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**D E C I S I O N**  
**of 26 June 2001**

**Case Number:** T 1040/00 - 3.2.3  
**Application Number:** 94830368.0  
**Publication Number:** 0635334  
**IPC:** B24D 13/12, B24D 18/00, B24D 3/28  
**Language of the proceedings:** EN

**Title of invention:**

Textile disc or wheel impregnated with resin containing  
abrasive particles, process for preparation thereof and  
lapping/buffing process

**Applicant:**

TESSITURA LANDINI S.r.l.

**Opponent:**

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**Headword:**

-

**Relevant legal provisions:**

EPC Art. 54

**Keyword:**

"Novelty - prior disclosure - different field or problem  
(yes)"

**Decisions cited:**

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**Catchword:**

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Case Number: T 1040/00 - 3.2.3

**D E C I S I O N**  
**of the Technical Board of Appeal 3.2.3**  
**of 26 June 2001**

**Appellant:**  
(Applicant)

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**Representative:**

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**Decision under appeal:**

Decision of the Examining Division 1.2.62 of the  
European Patent Office posted 5 April 2000  
refusing European patent application  
No. 94 830 368.0 pursuant to Article 97(1) EPC.

**Composition of the Board:**

**Chairman:** C. T. Wilson  
**Members:** F. Brösamle  
J. P. Seitz

## Summary of Facts and Submissions

I. With the decision dated 5 April 2000 the examining division refused European patent application No. 94 830 368.0 in the light of

(D6) CH-A-417 387 and

(D1) DE-U-8 430 781

for reasons of Article 54 EPC.

II. The independent claims 1, 5 and 8 submitted with letter of 18 November 1999 and underlying the above decision of the examining division read as follows:

"1. A buffing and/or lapping cloth disc or wheel (1) composed of a plurality of textile elements (2, 2') in the form of cloth of natural fibers piled up or coupled with one another and fixed to a central hub (4) for the installation of the disc or wheel on a spindle, characterized by the fact that said textile elements (2, 2') contain a polymerized resin incorporating particles of an abrasive material."

"5. Manufacturing process of textile discs or wheels, for lapping and buffing of solid surfaces comprising the assembling together of a number of discs (2) or strips or plaits (2') of at least one of the natural fibres belonging to the group composed of cotton, sisal, wool, hemp, flax and jute, anchored to an assembly hub (4) for installation on a spindle, characterized in that it comprises:

- suspending abrasive powder into a fluid mixture consisting of an aqueous dispersion of a polymerizable resin and at least one emulsifying compound;
- vacuum-impregnating said textile discs (1), strips (2) or plaits (2') with said suspension;
- centrifuging the impregnated textile disc or wheel (1) till it reaches a substantial dynamic balance;
- heating the impregnated and centrifuged disc or wheel (1) at a temperature and for a time sufficient to evaporate the solvent and to polymerize the resin incorporating said abrasive powder."

"8. A lapping or buffing process of a surface by way of a rotating textile disc or wheel feeding an abrasive paste in the zone of contact of the rotating textile and said surface, characterized by the fact that said textile contains a polymerized resin incorporating particles of an abrasive material and is prepared according to the manufacturing process of claim 5."

III. Against the above decision of the examining division the applicant - appellant in the following - lodged an appeal on 1 June 2000 paying the fee on the same day and filing the statement of grounds of appeal on 24 July 2000.

IV. Appellant's arguments essentially can be summarised as follows:

- there existed a technical prejudice against using

in the field of surface treatments a rotating tool leaving abrasive particles "anchored" on it;

- (D6) is not more relevant than (D1) since it discloses a textile reinforced **grinding wheel**; according to (D6) piled-up sheets of textiles impregnated with abrasive powder are molded together by using a resin, heat and pressure to achieve a **non-collapsible** abrasive wheel that could not be used for buffing and/or lapping;
- in contrast to the teaching of (D6) the invention is based on **collapsible** rotating elements to carry out buffing and/or lapping i.e. under the presence of a continuously fed **abrasive paste** to the working area;
- under these circumstances it is clearly wrong to sustain equivalence of the wheel of (D6) and the wheel claimed since the known wheel is **not suitable** for the claimed purpose, namely buffing and/or lapping of articles;
- even if in (D6) technical terms such as "polir, pollisage" are used it is not allowable to conclude therefrom that the wheel according to (D6) is to be used as a buffing/lapping wheel as claimed since (D6) taken as a whole teaches a skilled person that the wheel is used for cutting and/or removal of material;
- it is moreover not appropriate that the examining division has raised an objection of lack of unity of invention in the present case.

V. Appellant's requests are as follows:

- (a) to set aside the decision under appeal and
- (b) to grant a patent on the basis of claims 1 to 8 submitted with letter of 18 November 1999, received on 22 November 1999.

### **Reasons for the Decision**

1. The appeal is admissible.
2. *Amendments*
  - 2.1 Claim 1 is based on all features of originally filed claim 1 plus features disclosed in originally filed claims 3 (natural fibers) and 9 (polymerisation) whereby claims 2 to 4 are based on originally filed claims 2 to 4.
  - 2.2 Claim 5 is based on originally filed claim 9 and claims 6 and 7 correspond to originally filed claims 10 and 11.
  - 2.3 Claim 8 combines features of originally filed claims 12 (abrasive paste...) and 9 (polymerized resin) whereby the addition of the abrasive paste "in the zone of contact of the rotating textile and said surface" is implicitly disclosed in the application as originally filed, see page 1, lines 7 to 10.
  - 2.4 Summarising, claims 1 to 8 are not open to an objection under Article 123(2) EPC.

3. *Novelty*

3.1 In the impugned decision the examining division came to the result that the subject-matter of claims 1 and 2 to 4 is not novel in view of (D6); it is evident that on page 5 of the impugned decision, see remark, line 1, "D1" has to be replaced by "D6" since the preceding arguments **solely are based on "D6"**.

The board cannot share the novelty-objection for the following reasons:

3.2 Taken as a whole (D6) does not deal with "buffing and/or lapping" rather with grinding in the sense of **cutting** as dealt with in IPC B24B 27/06 ("grinders for cutting-off"), see (D6), page 3, lines 46 to 50 (the adhesive also acts to combine the multitude of layers), lines 74 to 78 (piled-up layers are glued together to form a compact, single block), lines 84 to 89 (piling of layers and hardening the block by applying heat) lines 93/94 and line 102 (cutting block), page 4, lines 36 to 39 (cutting wheel diameter 30 cm and thickness 3,18 mm), lines 48 to 50 and lines 55 to 57 (cutting of steel rods, diameter 19,05 mm) and page 5, lines 3 to 8 (cutting wheel composed of 12 layers with a diameter of 40 cm and an overall thickness of 3,97 mm).

3.3 In (D6) it is moreover emphasized that the wheel is **rigid** or **noncollapsible**, see page 6, lines 43 to 45, and lines 65 to 67 and line 70 (duroplast for binding the layers with the application of heat) which property for a skilled person is mandatory since otherwise cutting would not be possible, see again IPC B24B 27/06.

3.4 It is obvious that under these circumstances buffing and/or lapping of a surface cannot be carried out since a **three dimensional** article to be treated requires **flexibility from the treatment tool** and since it cannot be seen how a rigid/noncollapsible abrasive wheel **could retain the abrasive paste** used in the technical field of buffing of surfaces. The Board can therefore not follow the line of arguments based on "equivalence" carried out by the examining division.

3.5 Summarising, (D6) is not a novelty destroying document of the subject-matter of claim 1 (and of claims 5 and 8) so that the decision under appeal being solely based on a novelty-objection on the basis of (D6) with respect to claim 1 cannot be upheld.

3.6 It has to be added that (D1) is also not a novelty destroying document of the subject-matter of claim 1 since (D1) is not based on cloth rather on felt which is treated to form again a **rigid/noncollapsible** body, see page 8, lines 8 to 2 from the bottom ("Es entsteht ein **harter**...zum Naßpolieren von Glaskanten eignet...und der begrenzten Elastizität..."), in which obviously no **abrasive paste** can be used and since the abrasive particles incorporated into the felt-body make additional abrasive particles from any abrasive paste superfluous.

4. *Inventive step*

4.1 The problem to be solved by the present invention as set out in the opening of the description, is basically to compensate for any loss of abrasive paste, see EP-A2-0 635 334, column 1, lines 29 to 31 and line 47



to column 2, line 4. This problem is solved by the features laid down in independent claims 1 (buffing and/or lapping wheel), 5 (manufacturing process of textile discs or wheels) and 8 (lapping or buffing process), namely by incorporating an abrasive material in a polymerized resin being contained in the textile elements forming the buffing/lapping wheel.

4.2 The advantages achievable with the subject-matter according to claims 1, 5 and 8 are emphasised in EP-A2-0 635 334, see column 2, line 41 to column 3, line 20, namely reduction of abrasive paste consumption, reduced treatment time, emergency properties of the wheel in case of lacking abrasive paste, reduced tendency of overheating and of wear in use of the claimed buffing/lapping wheel.

4.3 The subject-matter of claims 1, 5 and 8 is not rendered obvious by the prior art documents to be considered:

(D6) does not even deal with buffing/lapping and is less relevant than the prior art dealt with by the appellant, see EP-A2-0 635 334, column 1, line 7 to 14, and lines 22 to 31, so that a skilled person would completely disregard this document when confronted with the problem to be solved according to above remark 4.1.

4.4 As set out above in remark 3.6 (D1) is very similar to (D6) since again a **rigid/noncollapsible** body is formed which makes use of an abrasive paste impossible and also unnecessary since the body itself carries abrasive particles to be used for buffing/lapping. (D1) is therefore seen as a self-supporting wheel not relying on the use of abrasive paste.

- 4.5 (D1) teaches therefore also away from **maintaining flexibility** of the superimposed layers according to claims 1, 5 and 8 so that a skilled person is not led to the claimed subject-matter. It has to be added that in claims 1, 5 and 8 the addition of an abrasive paste is either literally mentioned (see claim 8) or implicitly contained (see claims 1 and 5) by the functional term "buffing and/or lapping" (claim 1) or "for lapping and/or buffing of solid surfaces" (claim 5) **and** by the definition of these method steps given by the appellant throughout the application, see EP-A2-0 695 334 for instance column 1, lines 7 to 17, and lines 29 to 31.
- 4.6 Summarising, starting from the nearest relevant prior art as set out in the opening of EP-A2-0 635 334 a skilled person was not led by (D6) and (D1) taken singly or in combination to the claimed subject-matter so that the requirements of Article 56 EPC are also met. Claims 1, 5 and 8 are therefore allowable. Under these circumstances it is irrelevant whether or not a technical prejudice, as claimed by the appellant, existed against the subject-matter claimed.
- 4.7 Claims 2 to 4 and 6/7 which relate to preferred embodiments of the subject-matter of claims 1 and 5 are also allowable.
- 4.8 In the board's opinion, claims 1 to 8 obviously are not open to an objection under Article 82 EPC so that the issue of unity of invention needs no detailed arguments. It suffices merely to point out that the process of claim 8 is clearly restricted to the use of the textiles produced according to claim 5.

4.9 In the originally filed description the starting point of the invention and its drawbacks as well as the problem to be solved are clearly set out so that these documents in combination with Figures 1 to 5 as originally filed can form the basis for grant of the patent.

## Order

### **For these reasons it is decided that:**

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to grant a patent on the basis of:
  - claims 1 to 8 filed with letter of 18 November 1999, received on 22 November 1999;
  - pages 1 to 11 as originally filed;
  - Figures 1 to 5 as originally filed.

The Registrar:

The Chairman:

A. Counillon

C. T. Wilson