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D E C I S I O N
of 26 February 1999

Case Number: T 0144/95 - 3.2.4

Application Number: 88301755.0

Publication Number: 0282214

IPC: A47L 15/00

Language of the proceedings: EN

Title of invention:
Machine dishwashing process

Patentee:
Unilever N.V.

Opponents:
Henkel Kommanditgesellschaft auf Aktien
Chemische Fabrik Dr. Weigert (GmbH & Co.)

Intervener:
Epenhuysen Chemie N.V.

Headword:
Dishwashing process

Relevant legal provisions:
EPC Art. 54(2), 105, 107, 111(1), 117(1)(d), 134

Keyword:
"Intervention (section 2) - inadmissible - no remittal to first instance - no right or obligation to pay appeal fee (reimbursed)"
"Intervener's professional representative also authorised for an appellant - no abuse (section 2.9)"
"Taking of evidence"
"Public prior use - distinction between machine and process used thereby (section 5.3)"
"Theoretical possibility of access to information - source of

information must first be identified (section 5.3)"

Decisions cited:

T 0296/93, T 0202/89, T 0027/92, T 1011/92, T 0448/90,
T 0423/91, T 0326/93, T 0921 /90, T 0204/83, G 0001/92,
G 0004/91, G 0001/94

Catchword:

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Case Number: T 0144/95 - 3.2.4

D E C I S I O N
of the Technical Board of Appeal 3.2.4
of 26 February 1999

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Decision under appeal: Interlocutory decision of the Opposition Division
of the European Patent Office posted 28 December
1994 concerning maintenance of European patent
No. 0 282 214 in amended form.

Composition of the Board:

Chairman: C. A. J. Andries

Members: M. G. Hatherly

M. Lewenton

P. Petti

J. P. B. Seitz

Summary of Facts and Submissions

- I. European patent No. 0 282 214 resulted from European patent application 88 301 755.0 filed on 1 March 1988 with a priority date of 7 March 1987.

The interlocutory decision of the opposition division to maintain this patent in amended form was dispatched on 28 December 1994.

- II. On 9 February 1995 appellant I (opponent I) filed an appeal against this decision and paid the appeal fee. The statement of grounds of appeal was received on 28 April 1995.

On 13 February 1995 appellant II (opponent II) filed an appeal against this decision and paid the appeal fee. The statement of grounds of appeal was received on 27 April 1995.

On 18 February 1995 appellant III (opponent III - Unilever N.V.) filed an appeal against this decision and paid the appeal fee. The statement of grounds of appeal was received on 25 April 1995. This appeal was withdrawn by letter of 19 June 1996.

With effect from 14 September 1998 the patent was transferred from Diversey Corporation to Unilever N.V. (i.e. the former appellant III became the proprietor and respondent).

On 15 October 1998 an intervener filed a notice of intervention under Article 105 EPC with its reasons, filed an opposition with facts and arguments therefor, paid the opposition fee and paid the fee for appeal.

III. Claim 1 according to the opposition division's interlocutory decision reads:

"A machine dishwashing process wherein there are one or more optional prewash cycles or zones, one or more wash cycles or zones and one or more rinse cycles or zones which comprises spraying inside the machine from a plurality of nozzles onto at least partially soiled articles in a fine, gentle mist-like spray a highly concentrated aqueous cleaning formulation comprising at least 0.5 weight percent of one or more active cleaning agents and, after a contact time of from 2 to 100 seconds during which the articles are not deliberately sprayed, removing the cleaning formulation and soil in one or more subsequent stages, the cleaning formulation being sprayed prior to the final rinse cycle or zone."

IV. The following documents were relied upon during the appeal proceedings:

D1 Brochure "Hobart Bandvaatwasmachines Serie FT-E",
Hobart Benelux, Hobart B.V., Rotterdam (12 pages)

D2 Pages 42 and 47 of a FogJet nozzles and nozzle
assemblies document

- D60 Decision KG 95/334 of 10 April 1995 of the District Court in The Hague
- D61 Translation into German of D60
- E1 Brochure "Blitz - Grundreiniger für Geschirr", Henkel GV (410.976.7 Scha.)
- E2 Composition list of Blitz Grundreiniger
- E3a-E3c
Order, product specification and details of Blitz Grundreiniger
- E5 "Eidesstattliche Versicherung" by Richard Neumann dated 10 June 1992 (5 pages)
- E8 Report by Arnold Krawitowski dated 7 March 1987, "Stärkeablagerungen auf dem Spülgut in der Mensa Marburg"
- E9 "Eidesstattliche Versicherung" by Arnold Krawitowski dated 10 June 1992
- E15 A composition list of a product
- E16 "Eidesstattliche Versicherung" by Richard Neumann dated 10 June 1992 (2 pages) (incorporating E15 as an annex)
- E31 DE-A-2 441 361

- E35 Gewerbliches Geschirrspülen, Sonderdruck aus "gv-praxis" 11/80, pages 1 to 24 (cited only against dependent claims)
- E38 US-A-2 385 264
- E39 US-A-3 549 294
- E44 US-A-2 910 391
- E45 US-A-2 644 473
- E46A Handboek voor de institutionele reiniging, L. A. Saelman, Kluwer, Deventer 1985, pages 137 to 149
- E46B "Schriftliche Erklärung unter Eid" from Hans Otto Hedermann dated 20 April 1995
- E47 translation of document E46A into German
- E48 undated brochure of MEIKO Maschinenbau GmbH & Co., "MEIKO B-tronic - Die neue Bandautomaten - Generation"
- E49 brochure of MEIKO Maschinen- und Apparatebau Ing. Oskar Meier GmbH & Co., "MEIKO Automatik-Geschirrspülanlagen", January 1989
- E50 "Eidesstattliche Erklärung" by Viktor Klement dated 5 February 1996

- E51 First "Eidesstattliche Erklärung" by Hans Dittert dated 5 February 1996 with a sketch
- E52 Second "Eidesstattliche Erklärung" by Hans Dittert dated 31 October 1998
- E53 "Eidesstattliche Erklärung" by Dieter Hesse dated 2 February 1996
- E54 "Eidesstattliche Erklärung" by Klaus Liebler dated 31 January 1996
- E55 Affidavit by Berthold Wolfgang Langenstein dated 29 October 1998
- E56 Letter from Mr Grillemeier of Georg-August-Universität Göttingen dated 20 August 1998
- E57 Written statement of Jan Nuiver dated 3 December 1998

V. In section 9 of the annex to the summons to attend oral proceedings the board stated that it did not see that E46A and E47 added anything to material already on file and so declined to admit them into the appeal proceedings.

In section 10 of said annex the board questioned the relevance of the alleged public prior use of the heavy duty cleaners Blitz and Perclin intensiv (GTF40) based on documents E1, E2, E3a to E3c, E5, E15 and E16. This

subject was not raised by the parties in the subsequent oral proceedings.

Oral proceedings (Article 116 EPC) and taking of evidence by hearing witnesses (Article 117(1)(d) EPC) took place on 9 December 1998.

After discussion the board decided that the intervention was inadmissible whereupon the intervener ceased to be a party in the remainder of the oral proceedings. However the intervener's professional representative in the meaning of Article 134(1) EPC then presented an authorisation to act on behalf of appellant I. This action was contested by the respondent.

After discussion of the questions to be put to the witnesses, the taking of evidence by hearing the witnesses Messrs Krawitowski, Ohse, Hedermann and Rinke took place. The various attacks on the patent were then extensively discussed.

A written statement from Christiaan Antonie van Huizen dated November 1998 was filed by the intervener in Dutch by facsimile on 4 December 1998. The translation into English and dated 4 December 1998 was presented only at the oral proceedings (by appellant I). The statement was not admitted into the proceedings in view of its late submission and lack of obvious relevance.

Opponent I's request, made during the oral proceedings,

to show a video recording of a machine according to D1 was refused for lack of obvious relevance over what D1 discloses.

VI. Appellants I and II requested that the decision under appeal be set aside and the patent revoked.

The intervener requested that the intervention be considered admissible, that the appeal fee be reimbursed and auxiliarily that the case be remitted to the first instance so that document D1 could be considered also by the first instance.

The main request of the respondent was for the appeals to be dismissed and the patent to be maintained on the basis of the opposition division's interlocutory decision. The patent documents for this main request are claims 1 to 9 and pages 2 to 4 of the description as maintained by the opposition division.

Auxiliarily the respondent requested that the decision be set aside and the patent maintained on the basis of the first or the second auxiliary request filed during the oral proceedings of 9 December 1998.

Reasons for the Decision

1. The appeals by appellants I and II are admissible.

2. The intervention under Article 105 EPC

2.1 The first sentence of Article 105(1) EPC states that "In the event of an opposition to a European patent being filed, any third party who proves that proceedings for infringement of the same patent have been instituted against him may, after the opposition period has expired, intervene in the opposition proceedings, if he gives notice of intervention within three months of the date on which the infringement proceedings were instituted."

The second sentence of Article 105(1) EPC states that "The same shall apply in respect of any third party who proves both that the proprietor of the patent has requested that he cease alleged infringement of the patent and that he has instituted proceedings for a court ruling that he is not infringing the patent."

2.2 The intervener stated (see the notice of intervention dated 15 October 1998)

- that the then proprietor (Diversey) requested by letter of 12 September 1997 that he cease alleged infringement of the patent (EP-B-0 282 214),

- that on 15 July 1998 or 12 October 1998 the

intervener instituted proceedings in the Dutch Court in The Hague for a ruling that he is not infringing that patent, and

- that the present notice of intervention was given within three months of the date that the proceedings were instituted.

Thus the intervener was relying on the second sentence of Article 105(1) EPC.

2.3 However the respondent stated in the "Objections against intervention" filed with his letter of 2 November 1998

- that already on 9 July 1993 the intervener was served with a writ of summons in regular proceedings before the national court in the Netherlands, in which Diversey demanded that he cease the alleged infringement, and
- that the proceedings started in 1998 were directly connected with the 1993 proceedings.

In the oral proceedings of 9 December 1998 the respondent added that in September 1997 the intervener had enquired of the proprietor if the latter would state that a dishwashing process involving spraying a foam would not infringe the patent. Diversey's legal practitioner's letter of 12 September 1997 to the intervener was a response to this enquiry.

The respondent maintained that the two situations for intervention presented in the first and second sentences of Article 105 EPC are mutually exclusive and accordingly that the time limit for filing an intervention in the present case had started, and indeed expired, in 1993.

- 2.4 Section 2.5 of decision T 296/93 (OJ EPO 1995, 627) states that "The principle behind Article 105 EPC is that, as soon as any court action has been brought, the sole available period for intervention starts running. Any other interpretation would open the possibility of abuse of the intervention opportunity by the filing of national invalidity actions in order simply to trigger a new time limit under Article 105 EPC, regardless of earlier circumstances."

Section 2.6 of the above cited decision finds that therefore "the two alternatives offered under Article 105(1), first and second sentences, EPC respectively, are mutually exclusive for the same case of infringement. With regard to the same patent, an alleged infringer can only belong to one category, the decisive factor being which court action was the first to be instituted."

- 2.5 The board agrees that the dishwashing process involving spraying a foam created another possible case of infringement. The assumed infringer started proceedings on the basis of this further possible case of infringement. This however does not change the general

principle that a party who already had the possibility to intervene in opposition proceedings against a European patent should not be given the possibility to intervene whenever he wishes in proceedings against the same European patent after expiry of the time limit for the first possibility for intervention.

The board observes that it would not be difficult for a party to modify a device or a process and then to start new national proceedings as referred to in the second sentence of Article 105 EPC. Indeed as set out in section 2.3 of the present decision, it was in fact the intervener who made the first step towards the 1998 proceedings by asking the respondent in September 1997 to declare that a dishwashing process involving spraying a foam would not infringe the patent. After the patentee replied, the assumed infringer made the intervention. Such a course of action however should not enable the assumed infringer to trigger a new time limit under Article 105 EPC.

Further, it is not the task of the board of appeal to examine and decide whether in a specific country a case of possible infringement is another, different case. What matters to the board is the identity of the European patent and the identity of the parties.

2.6 Therefore the time period for intervention was triggered by the writ of summons of 9 July 1993. Not having been filed within three months of that date, the notice of intervention does not meet the requirements

of Article 105(1), first sentence, EPC, and must therefore be rejected as inadmissible. This finding is in line with that in section 2.7 of decision T 296/93.

2.7 The intervener's request for remittal of the case to the first instance for document D1 to be considered could only be examined if the intervention is deemed admissible. Since this is not the case, the request must fail. In any case, remittal in the meaning of Article 111(1) EPC is a procedural option which is to be decided by the board on the specific circumstances of each case. In the specific circumstances of the present case the board finds it appropriate to weight the interests of the respondent more than the interests of the parties who brought forward this document D1 at such a late stage.

2.8 The intervener requests the reimbursement of the appeal fee.

2.8.1 Article 107 EPC states that "Any party to proceedings adversely affected by a decision may appeal. Any other parties to the proceedings shall be parties to the appeal proceedings as of right."

It is clear from this wording that an admissible appeal against a decision can only be filed by a party who was already a party to the proceedings leading to that decision and who was adversely affected by that decision.

In the present case where an intervention was filed during appeal proceedings, i.e. after a decision had been taken by a first instance, it is clear that the circumstances of the intervention are such that the intervener cannot satisfy the conditions defined in Article 107 EPC. Indeed, the intervener was not a party during the proceedings leading to the decision which gave rise to the appeal. Moreover he was not adversely affected - in a formal sense, as explained in section 6 of T 202/89 (OJ EPO 1992, 223) - by that decision since he had been unable to file any request during the opposition proceedings. To argue that the intervener was adversely affected solely due to the patent having been maintained would imply that everybody is adversely affected by the existence of patents. This is however a view which is not supported by the EPC.

The above reasoning is apparently supported by G 4/91 (OJ EPO 1993, 707) where the Enlarged Board decided (see the Order) that

"In a case where, after issue of a final decision by an Opposition Division, no appeal is filed by a party to the proceedings before the Opposition Division, a notice of intervention which is filed during the two-month period for appeal provided by Article 108 EPC has no legal effect."

It follows therefrom that an intervener who files an intervention during the appeal proceedings cannot be considered as an appellant.

The act of paying an appeal fee, which is one of the conditions for an admissible appeal, does not change this position in any way.

Furthermore it is pointed out that it is clear from Article 108 EPC that an appeal fee has to be paid within a time limit of two months after the date of notification of the decision appealed from. While Article 99 EPC lays down that an opposition fee has to be paid within a time limit of nine months, Article 105 EPC provides an exception in that the intervention can be filed and the opposition fee paid after the opposition period has expired. On the other hand, the EPC does not provide an exception for the appeal fee time limit.

Therefore, in the present specific case, since the intervener does not satisfy the requirements laid down by Article 107 EPC for a party to be entitled to appeal, the board concludes that he has neither a right nor an obligation to pay an appeal fee.

Accordingly the appeal fee paid by the intervener has to be reimbursed.

- 2.8.2 The view is expressed in sections 5 and 6 of decision T 27/92 of 25 July 1994 that it is unnecessary to pay an appeal fee in order to intervene (the decision left open the question of whether the payment of an appeal fee would enable the intervener to assume the position of an independent appellant).

The Enlarged Board stated in section 11 of G 1/94 that some aspects of intervention were only touched upon by the parties in the case before it and so it did not consider it appropriate to decide whether an intervener in appeal proceedings had to pay an appeal fee.

A different view to that of decision T 27/92 was expressed as an obiter dictum in section 3.5 of decision T 1011/92 (not published in OJ EPO), namely that the intervener in opposition appeal proceedings had to pay both an opposition fee and an appeal fee. However, decision T 1011/92 only actually decided against reimbursing the opposition fee since the intervener had not requested reimbursement of the appeal fee.

The board therefore considers that it is not deviating from earlier decisions when deciding to reimburse the appeal fee paid by the intervener.

- 2.9 The decision that the intervention is inadmissible was announced in the oral proceedings, whereupon the intervener ceased to be a party.

As already indicated in the above section V, the intervener's professional representative in the meaning of Article 134(1) EPC then handed over an authorisation for him to act on behalf of appellant I in the oral proceedings specified in the authorisation. Although the respondent criticised this late filing during the oral proceedings, the authorisation was clearly valid

and so the board could not prevent the representative from acting. The statement that such an action had to be considered as an abuse of procedure and therefore should be refused cannot be followed by the board. Indeed the only consequence of this procedure was to enable appellant I to use, in a more appropriate manner, the state of the art that had been filed by the intervener. The board considers that said state of the art, although filed very late because the intervention itself was not filed until 15 October 1998, nevertheless became part of the appeal file and then - in this particular case involving intervention - could be made use of by each party to the appeal proceedings. The procedural step of switching this professional representative from the intervener to appellant I therefore did not change the situation as to what prior art was available, this prior art was known to all parties, including the respondent (patentee), before the oral proceedings took place.

Therefore no new facts or evidence resulted from the switching of the representative but merely the presence of an additional authorised representative for appellant I.

3. Article 123 EPC - main request

3.1 Claim 1 as granted includes all the features of claim 1 as originally filed and adds thereto the features:

- "at least 0.5 weight percent of one or more active

cleaning agents" - which is the most general of the alternatives set out in the originally filed claim 2; and

- "at least 2 seconds" - which is the most general of the alternatives set out in the originally filed claim 3.

3.2 Claim 1 of the main request includes all the features of claim 1 as granted and adds thereto the features:

- "wherein there are one or more optional prewash cycles or zones, one or more wash cycles or zones and one or more rinse cycles or zones" and "the cleaning formulation being sprayed prior to the final rinse cycle or zone" - which together are the subject-matter of the originally filed claim 7 (granted claim 8);
- "inside the machine" - which is implicit from page 4, line 38 to page 5, line 3 and page 5, lines 20 to 22 of the originally filed description (page 3, lines 26, 27 and 40 to 42 of the granted description);
- "from a plurality of nozzles" - see page 5, line 20 of the originally filed description (page 3, line 41 of the granted description);
- "in a fine, gentle mist-like spray" - see page 3, line 20 of the originally filed description

(page 2, line 54 of the granted description);

- "to 100" - this upper time limit is to be found in claim 3 as originally filed (and as granted); and
- "during which the articles are not deliberately sprayed" - see page 3, lines 13 and 14 of the originally filed description (page 2, lines 50 and 51 of the granted description).

3.3 Therefore the additions to the originally filed claim 1 to arrive at claim 1 of the main request do not give rise to an objection under Article 123(2) EPC. Since the additions to the granted claim 1 restrict its scope, they do not give rise to an objection under Article 123(3) EPC either.

3.4 Claims 2 and 3 of the main request correspond to claims 2 and 3 as granted which was what was left of the originally filed claims 2 and 3 when portions thereof were added to the originally filed claim 1 to form claim 1 as granted.

Claim 4 of the main request corresponds to claim 4 as originally filed and as granted.

Claims 5 and 6 of the main request correspond to claims 5 and 6 as granted which resulted from adding the words "and low intensity" (derived from page 3, line 30 of the originally filed description) to the originally filed claims 5 and 6.

Claims 7 to 9 of the main request correspond to claims 8 to 10 as originally filed (claims 9 to 11 as granted).

3.5 The originally filed description was amended to bring it into line with claim 1 of the main request and supplemented by a prior art acknowledgement.

3.6 Accordingly the patent specification according to the main request does not contravene Article 123 EPC.

4. Clarity and interpretation - claim 1 of the main request

4.1 Lines 2 to 12 of page 2 of the description of the main request explain that in a typical machine dishwashing process the articles are vigorously sprayed in the wash zone with a wash liquor.

This vigorous, mechanically acting, spraying of water with a low concentration of active cleaning agent contrasts with the fine, gentle mist-like spraying of a highly concentrated aqueous cleaning formulation in the present dishwashing process. Both kinds of spraying, i.e. the vigorous, mechanically acting, spraying of water with a low concentration of active cleaning agent and the spraying in a fine, gentle mist-like spray of a highly concentrated aqueous cleaning formulation are part of the claimed process that requires at least the method steps allowing both these kinds of spraying and the method step of a final rinsing.

The respondent confirmed during the oral proceedings that the wash cycle or zone must entail - as is usually the case - not only cleaning with an active cleaning agent, i.e. not merely a rinsing off of cleaning agent applied in a fine, gentle mist-like spray, but also vigorous, mechanically acting, spraying of water with a low concentration of active cleaning agent.

4.2 Concerning the words in claim 1 of the main request "during which [the contact time with the highly concentrated aqueous cleaning formulation] the articles are not deliberately sprayed", it is clear (see Article 84 EPC) both technically and from the context of the description of the main request (e.g. page 2, lines 49 to 51) that during the contact time the articles are not deliberately sprayed with wash or rinse water.

4.2.1 The appellants argue that the quoted wording must mean that during the contact time the articles are also not deliberately sprayed with the fine, gentle mist-like spray.

This is based on the fact that the only specific mention of spraying in the claim is the wording "spraying inside the machine from a plurality of nozzles onto at least partially soiled articles in a fine, gentle mist-like spray a highly concentrated aqueous cleaning formulation" and so "not deliberately sprayed" must refer to this spraying.

- 4.2.2 The respondent argues however that the fine, gentle mist-like spray can continue during the contact time.
- 4.2.3 While the claim refers to spraying only in the context of the fine, gentle mist-like spray, the description obviously refers to spraying also for the vigorous, mechanically acting, spraying of water with a low concentration of active cleaning agent, either for prior art processes or for the present process. Thus page 2, lines 11 and 12 refers to the "wash zone or wash cycle, where they are again vigorously sprayed this time with a wash liquor". Page 3, line 2 refers to "vigorous high volume spraying", and page 3, line 58 states "washed off by the subsequent stages using conventional spray nozzles".
- 4.2.4 In the claimed process each article must be sprayed using a fine, gentle mist-like spray in order that the highly concentrated aqueous cleaning formulation contacts each part of the article. Then the sprayed cleaning formulation must be allowed to act on the article's surface so that it can attack the soil. This is a "chemical, as opposed to a mechanical, action" (see page 2, lines 47 and 48 of the description according to the main request). Then the formulation and soil can be removed.

It is clear that if the formulation is removed by washing before it has had time to act then its effect will be lost. It is also clear that the fine, gentle mist-like spraying of more cleaning formulation will

not adversely affect the chemical action.

4.2.5 The skilled person knows well that the wash liquor in the wash zone of a conventional dishwashing machine is vigorously sprayed from nozzles. Therefore when reading claim 1 of the main request he would bear in mind that "not deliberately sprayed" could refer to this type of spraying. The arguments set out in section 4.2.4 above would also be clear to him. Accordingly he would conclude that the fine, gentle mist-like spray can continue throughout the contact time.

4.2.6. In coming to this conclusion the board has also considered decision D60. Section 8 of this decision states that the opposition division came to the opposite conclusion. However the relevant statement by the opposition division was a provisional view expressed in section 9 of its communication of 19 July 1994 prior to the opposition oral proceedings. The actual decision of the opposition division does not contain such a statement.

Moreover the later decision of 15 May 1997 of the Court of Appeal in The Hague (cause list 95/40) came in section 32 to the same conclusion as the board.

The fact that claim 7 as originally granted and since deleted drew a distinction between "spraying" and "washing" does not change the board's finding. It cannot be assumed that claim 1 of the main request must contain the content of the deleted, originally granted

claim 7.

- 4.2.7 The board therefore is of the opinion that the expression "not deliberately sprayed" is, in the framework of the whole patent, clear to a person skilled in the art (Article 84 EPC).
- 4.3 Whether the present process must be used all the time or whether it could be just an infrequent basic cleaning is not something that needs to be decided by the board. What needs to be decided by the board is whether the claimed process as such is patentable having regard to the available prior art, not whether this specific process is used all the time.
5. Alleged public prior use in Göttingen Clinic
- 5.1 The parties agree that a Meiko dishwasher for washing trays was present in the canteen for students and staff in the UBFT building at Göttingen Clinic in Germany at least between late 1986 and the undisputed priority date of 7 March 1987.
- 5.2 The respondent however argues that the kitchen area of the Göttingen Clinic was not accessible to the public (see also Mr Langenstein's affidavit E55 and Mr Grillemeier's letter E56.

Of course, in patent law terms, to say that the kitchen area was accessible to the public does not mean that people would have regularly wandered from the street into the kitchen area. It would suffice if a single member of the public had visited the area without being obliged to keep secret whatever he saw.

5.2.1 Mr Hedermann was an employee of the former proprietor Diversey when he visited Göttingen Clinic so he was not a member of the public and what he saw cannot be evidence of public prior use. His personal knowledge, accumulated as a result of his association with Mr Blecher (the joint inventor), would not coincide with the public's knowledge (following section 3.2.1 of decision T 448/90, not published in OJ EPO).

5.2.2 Although Mr Rinke was an employee of Göttingen Clinic, the board does not consider that he was bound to confidentiality in his dealings with Diversey. Göttingen Clinic was Diversey's customer, put the machine at Diversey's disposal during the tests and had an interest in their success, but keeping the tests secret would have given the Clinic no advantage. Moreover the board does not see Mr Rinke as being in the position of an advisor (contrary to section 1 of decision T 423/91 - not published in OJ EPO). The present test series was no joint venture where each party would have had something to lose if the test details had become public. The board sees Mr Rinke as a member of the public.

5.2.3 The board sees no reason to doubt Mr Ohse's statement in the taking of evidence (page 21) that he visited the kitchen area in 1986 and it considers him to have been a member of the public under no confidentiality obligation. The respondent cites decision T 326/93 (not published in OJ EPO) in support of Mr Ohse not being a member of the public (and indeed also Mr Hedermann and Mr Krawitowski). Section 4.3 of this decision however merely states that a director of the opponent in that case was not an independent and detached observer and so might have misinterpreted what he saw. The decision does not disqualify him as a member of the public (and in the present case of course the witnesses were not and are not directors of one of the opponents).

Accessibility to just Mr Ohse is sufficient for the board to find that the kitchen area was publicly accessible. However it can be added that kitchen staff obviously were present in the kitchen area to operate and maintain this machine and other equipment, and that it would be unreasonable to regard these people as being bound to secrecy.

5.2.4 The letter E56 from Mr Grillemeier of the Georg-August-Universität Göttingen states that the kitchen area is barred to third parties because of food hygiene regulations and internal orders. However this letter is written in the present tense and thus appears to be describing regulations at the time of writing, namely 20 August 1998. The letter provides no evidence as to the situation in 1986 and 1987.

Moreover Mr Rinke stated in the taking of evidence (page 58) that such regulations had not been communicated to him and that non-kitchen personnel, e.g. students, periodically entered the kitchen area. The board considers Mr Rinke's statement to describe the real situation at the time and thus considers that the kitchen area was accessible to the public in late 1986 and early 1987.

- 5.3 It follows that the board finds that the Meiko dishwasher was seen by the public at the time in question. Whether internal components such as the nozzles were directly visible from the kitchen area (see Mr Dittert's second affidavit E52) need not be discussed because Mr Rinke had access to the machine and he was a member of the public.

It is true that the case law of the boards of appeal clearly indicates that the theoretical possibility of access to information renders it available to the public. This is certainly true of a document in a library or a specific device in a place accessible to the public. This principle however can only be applied after the document or the device has been identified so that its information can be unequivocally defined. If such an identification is impossible, i.e. if it is uncertain that the document or device ever existed or it is uncertain in which precise form it existed, then the document or device cannot be used for patent purposes.

However claim 1 of the main request is directed to a process so that the decisive questions are which process the machine carried out and how much of this process was accessible to the public. In attempting to answer these questions it will still be of help however to discuss the construction of the machine which was seen by the public before the priority date.

5.4 The construction of the Göttingen Clinic machine

5.4.1 Mr Hedermann writes in his statement E46B of 20 April 1995 that in December 1986, as an employee of Diversey, he visited said canteen and saw said machine that had a newly developed spraying system shown schematically in an attached sketch (dated 20 April 1995 and thus drawn from memory more than eight years later). A fixed spray arm with two nozzles was located in a space between a scrapper and the first washing tank. The connecting pipe of the nozzles was connected via a T-piece with, on the one hand, the water supply and, on the other hand, via an additional pump with a container which he could see from its marking held undiluted cleaning solution.

5.4.2 Mr Dittert states in his first affidavit E51 of 5 February 1996 that at the end of 1986 the machine in the Göttingen Clinic was provided before the first wash tank with a spray arch with two spray nozzles fed by a cleaning medium and water, see also the accompanying sketch. The spray arch was in the area of the curtain of the machine and was installed partly using the

curtain fastening.

- 5.4.3 The Hedermann sketch E46B and the Dittert sketch E51 differ at least in the following respects.

The Hedermann sketch shows the scrapper compartment adjoining the first wash tank with what appears to be a continuous roof over both compartments. The Dittert sketch shows the scrapper separated from the first wash tank by an open area.

The Hedermann sketch shows the nozzles for the highly concentrated cleaning solution in the scrapper whereas the Dittert sketch shows them in the first wash tank.

In the taking of evidence Mr Hedermann was shown the two sketches and asked about the differences therebetween. He admitted that the Dittert sketch was more similar than the Hedermann sketch to the installed machine. Mr Hedermann said that his own sketch had been made on the basis of a more recent sketch that he had had and that, to show the machine correctly, one would have to draw another sketch.

- 5.4.4 Mr Ohse stated in the taking of evidence (pages 24 to 26) that the machine he had seen in 1986 in Göttingen Clinic corresponded to the Dittert sketch. He said (pages 29 and 30) that there were two nozzles on a spray arm behind a curtain at the entrance to the machine.

5.4.5 Mr Rinke stated in the taking of evidence (page 63) that he was quite sure that there was a metal sheet, not a curtain, at the entrance to the machine.

5.4.6 Thus the construction of the machine (and in particular the modifications made thereto to spray the highly concentrated cleaning fluid) is not agreed upon by those who maintain they saw the machine. The machine's actual construction is only of importance in so far as the process which the witnesses allege they saw depends largely on that construction.

5.5 The cleaning fluid spray

5.5.1 Mr Hedermann writes in statement E46B that the fact that the nozzles had a small spray cone was clear to him in view of the nozzle openings. It was clear from the construction of the nozzles that these were for spraying a fine mist. The spray cone of the two nozzles was so small that it did not overlap the spray cone of the spray arm in the following first wash tank. From the constructional arrangement of the machine it was clear to him that between the spray cone of the two nozzles that sprayed the highly concentrated cleaning solution and the spray cone of the spray arm of the following first wash tank there was a space of about 40 cm in which the trays were not sprayed by any nozzle.

Mr Hedermann was asked in the taking of evidence (pages 46 to 48) about his written statement that the method of functioning of the spraying installation was clear from its constructional arrangement. He replied that one could see what was happening by opening the door and looking in while the machine was operating (the spray installation was operating but not the first wash tank). The spray was so strong that it was almost a fog.

If Mr Hedermann had indeed looked inside the machine, then the board does not understand why he did not declare in his written statement E46B that he had seen the spray and what it was like. Instead, he inferred what the spray was like by stating that it was clear to him these nozzles had a small spray cone in view of the nozzle openings and that it was clear to him from the construction of the nozzles that these were for spraying a fine mist. Furthermore, whereas in the process described in E46B the first wash tank is operating (see the quoted distance of about 40 cm), according to the taking of evidence that first wash tank was not operating.

5.5.2 Mr Ohse stated in the taking of evidence (pages 24 to 27) that in 1986 he himself switched on the machine in the Göttingen Clinic. From the type of the two nozzles on the spray arm he knew they would spray as a mist.

5.5.3 Mr Rinke stated in the taking of evidence (pages 56 and 57) that the wash fluid was sprayed in a wide cone from above onto the trays so that it would distribute itself evenly over the trays from the top downwards. The spray was directed. When the spraying installation was switched on it remained on for several days to ensure that each tray passed through the machine and indeed passed through each way up because there was a spray shadow caused by the depression in the tray.

5.5.4 Thus concerning the spray produced by the Göttingen Clinic machine the board has difficulties in reconciling Mr Hedermann's written and oral statements, see the above section 5.5.1. Mr Ohse only inferred what the spray must have been like (section 5.5.2). It seems from Mr Rinke's statement (see the above section 5.5.3) that the spray was more directed than in the form of a mist since a mist would not produce a spray shadow. Flat spray nozzles are known in the art as shown by the Unijet catalogue pages filed by the respondent in the oral proceedings so that it cannot be maintained that every nozzle would produce a fine, gentle mist-like spray if the pressure to the nozzle were appropriately adjusted.

Thus the board does not find it proven that the Göttingen Clinic machine produced a fine, gentle mist-like spray.

5.6 The cleaning fluid concentration

- 5.6.1 The concentrate was undoubtedly present under the machine and the board cannot see that any precautions were taken to prevent a sample of it being taken (e.g. see the taking of evidence from Mr Ohse, page 26). Therefore, although Mr Ohse was told by a laboratory at some later unspecified date merely that it was a highly alkaline fluid, it could have been fully analysed in 1986. Therefore its concentration was part of the state of the art, following G 1/92 (OJ EPO 1993, 277). It makes no difference that the last paragraph of Mr Klement's affidavit E50 and Mr Liebler's affidavit E54 state that Diversey did not charge for the cleaning fluid.
- 5.6.2 However a distinction needs to be made between the concentrate and the sprayed fluid (the fluid sprayed from the nozzles which was made up of the liquid in the container and the diluting mains water). Claim 1 of the main request is concerned with this concentration not the concentration of the concentrate.
- 5.6.3 Since the concentration of the sprayed fluid was not determined, it is not known what concentration was actually sprayed and it is not known with certainty whether fluid at the claimed concentration was actually sprayed before the priority date. The concentration used before the priority date could have been lower than 0.5 weight percent, this lower concentration being compensated for by using more a more powerful spray (as implied by Mr Rinke's description of the spray being directed).

5.7 Conclusions

5.7.1 Thus there are some doubts as to the construction of the Göttingen Clinic machine and the type and concentration of its spray. It would be natural for some details to have been forgotten because e.g. Mr Hedermann's written statement was made more than eight years and the taking of evidence of all witnesses nearly twelve years after the period in question (following section 4 of decision T 921/90, not published in OJ EPO).

5.7.2 Mr Rinke said in the taking of evidence (page 55) that there was only one test and this was a complete success. However the board considers it more likely that during late 1986 and early 1987 that the machine did not remain the same but was adapted. Modifications, provided nozzles of some sort remained attached to the machine, would not have been immediately apparent to other persons, e.g. to Mr Rinke who was more interested in results than the means by which they were achieved. Consequently the witnesses may have seen the machine in different states (which might resolve for example the dispute of whether there was a curtain or a metal sheet at the entrance to the wash tank).

5.7.3 The board considers it insufficient to argue that fluid at the claimed concentration must have been sprayed at some stage before the priority date, that it would have been possible (for Mr Rinke for example) to collect some of the sprayed fluid and to determine its

concentration, and that therefore the claimed concentration was part of the state of the art (along the lines of the reasoning in G 1/92).

This might have been possible if it had been sure that a specific well defined washing process was used. This is however not the case. No precise, specific washing process could be defined unequivocally by the witnesses who all alleged to have seen the same process. Contrary to G 1/92 the present case does not provide the board with a specific product which has - although undetectable from the outside - a specific composition or a specific internal structure. It can therefore not be upheld that a specific process was available to the public even though the Göttingen dishwashing machine was accessible to the public.

- 5.7.4 While we know from Mr Rinke that success was achieved in removing deposits from trays before the priority date, we do not know precisely how Mr Blecher achieved this success. This is not surprising since it is sometimes not easy to recognise all the available and essential process steps if the process as such is not known exactly. This is confirmed indirectly by the suggestion in Mr Krawitowski's report E8 that the problem of starch was solved due to washing with the products Mach 2 plus and GT 250 (see section 6 below; "Einsatz"). Furthermore, a logical and probable way of performing the tests would have been to vary the following parameters: the composition of the concentrate in the container under the machine, the

concentration at which the diluted concentrate was delivered from the nozzles, the amount of diluted concentrate which was delivered, the form of the nozzles, the pressure applied to the nozzles, the form (e.g. jet or mist) in which the diluted concentrate was delivered and the contact time.

That varying parameters seemed to have been used indeed is also supported by the fact that the respondent was trying to find a solution to the starch build-up problem by performing tests in different places (see affidavit E55) and using different devices as can be seen from the statements of the witnesses provided by the appellants, namely one nozzle in Marburg (see affidavit E9) versus two nozzles in Göttingen (see affidavit E46B), and nozzles outside the machine versus nozzles inside.

5.7.5 Mr Ohse and Mr Rinke say they saw the machine in December 1986. However Mr Ohse visited every week (see taking of evidence, page 22) and Mr Rinke worked there. Therefore they saw the machine repeatedly in 1986 and 1987 so that there is a danger of individual events inadvertently having being mosaiced into a composite description which was then attributed to December 1986, particularly since they did not bring forward additional evidence such as notices or drawings which could have proven what they saw on their specific visits but relied instead on their memories.

Mr Rinke stated that the conventional basic cleaning took place every 3 or 4 months (see taking of evidence, page 54) and that the new spraying system was used every 3 or 4 weeks, when needed (page 57) while Mr Dittert states in his affidavit E51 this was every 4 to 6 weeks.

The period from sometime in December 1986 to the priority date of 7 March 1987 was at most 3 months but the description of the frequency of use of the spraying system gives the impression of something that went on for a long time. It thus seems that Mr Rinke was at least in part referring to use of the spraying system after the priority date.

- 5.8 The affidavit E53 by Mr Hesse can be ignored since he had knowledge of events at Göttingen Clinic only after the priority date.
- 5.9 To summarise, too little has been proved about the use of the machine in the Göttingen Clinic for the board to be able to conclude beyond reasonable doubt that the machine was used in accordance with the process set out in claim 1 of the main request.
- 6. Alleged public prior use at the University of Marburg
 - 6.1 Mr Krawitowski states in affidavit E9 (dated 1992) that in February 1987 he saw a dishwashing machine in the canteen of the University of Marburg in Germany. A magnetic valve opened to spray a watery solution

containing Spec-Tak EL through a single nozzle outside the machine, before the crockery entered the first zone, then the crockery was washed and rinsed as normal. The contact time of the solution on the crockery was more than 2 seconds. He measured the pH of the solution leaving the nozzles and found it to be 12, concluding that the solution was highly alkaline and highly concentrated.

6.2 His report E8 of 7 March 1987 (the same as the undisputed priority date of the present patent) states that there was a problem at Marburg with starch deposits, necessitating frequent basic cleaning. Different wash fluids brought unsatisfactory results. He writes that since 5 January 1987 Diversey is being used and the problems are solved using ("Einsatz") Mach 2 plus and GT 250. He states that he must mention ("Erwähnen muß ich noch, ...") that Diversey sprays the plates with a spray device using Spectakel but here it concerns not only plates but also soup bowls which also become clean without spraying.

6.3 Neither the affidavit E9 nor the report E8 states what form the spray from the single nozzle took. In the taking of evidence (page 9) however he said it was a fan-shaped, directed spray. He added (page 17), after prompting by appellant I and based on his recollection without any additional evidence, that it was a fine distribution under a not so high pressure.

6.4 In the taking of evidence (page 4) Mr Krawitowski

confirmed that the problem of starch deposits was not easy to solve and indeed that Henkel could not solve it. He looked at the crockery and saw that the problem was solved (page 6) and thought this was due to the Mach 2 plus and GT 250. He mentioned the spray device in his report E8 solely because it was something new. Although he measured the pH value of the sprayed fluid (page 10), he did not note this in his report E8. The sprayed fluid irritated his hands but he did not measure its concentration. The board finds it rather unsatisfactory that the values measured, which could have been of the utmost importance, firstly were not put down on paper and secondly could be recalled from memory five years later without any reason being given as to why they could have been recalled (see page 11 of the taking of evidence).

- 6.5 The process set out in claim 1 of the main request is novel over the process used in Marburg e.g. because the latter employed only a single nozzle located outside the machine. Moreover e.g. there is no proof that the concentration of the sprayed fluid was above the claimed lower limit or that the spray was a fine, gentle mist-like spray.

- 7. Alleged public prior use in Woon- en zorgcentrum Humanitas

- 7.1 Appellant I alleges with the help of a statement E57 from Jan Nuiver dated 3 December 1998 and a statement from Christiaan Antonie van Huizen of November 1998

that a Hobart series FT-E model 2-B-3 (as shown on page 9 of D1) with the serial no. 93.72.0783 was sold and supplied on 25 September 1979 to the institution Woon- en zorgcentrum Humanitas, Radboudlaan 1, 7415 VA Deventer, Netherlands. This machine will be called the Humanitas Hobart machine. The van Huizen statement was not admitted into the proceedings, see the above section V.

7.2 It had a pre-wash zone (arrow B on page 6 of D1), a separating curtain (arrow D), a wash zone (arrow C) and a rinse zone (arrow I on page 7). The nozzles of the wash zone C provided a dense water curtain (arrow H) with a cutting wash action, jets from above impacting jets from below.

7.3 Appellant I argues that measurements on the still existing Humanitas Hobart machine show that, depending on the belt speed set (between 0.6 and 2.4 metres per minute - see arrow G on page 9), articles take more than 5 and less than 40 seconds to travel from the curtain D through the free space to the dense water curtain H. Within 2 seconds of the articles passing the curtain D they are contacted by a fine, gentle mist-like spray of aqueous cleaning formulation. This spray is generated by the downstream dense water curtain H of the wash zone C, this spray being a coincidental side effect which means that it is not deliberately sprayed. Thus the contact time during which the articles are not deliberately sprayed lasts between 3 seconds (i.e. 5 - 2 seconds) and 38 seconds (i.e. 40 - 2 seconds).

Appellant I states that Humanitas carried out heavy duty cleaning with this machine using a heavy duty cleaning formulation.

7.4 Appellant I reasons that therefore articles in the wash zone of the Humanitas Hobart machine were indirectly sprayed from a plurality of nozzles in a fine, gentle mist-like spray with a highly concentrated aqueous cleaning formulation comprising at least 0.5 wt% of one or more active cleaning agents, and after a contact time of between 3 and 38 seconds during which they were not deliberately sprayed, they were vigorously sprayed by entering the dense water curtain and then rinsed.

7.5 Thus appellant I concludes that the subject-matter of claim 1 of the main request lacks novelty over the Humanitas Hobart machine when used in the heavy duty cleaning mode. Even if Humanitas had not used a heavy duty cleaning formulation prior to the priority date, appellant I reasons that surely this must have been done in one of the many similar machines sold around the world.

The argument for lack of novelty, that a heavy duty cleaning mode must have been used, is insufficient. If indeed it was used, then it was for appellant I to say where and when and provide proof.

7.6 Moreover claim 1 of the main request states that the highly concentrated aqueous cleaning formulation is sprayed in a fine, gentle mist-like spray from a

plurality of nozzles. If there is a fine, gentle mist in the Humanitas Hobart machine then it is the indirect result of a vigorous spray of wash liquid from the conventional nozzles.

8. E44

8.1 According to column 1, lines 48 to 62 of E44, dishes are placed in a rack in a sink or within an enclosing member, wetted with hot water and then a liquid detergent packaged in an aerosol container is applied as a fog that, being propelled by a gas under pressure, is very penetrating and will reach all surfaces of the dishes. The dishes are then rinsed with warm water. Lines 20 and 21 of column 3 state that the stronger the detergent the more effective the dish washing operation.

8.2 E44 specifies neither a specific detergent concentration (let alone a specific aqueous cleaning formulation) nor a fog contact time. The board sees only the disclosure of a single nozzle by E44, a view which is not changed by such wording as that in column 3, lines 34 to 36 "There are many aerosol valve arrangements in use today, any of which is suitable for application with this invention." Nor is it changed by the existence before the priority date of multiple nozzles such as those shown by D2.

E44 makes no mention of any other stages in the dishwashing process, thus it seems that the wetting,

fogging and contact (i.e. the single chemical action), and the subsequent rinsing suffice.

9. Novelty - claim 1 of the main request

It has been shown in the above sections 5 to 8 that the Göttingen, Marburg, Humanitas Hobart and E44 processes did not destroy the novelty of the subject-matter of claim 1 of the main request.

The board sees no other novelty objections and indeed no others were maintained by the parties.

The subject-matter of claim 1 of the main request is thus considered as novel according to the meaning of Article 54 EPC.

10. Closest prior art, problem and solution - claim 1 of the main request

10.1 Despite some doubts of the board about exactly which process it was, the board considers that the dishwashing process carried out at Göttingen before the priority date is the closest to the process set out in claim 1 of the main request.

10.2 For the reasons set out in section 5 above, the board considers that Mr Rinke saw, before the priority date, a machine dishwashing process with at least a prewash cycle, a wash cycle and a rinse cycle. The process comprised additionally spraying inside the machine from

two nozzles onto at least partially soiled trays a highly concentrated aqueous cleaning formulation and removing the cleaning formulation and soil in a subsequent stage, the cleaning formulation being sprayed prior to the final rinse cycle or zone. The board does not see it as proven however that he saw the other claimed process steps, in particular a fine, gentle mist-like spray comprising at least 0.5 weight percent of one or more active cleaning agents.

- 10.3 The board sees the problem to be solved as being to refine the method used in the machine at Göttingen Clinic to improve dishwashing results while reducing chemical consumption. The application of the cleaning formulation is improved so that waste is reduced. The fine, gentle mist-like spray gives a more consistent coverage of the dishes even though a smaller volume of spray and thus water and chemical can be used.

It is apparently accepted by all the parties that the starch build-up problem was solved by using the claimed process.

11. Inventive step - claim 1 of the main request
- 11.1 Starting from the process used at the University of Marburg
- 11.1.1 Starting from this process (see section 6 above), it is argued that it would be obvious to add the teachings of E44 (see section 8 above) and so arrive at the claimed

subject-matter.

11.1.2 Appellant I says the objective problem is to improve the application of the cleaning fluid to the crockery so that none fails to hit the crockery and is lost. In the machine at Marburg the nozzle for the highly concentrated washing fluid is outside the housing. This is dangerous for the user and wasteful if the mist goes where it was not needed. The problem is to improve application of the watery washing liquid and reduce its waste. The skilled person would consult E44 which teaches him to spray inside the housing. It would thus be obvious to spray inside a multi-chamber machine. E44 teaches him to spray after wetting the crockery so he would locate the sprayer after the pre-washing zone but before the rinsing and drying zones, namely in one of the free spaces provided in such machines (e.g. as pointed to by the arrows added to page 5 of the undated E48). He would know to place the sprayer where there would be enough time for the washing liquid to work. In the Marburg machine this would be more than 2 seconds. He would use a plurality of nozzles because this is done in multi-chamber machines and because he needs to contact all the crockery. The upper limit in the claim for the contact time is unimportant for the success of the process and is chosen more or less arbitrarily.

11.1.3 As set out in the above section 6.4, Mr Krawitowski stated that the problem of starch deposits was not easy to solve and indeed that Henkel could not solve this problem. When he saw the success achieved by the

modified machine at Marburg, the board considers that he assumed it was due to the chemicals (Mach 2 plus and GT 250) in the conventionally applied washing liquid and that, although his attention was drawn to the spray device, this was because it was something new rather than him realising the significance of this spray device. Although he stated that he measured the pH value of the sprayed fluid, he presumably did not consider it important enough to include in his report E8. Neither did he see fit to measure its concentration.

Thus Mr Krawitowski saw a forerunner of the inventive dishwashing process but he failed to realise why it was successful, even though he was a person skilled in the art frequently confronted with the problem of starch build-up. Moreover the publication of E44 took place 27 years before the Marburg process.

Furthermore E44 teaches only to use a chemical cleaning step and a subsequent rinsing, thus the document contains nothing to lead the person skilled in the art to combine its washing process with any other washing process, let alone with the process used in Marburg University.

Accordingly the board cannot see that it would have been obvious for the skilled person to modify this process in the way argued by appellant I to arrive at the claimed subject-matter.

11.2 Starting from the process used at the Göttingen Clinic

Starting from this process (see sections 5 and 10 above), the appellants argue it would be obvious to add the teachings of E44 (see section 8 above) and so arrive at the claimed subject-matter.

The board cannot agree. The Göttingen machine apparently solved the starch build-up problem, the board sees no reason why the skilled person should be led to change this newly developed and apparently successful multi-stage process employing a plurality of nozzles by using the teaching of the single nozzled and single action process of E44 (published 27 years previously). If a person skilled in the art had considered it, he would have used it as an alternative. There is no guidance either in the Göttingen process or in E44 for a combination of these processes, let alone for a combination of a selection of specific process steps.

11.3 Humanitas Hobart

11.3.1 Appellant I argues that if the Humanitas Hobart had not been used in a heavy duty cleaning mode prior to the priority date, then it would have been obvious to use a heavy duty cleaning formulation.

However appellant I provides no reasoning as to why the skilled person would (as opposed to merely could) have used this machine in a heavy duty cleaning mode.

11.3.2 The Nuiver statement E57 says "due to the wash process a spray is developed in the wash zone of a FT-E machine. To keep this spray inside the machine, it is kept at a low pressure with the aid of a suction system. The spray is also discharged with this suction system. ... The reason to discharge and to keep the spray inside the machine is to protect the user or the service room against the detergent from said spray."

The board concludes therefrom that the spray (i.e. the indirect result of the spraying through the wash nozzle) was unwanted and that no use was made of it. The invention provides a spray deliberately, from the context of patent it is clear that there are different nozzles for the highly concentrated aqueous cleaning formulation to those for the wash liquid, yielding claimed, different and additional spraying activities and results, namely differences in spraying intensity, differences in the resulting spray and differences in the sprayed liquid.

11.3.3 If indeed the interior of the Humanitas Hobart is filled in use with a spray resulting from the wash nozzle then it could not be obvious to apply an additional spray in the manner of E44 since the additional spray would not work properly. Furthermore, no guidance is given to have different spray results and different sprayed fluids.

11.3.4 Accordingly the board does not see it as obvious to proceed from the process used by the Humanitas Hobart

machine to the subject-matter of claim 1 of the main request.

11.4 E31

Appellant I also argued in the oral proceedings that the subject-matter of claim 1 of the main request lacked inventive step on the basis of E31 and the skilled person's general knowledge. If the detergent were added earlier in the cleaning phase than is shown by the arrow b3 in the Figure, then due to the obvious use of a rotating arm with spray nozzles, the claimed concentration and the claimed contact time would automatically be achieved.

Appellant I assumes that the Figure of E31 is drawn to scale and so can be measured to determine the durations of the various operations. The board cannot agree, the sharp-edged changes in direction of the curves show that the Figure is at least in part schematic so that measurements of this Figure do not form part of the disclosure of E31 (see decision T 204/83, OJ EPO 1985, 310).

Appellant I argues that, looking at the Figure of E31, it would be obvious and indeed desirable to maximise the time of action of the detergent by adding it at the start of the initial phase b1 of cleaning B. However E31 clearly shows that the addition is at the time b3 and it cannot be assumed that the skilled person would add the detergent earlier, he might well have chosen

the time b3 because by then the temperature, volume and pressure have built up. Then this appellant makes further assumptions as to the form in which the detergent is added and its concentration, and that a rotating nozzle arm must yield intermittent spraying of the articles.

Even if all appellant I's assumptions were followed by the board (and they are not), the appellant has given no reasons for supposing that the detergent would be sprayed in a fine, gentle mist-like spray. Indeed since there seems to be only one nozzle type, and this is used for washing, it seems unlikely that this would deliver a fine, gentle mist-like spray during the initial phase b1.

The feature of the fine, gentle mist-like spray however is one of the features of claim 1 of the main request so that, even after the use of an impermissible ex post facto analysis, the claimed subject-matter is not reached.

11.5 E44 and E39

11.5.1 Appellant II argues that the subject-matter of the claim 1 of the main request is obvious for the skilled person from the combination of the soak cycle of document E39 and the fine gentle mist-like spray of document E44 (see section 8 above), the claimed concentration being known from documents E44 and E38, and the contact time resulting from document E39.

11.5.2 According to column 4, lines 10 to 45 of document E39, there is a soak cycle for baked-on food soils in which the articles are sprayed for 4 minutes with a solution of water and a cleaning compound. For the next 13 minutes the cleaning solution soaks into and breaks down the soil. After this the food soils are flushed from the surfaces of the articles.

Referring to column 4, lines 54 to 56 of document E39, the soak period is "at least three to five minutes" i.e. much longer than the upper limit of 100 seconds specified in the present claim 1. Since soaking is "preferably for a period of between ten and fifteen minutes" it would not be obvious to reduce the soak period below the quoted lower limit of three minutes.

According to column 5, lines 28 to 33 of document E39, it is possible to re-energise the main circulating pump momentarily during the soak cycle to effect flushing of a portion of the soils and then subsequent soaking of the remaining portion of the soils. The board sees no hint in the document to lead the skilled person to divide the minimum 3 minute period in two to give a period falling in the claimed range. On the contrary, the citation refers in claim 1 (column 5, lines 65 to 68) to "a continuous period of at least five minutes to hold said solution in continuous static contact with the articles" and similar statements are to be found in claims 4, 6 and 8. It thus seems more likely that, if he wished to divide the soak period, this would need to be a longer soak period, such as the preferred soak

period of 13 minutes.

In the apparatus shown in Figure 1 of document E39 everything is sprayed through the same spray arm 24. To avoid imbalance of the spray arm while spraying there would need to be a plurality of nozzles (as specified in line 3 of the present claim 1). However it seems that, as the spray for the soak cycle carries on for 4 minutes, it would not be a fine, gentle mist-like spray but instead has a mechanical cleaning effect.

11.5.3 Thus E39 does not disclose the presently claimed contact time. Moreover these documents E38, E39 and E44 are all old documents and, for example, the skilled person did not utilise the fog of document E44 when designing the machine of document E39. The board therefore finds that it would not be obvious for the skilled person to combine these documents and arrive at the claimed subject-matter.

11.6 E45 and E44

Figure 1 of document E45 shows a space 40 between scrapping chamber 20 and washing chamber 30 of a typical multi-chamber dishwasher. It is argued that the skilled person would use the dishwasher of document E45 to carry out the process of document E44, both automatic spraying and manual spraying to dishes either in the space 40 or in the scrapping chamber 20 would result in contact time of more than 2 seconds.

E45 was published in 1953 and E44 in 1959. The board sees no reason why the skilled person would (as opposed to merely could) make this combination now. E44 appears from the last two paragraphs of column 3 to set out a complete process of loading the dishes, wetting down, the fog which cleans them, rinsing and drying. There is no mention of extra washing which would result if one was to combine the two teachings.

The board thus does not see the E45 and E44 combination as being an obvious one.

11.7 E49

This need not be considered since it was published after the priority date.

12. It is observed that the appellants have attempted to get the board to decide whether various processes developed after the priority date fall within the scope of claim 1 of the main request. This is not the board's task. The board is responsible for deciding whether the claimed subject-matter is patentable with respect to the available prior art processes.

13. With respect to the arguments put forward by the appellants the subject-matter of claim 1 of the main request is thus patentable as required by Article 52 EPC. The patent may thus be maintained amended based on this independent claim and on claims 2 to 9 which are dependent thereon.

For completeness it is repeated that the patent documents for this main request are claims 1 to 9 submitted during the oral proceedings before the opposition division on 15 November 1994, and pages 2 to 4 of the description submitted at the same time.

14. Consideration of the respondent's auxiliary requests is thus unnecessary.

Order

For these reasons it is decided that:

1. The intervention is inadmissible.
2. The appeal fee paid by the intervener will be reimbursed.
3. The case is not remitted to the first instance.
4. The appeals are dismissed and the patent is maintained on the basis of the opposition division's interlocutory decision.

The Registrar:

The Chairman:

N. Maslin

C. Andries