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**Datasheet for the decision  
of 27 October 2017**

**Case Number:** T 1143/16 - 3.2.04

**Application Number:** 01947846.0

**Publication Number:** 1299026

**IPC:** A47L13/20, A47L13/38

**Language of the proceedings:** EN

**Title of invention:**

CLEANING ARTICLE

**Patent Proprietor:**

Unicharm Corporation

**Opponents:**

S.C. Johnson & Son, Inc.  
Carl Freudenberg KG

**Headword:**

**Relevant legal provisions:**

EPC Art. 54, 56

**Keyword:**

Novelty - (yes)  
Inventive step - (yes)

**Decisions cited:**

T 1029/96

**Catchword:**



**Beschwerdekammern**  
**Boards of Appeal**  
**Chambres de recours**

Boards of Appeal of the  
European Patent Office  
Richard-Reitzner-Allee 8  
85540 Haar  
GERMANY  
Tel. +49 (0)89 2399-0  
Fax +49 (0)89 2399-4465

Case Number: T 1143/16 - 3.2.04

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.04**  
**of 27 October 2017**

**Appellant:** Carl Freudenberg KG  
(Opponent 2) Höhnerweg 2-4  
69469 Weinheim/Bergstrasse (DE)

**Representative:** Gebauer, Dieter Edmund  
Splanemann  
Patentanwälte Partnerschaft  
Rumfordstraße 7  
80469 München (DE)

**Respondent:** Unicharm Corporation  
(Patent Proprietor) 182 Shimobun  
Kinsei-cho  
Shikokuchuo-shi  
Ehime 799-0111 (JP)

**Representative:** Sperling, Rüdiger  
Staeger & Sperling  
Partnerschaftsgesellschaft mbB  
Sonnenstrasse 19  
80331 München (DE)

**Party as of right:** S.C. Johnson & Son, Inc.  
(Opponent 1) 1525 Howe Street  
Racine, WI 53403-2236 (US)

**Representative:** Ruschke, Hans Edvard  
Ruschke Madgwick Seide & Kollegen  
Postfach 86 06 29  
81633 München (DE)

**Decision under appeal:** **Interlocutory decision of the Opposition**  
**Division of the European Patent Office posted on**

29 February 2016 concerning maintenance of the  
European Patent No. 1299026 in amended form.

**Composition of the Board:**

<b>Chairman</b>	A. de Vries
<b>Members:</b>	J. Wright
	W. Van der Eijk

## Summary of Facts and Submissions

I. The appellant-opponent II lodged an appeal, received 10 May 2016, against the interlocutory decision of the opposition division posted on 29 February 2016 concerning maintenance of the European Patent No. 1299026 in amended form; they paid the appeal fee simultaneously. The statement setting out the grounds of appeal was filed on 8 July 2016.

II. Oppositions by two opponents were based on Article 100 (a) EPC, together with Articles 54(1) and 56 EPC, for lack of novelty and inventive step.

The patent in suit had been revoked by an earlier decision of the opposition division which had decided, inter alia, that the patent as then amended added subject matter. In a following appeal that decision was set aside in decision T 0768/10. The Board decided, amongst other things, to remit the case to the department of first instance for consideration of novelty and inventive step (see reasons, point 3).

The opposition division subsequently held that the patent as amended according to the present main request met all the requirements of the EPC, in particular because the invoked novelty and inventive step grounds for opposition mentioned in Article 100 (a) EPC did not prejudice maintenance of the patent as amended having regard to the following documents amongst others:

D1 : EP0923902 A

D2 : US823725

D3A: EP0841870 B

D3B: EP0968677 A

- III. With a letter of 18 September 2017 the respondent-opponent I informed the Board that they would not attend the oral proceedings scheduled for 27 October 2017.
- IV. Oral proceeding before the Board were duly held on 27 October 2017 without the respondent-opponent I, in accordance with Rule 115(2) EPC and Article 15(3) RPBA.
- V. The appellant-opponent II requests that the decision under appeal be set aside and that the patent be revoked in its entirety.
- VI. The respondent-proprietor requests that the appeal be dismissed and that the patent be maintained in the form found allowable by the opposition division (main request) or in the form of auxiliary requests I-III filed with the grounds of appeal or in the form of auxiliary requests IV-VII filed with letter of 27 September 2017.
- VII. The respondent-opponent I has not submitted any request.
- VIII. The independent claim 1 of the patent as upheld in the decision under appeal reads as follows:

"A cleaning article (1) comprising a brush portion including: a plurality of strips (17); and at least one layer of a fiber bundle (3), characterized in that

- a sheet for forming said strips is formed of either a nonwoven fabric comprising thermoplastic fibers or a thermoplastic resin film and in that said fiber bundle layer comprises heat-fusible thermoplastic fibers,

- wherein at least one sheet (5) having said plurality of strips formed therein and said fiber bundle layer (3) are stacked on and partially joined to a base material (2), and

wherein said base material (2) is provided on its outer face opposed to said cleaning face with a holding sheet (8)".

IX. The appellant-opponent II argued as follows:

Claim 1 as upheld lacks novelty vis-à-vis D1, inter alia because D1 discloses a holding sheet as claimed.

Claim 1 as upheld lacks inventive step starting from D2 with D1. D2 discloses a holding sheet. Claim 1 differs from D2 only in the thermoplastic materials used, which are obvious from D1. Even if D2 were considered not to disclose a holding sheet, the subject matter of claim 1 would still lack inventive step starting from D2 with D3A/D3B, with or without D1.

X. The respondent-proprietor argued as follows:

D1 cannot take away novelty of claim 1 as upheld, since D1 does not disclose a holding sheet as claimed.

Claim 1 as upheld involves an inventive step starting from D2. D2 likewise discloses no holding sheet so the combination of D2 with D1 would not lead the skilled person to the feature of a holding sheet in an obvious manner.

Likewise the combination of D2 and D3A/D3B, with or without D1, would not lead the skilled person to the subject matter of claim 1. It would not be obvious to

modify D2 by adding a holding sheet because it already provides a satisfactory way of holding the handle. Holding sheets disclosed in D3A/D3B are not compatible with the duster of D2, so their combined teachings would not lead the skilled person to the subject matter of claim 1.

XI. The respondent-opponent I has presented no arguments.

### **Reasons for the Decision**

1. The appeal is admissible.
2. Background

The invention concerns a disposable cleaning article to be held in a holder or the hand (see specification as published, paragraph [0001]). According to one aspect of the invention, the article has a brush portion partially joined to a base material (see specification as published, paragraphs [0008] and [0010] and claim 1 as maintained). According to another aspect, the base material is provided on its outer face opposed to the cleaning face with a holding sheet. In this construction, for example, between the outer face of the base material and the holding sheet a holding space may be formed, into which a user's hand or a holder can be inserted (specification, paragraph [0016] and claim 1 as maintained).

3. In the decision under appeal, the opposition division held, inter alia, that the subject matter of claim 1 of the present main request was new vis-à-vis D1 and involved an inventive step starting from D2 (see impugned decision, reasons, 11 and 12).



In appeal, the appellant-opponent II has challenged novelty of claim 1 as upheld vis-à-vis D1 and inventive step starting from D2 with D1, alternatively starting from D2 with D1 and/or with D3a/D3b. These are the only contentious issues with which the present decision is concerned.

4. Interpreting certain features of claim 1

4.1 A first issue the Board must consider in order to decide on novelty and inventive step is how certain claim features are to be interpreted, in particular how the claim feature "cleaning face" is to be interpreted and how the "plurality of strips", "base material" and "holding sheet" relate to each other.

4.2 Contrary to the appellant-opponent's view, the Board considers the words "cleaning face" to be clear. The claim defines a face, not faces, thus a single face. By designating this face to be the "cleaning" face, the skilled person, using normal reading skills, will recognise it as the face that does the actual cleaning, that is the face of the article that comes into contact with what is to be cleaned. This interpretation is confirmed by the description. It states (see paragraph [0027]) that "...the term "cleaning face/cleaning side" refers to faces/sides, which are intended to be directed to the object to be cleaned or swept in use".

4.3 Claim 1 defines, inter alia, "strips" that are formed from a sheet, a "base material" and a "holding sheet". By giving them different names, the skilled person, again using normal reading skills, will interpret these as being separate entities.

This interpretation is reinforced by the structure of the article defined by the claim: according to the last claim feature, the holding sheet - its name implies some holding and support function (cf. published specification, paragraph [0016]) - is provided on the outer face of the base material. Thus base material and holding sheet cannot be one and the same, but must be separate entities.

Likewise, the skilled person interprets the strips as being separate from the holding sheet. The strips form part of a brush portion, thus the part of the article that includes the cleaning face. Since, according to the last feature of the claim, the holding sheet is provided on the face of the base material that is opposed to the cleaning face, the strips and holding sheet are separate entities located on opposite sides of the base material.

4.4 In the above understanding "holding sheet" is thus read as meaning a further sheet provided on the base material on its outer face opposite the cleaning face, i.e. opposite to the face or side on which the strips and fibre bundle layer are provided. The "holding sheet" is a separate sheet specifically configured for holding and supporting the cleaning article.

5. Novelty vis-à-vis D1

5.1 According to settled jurisprudence of the boards (see Case Law of the Boards of Appeal, 8th edition, 2016 (CLBA), I.C.4.1, and the decisions cited therein, for example T 1029/96, point 2.1), a prerequisite for the acceptance of lack of novelty is that the claimed subject-matter is "directly and unambiguously derivable from the prior art". In other words, it has to be

"beyond doubt - not merely probable - that the claimed subject matter was directly and unambiguously disclosed in a patent document".

- 5.2 It is common ground that D1 discloses a cleaning article, namely a mop (see D1, paragraph [0001]). The article is shown in figure 1A and, enlarged, in figure 1B (column 2, lines 20 to 23). It comprises a brush portion 3a, 3b, 6 with a thermoplastic fibre bundle layer that is partially joined (along bond lines 4) to a base material 2 (paragraph [0006] and [0011], [0019] and [0023]).
- 5.3 Novelty of claim 1 therefore depends, inter alia, on whether D1 discloses that the base material is provided on its outer face opposed to said cleaning face with a holding sheet (claim 1, last feature). The opposition division found this not to be the case (see impugned decision, reasons, section 11.1, point iii). The appellant-opponent disputes this finding.
- 5.3.1 Keeping in mind, in particular, how the skilled person interprets the function of the holding sheet in claim 1 and its structural context (see above, point 4.3), the Board finds no direct and unambiguous disclosure of such a holding sheet in D1. The Board therefore agrees with the impugned decision in this respect, for the reasons set out below.
- 5.3.2 As best seen in D1, figure 1B, the cleaning face of the article 1, with its dust-collecting brushing portions 6 (column 3, lines 13 to 19), is uppermost. Directly below this layer is the sheet of base material 2. Underneath the base material 2 is a further fibre layer 3, thus this layer can be said to be provided on the base material's outer face that is opposed to the

cleaning face (see D1, column 2, lines 54 to 57, column 5, lines 49 to 53 with figure 3 and claim 3).

The appellant-opponent has argued that this lowest fibre layer 3 is a holding sheet as claimed. The Board disagrees.

- 5.3.3 D1 does not suggest that this bottom layer 3 plays a role in holding anything, nor is such a functionality apparent to the Board. At most the bottom layer 3 can be cut to provide an additional cleaning face to the upper face, with downward facing brushing portions 6 (see D1, column 2, lines 30 to 35 figures 4A and 4B), so can have a cleaning function, however it does not serve to hold the cleaning article nor is it configured or otherwise suitable for that particular purpose, so this lowest sheet 3 is not a holding sheet.
- 5.3.4 The appellant-opponent has also argued that a holding sheet as claimed is disclosed in D1, figure 2, namely the sheet shown uppermost and held by clips 13 and speculated that the article shown there might be different from the one shown in D1, figure 1.
- 5.3.5 The Board must therefore examine this part of the D1 disclosure, whilst bearing in mind that the requirement of a direct and unambiguous disclosure of the alleged feature in the prior art document in order to prove lack of novelty leaves no room for any doubt as to whether or not this feature, in its proper context is disclosed.
- 5.3.6 D1 (see paragraphs [0010] to [0025]) first describes a cleaning product with reference to figures 1A and 1B. Directly following this, paragraph [0026] states that figure 2 shows "an example of using the cleaning

product according to the invention", and the following paragraph ([0027]) states that the "the cleaning product 1 can be used attached to a cleaning mop 10".

5.3.7 The skilled person reads these latter two paragraphs, as they do claims, with a mind willing to understand. They will consider them to continue the discussion of the previously described product 1, in particular with respect to how it can be attached to a mop as shown in figure 2. They will therefore not consider the product 1 shown in figure 2 to be different from the one of figures 1A and 1B, let alone is this directly and unambiguously disclosed.

5.3.8 Paragraph [0027] explains that the sides of the cleaning article are turned uppermost to be held by clips 13. In figure 2 the sides are depicted without any brushing portion (cf. column 5, lines 31 to 36). Thus in the Board's opinion, these sides can only be the peripheries of the sheet of base material 2, as can best be seen on figure 1(A) where they are likewise shown to be without brushing portion. Thus, in the attachment arrangement of figure 2, the edges of the sheet of base material 2 have a holding function. However, as already explained (see above, point 4.3) the claim requires that the base material and holding sheet are separate entities. Therefore, D1, paragraph [0027] with figure 2 does not disclose a holding sheet as claimed.

5.4 In conclusion, none of the appellant-opponent's arguments have convinced the Board that D1 discloses the final feature of claim 1, namely that the base material is provided on its outer face opposed to said cleaning face with a holding sheet. For this reason,

whether or not D1 discloses all the remaining features of claim 1, D1 cannot take away the novelty of claim 1.

6. Inventive step

6.1 D2 in combination with D1

6.1.1 D2 discloses (see whole document) a duster (title), thus a cleaning article.

The duster has a brush portion (main body part C of device shown in figures) that includes a plurality of strips c and d formed by slitting sheets of felt, thus the strips are formed from a sheet of non-woven fabric. (see lines 34 to 39 with figures 1 and 2). Furthermore, the duster comprises a layer of fibre bundle f (lines 11 to 13 and 42 to 46 with figures 1 and 3).

The Board concurs with appellant-opponent in considering (see figure 3) that the at least one sheet c, d forming the strips and the fibre bundle are stacked on and partially joined to a base material. In particular the end-part a of the handle A is considered to be the base material and the partial joining achieved by stitching e and g (see lines 41 to 49).

6.1.2 It is common ground that D2 does not disclose that the sheet for forming strips is of thermoplastic fibres or a thermoplastic resin film and said fibre bundle layer comprises heat-fusible thermoplastic fibres (see impugned decision, reasons, point 11.2). However, the appellant-opponent II disputes the impugned decision's view of D2 in respect of the holding sheet feature (see again impugned decision, reasons, point 11.2): the appellant argues that D2 does disclose the last feature of claim 1 (base material provided on its outer face

opposed to said cleaning face with a holding sheet). The Board disagrees for the reasons explained below.

- 6.1.3 In D2, all the faces of the duster are for cleaning. The major surfaces of the main flattened cleaning body C are covered by a slitted felt sheet c, which removes and wipes up dust (see lines 50-51), as sides of both sheets c and d will be at the duster's lateral edges. As for the brush f exposed at the duster's lateral edges, although D2 is silent as to its purpose, since it is of the same material as the brush B (see lines 53 to 58), it can but likewise remove dust (see lines 51 to 52). Thus, the Board considers that the cleaning article of D2, as viewed in figure 3, has cleaning faces around its entire periphery.

In the light of this, if the handle A is the base material, it has no outer face opposed to the cleaning face as claimed, thus no surface upon which a holding sheet as claimed could be located. Put differently, although it may be true that the slitted felt sheet c, which is primarily for cleaning, also plays a role in holding the handle A (see figure 3), remembering again that the holding sheet and the strips as claimed are separate entities (see above point 4.3), the strips of felt made from sheet c, with its outer side defining a cleaning face, cannot also be the separate holding sheet as claimed.

- 6.1.4 Therefore, according to this reading of D2, the duster of D2 does not have a holding sheet as claimed.
- 6.1.5 The appellant-opponent has proposed an alternative reading of D2 (see figure 3), according to which, not the handle A but the left and right hand lower layer of

folded felt sheets d forms the base material and the bottom slitted felt sheet c the holding sheet.

- 6.1.6 Whether or not part of the sheets d can be considered to be a base material, the Board is not convinced that this reading of D2 leads to the disclosure of a holding sheet as claimed.

As already explained, the lower surface of the D2 duster, with its felt sheet c, forms a cleaning face. This felt-sheet c is thus not provided on the outer face of the lower layer d (if this is to be the base material) opposed to the cleaning face. At best the skilled person might consider the lower felt sheet c to form a cleaning face and have some holding function (providing a space for holding handle A). However they would not directly and unambiguously interpret it as a holding sheet as claimed, and distinct from the strips (that form the cleaning face) as the claim requires (see above, point 4.3 again).

- 6.1.7 It follows from the above that, whether the base material of D2 is considered to be the handle A or whether it is considered to be the lower layer of folded felt d, D2 does not directly and unambiguously disclose a holding sheet as claimed.

- 6.1.8 As neither D1 nor D2 discloses the final (holding sheet) feature of the claim, the combination of their teachings alone (whether that combination is obvious or not) would not result in the cleaning article as claimed.

- 6.2 D2 in combination with D1 and/or D3A/D3B



- 6.2.1 The appellant-opponent has argued that the subject matter of claim 1 lacks inventive step, starting from D2 combined with D3A/D3B, with or without D1. In their view, if D2 does not disclose the "holding sheet" feature of the claim, then the objective technical problem underlying this differing feature is to modify D2 to simplify attachment of the duster C to the handle A. Leaving aside the question whether this problem is derivable from the "holding sheet" differing feature, the argument's success depends on the combined teachings of D2 with D3A/D3B (whether or not combined with the choice of thermoplastic materials taught by D1) leading the skilled person to the claimed subject matter in an obvious manner. In the Board's view this is not the case.
- 6.2.2 D3A and D3B appear to divulge the same subject matter and have identical figures. In the following, reference is made to D3A. D3A discloses (see for example paragraphs [0085], [0087] and [0089] with figures 1 to 3) various cleaning articles in the form of dusters, some of which have a lower cleaning face opposed by an upper holding sheet forming a pocket into which the head portion 12 of a handle 13 can be inserted. Thus D3A discloses the idea of a holding sheet per se.
- 6.2.3 The duster of D2, with its identical top and bottom slitted felt sheets c, provides cleaning faces (see lines 50 to 51) on both major surfaces of its flattened body C. The stated object of D2 (lines 10 to 16) is, inter alia, to allow the duster to clean parts that are difficult to access. In the Board's view, amongst other features (cf. lines 51 to 53), the duster's dust-wiping slitted felt on top and bottom surfaces can but be important in achieving this object. D2's teaching is thus predicated on providing a two-sided slitted felt

wiper for cleaning inaccessible parts. In the Board's view, the skilled person would not, as a matter of obviousness, modify the duster of D2 by providing a holding sheet, known per se from D3A, on an outer side of the duster because this modification would leave only one face of slitted felt exposed for cleaning.

- 6.2.4 Moreover, the Board notes that the duster of D2 (see lines 26 to 27 with figures 1 and 2) has a main dusting body C mounted on the handle a between a grip A and a brush B - important for cleaning inaccessible places (see D2, lines 51 to 53 and all claims). Thus the handle a passes through the main duster body.

The dusters of D3A are of a quite different construction. In all its versions, the holding sheet forms a blind pocket that receives the head portion 12 of the handle (see for example D3A/D3B figures 1 to 3, 8 to 19, 25, and 28 to 31). Thus the handle does not pass through the duster body.

- 6.2.5 In the light of the above, even if it were obvious for the skilled person starting from D2 to consider the teachings D3A/D3B (the Board finds this not to be so, see above point 6.2.3), they would be barred from straightforward combination due to the handle of D2, with its grip A at one end and brush B at the other (cf. D2, figures 1 and 2). A combination of the two teachings would require the further modification of the blind pocket of D3A/D3B to allow for the tuft at the end of the handle of D2's brush. In the Board's view this further modification goes beyond the ordinary skills of the skilled person. Nor would they simply, as a matter of obviousness, discard the tuft at the end of handle so as to combine the teachings as the tuft is a core element of D2, see its independent claim 1.

- 6.2.6 For all the above reasons, the skilled person would not as a matter of obviousness combine the teachings of D2 and D3A/D3B by adding a holding sheet as claimed. Moreover, since no such holding sheet is known from D1 (see above, point 5.4), the claimed solution cannot be considered obvious from the combination of D2 with D1 and/or D3A/D3B.
7. In summary, the arguments presented by the appellant opponent fail to demonstrate a lack of novelty or lack of inventive step of the subject matter of claim 1 upheld by the decision under appeal. The Board therefore confirms the decision's positive finding of novelty and inventive step, Article 100(a) with Articles, 52(1), 54(1) and 56 EPC so the appeal must be dismissed.

**Order**

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

The appeal is dismissed.

The Registrar:

The Chairman:



L. Malécot-Grob

A. de Vries

Decision electronically authenticated