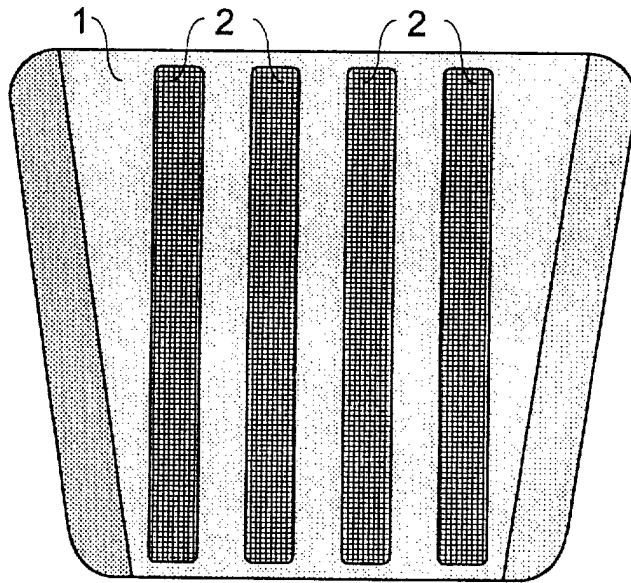


Fig. 1

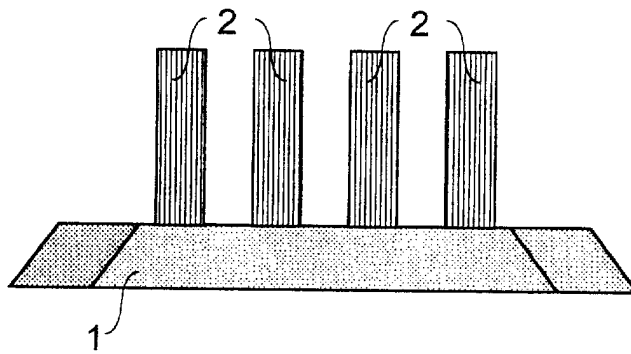


Fig. 2



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EUROPEAN SEARCH REPORT

Application Number
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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 8 December 1999	Examiner Ottesen, R
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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