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D E C I S I O N
of 16 May 2001

Case Number: T 0141/97 - 3.4.1

Application Number: 87306927.2

Publication Number: 0256768

IPC: G07F 7/10

Language of the proceedings: EN

Title of invention:
Transaction processing apparatus

Patentee:
Oki Electric Industry Company, Limited

Opponent:
GIESECKE & DEVRIENT GmbH

Headword:
-

Relevant legal provisions:
EPC Art. 123(2), 56

Keyword:
"Added subject-matter - (no) after amendment"
"Inventive step - (yes) after amendment"

Decisions cited:
-

Catchword:
-

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Case Number: T 0141/97 - 3.4.1

D E C I S I O N
of the Technical Board of Appeal 3.4.1
of 16 May 2001

Appellant: (Opponent)
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Decision under appeal: **Interlocutory decision of the Opposition Division of the European Patent Office posted 3 December 1996 concerning maintenance of European patent No. 0 256 768 in amended form.**

Composition of the Board:

Chairman: G. Davies
Members: M. G. L. Rognoni
G. Assi

Summary of Facts and Submissions

I. The appellant (opponent) lodged an appeal, received on 3 February 1997, against the decision of the opposition division, despatched on 3 December 1996, maintaining European patent No. 0 256 768 in amended form. The appeal fee was paid on 3 February 1997 and the statement setting out the grounds of appeal was received on 7 April 1997.

II. The opposition had been filed against the patent as a whole, based on Article 100(a) EPC, in particular on the grounds that the subject- matter of the claims did not involve an inventive step within the meaning of Article 56 EPC.

III. The appellant based the appeal on Articles 123(2), 84 and 56 EPC, and referred, *inter alia*, to the following documents:

D2: GB-A-2 144 564

D3: WO-A-83/03018

IV. Oral proceedings were held on 16 May 2001.

V. The appellant requested that the decision under appeal be set aside, and that the European patent be revoked.

VI. The respondent requested that the patent be maintained on the basis of:

Main request:
Claims 1 to 10 as maintained by the opposition

division,
columns 3 to 7 of the patent specification as granted,
pages 2 and 2a filed on 7 November 1996, and
Figures 1 to 3, 4A, 4B and 4C as granted;

First auxiliary request:
Claims 1 to 9 filed on 22 September 1997,
Description and Figures as for the **main request**;

Second auxiliary request:
Claims 1 to 8 filed in the oral proceedings,
Description as for the **main request** with amended page 2a filed in the oral proceedings, and
Figures as granted;

Third auxiliary request:
Claim 1 filed in the oral proceedings,
Claims 2 to 8,
Description and Figures as for the **second auxiliary request**.

VII. Claim 1 of the **main request** reads as follows:

"1. A transaction processing apparatus comprising:
a vendor's microchip card (12);
a customer's microchip card (19);
terminal means (20, 30) for inputting the amount of a transaction, the terminal means (20, 30) having a customer's microchip card reader/writer (15) for communicating with the customer's microchip card (19) and a vendor's microchip card reader/writer (8) for communicating with the vendor's microchip card (12) ; and
processing means linked with the data interchange

with the respective reader/writers (8, 15) for deducting the amount of the transaction from the balance recorded in the customer's microchip card (19) and adding that amount to the balance recorded in the vendor's microchip card (12);

wherein the customer's microchip card (19) is prepaid so that the transaction is complete when the amount has been deducted from the balance recorded in the customer's microchip card (19) and added to the balance recorded in the vendor's microchip card (12);

characterised in that each of the customer's microchip card (19) and the vendor's microchip card (12) is involved in authentication processes to establish the validity of the terminal means (20, 30);

and the processing means comprises:

means provided in the customer's microchip card (19) for deducting the amount of the transaction from the balance recorded in the customer's microchip card (19) to obtain a new balance in response to a command from the terminal means (20, 30) and for sending the new balance to the terminal means (20, 30); and

means provided in the vendor's microchip card (12) for adding the amount of the transaction to the balance recorded in the vendor's microchip card (12) to obtain a new balance in response to a command from the terminal means (20, 30) and for sending the new balance to the terminal means (20, 30)."

Claims 2 to 10 are dependent on claim 1.

Claim 1 of the **first auxiliary request** reads as follows:

"1. A transaction processing apparatus comprising:

a vendor's microchip card (12);

a customer's microchip card (19);

terminal means (20, 30) for inputting the amount of a transaction, the terminal means (20, 30) having a customer's microchip card reader/writer (15) for communicating with the customer's microchip card (19) and a vendor's microchip card reader/writer (8) for communicating with the vendor's microchip card (12) ; and

processing means linked for data interchange with the respective reader/writers (8, 15) for deducting the amount of the transaction from the balance recorded in the customer's microchip card (19) and adding that amount to the balance recorded in the vendor's microchip card (12);

wherein the customer's microchip card (19) is prepaid so that the transaction is complete when the amount has been deducted from the balance recorded in the customer's microchip card (19) and added to the balance recorded in the vendor's microchip card (12);

wherein each of the customer's microchip card (19) and the vendor's microchip card (12) is involved in authentication processes to establish the validity of the terminal means (20, 30);

wherein the processing means comprises means provided in the customer's microchip card (19) for deducting the amount of the transaction from the balance recorded in the customer's microchip card (19) to obtain a new balance in response to a command from the terminal means (20, 30) and for sending the new balance to the terminal means (20, 30); and means provided in the vendor's microchip card (12) for adding the amount of the transaction to the balance recorded in the vendor's microchip card (12) to obtain a new balance in response to a command from the terminal means (20, 30) and for

sending the new balance to the terminal means (20, 30);

and wherein the processing means further comprises means provided in the customer's microchip card (19) for sending the balance recorded in the customer's microchip card (19) to the terminal means (20, 30); and means for receiving the balance sent from the customer's microchip card (19), for subtracting the amount of the transaction from the received balance to obtain a result, for receiving the new balance sent from the customer's microchip card (19) and for checking whether the result of the subtraction equals the received new balance."

Claims 2 to 9 are dependent on claim 1.

Claim 1 of the **second auxiliary request** reads as follows:

"1. A transaction processing apparatus comprising:

a vendor's microchip card (12);

a customer's microchip card (19);

terminal means (20,30) for inputting the amount of the transaction, the terminal means (20,30) having a customer's microchip card reader/writer (15) for communicating with the customer's microchip card (19) and a vendor's microchip card reader/writer (8) for communicating with the vendor's microchip card (12); and

processing means linked for data interchange with the respective reader/writers (8,15);

wherein the customer's microchip card (19) is prepaid so that the transaction is complete when the amount has been deducted from the balance recorded in

the customer's microchip card (19) and added to the balance recorded in the vendor's microchip card (12);

wherein the processing means comprises means provided in the customer's microchip card (19) for deducting the amount of the transaction from the balance recorded in the customer's microchip card (19) to obtain a new balance in response to a command from the terminal means (20,30); and means provided in the vendor's microchip card (12) for adding the amount of the transaction to the balance recorded in the vendor's microchip card (12) to obtain a new balance in response to a command from the terminal means (20,30) and for sending the new balance to the terminal means (20,30);

characterised in that

wherein[1] each of the customer's microchip card (19) and the vendor's microchip card (12) is involved in authentication processes to establish the validity of the terminal means (20,30);

the processing means further comprises:

means provided in the customer's microchip card (19) for sending the balance recorded in the customer's microchip card (19) and the new balance obtained in the customer's microchip card to the terminal means (20,30);

means provided in the terminal means (20,30)

for receiving the balance sent by the customer's microchip card (19) to the terminal means (20,30)

for subtracting the amount of the transaction from the received balance to obtain a result,

for receiving the new balance sent by the customer's microchip card (19) to the terminal means (20,30) and

[1]*The Board notes that "wherein" should have been deleted when the claim was drafted in the two-part form.*

for checking whether the result of the subtraction equals the received new balance; and

means provided in the vendor's microchip card (12) for sending the balance recorded in the vendor's microchip card (12) to the terminal means (20,30); and

means provided in the terminal means (20,30)

for receiving the balance sent by the vendor's microchip card (12) to the terminal means (20,30),

for adding the amount of the transaction to the received a balance to obtain a result,

for receiving the new balance sent by the vendor's microchip card (12) to the terminal means (20,30) and

for checking whether the result of the addition equals the received new balance."

Claims 2 to 8 are dependent on claim 1.

Claim 1 of the **third auxiliary request** reads as follows:

"1. A transaction processing apparatus comprising:

a vendor's microchip card (12);

a customer's microchip card (19);

terminal means (20,30) for inputting the amount of the transaction, the terminal means (20,30) having a customer's microchip card reader/writer (15) for communicating with the customer's microchip card (19) and a vendor's microchip card reader/writer (8) for communicating with the vendor's microchip card (12); and

processing means linked for data interchange with the respective reader/writers (8,15);

wherein the customer's microchip card (19) is prepaid so that the transaction is complete when the

amount has been deducted from the balance recorded in the customer's microchip card (19) and added to the balance recorded in the vendor's microchip card (12);

wherein the processing means comprises means provided in the customer's microchip card (19) for deducting the amount of the transaction from the balance recorded in the customer's microchip card (19) to obtain a new balance in response to a command from the terminal means (20,30); and means provided in the vendor's microchip card (12) for adding the amount of the transaction to the balance recorded in the vendor's microchip card (12) to obtain a new balance in response to a command from the terminal means (20,30) and for sending the new balance to the terminal means (20,30);

characterised in that

wherein[2] each of the customer's microchip card (19) and the vendor's microchip card (12) is involved in authentication processes to establish the validity of the terminal means (20,30);

the processing means further comprises:

means provided in the customer's microchip card (19) for sending the balance recorded in the customer's microchip card (19) and the new balance obtained in the customer's microchip card to the terminal means (20,30);

means provided in the terminal means (20,30)

for receiving the balance sent by the customer's microchip card (19) to the terminal means (20,30)

for subtracting the amount of the transaction from the received balance to obtain a result,

for receiving the new balance sent by the customer's microchip card (19) to the terminal means

[2]*The Board notes that "wherein" should have been deleted when the claim was drafted in the two-part form.*

(20,30) and

for checking whether the result of the subtraction equals the received new balance; and

means provided in the terminal means (20,30)

for reading the balance recorded in the vendor's microchip card,

for adding the amount of the transaction to the read balance to obtain a result,

for receiving the new balance sent by the vendor's microchip card (12) to the terminal means (20,30) and

for checking whether the result of the addition equals the received new balance."

Claims 2 to 8 are dependent on claim 1.

VIII. The appellant argued essentially as follows:

The contested patent dealt with the problem of increasing the security of a transaction processing apparatus comprising a terminal, a vendor's microchip card and a prepaid customer's microchip card, whereby each of the cards comprised means for calculating its new balance on the basis of the respective recorded balance and of the amount of a transaction. The underlying idea of the patent consisted essentially in providing the terminal with means for adding the amount of the transaction to the vendor's balance recorded in the card, for subtracting the amount of the transaction from the customer's balance recorded in the card, and for checking these results against the new balances calculated in the corresponding microchip cards.

The independent claims of the **main** and of the **first** and **second auxiliary requests** were not admissible under

Article123(2) EPC.

Claim 1 according to the **main request** specified only that the new balances obtained in the vendor's card and in the customer's microchip card were sent to the terminal; it did not recite any feature relating to the further processing of such new balances, and, therefore, it did not specify how the problem of increasing the security of the system was actually solved. In fact, it was possible to imagine that, once they were sent to the terminal, the new balances could be verified in many different ways. Hence, claim 1 covered other possible, but undisclosed, solutions to the problem of increasing the security of a transaction processing apparatus.

Claim 1 according to the **first auxiliary request** comprised features relating to the verification of the customer's new balance in the terminal. However, it did not specify how the vendor's new balance should be processed, and, therefore, it did not include some essential features of the only disclosed embodiment of the invention.

In claim 1 according to the **second auxiliary request**, it was specified that the vendor's microchip card comprised means for sending the balance recorded in the vendor's microchip card to the terminal means, whereas according to the description the controller located in the terminal read the balance stored in the vendor's microchip card. Though means located in the terminal for reading the balance stored in the card might be considered equivalent to means provided in the card for sending the balance to the terminal, the latter constituted a different solution which was not

disclosed in the application as filed.

Document D3 showed a transaction processing apparatus comprising all the features recited in the preamble of claim 1 of the third auxiliary request. In this apparatus, the new balances were calculated only in the vendor's microchip card and in the customer's microchip card. In order to increase the security of the system and to prevent a fraudulent manipulation of the cards that could result in the amount of a transaction not being correctly added to or subtracted from the balance of a microchip card, it was straightforward to consider the possibility of double checking the cards' balances after the transaction amount was recorded. Thus, it would be obvious to a person skilled in the art to consider the possibility of providing the terminal with means for carrying out the necessary calculations and for checking the cards' new balances against the results obtained in the terminal.

The only other feature which distinguished the subject-matter of claim 1 from D3 related to the fact that both cards were involved in the authentication of the terminal. Such measure was known in the prior art (see D2) and independent of the other features concerning the calculation and the double checking of the new balances.

Hence, it was obvious to a person skilled in the art, starting from D3 and wishing to improve the security of the system described in this document, to combine the teachings of D3 and D2 with common general knowledge in order to arrive at an apparatus falling within the terms of claim 1.

IX. The respondent's arguments can be summarised as follows:

The independent claims of all requests were admissible under Article 123(2) EPC.

The raised objection essentially consisted in that only some features had been selected from the description. Such, a generalisation was possible under the condition that features, as in the present case, could be separated from one another.

Claim 1 according to the **main request** contained the essential feature of the invention which consisted in providing the customer's microchip card and the vendor's microchip card with means for sending the new balances to the terminal. In fact, the possibility of increasing the security of the system by checking the new balances so that no "money" was created during a transaction was implemented merely by providing the customer's and the vendor's microchip cards with means for sending the new balances to the terminal where they could be further processed.

Claim 1 according to the **first auxiliary request** specified means provided in the terminal for verifying the customer's new balance. It was implicit in the application as originally filed that means for double checking the customer's new balance and means for double checking the vendor's new balance were independent features of the invention, and that the security of the apparatus known from D3 was improved even if only the customer's balance was double checked in the terminal. In fact, the customer's card was more likely to be involved in a possible fraud than the

vendor's.

Claim 1 of the **second auxiliary request** was based on all the features of the preferred embodiment. Though it was not explicitly stated in the description that the vendor's microchip card contained means for sending the balance to the terminal but only that the terminal read such balance, it was implicit to the skilled reader that these were equivalent solutions, and that they were both meant to be covered by the present invention.

As to the inventive step of the subject-matter of claim 1 of the **third auxiliary request**, there was no indication in the prior art that it would be obvious to a skilled person, starting from the apparatus of D3 and wishing to solve the problem of increasing the security of its operation, to provide the terminal with means for calculating the new balances and for double checking them against the new balances obtained in the corresponding microchip cards.

Reasons for the Decision

1. The appeal is admissible.

2. The contested patent relates to a transaction processing apparatus comprising a prepaid customer's microchip card, a vendor's microchip card and a terminal communicating with the customer's card and the vendor's card. The cards comprise means for recording the balances of the customer's and vendor's accounts and for updating them after a transaction. According to the only detailed embodiment of the invention, the

customer's and the vendor's new balances are also calculated in the terminal and checked against the new balances determined in the corresponding microchip cards.

Admissibility of the amendments

Main request

3.1 The characterising part of claim 1 comprises, *inter alia*, means located in the customer's microchip card and in the vendor's microchip card for sending the corresponding new balances to the terminal. In the application as originally filed, such means are specified only in connection with other "processing means" located in the terminal for verifying that the new balance calculated by the customer's microchip card corresponds to the difference between the recorded balance and the transaction amount, and that the new balance of the vendor's microchip card equals the sum of the recorded balance and of the transaction amount.

3.2 The description as originally filed specifies the following functions performed by the "processing means" in the preferred embodiment of the invention:

(a) the customer's microchip card reads the balance information recorded in its memory and reports it to the cash-register terminal (cf. page 8, lines 14 to 17);

(b) the customer's microchip card updates the balance records in its memory and notifies the cash-register terminal via the customer's microchip card terminal of the new balance after the update

(cf. page 8, lines 28 to 32);

(c) the main controller then subtracts the amount of the transaction from the balance reported in step (a) and checks whether the result equals the new balance reported in step (b) (cf. page 8, line 32 to page 9, line 1);

(d) the main controller operating via the microchip card reader/writer reads the balance recorded in the vendor's microchip card and sends the amount of the transaction to this card (page 9, line 8 to 11);

(e) the vendor's microchip card adds the amount of the transaction to the balance in its memory and sends the resultant new balance and the amount of the transaction back to the cash-register terminal for checking (cf. page 9, lines 12 to 16);

(f) the main controller checks that the reported amount of the transaction is correct, adds it to the balance read in step (d), and checks that the result equals the reported new balance (cf. page 9, lines 16 to 19).

3.3 In other words, claim 1 is directed to an apparatus comprising microchip cards which calculate the new balances resulting from a certain transaction and send their respective results to the terminal means for further **unspecified** processing, whereas the description as originally filed specifically defines the processing of the new balances sent to the terminal as a comparison with the corresponding new balances calculated by processing means located in the terminal.

3.4 The Board agrees with the appellant that the claim, by not specifying how the balance values sent to the terminal should be used or processed, covers embodiments of a transaction processing apparatus which go beyond the original disclosure. Hence, claim 1 is not admissible under Article 123(2) EPC.

First auxiliary request

4.1 Claim 1 according to the first auxiliary request differs from claim 1 according to the main request in that it further comprises:

means for receiving the balance sent from the customer's microchip card, for subtracting the amount of the transaction from the received balance to obtain a result, for receiving the new balance sent from the customer's microchip card and for checking whether the result of the subtraction equals the received new balance.

4.2 Hence, claim 1 contains the additional features relating to the fact that the customer's new balance is calculated both by the terminal and by the customer's microchip card, and that a comparison of the two values is made. However, since this claim does not specify any means for checking the validity of the vendor's new balance, it constitutes a generalisation of the preferred embodiment.

4.3 The Board agrees with the respondent that it is not a provision of the EPC that all elements of the preferred embodiment of an invention should be recited in the independent claim. However, if a certain combination of features specified in connection with an embodiment

constitutes the solution to a certain problem, a selection of some of these features may not adequately specify the solution as originally disclosed, or it may even define a possible "new" solution: i.e. a solution which is neither explicitly nor implicitly disclosed in the original application. In one case, the claim would not comprise all essential features of the invention, while in the other it would infringe Article 123(2) EPC.

4.4 Since claim 1 of the first auxiliary request does not include any feature for comparing the new balance of the vendor's microchip card with the new balance calculated in the terminal, it covers also apparatuses which do not address the problem of verifying the vendor's new balance or which may solve this problem other than by checking the balance obtained in the vendor's microchip card against the balance calculated in the terminal, as disclosed in the contested patent.

4.5 Since claim 1 according to the first auxiliary request comprises subject-matter which is not covered by the original disclosure, it is not admissible under Article 123(2) EPC.

Second auxiliary request

5.1 Claim 1 according to the second auxiliary request comprises all the features required to double check in the terminal the new balances obtained in the customer's and in the vendor's microchip cards. In particular, it recites that the processing means comprises:

means provided in the vendor's microchip card for

sending the balance recorded in the vendor's microchip card to the terminal means.

5.2 However, it is specified in the application as originally filed that:

"the main controller 10, operating via the microchip card reader/writer 8, reads the balance recorded in the vendor's microchip card 12" (page 9, lines 9 to 10)

Therefore, according to the description, the balance is not **sent** by means comprised in the vendor's **microchip card**; it is **read** by means located in the **terminal**.

5.3 According to the respondent, it is implicit in the description that, if the balance is read by means located in the terminal, it can also be sent to the terminal by means located in the vendor's card. However, the Board agrees with the appellant that, though it may be equivalent, from a technical point of view, to have means located in the terminal for reading the balance stored in the vendor's card or means in the vendor's card which send the balance to the terminal, the wording of the claim relates to a possible solution which is not covered by the description as filed and which, in fact, extends the patent beyond the content of the original application.

5.4 Hence, claim 1 of the second auxiliary request is not admissible under Article 123(2) EPC.

Third auxiliary request

6. Claim 1 of the third auxiliary request is based on all the essential features of the preferred embodiment and,

as such, relates to subject-matter which is explicitly disclosed in the application as originally filed. Furthermore, the combination of these features limits the scope of the granted independent claim. In fact, the appellant has not raised any objection against this claim under Article 123(2) or Article 123(3) EPC .

Novelty

7. It is not in dispute that the subject-matter of claim 1 according to the third auxiliary request is new within the meaning of Article 54 EPC.

Inventive step

8.1 Both parties agree that D3 discloses a transaction processing apparatus comprising all the features recited in the preamble of claim 1, and that the "terminal means" shown in D3 are not involved in the calculation of the vendor's and customer's new balances, or in the verification of the calculations performed by the microchip cards.

8.2 Hence, the subject- matter of claim 1 differs from the apparatus known from D3 essentially in that:

(i) each of the customer's microchip card and the vendor's microchip card is involved in authentication processes to establish the validity of the terminal means;

and the processing means further comprises:

(ii) means provided in the customer's microchip card for sending the balance recorded in the

customer's microchip card and the new balance obtained in the customer's microchip card to the terminal;

(iii) means provided in the terminal means for receiving the balance sent by the customer's microchip card to the terminal means, for subtracting the amount of the transaction from the received balance to obtain a result, for receiving the new balance sent by the customer's microchip card to the terminal means and for checking whether the result of the subtraction equals the received new balance and

(iv) means provided in the terminal means for reading the balance recorded in the vendor's microchip card, for adding the amount of the transaction to the read balance to obtain a result, for receiving the new balance sent by the vendor's microchip card to the terminal means and for checking whether the result of the addition equals the received new balance.

8.3 Starting from the disclosure of D3, the problem addressed by the present invention can be defined as increasing the security of the known apparatus. According to features (i) to (iv), this problem is essentially solved by involving the vendor's and the customer's microchip cards in the authentication of the terminal and by performing in the terminal a double check of the new balances obtained in the microchip cards.

8.4 The Board agrees with the appellant that it is known from D2 to involve microchip cards connected to a terminal in the authentication of the terminal, and that it may be regarded as obvious to a person skilled in the art to add this feature to the apparatus known from D3.

8.5 However, the appellant has not provided any evidence in support of the view that it would be obvious to a skilled person, starting from the apparatus shown in D3, to arrive at the combination of features recited in the characterising part of claim 1 and relating to the verification of the new balances. In fact, the appellant has essentially argued that the selection of the following measures:

- double checking the new balances calculated in the microchip cards, and

- providing the terminal with means for carrying out such double checking,

and their application to the apparatus shown in D3 would not involve any inventive activity on the part of a person of ordinary skills wishing to increase the security of the known apparatus.

8.6 In the opinion of the Board, double checking the new balances calculated in the microchip cards constitutes already a selection of a particular form of verification of the correct functioning of the microchip cards and, consequently, of the fact that they have not been fraudulently manipulated. Though double checking as a form of verification is *per se* known and its application to the apparatus of D3 may

indeed appear straightforward in the knowledge of the invention, it would not be fair to assume that a skilled person would immediately think of adopting this particular measure when facing the problem of increasing the security of the apparatus of D3.

In any case, the mere realisation that double checking would increase the security of the apparatus of D3 would not suffice to arrive at the claimed invention: the skilled person would have further to determine how and where this verification should advantageously be carried out, and what corresponding modifications of the apparatus shown in D3 would be required.

Furthermore, before deciding to develop a transaction processing means comprising a terminal with processing means for calculating and verifying the new balances, the skilled person would have to realise the possibility of replacing the "dumb" terminal linked to a host computer shown in document D3 with an "intelligent" terminal capable of performing at least some of the functions of the microchip cards. As pointed out by the respondent, an "intelligent" terminal is not the only possible solution to the problem of double checking the new balances. For instance, it would be conceivable to use one microchip card to verify the other card's new balance, as both microchip cards already comprise processing means suitable for performing calculations.

8.7 Considering all the "right" choices which the skilled person would have to make before arriving at the claimed apparatus, the Board finds that the present invention should not be regarded as an obvious improvement of the apparatus shown in D3.

8.8 Hence, the Board concludes that the subject-matter of claim 1 involves an inventive step within the meaning of Article 56 EPC.

Claims 2 to 8 are dependent and, therefore, their subject-matters also involve an inventive step.

9. For the above reasons, the Board finds that the appellant's **third auxiliary request** meets the requirements of the EPC and that the patent can be maintained on the basis thereof.

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 on the basis of the respondent's **third auxiliary request**, as follows:

Claims 1 to 8 filed in the oral proceedings,

Columns 3 to 7 of the patent specification with Page 2 filed on 7 November 1996 and Page 2a filed in the oral proceedings, and

Figures 1 to 3, 4A, 4B and 4C as granted.

The Registrar: The Chairman:

R. Schumacher G. Davies