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

Case Number: T 0461/97 - 3.5.2

Application Number: 83303751.8

Publication Number: 0098733

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Language of the proceedings: EN

Title of invention:
Egg processing system

Patentee:
Diamond Automations Inc.

Opponent:
FPS Food Processing Systems B.V. (formerly Terpa Poultry B.V.)

Headword:
-

Relevant legal provisions:
EPC Art. 52(1), 56, 84, 99, 123(2), (3)
EPC R. 88

Keyword:
"Clarity, inventive step (after amendment, yes)"
"Amendments (admissible)"
"Late grounds of opposition (not accepted by patentee)"
"Correction of opponent's name (admissible)"

Decisions cited:
G 0010/91, T 0219/86

Catchword:

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0461/97 - 3.5.2

D E C I S I O N
of the Technical Board of Appeal 3.5.2
of 26 October 1999

Appellant: (Opponent)
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Decision under appeal: **Interlocutory decision of the Opposition Division of the European Patent Office posted 17 February 1997 concerning maintenance of European patent No. 0 098 733 in amended form.**

Composition of the Board:

Chairman: W. J. L. Wheeler
Members: M. R. J. Villemin

J. H. P. Willems

Summary of Facts and Submissions

I. The appellant (opponent) filed an opposition against European patent No. 0 098 733 on the grounds of lack of novelty and lack of inventive step (Article 100a EPC in connection with Articles 52(1), 54 and 56 EPC. The patent was revoked by the decision of the opposition division dated 17 November 1992. That decision was set aside by the decision T 81/93 of Technical Board of Appeal 3.2.4, which remitted the case to the first instance for further prosecution.

II. The appellant now contests the interlocutory decision of the opposition division that account being taken of the amendments made during the opposition proceedings, the patent and the invention to which it related met the requirements of the EPC.

III. The following prior art documents cited in the notice setting out the grounds of appeal:

D1: US-A-3 224 579

D2: US-A-3 224 580

D9: Dutch patent application No. 67 06017, with an English translation

D11: US-A-3 224 162

D12: US-A-3 898 435.

IV. The respondent (patent proprietor) did not contest the accuracy of the English translation of document D9.

V. In response to a communication of the Board accompanying the summons to oral proceedings, the respondent raised the point that the opponent *Terpa Poultry B.V.* might not have been entitled to pursue opposition to the grant of an European patent under Article 99 EPC. In a subsequent letter the respondent enclosed a copy of a letter dated 25 August 1999 from the Dutch law firm *Nauta Dutilh* indicating that the Dutch Chamber of Commerce and Industry of Amsterdam had confirmed in writing that there was no registration of a company with the name *Terpa Poultry B.V.* in the national files of the Chamber of Commerce in the Netherlands for the period 1991 to date. Copies of statements referred to in the letter from the firm *Nauta Dutilh* were also enclosed in this letter.

VI. With the letter dated 30 August 1999, the appellant submitted that on April 1989 the firm *"Terpa Poultry B.V."* had changed its name to *"FPS Food Processing System B.V.".* An abstract from the register of the Dutch Chamber of Commerce and Industry of Amsterdam, and a notarial deed were attached to this letter in support of these submissions.

VII. In the oral proceedings held before the Board on 2 September 1999, the respondent submitted a fax of 7 pages dated 1 September 1999 in support of the objection that *Terpa Poultry B.V.* was not officially registered as a Dutch body corporate. The respondent also filed an amended claim 1 of the main request which had been granted by the opposition division and an insert for page 2, column 2, lines 9 to 33 of the description. The respondent also maintained the first

and second auxiliary requests which had been submitted to the opposition division.

VIII. Claim 1 of the main request reads as follows:

"An egg transfer apparatus comprising a first, continuously moving conveyor means (21) having drive means (93, 134) and individual egg carriage assemblies (92) for conveying eggs to receiving stations (22) of an egg grading apparatus in which the eggs are packaged according to their physical characteristics, the receiving stations being disposed along the path of the conveyor and each receiving station having a plurality of egg receiving means (135) disposed along the conveyor path to receive eggs having the same physical characteristics, the apparatus further comprising separate frame means (121) disposed at each receiving station (22) adjacent said conveyor means and movable with respect to the conveyor path, each frame means carrying a plurality of individually operable actuating means (123, 124) for the respective egg receiving means for that receiving station for releasing eggs with said same physical characteristics in a predetermined sequence from the carriage assemblies to the individual egg receiving means, movement of said frame means moving the release means with respect to the receiving stations along the conveying line of the conveyor means, and compensating means (126, 127, 132, 145 to 147, 151, 152, 153) being provided operatively communicative with the drive means (93, 134) for the conveyor means and frame means either to vary the positions of the frame means in the receiving stations according to the speed of the conveyor means and thereby to compensate for different speeds of the

conveyor means or to change the speed of the conveyor drive means in accordance with the positions of the frame means and thereby to adjust the speed of the drive means to compensate for different positions of said frame means."

Claims 2 to 16 of the main request are dependent on claim 1.

Claim 17 of the main request is directed to a method of transferring eggs delivered to a receiving station of an egg grading apparatus in which eggs are packaged according to their physical characteristics, using an egg transfer apparatus as claimed in any one of claims 1 to 16.

IX. The appellant argued essentially as follows:

1. *Regarding the identity of the opponent.*

The firm *"Terpa Poultry B.V."* changed its name to *"FPS Food Processing System B.V."* on 3 April 1989, but the former official company name was used as a business name for some time after that. The change of name was clearly shown in the abstract from the register of the Dutch Chamber of Commerce and Industry of Amsterdam, and in a notarial deed, copies of which were filed with the letter of 30 August 1999.

2. *Regarding the amendments in claim 1 of the main request.*

Claim 1 violated paragraphs (2) and (3) of

Article 123 EPC and did not meet the requirements of Article 84 EPC in the following respects:

- the expression "compensating means" was not disclosed in the application as originally filed and was an unallowable generalisation of the "hydraulic piston means" indicated in original claim 12.

- the passage "compensating means (126, 127, 132, 145 to 147, 151, 152, 153) being provided operatively communicative with the drive means (93, 134) for the conveyor means and frame means" was not supported by the application as originally filed, because the "drive means" was originally disclosed only in close functional and structural relationship with "hydraulic piston means" or with "control means coupled to frame means, for varying the speed of said conveyor means according to the position of said frame means". The wording of claim 1 was vague and ambiguous compared with the clear and distinct terminology used in the original claims 12, 13, 23 and 24.

3. *Regarding inventive step.*

Novelty was not contested. In the field of egg processing systems, the skilled person was always trying to speed up the machines to increase their efficiency. This was the object of the invention disclosed in D2 (see column 2, lines 60 to 64). In order to increase the capacity of the egg weighing and sorting apparatus disclosed in D2 it was

obvious to increase the speed of the conveyor. This was possible because D2 indicated that the driving motor was provided with variable speed control (see column 9, lines 59 to 64). However, the person skilled in the art knew that this caused a problem because, when conveyor speed varied, the trajectories of the released eggs were modified and the eggs departed from their correct paths.

The skilled person facing this problem would have found a solution to it in document D9 describing an egg transfer apparatus equipped with compensating means as specified in claim 1. It was mentioned on page 2 of D9 that articles discharged from moving containers did not arrive at the exact desired position when the speed of the containers varied. D9 taught adjusting the position of discharge actuators in the direction of movement of the containers in dependence on the speed of the containers to compensate for different speeds of the containers. In the light of the teaching of D9, the skilled person would have modified the apparatus disclosed in D2 such that the position of each of the solenoids 561 could be varied. The fact that these solenoids were mounted with their switches S1 to S5 on fixed structural parts of the machine would not have discouraged the skilled person from carrying out this modification.

Any difficulties which might be encountered in adapting other parts of the D2 machine to an increased conveyor speed should be disregarded, because claim 1 did not mention the candling,

weighing, or packaging operations. In any case high speed candling and weighing apparatus were known at the priority date of the patent in suit. Evidence of this could be provided if the Board required it. It should be noted that D2 was a US patent and that US patents must contain many technical details about the matter claimed, but a person skilled in the art would not regard all of them as being strictly necessary. It was straightforward and obvious to modify the apparatus described in D2 to incorporate means for compensating for conveyor speed changes in the light of the teaching of D9.

D12 also disclosed an egg transfer apparatus equipped with a variable speed conveyor (column 6, lines 28 to 32) and mentioned that it was important that the eggs be dropped off the conveyor at precisely the right positions (see column 9, lines 8 to 11). D9 and D12 disclosed apparatus in the same field, dealing with the same problem: ensuring the correct trajectory for eggs released from a conveyor when its speed was increased. The only features of the egg transfer apparatus according to claim 1 which were not disclosed in D12 were the moveability of the frame means and the provision of compensating means to compensate for different speeds of the conveyor. However, exactly these features lacking in the apparatus known from D12 were disclosed in D9, so the skilled person would have applied the teaching of D9 to increase the efficiency of an egg transfer apparatus as disclosed in D12 and arrived, without exercising any inventive ability,

at an apparatus having all the features specified in claim 1. Thus the subject-matter of claim 1 did not involve an inventive step within the meaning of Article 56 EPC.

X. The respondent's arguments may be summarised as follows:

1. *Regarding the admissibility of the opposition and appeal*

Searches in the appropriate registers in the Netherlands had failed to reveal any entry for the firm *Terpa Poultry B.V.* so it appeared the opponent *Terpa Poultry B.V*. might not have been a legal entity entitled under Article 99 EPC to pursue opposition to the grant of a European patent. The copy of the letter dated 25 August 1999 received by the respondent from the Dutch law firm *Nauta Dutilh* indicated that the Dutch Chamber of Commerce and Industry of Amsterdam had confirmed in writing that there was no registration of a company with the name *Terpa Poultry B.V.* in the national files of the Chambers of Commerce in the Netherlands for the period 1991 to date. Thus the opposition and appeal appeared to be inadmissible.

2. *Regarding the admissibility and clarity of the amendments made in claim 1 of the main request*

Claim 1 as granted disclosed compensating means operatively communicative with the drive means for

the conveyor means and the releasing means. However, the opponent raised no objection under Article 100c in relation to these compensating means during the opposition procedure. Nor was any objection thereto raised in the statement of grounds of appeal dated 10 June 1997. In fact, the objection that "compensating means" infringed paragraph (2) and/or (3) Article 123 EPC was raised for the first time only at a very late stage of the appeal proceedings and constituted therefore new grounds of opposition that could not be accepted. The opponent had effectively waived his right to raise this objection before the opposition division.

3. *Regarding inventive step*

Starting from the prior art disclosed in D2 or D12, the problem to be solved by the invention was to provide compensating means to ensure that, whatever the actual speed of the egg conveyor might be, the eggs landed in the right place in the egg receiving means. The opponent's arguments and analysis of the prior art documents D2, D9 and D12 to show obvious modifications of the apparatus known from D2 or D12 in the light of features disclosed in D9 were based of an ex post facto chain of reasoning. What was relevant for assessing inventive step was which parts of the different apparatuses disclosed in different documents **would** obviously be combined by a person skilled in the art. The skilled person would have thoroughly studied D2 and D12 before starting to design a new machine which could be very costly

(about 1 million pounds).

The candling operation in the egg weighing and sorting machine disclosed in D2 played an important role in the handling of the eggs in this machine (see e.g. column 1, lines 63 to 69; column 14, lines 1 to 41, column 16, line 43 to column 17, line 10, and Figures 27, 28 and 31). It required the presence of an operator to look at the rotating eggs to determine their qualities and turn a switch to classify them (see column 28, lines 12 to 55; column 29, lines 8 to 49). To be successful, this manual candling operation should be relatively slow to give the operator enough time to do the job properly, so the egg conveyor must move relatively slowly. The skilled person would have appreciated that it would not have been possible to raise the speed of the conveyor of the apparatus disclosed in D2, because the operator would no longer have been able to classify the eggs in the candling station.

In the apparatus disclosed in D2, the solenoids were energised to release the eggs when they were in line with the pockets in the tray in which they should land (see Figures 36, 38 and 43; and column 31, line 31 to column 32, line 40). It was not clear why the skilled person would have tried to use the rod 4 of the apparatus known from D9 to move the solenoids and their plungers because they were mounted on fixed structural parts of the conveyor.

The levers of the weighing assembly 306 needed a certain time to tilt and stabilise (see Figure 45) and this time would become too large if the conveyor speed was raised. The egg receiving trays would also have to be moved more quickly when the conveyor speed was increased. All these factors imposed constraints on the conveyor speed so the modifications to be made on essential components of the apparatus disclosed in D2 in order to cope with speeding up its conveyor would have been more than mere "workshop modifications". Since the various processes performed in the apparatus disclosed in D2, in particular the candling and the weighing operations, worked satisfactorily, there was no need to modify them. The skilled person would not have contemplated speeding up the apparatus known from D2, but would have considered it to be a piece of equipment which could not be made to run faster without destroying the integrity of the system.

In the egg grading machine disclosed in D12, the eggs were dropped vertically from the weighing

stations 16 into conveying pockets 12 and when they arrived at the pack stations 23 the eggs were dropped from the conveying pockets when they were directly above the receiving pockets in the egg cartons C. If the conveyor speed was increased enough to necessitate a compensating displacement of the pack stations, the weighing stations would drop the eggs in the wrong place. Considering the direction of displacement of the conveyor as shown in Figure 1 of D12, a conveyor speed increase should be compensated by moving the pack stations 23 accommodating the release means SOL-1 to SOL-6 to the left, and moving the weighing stations 16 to the right, so the pack stations and the weighing stations would have to be moved in opposite directions, and by different amounts. This was not possible with the rather simple rod means disclosed in D9. Problems arising from speeding up the conveyor of the apparatus known from D12 could possibly be solved by moving the cartons C under the pack stations 23, but not by moving the pack stations themselves.

XI. The appellant requested that:

(1) The decision under appeal be set aside and that the European Patent No. 0 098 733 be revoked and,

(2) Its name will be corrected to "FPS Food Processing System B.V." in the official records.

XII. The respondent requested that:

(1) The patent be maintained in the amended form

approved by the opposition division except that claim 1 and the insert for page 2, column 2, lines 9 to 33 of the description be replaced by those of the main request filed in the oral proceedings before the Board.

(2) The two auxiliary requests on the file were maintained.

XIII. After deliberation by the Board at the end of the oral proceedings, the Chairman informed the parties that no decision would be announced in the oral proceedings, that the debate was now closed and would be reopened only if the Board considered it necessary, e.g, to examine the auxiliary requests or to hear evidence offered by the appellant on the general state of the art. The Chairman indicated that a decision in writing would be given as soon as possible.

Reasons for the Decision

1. *Identity of the opponent and admissibility of the opposition and appeal*

1.1 All other conditions being satisfied, the admissibility of the appeal (and of the opposition) depends on whether the appellant is a legal entity entitled to file an opposition or an appeal.

1.2 It has been established that a legal entity named *"Terpa Poultry B.V."* existed before the date of the opposition, and that this legal entity changed its name

from *"Terpa Poultry B.V."* to *"FPS Food Processing Systems B.V."* by a deed dated 3 April 1989 and that the change of name was officially recorded in the register of Dutch Chamber of Commerce and Industry of Amsterdam (a copy of the deed and a copy of the pages of the register showing the change were filed by the appellant with the letter dated 30 August 1999). Thus the same legal entity (formerly *"Terpa Poultry B.V."*, now *"FPS Food Processing Systems B.V."*) has continued to exist at all material times. Furthermore the correct postal address was given when the opposition and the present appeal were filed. As far as has become apparent in these proceedings, no other legal entity named *"Terpa Poultry B.V."* does or did exist, so the opponent/appellant has been identifiable at all material times, even though it unfortunately used the previous name (which was no longer its correct name) when filing the opposition and the pending appeal.

1.3 However, it appears that the use of the previous name when filing the opposition and the pending appeal was the result of a mistake rather than a deliberate attempt to mislead the Board or the respondent, and that this mistake remained unnoticed until the respondent raised the matter. There is no indication that the respondent has suffered any disadvantage as a result of the mistake.

1.4 In the judgement of the Board this constitutes a mistake which can be corrected under Rule 88 EPC, upon request even after expiry of the opposition period, following the decision T 219/86 (OJ EPO 1988, 254). This request having being made, the Board will order the mistake to be corrected.

1.5 Since a correction made under Rule 88 is retrospective in effect, the opposition and the appeal are admissible.

2. *Admissibility of the amendments in claim 1 of the main request*

2.1 The appellant objected to the amendment of claim 1 to recite "compensating means (126, 127, 132, 145 to 147, 151, 152, 153) being provided operatively communicative with the drive means (93, 134) for the conveyor means and frame means". Claim 1 of the granted patent specification recites that "compensating means (126, 127;151, 152, 153) are provided operatively communicative with the drive means (93, 134) for the conveyor means and said releasing means (121, 123, 124)". Thus reference signs 132 and 145 to 147 have been introduced and reference signs 121, 123 and 124 have been omitted; and "releasing means" has been replaced by "frame means" in the amended version. According to Rule 29(7) EPC reference signs shall not be construed as limiting the claim. Furthermore, when the claim is read as a whole, as it should be, it can be seen that it is specified that each frame means carries "a plurality of individually operable actuating means (123, 124) for the respective egg receiving means for that receiving station for releasing eggs" so that when the compensating means varies the position of the frame means, it will also vary the position of the releasing means. Thus the amendment has restricted the protection conferred.

2.2 Furthermore, the amendments made in claim 1 are fully supported by the originally filed application (see in

particular Figures 22 and 24; page 19, lines 1 to 23 and page 20, line 33 to page 21, line 20 of EP-A-0 098 733).

2.3 Therefore, these amendments comply with Articles 123(2) and (3) EPC.

2.4 Independently of the above, it is observed that as pointed out by the respondent the opponent did not raise any objection under Article 100(c) EPC during the opposition proceedings to the compensating means as they are defined in the granted patent specification. While objections may be raised under Article 123(2) and/or (3) EPC for the first time in appeal proceedings to amendments made in the opposition proceedings or in the appeal proceedings, the raising of objections for the first time in the appeal proceedings in respect of amendments made before grant amounts to raising a new ground of opposition. The Enlarged Board of Appeal ruled in the decision G 10/91 (OJ EPO 1993, 420) that fresh grounds for opposition may be considered in appeal proceedings only with the approval of the patentee. In the present case, the patentee does not approve, so the Board cannot consider the fresh ground of opposition.

3. *Main request. Inventive step*

3.1 Novelty of the subject-matter of claim 1 was not challenged by the appellant so the main issue to be considered in the present appeal is whether the subject-matter of this claim involves an inventive step within the meaning of Article 56 EPC having regard to the prior art disclosed in D1, D2, D9, D11 and D12

referred to by the opponent in the statement of the grounds of appeal. In the oral proceedings before the Board, the appellant relied only on the prior art disclosed in documents D2, D9 and D12. The Board will therefore consider these documents first.

3.2 D2 describes an egg weighing and sorting apparatus having the following features in common with the egg transfer apparatus according to claim 1: continuously moving conveyor means having drive means and individual egg carriage assemblies for conveying eggs to receiving stations of an egg grading apparatus in which the eggs are packaged according to their physical characteristics, the receiving stations being disposed along the path of the conveyor and each receiving station having a plurality of egg receiving means disposed along the conveyor path to receive eggs having the same physical characteristics. The apparatus described in D2 further comprises separate frame means (560) disposed at each receiving station adjacent said conveyor means, each frame means carrying a plurality of individually operable actuating means (solenoids 561) for the respective egg receiving means for that receiving station for releasing eggs with said same physical characteristics from the carriage assemblies to the individual egg receiving means.

3.3 If D2 is regarded as the prior art closest to the invention, the problem to be solved by the apparatus disclosed in the contested patent is to improve the apparatus described in D2 in such a manner that eggs previously categorized by the apparatus according to their physical characteristics can be released at their right places at the receiving stations independently of

the conveyor speed. This makes it possible to increase the throughput of the apparatus by increasing the speed of the conveyor means.

3.4 According to claim 1, this problem is solved by:

(a) compensating means being provided operatively communicative with the drive means for the conveyor means and frame means, either

(b) to vary the positions of the frame means in the receiving stations according to the speed of the conveyor means and thereby to compensate for different speeds of the conveyor means, or

(c) to change the speed of the conveyor drive means in accordance with the positions of the frame means and thereby to adjust the speed of the drive means to compensate for different positions of said frame means.

3.5 For the following reasons, the Board agrees with the respondent that the skilled person would not think the apparatus known from D2 could be speeded up without destroying the integrity of the functioning of this apparatus.

3.5.1 Although the solenoid assemblies 560 disclosed in D2 (see column 17, lines 35 to 58 and Figures 37 and 51) can be regarded as frame means within the meaning of claim 1 of the main request, the main conveyor 101 (see for example Figure 3) of this known apparatus operates at a uniform speed and the solenoid assemblies 560 and the switches S1 to S5 for operating the solenoids 561

are fixedly mounted on channel members 261 of a main frame 164 (see Figure 7, top of Figure 36, column 9, lines 23 to 40 and column 17, lines 35 to 74). Thus the frame means are not movable with respect to the conveyor path. Fixedly mounted solenoids assemblies are not only used in the receiving stations ("commercial stations") but also in the weighing stations (see e.g. column 31, lines 31 to 40). All these solenoid assemblies and their switch structures are bulky, mechanically very elaborate and complicated and they must be connected to electrical wiring of a complex electrical circuit, making it impracticable to transform these fixed structures into movable ones. Moreover, the overall strategy of functioning of the apparatus described in D2 is itself complicated because it involves the control of a plurality of conveyors in close cooperation with numerous stations devoted to particular duties (see conveyors 101, 102, 116, 117, 631, 633 and stations 103, 104, 106, 107, 108, 109 to 114, Figures 1 to 3 and column 5, line 72 to column 6, line 18). Eggs can be removed from various stations in any suitable manner: in the check, commercial, jumbo and pewee stations, eggs may be removed by stub conveyors 116 whereas in the grading stations with a larger volume of eggs they can be removed by other conveyor assemblies 117. It is obvious that the skilled person desiring to increase the speed of the conveyor assembly 101 should also increase the speed of at least some of the other conveyors in order not to disturb the synchronism between all the operations carried out in the different stations: egg pick-up station 103, candling station 104, blood egg drop station 106, grading and weighing stations 109 to 114. Since the operations of removing and dropping eggs at different

places require releasing means at these different places it is hard to imagine that the skilled person would consider it to be easy to modify these releasing means to make them movable to compensate for different speeds of the conveyor assembly 101.

3.5.2 In addition to the above-mentioned mechanical constraint rendering unrealistic an attempt to mount the releasing means on a movable structure in the apparatus known from D2, there are practical and human factors imposed by the candling operation which limit the maximum possible conveyor speed in this apparatus. Candling is performed in the candling station 104 by an operator who has to visually inspect the quality and condition of the eggs and then turn a selector knob 331 to a position corresponding to the quality and condition of each egg as it passes (see column 16, lines 67 to 73; column 28, lines 12 to 73). As put forward by the respondent, it would not be possible to simply raise the speed of the conveyor because the operator would no longer be able to cope with the increased delivery rate of the eggs arriving at the candling station.

3.5.3 In view of the speed limiting factors inherent to the apparatus known from D2, the Board is of the opinion that the skilled person, after reading D2, would not have considered the apparatus known from D2 to be a machine which could be modified in order to run faster.

3.5.4 D9 describes an apparatus for discharging articles, e.g. eggs, from moving containers 2, and comprising an axially movable rod 4 carrying a plurality of stop members 3 which can be brought in the path of discharge

actuators of containers 2. D9 mentions that "after being discharged by the container, articles describe a path which depends on the velocity of the container" (page 1, second paragraph). When this velocity varies, in particular when starting and stopping the apparatus, a problem arises because "there is the possibility that the articles do not arrive at the exact desired location."

3.5.5 The appellant's contention that the person skilled in the art would recognise the apparatus of D9 to be an egg transfer conveyor for an egg grading apparatus does not appear to be supported by the disclosure in D9 and the appellant did not point to any specific passage of D9 in support of this contention. Rather, the appellant's submissions on how a chicken farm operates appear to be founded on an ex post facto analysis. It is noted in particular that:

(1) D9 does not disclose means for receiving different categories of articles, e.g. eggs, which have to be graded according to their physical properties;

(2) there is no disclosure in D9 of frame means as specified in claim 1 of the main request. The rectangular parts depicted behind the stop members 3 in Figures 1 and 2 cannot be simply assumed to be frame means. They are not described as being mounted on the rod 4, nor are they described as being movable with respect to the containers 2. The apparatus disclosed in D9 does not resemble the egg processing apparatus described in D2 and, for the reasons explained above in sections 3.5.1 to 3.5.3, the Board does not see why and how the

person skilled in the art would have come to the idea of using rod 4 as actuating means for moving the solenoid assemblies in the apparatus known from D2;

(3) there is nothing in D9 supporting the view that stop members 3 are individually operable;

(4) claim 1 of D9 recites that stop members 3 are movable in the direction of movement of the container. This is shown by the arrows in Figures 1 and 2 of D9. Thus the stop members do not seem to be moved in the correct direction for compensating changes of conveyor speed as done in the apparatus according to the invention;

(5) the way in which the eggs are released, e.g. how and on which parts of the containers the stop members 3 operate, is not clearly described in D9 which even contains some apparent contradictions such as the direction of the arrows in Figure 1, as mentioned in previous paragraph (4). The penultimate paragraph of page 4 discloses that "containers 2 are arranged for cooperation with stop members 3. These stop members can be moved into the path of discharge actuators 4 of the containers in various known ways. This means that the containers begin to discharge an article at the position of the stop member in question" (the reference sign "4" attached to the word "actuators" (in plural) is apparently incorrect because the single axially movable rod is designated as 4 and it is clearly not mounted on the containers). D9 does not disclose that the

containers 2 are directly opened by the stop members 3.

This paragraph shows therefore that containers 2 carry their **own** release means ("stop members which can be brought into the path of discharge actuators of the containers" (see also D9, page 2, first paragraph). It follows that the release means ("discharge actuators of the containers") for discharging eggs from a container move with this container at conveyor speed. This constitutes a crucial difference with the claimed transfer apparatus in which a plurality of individually operable actuating means (123, 124) are carried by frame means (121) having no mechanical link to the conveyor but being movable with respect to this conveyor.

4. D12 concerns a memory device for an egg grading machine including conveyor means operating at a uniform speed to convey eggs dropped from weighing stations 16 to pack stations 23 in which the eggs are released by drop solenoids SOL-1 to SOL-6 disposed at fixed locations directly opposite the pockets in egg cartons (see Figure 1, column 3, lines 49 to 54 and column 4, lines 42 to 49). No allowance is made for a forward trajectory of the eggs following release from the conveyor. There is no need for the release points in the pack stations to be compensated in the manner specified in the present claim 1, or in the manner known from D9, or indeed in any other way, since the machine operates at a uniform speed.

4.1 The Board agrees with the respondent that, considering

the direction of displacement of the conveyor shown in Figure 1 of D12, an increase in the speed of the conveyor would have to be compensated by moving the release points in the pack stations to the left, and moving the weighing stations to the right, so the pack stations and the weighting stations would have to be moved in opposite directions. Therefore, it would not be possible, without destroying the integrity of this apparatus as a whole, to simply provide compensating means operatively communicative with the drive means for the conveyor means and release means (SOL-1 to SOL-6), either to vary the positions of the release means in the receiving stations according to the speed of the conveyor means to compensate for changes in the speed of the conveyor means, or to change the speed of the conveyor drive means in accordance with the positions of the release means in the pack stations to compensate for different positions of the release means.

4.2 The Board is of the opinion that the skilled person would not have considered the apparatus described in D12 to be capable of modification to run at different conveyor speeds fast enough to require compensation of the release points of eggs dropped from the conveyor at the pack stations. The skilled person would have no reason to modify the apparatus described in D12 by introducing isolated technical features taken from the apparatus described in D9.

4.3 In the Board's judgement, the appellant has indulged in ex post facto analysis in reducing the prior art documents D2, D9 and D12 to general concepts, ignoring essential details of the apparatuses disclosed in these

documents. In particular, the opponent has not convincingly demonstrated why the notional knowledgeable but relatively unimaginative person skilled in the art **would** have provided an apparatus known from D2 or D12 with compensating means as specified in the present claim 1, despite the above-mentioned technical and human factors, inherently limiting the speed of operation of the apparatuses disclosed in D2 or D12.

4.4 Even if "the field of packaging eggs" is mentioned in D9, the apparatus disclosed in this document is not an egg transfer apparatus of the kind of those disclosed in D2 or D12. The structure of the apparatus disclosed by D9 is too simple and the description of the operations performed in this apparatus during the discharge of articles is not clear enough to give the person skilled in the art sufficient useful information and technical guidance which could make it obvious to him to solve all the difficulties to be overcome for modifying the apparatus known from D2 or D12 in order to arrive at the apparatus with the combination of features specified in claim 1 of the contested patent. In the judgement of the Board, it is not proper to simply take into consideration the convenient aspects of a piece of prior art and ignore less convenient aspects of it, since this amounts to post hoc reasoning.

4.5 Summarising, the subject-matter of claim 1 involves an inventive step with regard to the prior art disclosed in D2 and D12, considered alone or in combination with D9.

5. *Inventive step with regard to the other documents D1 and D11*

5.1 D1 discloses an egg transfer apparatus provided with egg grading means and in which the eggs are packed in receiving stations according to their physical characteristics. Means are provided for compensating changes in trajectory of eggs due to changes in the speed of travel of egg conveyor means ("egg carrying devices") 63 moved by a variable speed drive motor 54. This known apparatus includes a hand wheel 206 which may be rotated to adjust the set speed of drive motor 54 through a potentiometer 213 (see Figures 1, 2 and 13). Handwheel 206 is also connected to a linkage (202, 198, 189) for positioning unlatching members 186 and 187 which adjust the trip points at which eggs are released from the conveyor means (see Figures 2, 3, 13, 14, 25 and 26 and column 7, line 40 to column 8, line 57).

5.2 In the apparatus described in D1, compensation in the egg release point is provided only in accordance with the manual rotation of the handwheel for setting converter speed and not in accordance with the actual conveyor speed itself. This known apparatus is unable to control the positions of the release points to compensate for variations in the trajectories of the eggs resulting from actual speed variations of the conveyor means, or to control the speed of the conveyor means to compensate for variations in the positions of the release points, in such a way as to ensure that the eggs are received in the right places in the receiving means. The skilled person would have no reason to modify the apparatus described in D1 by introducing

isolated technical features taken from the apparatus described in D9.

5.3 Therefore, in the Board's judgement, the subject-matter of claim 1 involves an inventive step, having regard to the combined teachings of D9 and D1.

5.4 The system of transport of the egg transfer apparatus described in D11 is not directly comparable to that of the apparatus defined in claim 1. In this prior art apparatus, an intermittently driven accumulator travels in an orbital path with the same speed as the article carrying devices 53 so that no compensation is necessary for changes in the trajectories of the eggs discharged from the conveyor into the accumulator (see D11, Figure 2 and column 9, lines 5 to 8). The compensation is still necessary for discharging eggs from the accumulator into an egg tray and occurs in the same manner as that performed in the apparatus disclosed in D1. Thus D11 is no more relevant than D1 and therefore does not pose a threat to the recognition of an inventive step in the subject-matter of claim 1.

6. Having reviewed the facts and arguments adduced by the parties, the Board does not find it necessary to take into consideration the further pieces of evidence offered by the appellant on the general state of the art: the existence of faster candling and weighing stations per se would not solve the problem of synchronisation of the apparatus as a whole when the conveyor speed varied, or provide an incentive to modify the apparatus known from D2 or D12 in such a way as to arrive at the apparatus according to claim 1.

7. Summarizing, the Board finds that the subject-matter of claim 1 of the main request is not obvious with regard to the prior art known from the cited documents D1, D2, D9, D11 and D12, and therefore involves an inventive step within the meaning of Article 56 EPC. The subject-matter of the method claim 17 likewise involves an inventive step.

8. For these reasons, the respondent's main request is allowable and it is not necessary to consider the auxiliary requests.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the department of first instance with the order to maintain the patent in the amended form approved by the opposition division except that claim 1 and the insert for page 2, column 2, lines 9 to 33 of the description are to be replaced by those of the main request filed in the oral proceedings held on 2 September 1999 before the Board.

3. The Notice of Opposition against European patent No. 0 098 733 filed 28 August 1990, the Notice of Appeal filed on 15 April 1997, the Statement of the grounds of Appeal filed on 10 June 1997 and all the other documents filed in the opposition proceedings and the present appeal are to be corrected under Rule 88 EPC so that the name of the opponent is "FPS Food Processing System B.V.".

The Registrar: The Chairman:

M. Kiehl W. J. L. Wheeler