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D E C I S I O N
of 27 April 2000

Case Number: T 0652/98 - 3.2.4

Application Number: 93200543.2

Publication Number: 0558151

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Language of the proceedings: EN

Title of invention:

Oven

Patentee:

Koppens B.V.

Opponent:

Meyn Machinefabriek B.V.
Stork Titan B.V.

Headword:

Relevant legal provisions:

EPC Art. 52, 56
EPC R. 67

Keyword:

"Inventive step - third auxiliary request - yes"
"Reimbursement of appeal fee - no"

Decisions cited:

G 0009/91, T 0292/90, T 0075/91, T 0063/86

Catchword:

-



Case Number: T 0652/98 - 3.2.4

D E C I S I O N
of the Technical Board of Appeal 3.2.4
of 27 April 2000

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Decision under appeal: Interlocutory decision of the Opposition Division
of the European Patent Office posted 5 May 1998
concerning maintenance of European patent
No. 0 558 151 in amended form.

Composition of the Board:

Chairman: C. A. J. Andries
Members: M. G. Hatherly
R. E. Teschemacher

Summary of Facts and Submissions

I. The interlocutory decision of the opposition division was dispatched on 5 May 1998 to maintain the European patent No. 0 558 151 in amended form.

On 29 June 1998 appellant I (opponent I) filed an appeal against this decision and simultaneously paid the appeal fee. The statement of grounds of appeal was received on 12 August 1998.

On 30 June 1998 appellant II (opponent II) filed an appeal against the decision and simultaneously paid the appeal fee. The respective statement of grounds of appeal was received on 14 September 1998.

II. The opposition division held that the patent could be maintained with claim 1 of the fourth auxiliary request of the proprietor (respondent) in the proceedings before the first instance which became the basis of the **main request** in the appeal proceedings and reads:

"Oven with a housing which has heating means (18,19) and a conveyor means (7) which runs through the housing for food products to be heated, which conveyor means (7) follows a first helical path and a second helical path which connects to the first path, in which second path the conveyor means, viewed in the vertical direction, carries out a movement in the opposite direction to that in the first path, characterized in that the conveyor means are constituted by a conveyor belt (7) on which the food products to be heated can be accommodated, in that at the level of the two helical paths the conveyor belt (7) is driven in each case by a rotatable drum (5,6) with vertical axis of rotation,

the first path being situated in a first chamber (26) in the housing, the second path being situated in a second chamber (27) in the housing, which chambers (26,27) are separated by a partition (25) provided with an opening (28) through which the conveyor belt (7) is conveyed, the two chambers (26,27) each having their own heating device (18,19), so that two different temperature zones are formed."

By letter of 24 March 2000 the respondent filed five further sets of claims entitled fifth to ninth auxiliary requests but being in fact the first to the fifth auxiliary requests.

Claim 1 of the **first auxiliary request** (entitled fifth auxiliary request) adds to claim 1 of the main request that "the housing is divided into two chambers (26,27)" and amends "the first path being situated in a first chamber (26) in the housing, the second path being situated in a second chamber (27) in the housing" to read "the first path of the conveyor belt (7) being situated in a first (26) of said chambers in the housing, the second path of the conveyor belt (7) being situated in a second (27) of said chambers in the housing".

Claim 1 of the **second auxiliary request** (entitled sixth auxiliary request) adds to claim 1 of the main request the feature of "said heating devices (18) each providing hot-air heating."

Claim 1 of the **third auxiliary request** (entitled seventh auxiliary request) was slightly amended during the oral proceedings held on 27 April 2000 to read as follows, the changes to claim 1 of the main request

being indicated in bold type:

"Oven with a housing which has heating means (18,19,**23**) and a conveyor means (7) which runs through the housing for food products to be heated, which conveyor means (7) follows a first helical path and a second helical path which connects to the first path, in which second path the conveyor means, viewed in the vertical direction, carries out a movement in the opposite direction to that in the first path, **wherein the housing comprises a tank (2) and a cap (4) resting on said tank (2)**, in that the conveyor means are constituted by **one** conveyor belt (7) on which the food products to be heated can be accommodated, in that at the level of the two helical paths the conveyor belt (7) is driven in each case by a rotatable drum (5,6) with vertical axis of rotation, the first path being situated in a first chamber (26) in the housing, the second path being situated in a second chamber (27) in the housing, which chambers (26,27) are separated by a partition (25) provided with an opening (28) through which the conveyor belt (7) is conveyed, the two chambers (26,27) each having their own heating device (18), so that two different temperature zones are formed, **said heating devices (18) each providing hot-air heating and being provided in the top of the cap (4)**."

III. The following documents played a role in the appeal proceedings:

D2 (E19): DE-A-3 225 813

D3: WO-A-88/09124

- E7: Transcript (962033/JV/nbr) of part of the text spoken on the videotape E14 Annex 5
- E8: Drawing reproducing part of the videotape E14 Annex 5
- E9: Drawing reproducing part of the videotape E14 Annex 5
- E10: "At Last! The co-extruded sausage", reprint from "Meat" magazine, October 1982, Protecon Systems
- E11: Letter of 1 July 1998 from Mr Kenneth P. Regner of Hormel Foods Corporation
- E12: Hormel Corporate Engineering Division drawing 6649, sheet OTA-86, dated 7 August 1985
- E14 Annex 5: Copy of a videotape of the UVG plant in Oss in Holland entitled "Stork Protecon - A Better Way - The Protecon Co-extruded Sausage Process - In Frankfurter Manufacture" shown at the IFFA exhibition in 1983
- E22: US-A-3 348 659
- E23: FR-A-1 516 498
- E32: Brochure of Northfield Freezing Systems, Inc. of 1987

- E35 Exhibit C: A catalogue entitled Chilton's Food Engineering Master 88-89 (filed with Mr Robert T. Tippmann affidavit E35 of 22 February 2000) including:
- E35 Exhibit C-1: page 447, advertisement of the I. J. White Corporation, I. J. White Spiral Systems
- E35 Exhibit C-2: page 366, advertisement of Singer Products Corp., Singer Spiralveyor
- E35 Exhibit C-3: page 455, advertisement of Wolverine Jetzone
- E36: Letter of 24 March 2000 from Mr Todd Middleton of Frigoscandia Equipment - Northfield Freezing Systems including five separate pages of drawing parts of Northfield Freezing Systems, Inc., number 2122-1.0, dated 25 November 1985
- E46: US-A-4 370 861
- E53: DE-A-2 655 381
- E57: US-A-3 938 651

IV. Oral proceedings took place on 27 April 2000 in the presence of the parties.

In the appeal proceedings the appellants argued, on the basis essentially of one public prior use (the Oss line), one alleged public prior use (the Ottumwa line)

and combinations of prior art teachings such as those of E23, E22 and D2, that the claimed invention was either not new or not inventive.

The respondent countered the appellants' arguments.

- V. Both appellants requested that the decision under appeal be set aside and that the patent be revoked.

In addition appellant I requested that the appeal fee be reimbursed and objected to the admission into the proceedings of the respondent's auxiliary requests submitted with the letter of 24 March 2000.

Appellant II requested that Mr Todd Middleton be heard as a witness in respect of the alleged prior use.

The respondent requested that the appeals be dismissed and that the patent be maintained in the version as allowed by the opposition division. Alternatively, it was requested that the decision under appeal be set aside and the patent be maintained on the basis of one of the five sets of claims submitted in the letter dated 24 March 2000 as the fifth to ninth auxiliary requests with the amendment to the seventh auxiliary request as submitted during the oral proceedings.

Reasons for the Decision

1. The appeal is admissible.

2. *Amendments and interpretation - claim 1 of the main request*
 - 2.1 Claim 1 of the main request includes all the features

of claim 1 as granted. Features which have been generalised in the pre-characterising portion are then restricted in the characterising portion. The added feature "that at the level of the two helical paths the conveyor belt (7) is driven in each case by a rotatable drum (5,6) with vertical axis of rotation" comes from claim 6 as granted, omitting merely the optional feature ("can") at the end of the latter claim.

2.2 One conveyor belt

2.2.1 According to the granted claim 1 there is "a conveyor belt (7) which runs through the housing ... which belt (7) follows a first helical path and a second helical path which connects to the first path, in which second path the belt, viewed in the vertical direction, carries out a movement in the opposite direction to that in the first path ... an opening (28) through which the belt (7) is conveyed".

2.2.2 Due to "which belt" following the two paths, "the belt" carrying out movements in opposite directions in the two paths, and "the belt" passing through an opening, the board concludes that the granted claim 1 must be interpreted as defining an oven having only one conveyor belt.

2.2.3 During the opposition proceedings, to arrive at claim 1 of the present main request, the pre-characterising portion of the granted claim 1 was generalised by referring to a conveyor means and the characterising portion then explained that "the conveyor means are constituted by a conveyor belt (7)".

2.2.4 The board considers that claim 1 of the present main

request must still be limited to a single conveyor belt. This is pointed to by the following parts of the claim (with emphasis added): "a conveyor means (7) which runs through the housing ... which conveyor means (7) follows a first helical path and a second helical path which connects to the first path ... **the** conveyor means are constituted by **a** conveyor belt (7) ... **the** conveyor belt (7) is driven in each case by a rotatable drum (5,6) with vertical axis of rotation ... a partition (25) provided with an opening (28) through which **the** conveyor belt (7) is conveyed". Further an interpretation of claim 1 of the present main request as also covering more than one conveyor belt would entail extensions of both subject-matter and protection, thus contravening Article 123(2) and 123(3) EPC.

This was confirmed by the respondent.

2.3 Thus there is no objection under Article 123 EPC to claim 1 of the main request.

3. *Novelty - claim 1 of the main request*

3.1 The UVG plant in Oss in Holland (the Oss line)

3.1.1 It is not disputed that the videotape E14 Annex 5 of the UVG plant in Oss in Holland (the Oss line) was shown at the international exhibition IFFA in Frankfurt in 1980 and so is prior art. Of the various documents relating to the Oss line, it suffices to refer to E7 which is a transcript of part of the text spoken on the videotape, to E8 and E9 which reproduce diagrams shown on the videotape, and to E10 which is a magazine article about the Oss line.

3.1.2 According to lines 1 to 10 of E7, sausages on a conveyor belt are pre-dried and post-dried by following a first spiral path ascending in a first tower and a second spiral path descending in a second tower, the central drums of the driers providing a slipping friction drive to the conveyor belt. These towers can be seen on the second page of E10. E9 shows that the towers are spaced apart with a transfer duct containing the conveyor belt bridging the gap between the towers.

3.1.3 Concerning the question of whether the subject-matter of claim 1 of the main request is novel over the Oss line, the two main points of dispute are whether the two towers and the transfer duct of the Oss line taken together form one housing divided into two chambers and whether this is an oven.

3.1.4 According to claim 1 of the main request there is a housing with two chambers separated by a partition which can only mean that the chambers and the partition are in the single housing. In the Oss line there are certainly two chambers, one in each tower. However the board sees **two** housings not one and sees these two housings as being **connected** by the transfer duct. However hard it tries, the board cannot see the Oss line as comprising a **single** housing **separated** by the transfer duct.

Even if the two housings and the transfer duct were considered to be only one housing on the basis that taken together they all define one space, then it would not be clear to the board which additional part inside this housing would be separating the housing into two different spaces or chambers.

3.1.5 According to line 3 of E7 the Oss line towers are "drying towers". While lines 18 and 19 of E7 state that "Heat exchangers at the top of the belt stack supply heat for evaporation", the board does not consider that this means that the towers are ovens. After passing through the towers the sausages are "dosed into cans and follow a conventional retorting procedure", see lines 40 and 41 of E7, thus they are not cooked in the towers. The statement in the penultimate paragraph of the left hand column of the fourth page of E10 that "**balance** between surface drying and heat setting of the products is achieved" seems to indicate that heat setting is not desired, otherwise the statement would have read something like "both surface drying and heat setting of the products is achieved". While an oven may be used as a drier and it may be that the Oss towers could be used as ovens if different heat sources were used, the towers as they stand are driers and not ovens.

3.1.6 Thus the subject-matter of claim 1 of the main request is novel over the Oss line.

3.2 The Protecon continuous sausage line at the Hormel Foods plant in Ottumwa, Iowa, USA (the Ottumwa line)

3.2.1 The respondent disputes that the Ottumwa line was a public prior use but the board will first proceed assuming that it was, in order to see what the consequences would be and therefore whether it is actually necessary to decide the point.

3.2.2 As set out in section 2.2 above, claim 1 of the main request is limited to one conveyor belt. During the oral proceedings appellant II argued that the Ottumwa

line had all the features of claim 1 of the main request except for the **one** conveyor belt.

3.2.3 Mr Regner states in E11 that the Ottumwa chambers "were served with a conveyor belt that went spirally through each chamber". However the board considers that he is speaking loosely here when referring to "a conveyor belt" and does not mean a **single** conveyor belt since he refers to drawing E12 which "shows the general layout of the operation as designed and installed at that time" and which shows a belt break just before the exit from the pre-cook chamber 3 indicating that this chamber 3 and the cook/release acid chamber 4 are served by **two** conveyor belts.

3.2.4 The five drawing pages attached to Mr Middleton's letter E36 relating to the Ottumwa line also show a pre-cook environment C and a cook/release environment D but the line across the belt run just after the entry into environment D indicates that once again these chambers are served by **two** conveyor belts. While the drawing does not show a transverse line across the belt run in environments A and B, the board is not satisfied that this proves that only one belt was present since the drawing is of doubtful authority. It is schematic and, as admitted by appellant II at the oral proceedings, was modified shortly before it was attached to the letter of 24 March 2000. Moreover the board is not satisfied that the dry casing environment A and the liquid smoke environment B are ovens.

3.2.5 Thus, even if it were assumed that the Ottumwa line was a public prior use, the subject-matter of claim 1 of the main request would still be novel thereover. Therefore for the purposes of determining novelty it is

not necessary to actually decide whether it was a public prior use.

3.3 The appellants have made no other lack of novelty allegations and the board considers that none of the prior art documents on file discloses all the features of claim 1 of the main request.

3.4 This claim's subject-matter is therefore novel in the meaning of Article 54 EPC.

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

4.1 The board considers that E23 discloses the closest prior art to the present invention.

4.1.1 This document concerns a conditioning installation e.g. for food on a conveyor belt with a helical path (see page 1, left hand column, lines 1 to 10). By conditioning is meant either cooling or heating (see lines 16 to 18).

4.1.2 Figures 1 and 2 show an installation "de la nature considérée" whose conveyor belt 1 has **two** helical paths around driving cylinders 3 and 4 (see page 1, left hand column, line 28 to right hand column, line 13). This installation is for **freezing**.

4.1.3 Thus there is no explicit disclosure of a **two** helical path installation for **heating**. However, for the following reasons, the board considers that in effect E23 discloses to the skilled person a two helical path installation for heating (by using a heat source instead of the freezing batteries 6 shown in E23).

4.1.4 Firstly, it is well known that similar installations can be used for heating or cooling.

Figure 1 of E22 shows "heating, cooling or refrigerating air" used with a two helical path conveyor belt (see column 1, line 37 and column 5, lines 10 to 25).

E32 shows in perspective a single spiral system and in schematic plan view a multiple spiral configuration, the description referring to a "spiral freezing system" and adding that "These same attributes can be, and have been, used to design and build systems for **cooling** and **heating** food products."

E46 discloses a system "for heating or cooling articles traversing an essentially helical path" (see column 1, lines 33 to 35).

E53 discloses heating or cooling machines for a screw threaded path (see lines 1 to 3 and 13 of the page with the handwritten number 2).

E57 discloses a helical path conveyor belt for treating food products "by heating, drying, cooling, freezing etc." (see the first paragraph and lines 50 to 53 of column 1).

The two helical path conveyor shown in E35 Exhibit C-1 "Provides fast efficient blast freezing, ... heating and baking" and is very similar to Figure 1 of E23.

The left hand column of E35 Exhibit C-2 states that the helical path conveyors known as Spiralveyor systems are "for freezing, proofing, heating and cooling."

- 4.1.5 Secondly, claim 1 (Résumé 1) of E23 refers to a conditioning installation in general terms and, as it is the sole independent claim, it must cover both cooling or heating installations as indicated explicitly on page 1, left hand column, line 18. Claim 5 refers to an installation as specified in claim 1 with two helical paths and without restriction of the type of conditioning. Thus claim 5 (in its combination with claim 1) covers and points to a heating installation with two helical paths.
- 4.1.6 Thus, the board considers that in this specific case the skilled person must immediately realise when reading claim 5 that the double helix freezing system of Figures 1 and 2 of E23 is also a starting point for developing a double helix heating apparatus.
- 4.2 Starting from the double helix system as disclosed in claim 5 of E23, see Figures 1 and 2, the board sees the problem as being to provide a conditioning installation which is an oven and which is more versatile.
- 4.3 This problem is solved, as specified by claim 1 of the main request, by providing the oven with two different temperature zones by providing the two helical paths in separate chambers in the housing, the chambers being separated by a partition provided with an opening through which the conveyor belt is conveyed, and the two chambers each having their own heating device.
5. *Inventive step - claim 1 of the main request*
- 5.1 Ovens with different temperature zones are well known.
- 5.1.1 For example, page 21a, lines 1 to 23 of D3, referring

to Figures 42 to 44, discloses that "the oven interior is divided into two separate cooking chambers 300 and 301 separated by a vertically disposed baffle wall 304. This baffle wall is solid excepting for opening 305 through which extends the upper run of conveyor belt 306. Each cooking chamber thus formed is provided with its own source of heat ... the heated medium supplied to one chamber may be at a higher or lower temperature ... than that supplied to the other chamber."

- 5.1.2 Further, E35 Exhibit C-3 filed with of Mr Tippmann's affidavit E35 discloses the Jetzone process which features "multi-zone control of the key process variables; Temperature, Velocity, and Time. Each variable is individually controlled, within each oven zone". This process provides flexibility.
- 5.1.3 An oven with different temperature zones is even the starting point for the inventors in D2 (see lines 13 to 15 of the page with the handwritten number 5).
- 5.2 Thus there is nothing unusual in providing different temperature zones in ovens of different types and the board considers this as one of the options routinely considered by the skilled person when designing an oven and adopted when he wishes to make a more versatile oven.
- 5.3 The inventors in D2 went on to provide an oven for dough pieces (see line 33 of the page with the handwritten number 5), the oven being divided into two chambers by a vertical dividing wall, one chamber being provided with a conveyor going vertically upwards and the other with a conveyor going vertically downwards (see lines 4 to 12 of the page with the handwritten

number 6). An upper conveyor takes the products from the first conveyor through an opening in the dividing wall to the second conveyor. Claim 15 explains that the chambers are separately heatable.

5.4 The board considers that it would be obvious to the skilled person to use the teaching of D2 to modify the double helix system of Figures 1 and 2 of E23 to provide two separately heatable chambers. In doing so he would arrive at the subject-matter of claim 1 of the main request.

5.5 The respondent argued that there was already one separation wall in Figure 2 of E23 (the horizontal separation wall 14) and that the skilled person would have no reason to combine the vertical separation wall 22 of D2 therewith. The board cannot agree with this argument. Once the skilled person decides to add a partition to divide the space surrounding the twin helices, in order to create different temperature zones each with its own heating device, then he would have no difficulty in arriving at a way of doing so.

5.6 The respondent argued that the feature of claim 1 of the main request that at the level of the two helical paths the conveyor belt is driven in each case by a rotatable drum gave a clue to the size of the oven and the products to be treated therein. The board cannot agree with this argument and anyway this feature is known from E23. The respondent added that the conveying path in E23 was such as to risk contamination of the cooked products by the non-cooked products but the board sees no feature, explicit or implicit, in claim 1 of the main request to specify a different conveying path to that known from E23.

5.7 Thus the subject-matter of claim 1 of the main request is not inventive (Articles 52(1) and 56 EPC) and this request must be refused.

6. *Admissibility of the five auxiliary requests filed with the respondent's letter of 24 March 2000*

In support of his request not to admit the auxiliary requests submitted in reply to the communication accompanying the summons, appellant I drew attention to G 9/91 (OJ EPO 1993, 408) and T 63/86 (OJ EPO 1988, 224) and said that these requests should have been filed at the latest with the statement of grounds of appeal.

Of these five auxiliary requests, the first involved such a minor amendment that it could have not put the opposing parties at a disadvantage. Also the second was a minor amendment based on a granted claim and was quickly and successfully countered by the opposing parties.

The third auxiliary request was similar to the third auxiliary request submitted during the oral proceedings before the first instance and dealt with in substance by the opposition division and so did not present the opposing parties with a new situation.

In summary, the submission of those requests neither raised substantially different questions for the first time in the appeal proceedings nor delayed the proceedings. Hence, neither fairness to the appellants nor procedural efficiency requires the amendments to be refused.

Appellant I suggested that the case should be remitted to the first instance if the auxiliary requests were not refused as filed late. Since the amendments made in appeal proceedings were either not substantial or would not have come as a surprise to the appellants, the board did not consider a remittal appropriate (cf Case Law of the Boards of Appeal of the EPO, 3rd Edition, 1998, VII.D.9, page 491 ff of the English version).

Because of the allowability of the third auxiliary request (below, section 9), there is no point in discussing the admission into the proceedings of the remaining requests.

7. *Claim 1 of the first auxiliary request*

During the oral proceedings the respondent agreed with the board that this claim merely clarified claim 1 of the main request in minor ways so that if claim 1 of the main request were to fall for lack of inventive step then claim 1 of the first auxiliary request would also fall. Since indeed the subject-matter of claim 1 of the main request is obvious then so is the subject-matter of claim 1 of the first auxiliary request and so the first auxiliary request is refused.

8. *Claim 1 of the second auxiliary request*

This claim adds to claim 1 of the main request the feature of "said heating devices (18) each providing hot-air heating" based on the original claim 9 (granted claim 7).

According to page 1, left hand column, lines 15 to 19 of E23, the product treatment is cooling or **heating**

and, according to claim 1, this is done by means of air, thereby implying the presence of means for heating the air. Furthermore hot air for heating is also known from D2 (see the page with the handwritten number 9, lines 26 to 28). Thus it would be obvious for the skilled person to employ it in the oven he has arrived at by modifying the double helix system of E23 using the teachings of D2 (see the above section 5.4).

The subject-matter of claim 1 of the second auxiliary request is thus obvious and so the request is refused.

9. *Claim 1 of the third auxiliary request (entitled seventh auxiliary request)*

9.1 This claim adds to claim 1 of the main request

- that "the housing comprises a tank (2) and a cap (4) resting on said tank (2)" which is derivable from page 2, lines 20 to 23 of the originally filed description (column 1, lines 39 to 41 of the description as granted);
- the features of "said heating devices (18) each providing hot-air heating and being provided in the top of the cap (4)" which are derivable from page 2, lines 36 and 37 of the originally filed description (column 2, lines 1 and 2 of the description as granted);

and removes any doubt (not shared by the board, see the above section 2.2) as to the number of conveyor belts by stating "that the conveyor means are constituted by **one** conveyor belt (7)".

There is therefore no objection under Article 123 EPC to this claim.

9.2 Since the subject-matter of claim 1 of the main request is novel (see section 3 above), the subject-matter of the more restricted claim 1 of the third auxiliary request must also be novel.

9.3 For the first time in this series of main and auxiliary requests, this claim makes it unequivocally clear that what is claimed is a separate unit. The housing comprises a tank and a cap. The word "tank" generally describes something which can hold a fluid and it is plausible that this tank holds any food particles and fat which drop from the product being heated. The cap resting on the tank signifies that the top of the oven is removable for access to the oven interior. Since the heating devices are provided in the cap they will be not be subject to dropped particles and fat. Moreover the heating devices will be moved out of the way as the cap is moved, improving access to the oven interior. Implicitly this claim gives a guide to the size of the oven since it cannot be so big that the cap cannot be removed.

9.4 Inventive step

9.4.1 The oven specified in claim 1 of the third auxiliary request is plainly very different from the two housings in the Oss line which are joined together by a duct, see section 3.1 above. There is no disclosure of a tank or a cap resting thereon and the board has not been given any reason for supposing that it would be obvious for the skilled person to provide them. It seems from the picture of the towers on the second page of E10

that access thereto is from the sides not from the top. Providing a cap would not be obvious to the skilled person nor, in view of the height of the towers, would it help with access.

9.4.2 Even if the Ottumwa line were public prior art (see section 3.2.1 above), it would not lead the skilled person to the oven defined by claim 1 of the third auxiliary request. The Ottumwa ovens would apparently have been fabricated as one fabricates buildings and, while it might be expected that facilities for trapping particles and fat would have been provided, there is no suggestion that this would have been done by a tank making up part of the housing. The tops of the ovens would have been conventional instead of a cap resting on a tank. Bearing in mind, firstly, that the Ottumwa pre-cook and cook chambers are very different in size from the sizes implied by claim 1 of the third auxiliary request and, secondly, that the concept of the Ottumwa chambers as building parts is very different from the inventive concept of a separate unit, the board considers that it would be unrealistic to expect the skilled person to arrive at the claimed oven in an obvious way.

9.4.3 There is no hint in E23 to make its housing in the form of a tank and a cap. The two helix system shown in perspective in Figure 1 of E23 is somewhat similar to the one helix system shown in perspective in E32. The housing of the latter is accessed via a door in the side wall and there is no reason to suppose that the housing in E23 - being an installation - would be accessed differently.

9.4.4 None of the other documents on file would lead the

skilled person in an obvious manner to the claimed subject-matter.

Figure 37 of D3 shows a removable cover means 168a over a tunnel means 168 but this is a cover of such limited extent that it could not lead the skilled person to provide the oven housing with a cap, let alone a cap containing heating devices.

Also if one starts from D2, then neither in this document nor in the other state of the art documents on file is there a hint to provide the oven with a tank and a cap, and still less to provide the cap with heating devices. Thus the skilled person would not arrive at the claimed oven.

9.4.5 Thus, as required by Articles 52(1) and 56 EPC, the subject-matter of the independent claim 1 involves an inventive step.

9.5 The patent may therefore be maintained amended, based on the independent claim 1 of the third auxiliary request, claims 2 to 5 dependent thereon, the amended description and the drawings as granted.

10. The respondent's fourth and fifth auxiliary requests therefore need not be considered.

11. *The witness Mr Middleton*

Mr Middleton was offered as a witness concerning the Ottumwa line. The board's reasons for refusing claim 1 of the main and first and second auxiliary requests are unconnected with the Ottumwa line while the finding that claim 1 of the third auxiliary request is

patentable would not be changed even if everything alleged by appellant II and Mr Middleton concerning the Ottumwa line were accepted by the board. Therefore it was not necessary to hear Mr Middleton as a witness since his evidence would not have any effect on the board's decision.

12. *Reimbursement of the appeal fee*

Appellant I considers that the opposition division committed a substantial procedural violation by its reasoning which was "erroneous, inconsistent and lacking proper motivation". The board however considers that the reasoning enabled an understanding of whether the decision was justified or not, while whether these reasons were convincing is another question having nothing to do with a substantial procedural violation (see T 292/90 and T 75/91, both cited in Case Law of the Boards of Appeal of the EPO, 3rd Edition, 1998, VII.D.15.4.4, page 516 of the English version).

Since the board sees no substantial procedural violation, the request for reimbursement must be refused (Rule 67 EPC).

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to maintain the patent in the following version:

Claims: 1 of the third auxiliary request as filed during the oral proceedings (entitled seventh auxiliary request), 2 to 5 as granted,

Description: page 1 as filed during the oral proceedings, column 1, line 29, beginning with the word "Because" to column 2, line 26 as granted, and

Drawings: Figures 1 and 2 as granted

3. The request for reimbursement of the appeal fee is refused.

The Registrar:

The Chairman:

G. Magouliotis

C. Andries