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**Datasheet for the decision
of 17 January 2014**

Case Number: T 2453/10 - 3.2.04

Application Number: 01978906.4

Publication Number: 1337176

IPC: A47L13/20

Language of the proceedings: EN

Title of invention:

HANDY MOP

Patent Proprietor:

UNI-CHARM CORPORATION

Opponent:

S.C. Johnson & Son, Inc.

Headword:

Relevant legal provisions:

EPC Art. 54, 56

RPBA Art. 13(1)

Keyword:

Novelty - main request (yes)

Inventive step - main request (yes) - could-would approach

Decisions cited:

Catchword:



**Beschwerdekammern
Boards of Appeal
Chambres de recours**

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Case Number: T 2453/10 - 3.2.04

**D E C I S I O N
of Technical Board of Appeal 3.2.04
of 17 January 2014**

Appellant: S.C. Johnson & Son, Inc.
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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 5 October 2010
rejecting the opposition filed against European
patent No. 1337176 pursuant to Article 101(2)
EPC.**

Composition of the Board:

Chairman: A. de Vries
Members: J. Wright
T. Bokor

Summary of Facts and Submissions

- I. On 1 December 2010 the appellant (opponent) lodged an appeal against the opposition division's decision of 5 October 2010 to reject the opposition against the European patent No. 1337176 and paid the appeal fee simultaneously. The statement setting out the grounds of appeal was filed on 9 February 2011.
- II. Opposition was filed against the patent as a whole and based *inter alia* on Article 100(a) EPC in combination with Articles 52(1), 54 and 56 EPC for lack of novelty and inventive step.

The opposition division held that the grounds for opposition mentioned in Article 100(a) EPC did not prejudice the maintenance of the granted patent unamended having regard to the following documents, among others:

D2: JP 2-4541
D3: US 1 230 476
D4: US 1 437 145
D5: US 1 514 990
D6: US 3 495 918
D7: US 4 010 511
D8: JP 56-145466
D9: JP 09-271459
D10: DE 1 726 919
D11: US 823 725
D12: US 2 262 888
D13: US 2 877 482
D14: JP 58-194770
D15: JP 60-63157
D16: JP 60-63158
D17: JP 5-95457

D18: JP 07-067821

D19: JP 09-047416

III. Oral proceeding before the Board were duly held on 17 January 2014.

IV. The appellant (opponent) requests that the decision under appeal be set aside and that the patent be revoked in its entirety.

The respondent (proprietor) requests: that the appeal be dismissed (main request), or in the alternative, that the decision under appeal be set aside and the patent be maintained in amended form on the basis of any of the auxiliary requests 1, 3 to 6 filed on 24 June 2011 or 2 and 7 to 11 filed on 17 December 2013. He also requests the case be remitted to the opposition division for examination of the auxiliary request.

V. The wording of claim 1 as granted reads as follows:

"A handy mop comprising a mop body 10 for collecting dust and a handle 20 to which said mop body is to be attached,
said mop body 10 being provided with two gaps b extending in parallel for attachment of said handle thereto, said handle 20 being provided with an attachment portion 30 and a gripper 40 extending rearwardly upwardly from a root end of said attachment portion, characterized in that said attachment portion 30 is bifurcated at said root end to provide two insert plates 31, which are flat and level, and are to be inserted into said gaps b of said mop body 10 for use."

VI. The appellant (opponent) mainly argues as follows:

The insert elements in the mop of D2 are flat, level plates, level because they are on the same plane, flat as they have no bumps. An elongate element of square cross section, such as the inserts of D2, is also a plate. The subject matter of claim 1 therefore lacks novelty with respect to D2. Furthermore, sufficiently thin D2's plates will be resilient and thus also serve the same purpose as the plates in claim 1.

The only possible differing feature over D2 is that of the flat plates. The associated objective technical problem is to avoid damaging objects to be cleaned. Using a level plate insert for a dust mop is known from, D12, D15, D16 or D17. The skilled person would realise the form of these inserts solves the problem, and would thus arrive at the subject matter of claim 1 in an obvious way. Similar arguments apply starting from any of documents D3 to D10 and combining with any of D11 to D19. The differing feature and objective technical problem is the same as for D2, therefore also from these documents the skilled person would arrive at the subject matter of claim 1 in an obvious manner.

Furthermore, starting from D17 as closest prior art, the subject matter of claim 1 would also be obvious considered with other prior art.

VII. The respondent (patent proprietor) mainly argues as follows:

Claim 1 as granted is new with respect to D2 because the insert elements of D2 are prongs of square cross section, not plates.

Claim 1 as granted involves an inventive step because, starting from D2, none of D12 or D15 to D17 offers a solution to the problem of avoiding damage to objects to be cleaned, let alone that this is solved by insert plates. Therefore the skilled person would not combine D2 with any of the above prior art and the invention as claimed is thus not obvious. The same argument applies to the other combinations of documents proposed by the appellant.

The appellant's argument against inventive step of claim 1 starting from D17 is late filed so should not be admitted.

Reasons for the Decision

1. The appeal is admissible.
2. *Background and interpretation of the claim*
 - 2.1 The invention relates to a hand held mop for removing dust of the kind having a handle to which a mop body can be attached, specification paragraphs [0001] and [0002]. The main aim of the invention is make the mop less likely to damage objects to be cleaned, specification paragraph [0005]. To this end the handle of the mop is provided with an attachment portion which has flat insert plates (which fit into gaps in the mop body), see paragraph [0026], point 2. In claim 1 as granted this is expressed by the feature "two insert plates which are flat and level"
 - 2.2 The Board holds that, in the context of an insert for mounting a mop body to a mop handle, the skilled person would understand the normal meaning of "plate" to be a

planar object having a small height relative to its width and length. Nothing different is suggested in the patent, nor has this been argued by the appellant, therefore the Board interprets the term giving it its normal meaning. Thus a broader interpretation of the word "plate" to include elongate objects of square cross section, that is of equal height and width, as the appellant has argued, is not justified.

- 2.3 In the claim the insert plates are moreover qualified as being flat and level.

The term "flat" is seen by the Board in the context of the overall disclosure to further emphasise that the height (thickness) of each plate should be small relative to its other dimensions and the plate planar, as already implied by the word "plate". The Board sees no clear support in the disclosure for the appellant's reading that the term should be read as free from bumps. This is in any case immaterial as the qualification does not change the above interpretation of the word "plate". Finally, in the present context, the person skilled in the art would normally understand the qualifier "level" to mean that the plates lie in the same plane, a reading which is entirely in line with the overall disclosure.

- 2.4 In summary the Board interprets the feature "two insert plates, which are flat and level" to mean that the inserts are planar, of small height in comparison with their width and length and that they lie in the same plane.

3. Main request: Novelty with respect to D2

3.1 It is common ground that document D2 discloses a handy mop having a mop body with two parallel gaps 3, (figure 1), and a handle 6 to which the mop body is to be attached (shown in figures 2A and B). The handle has a gripper 7 which extends upwardly and to the rear (figure 2A) and an attachment portion. The attachment portion is bifurcated at a root end to form two tines 8 which are inserted into the the gaps 3 when the mop is assembled.

3.2 The question of novelty vis-à-vis D2 therefore hinges on whether, as argued by the appellant, the tines 8, are insert plates, which are flat and level.

It is common ground that the tines 8 of the bifurcated insert of D2 are of approximately square cross section, of approximately equal height and width. Following the Boards interpretation of a plate, and the qualifying terms flat and level, see section 3.2, these tines are not flat plates that extend in the same plane. The subject matter of claim 1 therefore differs from D2 in the feature "insert plates, which are flat and level".

3.3 The appellant has furthermore argued that, according to paragraph [0015] of the patent, the ratio of thickness (height) and length of the plates is such as to cause resilient flexure. This is not however determined by the ratio of height and width, and the tines 8 of the insert element of D2 could therefore be made sufficiently thin to be just as resilient as flat level plates.

However, that sufficiently thin square tines might be *equivalent* to flat, level plates is immaterial to the question of novelty. That is decided by whether or not the same features are present, not the same or similar functions.

3.4 In conclusion, the Board finds the subject matter of claim 1 to be novel over D2, Articles 52(1) and 54 EPC, thus confirming the finding of the decision under appeal.

4. Main request, inventive Step

4.1 It is common ground that D2 is a good starting point for assessing inventive step since it discloses a mop with a handle bifurcated to form two inserts for holding a mop body. As summarised in point 4.2 above, the subject matter of claim 1 differs from D2 in that the two inserts of the attachment portion are "insert plates, which are flat and level".

4.2 According to the specification, paragraph [0026], point (2), the technical effect of the flat insert plates is that they cause resilient flexure upon receiving pressure so that the object to be cleaned is not damaged. Thus the Board infers the objective technical problem to be to modify a mop (such as that of D2) having an attachment portion bifurcated to form two inserts for holding a mop body, so that it causes minimal damage to objects to be cleaned.

4.3 In deciding whether the claimed invention, starting from the closest prior art and the objective technical problem, would have been obvious to the skilled person, the crucial question is not whether the skilled person *could* have arrived at the invention by modifying the

prior art but whether he *would* have done so in the hope of solving the underlying technical problem. In other words whether, in the light of the technical problem addressed, he would have done so because of prompts in the prior art, see e.g. the Case Law of the Boards of Appeal, 7th edition 2013, I.D.5.

4.4 The Board holds that, starting from D2, none of the prior art documents D12 and D15 to D17 offers a solution to the objective technical problem. Therefore the skilled person would not, as a matter of obviousness, consider combining the teaching of D2 with any of these documents, as explained below.

4.4.1 Document D12 discloses a duster for dusting in bookshelves and through/behind radiators and similarly constricted spaces, see page 1, left hand column, lines 1 to 5. It has a straight handle 16 to which are attached two loops made of a flat wire zigzag spring core 8, enclosed in a rubber envelope 17. In use the loops are contained in a fabric dusting bag 18 as shown in figure 2.

The rubber-spring construction of the loops of D12 gives them "extreme flexibility", page 1, right column, line 17, the springs being capable of "extreme deformation", page 2, left hand column, 2nd paragraph. This allows the device to achieve its stated purpose of insertion into and effective cleaning of narrow constricted spaces. There is no suggestion in D12 that this flexibility might be linked to avoiding damage, nor does the Board believe that this would be apparent to the skilled person as an inherent property. Indeed, D12's main thrust towards extreme flexibility and deformation is in a very different direction to D2 where the tines are clearly designed to be rigid to

give the device structural integrity. In the Board's view therefore the skilled person is unlikely to combine such disparate teachings.

- 4.4.2 Documents D15 to D17 are Japanese documents for which no translation has been provided and for which the Board can only rely on the figures. All concern similar type cleaning devices with a handle connected to the main cleaning body.

In D15 the handle has an H shaped insert 3 which, see figure 2, appears to be clamped in a single pocket 14 of a mop body 6 by lateral movement of the apparently resilient sides of the H. It is not apparent that this lateral resilience might in any way be connected to damage prevention. The mop of D16, cf. figure 2, is of similar construction and the same comments apply.

Document D17 discloses a mop having a handle with a single flat, plate like insert 18 which fits into a single longitudinal pocket 6 on a mop body 7. It may well be that the single plate offers resilience, it is again not evident from the figures that this is meant to limit damage. Also, this single insert construction appears rather as an alternative attachment to the two parallel inserts proposed by D2. Combining aspects of both in a further hybrid, in the view of the Board, goes well beyond the routine skills of the skilled person.

- 4.5 The appellant has alternatively also argued against inventive step starting from any of D3 to D10 and combining their teachings with any of D11 to D19.

- 4.5.1 D3 to D10 all disclose cleaning mops or similar cleaning instruments, with a handle having an

attachment portion to which a mop body is attached, as is immediately evident from their figures. In each case the attachment portion is bifurcated to form two inserts. It is common ground that none of these mops, however, have inserts in the form of "plates, which are flat and level", the same differences with respect to D2. It follows that the associated technical effect and objective technical problem when starting from these documents are the same as when starting from D2.

4.5.2 As has already been argued above there is no suggestion or prompt in D12, D15 or D17 that these documents might offer a solution to problem of damage.

4.5.3 D11, D13, D14, D18 and D19, all concerning dusters, likewise do not hint at the problem of damage, much less suggest a solution to the problem thereto.

D11, see figures, shows a wooden handle with flat portion at "a" for supporting the surrounding felt body "C". There is no suggestion of resilience, let alone in connection with avoiding damage.

D13, see figures 7 and 8, details a venetian blind duster comprised of a handle 40 with bifurcated portion 52 snugly fitting openings 50 of the duster portion 38. That the prongs might be flat plates is far from clear from the figures, while the document is completely silent as to whether they might be resilient or designed to avoid damage.

Documents D14, D18 and D19, for which no translation is available, show in their figures, mops or dusters of a similar design to that of D17, i.e. with a single flat insert that fits into an upper pocket of the main duster body. The same comments made in respect of D17

apply here: these documents concern alternative attachment mechanisms, and if resilient, there is no mention of preventing damage.

4.5.4 In summary, absent any hint or prompt at a solution to the problem of damage in D11 to D19 the skilled person would not consider their teachings in searching for a solution to that problem. Consequently, he would not as a matter of obviousness combine their teachings with any of the starting points D3 to D10 (or D2 for that matter) and these combinations must fail to render the claimed subject-matter obvious.

4.6 In summary, starting from any of D2 to D10, even if the skilled person *could* apply the teaching of one of D11 to D19 in the combinations proposed by the appellant, the skilled person *would* not do so as a matter of obviousness because none of these latter documents give any hint to solving the problem of providing a mop which is less damaging to objects to be cleaned. Thus the Board holds that these combinations do not prejudice inventive step of claim 1 as granted. The Board can but confirm the appealed decisions positive finding of inventive step, Article 100(a) with Articles 52(1) and 56 EPC.

5. Admissibility of new line of attack starting from D17

5.1 At the oral proceedings, after having discussed all the above lines of attack as submitted in writing, the appellant wished to present a further, new line of attack against inventive step starting from D17 as closest prior art.

5.2 Since this line of argument was made after filing of the grounds of appeal and at the latest possible stage

in the appeal proceedings, during the oral proceedings, it constitutes an amendment to the appellant's case in the sense of Article 13(1) of the Rules of Procedure of the Boards of Appeal (RPBA) and which is thus subject to the discretion afforded by that Article. That discretion is to exercised "in view of inter alia the complexity of the new subject-matter submitted, the current state of the proceedings and the need for procedural economy". In particular if the other parties cannot reasonably be expected to deal with the new submission without adjournment of the oral proceedings, they should not be admitted, Article 13(3) RPBA.

5.3 In the present case, there has been no change in substance nor have there been any developments during the proceedings that might justify starting from a different starting point in the discussion of inventive step. Nor has any justification indeed been argued.

5.4 Hitherto, inventive step had been discussed starting from D2 or similar vantage points, with the problem to be solved based on flat and level insert plates as main difference.

Vis-a-vis the single insert design of D17 the main difference of the claimed device now lay in an attachment portion that is bifurcated at its root end to provide two insert elements. In the context of the problem-solution approach this was seen as a significant change of tack. All things considered, the Board did not believe it to be equitable, either for the other party or for itself, to have to address such a shift, at this latest possible stage in the proceedings, after all lines of attack submitted in writing had been discussed at the oral proceedings.

Therefore, the Board decided to exercise its discretion under Article 13(1) RPBA not to admit this late submission.

6. In the light of the above, the Board confirms the impugned decision to reject the opposition, Article 101(2) EPC. Thus there is no need for the Board to consider the respondent's auxiliary requests.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



G. Magouliotis

A. de Vries

Decision electronically authenticated