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File Number: T 783/89 - 3.4.2
Application No.: 82 300 848.7
Publication No.: 0 059 081
Title of invention: Display device for a machine

Classification: G03G 15/00

D E C I S I O N
of 19 February 1991

Applicant: KABUSHIKI KAISHA TOSHIBA
Opponent: 1) Xerox Corporation
2) Almagrange Ltd.

Headword:

EPC Art. 56, Rule 67

Keyword: "Inventive step (no); Reimbursement of appeal fees (yes)"

Headnote



Case Number : T 783/89 - 3.4.2

D E C I S I O N
of the Technical Board of Appeal 3.4.2
of 19 February 1991

Appellant :
(Opponent 01)

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(Proprietor of the patent)

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Decision under appeal :

Interlocutory decision of the Opposition Division
of the European Office dated 30.10.89 concerning
maintenance of European patent No. 0 059 081 in
amended form.

Composition of the Board :

Chairman : E. Turrini
Members : M. Chomentowski
M.V.E. Lewenton

Summary of Facts and Submissions

- I. European patent No. 0 059 081 was granted on the basis of European patent application No. 82 300 848.7.
- II. The Appellants (Opponents) filed an opposition against the European patent, in particular on the grounds that the subject-matter of the claims of the opposed patent lacked an inventive step having regard inter alia to the disclosure in

D1 = JP-A-56-8155 & Abstract in Patent Abstracts of Japan, vol.5, No.52 (P-56) (724).
- III. The Opposition Division decided to maintain the patent in amended form.
- IV. The Appellants (Opponents) filed an appeal against this decision.
- V. In the annex to the invitation to the oral proceedings requested auxiliarily by the parties, the Board expressed its provisional opinion that, although the patent could be considered as an invention and not as a mere presentation of information, however the amended text did not meet the formal requirements of the Convention. Moreover, the subject-matter of the claims as granted was provisionally considered as lacking an inventive step.
- VI. The Respondent filed a new set of claims with amendments mentioned as overcoming the objections of the Board.
Claim 1 reads as follows:

"1. A machine (C) having an outer casing at least two parts (51, 56, 59) of which are movable to provide access to the interior of the casing; a plurality of operating

parts, each of which is liable to malfunction; a display device (1) having a first group of segments (16, 21, 22, 23) formed to schematically represent said operating parts and their locations, a second group of segments (9, 10, 34) and control means (41, 42) which, on the occurrence of a malfunction in one of the operating parts, activates one or more segments of the first group which represent said one operating part and activates one or more segments of the second group when the first group of segments indicate the malfunction of one of said operating parts which requires a part of the casing to be moved to give access to said one operating part; wherein the segments of the second group are formed to schematically represent the movable parts of the outer casing in their moved position and wherein the control means activates those segments of the second group which represent the or each part of the outer casing which has to be moved to give access to the operating part which has malfunctioned, and wherein the control means does not activate any of the second group of segments when the first group of segments indicate the malfunction of an operating part which does not require a part of the casing to be moved to give access to the operating part."

VII. Oral proceedings were held. The Appellants (Opponents) requested that the decision under appeal be set aside and that the patent be revoked. Appellant 1 auxiliarily requested to submit the case to the Enlarged Board of Appeal under Article 112(1) (a) EPC for a decision on the following questions:

Alternative formulation No. 1:

"Is patentability according to Article 52 EPC given for the subject-matter as defined in the main patent claim as a combination of technical and non-technical features,

which (subject-matter) differs from the state of the art by a different design of non-technical features only?"

Alternative formulation No. 2:

"Can patentability lie in the difference of the design of non-technical features of a mixture of technical and non-technical features known in said mixture (combination) from the state of the art?"

Appellant 2 further requested reimbursement of the appeal fee. The Respondent (Patentee) requested that the appeal be dismissed and that the patent be maintained on the basis of Claims 1 to 5 filed on 23 January 1991.

- VI. Concerning their main request, the Appellants submitted, in particular, that the subject-matter of Claim 1 differed from the machine known from D1 only in that the graphic symbols indicating the measures to be taken to overcome a malfunction were possibly different, and in that the control means in Claim 1 did not activate any of the segments of the second group indicating said measures; however, the first distinguishing feature is not of technical nature, but corresponds to a possible difference in the design of the information, i. e. corresponds to a difference in the way the operator mentally perceives the information; moreover, the second distinguishing feature is trivial in the relevant field; therefore, the subject-matter of Claim 1 lacks an inventive step.

Concerning the request for reimbursement of appeal fees, Appellant 2 submitted in particular the following arguments.

According to former decisions, an amendment not submitted in good time before oral proceedings will be considered

only "where there is some clear justification both for the amendment and for its late submission". Although the Patentee was invited by the Opposition Division in a communication to amend the patent and although he was aware of the objections of the Opponents before the oral proceedings, he only acknowledged that amendments might be required but did not propose any amendment before the oral proceedings and did not put forward any amendment during them. The Opposition Division proposed themselves that certain amendments should be made, and handed over a ready-typed amended version of Claims 1 to 5, in which the feature of the single representation of the machine was included for the first time.

The Opposition Division went on to hold, in the decision under appeal, that this newly-introduced feature provided the claim with an inventive step. Since this claim was ready-typed, it must be concluded that the Opposition Division had considered proposing such an amendment; however, no notification had been made to the Opponents before oral proceedings that any such amendment had been considered. The feature of the single representation of the machine had not been explicitly stated in the patent; the only disclosure supporting this feature is that contained in the displays shown in the drawings; however, nothing in the patent as granted suggested that this was anything other than an entirely incidental feature of the embodiment unrelated to the inventive concept; in part 9 of the reasons for the decision of the attacked decision, the amendment is mentioned as being a "minor clarifying amendment", "of relatively minor nature", which does not result in a shift of the invention or in new principle thereof; however, the attacked decision relies on said feature as contributing to an inventive step; therefore, it is submitted that this is not a minor clarifying amendment. Since the Patentee should not have been

permitted to make the amendment during oral proceedings in the opposition procedure, it was a substantial procedural violation of the Opposition Division to propose the amendment without previous warning during oral proceedings; this procedural violation prevented the opponents from having a proper opportunity to study a feature which was crucial to the decision maintaining the patent, and to prepare arguments against the feature.

In respect of the amendment proposed by the Opposition Division, Appellant 1 mentioned that the spirit of fair play and an opportunity to argue a position had been violated, not because the Opposition division proposed claim amendments, but by the manner and timing in which it introduced such claim amendments; the oral proceedings could have been rendered unnecessary, for the Opposition division substantially ruled on the matter without the benefit of the Opponent's oral arguments; had the main claim been submitted to the parties in advance of the oral proceedings, the Opponents could have understood the Opposition Division's tentative position and would have been prepared to accept it or to argue its deficiencies.

The Respondent submitted the following arguments in support of the inventive step of the subject-matter of Claim 1. The machine of Claim 1 indicates which operating part is malfunctioning; moreover, it distinguishes between major and minor malfunctions; for minor malfunctions, it further indicates in a very simple manner the measures to be taken to overcome the malfunctions; for major malfunctions, it does not further indicate any countermeasure, and the unskilled operator will have to call a serviceman. The machine of D1 does not make such distinction between major and minor malfunctions. Moreover, D1 does not mention that, in case the countermeasure does not imply the step of moving a part of

the outer casing to give access to the operating part, for instance for a part located outside of said casing, the display does not give any instruction for moving such a part of the outer casing. Furthermore, although it is admitted that the instructions in D1 may be in sentences or graphical, the nature of said instructions, for instance "please slowly pull the handle of the fixing portion toward you to the full while a little pushing it up", which is only one of a sequence of instructions which are displayed on different display parts located adjacent to each other, are of such a nature that they cannot be represented by a simple drawing. These are fundamental differences with the machine of Claim 1, which is conceived for giving simple and understandable instructions to an unskilled operator in case of major or minor malfunctions of the operating parts and in case of malfunctions for which a part of the outer casing has to be moved or not.

Reasons for the Decision

1. The appeal is admissible.
2. **Novelty**
 - 2.1 From D1 (see the abstract and the English translation) is known a machine having an outer casing at least two parts (the upper cover (4) and the doors (5)) of which are movable to provide access to the interior of the casing; a plurality of operating parts (a photoreceptor drum (12), a fixing device (13), a development apparatus (15), a transfer charger (16), a registration roller (18), a discharged paper tray (6)) each of which is liable to malfunction; a display device (3) having a first group of segments (31- 35) formed to schematically represent said

operating parts and their locations, a second group of segments (39) and control means (the CPU unit (101), the read-only memory ROM (102) storing the control program, the random-access memory RAM (103) storing the data for executing each processing for control, and interface circuits (107a, 107b)) which, on the occurrence of a malfunction in one of the operating parts, activates one or more segments of the first group which represent said one operating part and activates one or more segments of the second group when the first group of segments indicate the malfunction of one of said operating parts which requires a part of the casing to be moved to give access to said one operating part.

2.1.1 The subject-matter of Claim 1 differs from the machine known from D1 in that it includes the following features:

(a) the segments of the second group are formed to schematically represent the movable parts of the outer casing in their moved position;

(b) the control means activates those segments of the second group which represent the or each part of the outer casing which has to be moved to give access to the operating part which has malfunctioned, and (c) the control means does not activate any of the second group of segments when the first group of segments indicate the malfunction of an operating part which does not require a part of the casing to be moved to give access to the operating part.

2.2 The other prior art documents are considered as less relevant.

2.3 Therefore, the subject-matter of Claim 1 is novel in the sense of Article 54 EPC.

3. Inventive step

3.1 D1 pertains to the technical field of the machines having operating parts liable to malfunctions and including a display device for displaying instructions to remedy to the malfunctions detected in the machine. The person skilled in the art is a person skilled in said relevant technical field.

3.1.1 In the opinion of the Board, the person skilled in the art is different from the user of the machine, who is an operator, possibly an unskilled operator.

3.2 A problem of the prior art apparatus known from D1 is that, when the operator is unskilled, he may be unable to read the captions when they are in form of displayed written instructions; moreover, an unskilled operator may have trouble to understand the relation between the display device including a group of segments formed to schematically represent operating parts of the machine, said segments being activated in response to the occurrence of a malfunction in one of the operating parts, on the one hand, and the written instructions or the instructions illustrated by figures, which are displayed on an adjacent display device, to bring about the correction of the fault, on the other hand (see the patent in dispute, page 2, lines 22-28). The patent in dispute (see page 2, line 29-30) only mentions one object of the invention, which is to provide a machine being a display device which enables even unskilled operators to properly carry out the correction of a malfunction.

3.2.1 It is to be noted that D1 (see page 2, second paragraph-third paragraph, first sentence; page 10, first paragraph) also mentions the same object of giving instructions to a

user who does not know well the internal functions of the machine for action in case of abnormal conditions of the machine and giving instructions so that a beginner can easily operate the machine correctly.

3.3 The group of segments of D1 (see the abstract; see page 2, last paragraph-page 3, first paragraph; page 5, last paragraph-page 6, first paragraph) is formed to represent instructions concerning the machine in captions or figures, or in sentences or graphic form, or in character or graphic form. Although the instructions in graphic form of D1 might be identical with the schematic ones of Claim 1 in suit, however, the instructions of D1 are not specifically disclosed as being, as in Claim 1 in suit, a group of segments formed to schematically represent the movable parts of the outer casing in their moved position. Thus, feature (a) is indeed a distinguishing feature. In the patent in suit (see page 2, lines 42- 49), the only effect resulting from the distinguishing feature (a) is that the unskilled person will understand instantly which movable part of the machine has to be moved; therefore, said feature does not have a technical character and does not provide a technical effect but merely a particular form of the displayed information. For these reasons, the distinguishing feature (a) is not considered as technical in nature and thus as contributing to an inventive step of the subject-matter of Claim 1.

3.4 The selective activation of segments in a display device is a technical feature, which implies a technical step of selection of the segments and a succeeding technical step of activating the selected segments. However, D1 (see in particular Fig. 3 and the abstract) also discloses a selective activation of segments of the display (39), which is a trivial technical feature in the field of displays. Thus, the distinguishing feature (b), that the

control means activates those segments of the second group which represent the or each part of the outer casing to be moved to give access to the operating part which has malfunctioned, differs from the teaching of D1 mainly in that the design displayed on the display device is different. Since the distinguishing feature (b) is in fact mainly a distinguishing feature in design, in what is represented by the segments, and since the technical means to realize that different representation are trivial in the relevant field, it cannot be considered as contributing to an inventive step of the subject-matter of Claim 1.

- 3.5 The distinguishing feature (c), that the control means does not activate any of the second group of segments when the first group of segments indicate the malfunction of an operating part which does not require a part of the casing to be moved to give access to the operating part, is illustrated in the patent in suit in particular by the cases of Fig. 9, when there is absence of copying paper in the external paper feed cassette (52) and Fig. 11, when the key counter (27) is not inserted into copying machine (C). This is to be understood as meaning that the countermeasure to be taken against the disorder is of such a simple nature (add paper in the external paper feed cassette (52) or insert key counter (27) in the copying machine (C), respectively) that even an unskilled operator will know how to act. Once again, the technical means for selectively leaving the second group of segments unactivated are trivial in the relevant field. Thus, the onus is again on the unskilled operator, who is supposed to know the countermeasures to remedy to a malfunction. However, this is not related to the machine but to the unskilled operator, who is supposed to be unskilled but only in a limited way.

3.5.1 In relation with this feature, the Respondent has argued that the machine of Claim 1 does not give any instruction for countermeasures when the operating part which is malfunctioning is so located, for instance outside of the outer casing, that it is not necessary to move any part of the outer casing to get access to it, and that such a feature is not derivable from D1. This argument is not considered as relevant for the following reasons. Since it is a part of the outer casing, a door (5) of D1 (see Fig. 1) is a part of the machine which is located so that it is not necessary to move a part of the outer casing to get access to it. Since in the patent in suit "the external paper feed cassette (52)" and "the insert key counter (27)", which in fact do not operate but simply cause a malfunction of the machine because said external paper feed cassette (52) is empty or because the key counter is not inserted, respectively, are presented as operating parts which are liable to malfunction, the Board is of the opinion that the meaning to be attached to the term "operating parts which are liable to malfunction" in Claim 1 is broad. Therefore, although "prima facie" a door (5) of D1 is not an operating part of the machine, it can be considered to be one in the sense of Claim 1. In the machine of the patent in dispute (see Fig. 9 and 11 and page 6, line 10-37), in the mentioned cases, the one or more first segments (in particular the segments (15, 17 and 18) for paper feed cassette and the segment (27) for the key) representing the operating part which is malfunctioning, are activated and the second segments are not activated, indeed. In D1 (see page 5, penultimate paragraph; page 8, second paragraph-page 9, last paragraph; Fig. 1, 3, 4 and 9 of the translation) the lamp (37) in the schematic drawing (30) is for indicating an open door to urge an operator to set the door when the display is (b) in Fig. 4; From the above and from Fig. 1-2, it can be derived that the lamp (37) "represents" said

door (5); according to the flow chart of Fig. 9, at steps (217-220), display (39) informs the operator: "please set right front door" and then, only after the operator has executed this step, the machine is ready to function. Therefore, the Board is of the opinion that the door (5) is an operating part which is liable to malfunction and the lamp (37) is a first segment in the sense of Claim 1 in suit.

In D1, in case the door (5) is open, the machine is such that second segments are indeed activated. This could be considered as constituting a distinguishing technical feature in comparison with the machine of Claim 1. However, the effect of said distinguishing feature is only a difference in the information to be transmitted to the operator. Displaying "please set right front door" (step 217) of Fig. 9 of D1, i. e. selecting particular second segments to be on and extinguishing all the others, when the lamp (37) is on, or extinguishing all second segments when the first segments are on, as in Claim 1 in suit, are two informations being equivalent in effect, provided that the operator is able to understand it. Once again, the onus is on the unskilled operator, who is supposed to know the countermeasures to remedy to a malfunction, or to understand the language or the symbols displayed. For an unskilled operator, the effect of an information which he does not understand is the same as no information. For the person skilled in the art of such machines, a display wherein some of the second segments can be selectively extinguished to display some information, as in D1, is equivalent technically to a display wherein all second segments can be selectively extinguished, as in Claim 1 in dispute.

3.5.2 In relation with the same feature (c), the Respondent has argued that the machine of Claim 1 does not give any

instruction for countermeasures when the malfunction is so important that a serviceman must be called. However, this argument is already considered as irrelevant because Claim 1 does not mention such a case. Moreover, even by supposing that this could be derivable from the wording of the patent in suit, it is generally known (and used) in the relevant field (see D1, page 1, second paragraph of the translation) that, when the information for overcoming a malfunction is lacking or its language or symbols are not readily understood by the operator, as a natural alternative step a serviceman has to be called. This step is not related at all to the machine. Therefore, the argument based on said feature cannot be considered as technical and, accordingly, does not contribute to an inventive step.

3.6 The argument of the Respondent concerning the drawbacks of the machine of D1 resulting from the derivable constructive feature thereof that it comprises a plurality of adjacent displays (30, 36, 39, 40) is not considered as relevant because, although the embodiment of the patent in suit discloses a machine with a single display device, Claim 1 does not mention any particular constructional feature of the display. Therefore, the machine of Claim 1 does not differ from the machine of D1 in this respect.

3.7 The argument of the Respondent that the instructions in the machine of D1 are of such a nature that they cannot be displayed as a simple drawing is not convincing because this only relates to the content of the information, but not to the machine. In particular, the content of information is related to the malfunction and to the instructions for overcoming it, and also to the skill of the operator. Thus, for simple malfunctions such as an open door (5), step (205) of Fig. 9 of D1 states "please open right front door" on display part (39) and a further

display part (36) can display the instruction "set door" (see Fig. 3 and 4(b)); in the opinion of the Board, for an operator of some skill, such a simple information need not be displayed in sentences but can as well be displayed in graphic form by the machine in accordance with the principles of D1.

3.8 Claim 1 in suit indicates that the control means activates those segments of the second group which represent the or each part of the outer casing to be moved, but does not specify whether this represents a single step or a sequence of steps. Therefore, since this last feature is not specified in Claim 1, the argument of the Respondent that the instructions in the machine of D1 are of such a nature that they cannot be displayed as a single instruction but need a sequence of instructions is not considered as relevant.

3.9 Therefore, the subject-matter of Claim 1 lacks an inventive step (Art. 56 EPC). Thus, since the grounds for opposition mentioned in Article 100 EPC prejudice the maintenance of the patent, it has to be revoked (Art. 102(1) EPC).

4. Reimbursement of appeal fees

4.1 According to Rule 67 EPC the reimbursement of appeal fees shall be ordered when the Board deems an appeal to be allowable, if such reimbursement is equitable by reason of a substantial procedural violation.

4.2 Both Appellants have expressed their disapproval concerning the fact that the Opposition division proposed a new typed text of the main Claim at the beginning of the oral proceedings to the parties, and have argued that they were taken by surprise.

4.3 At the beginning of the oral proceedings, the Opposition division submitted a new Claim 1. From the minutes of the oral proceedings in file, in paragraph 2, it can be derived that the Opposition division considered that the subject-matter of Claim 1 as granted lacked novelty. Although the proposed amended Claim 1 was taking into account the possible amendments mentioned by the Proprietor in his letters, amended Claim 1 also comprised other amendments, such as "openable" in place of "movable" and the added terms "the single representation of the machine". Whereas "openable" can be derived from the dependent Claims 4 and 5, its substitution for "movable" is not derivable from the letter of the Proprietor. Moreover, although an instantaneous single representation of the machine can be derived from the embodiment illustrated in the patent as granted, the first letter of the Proprietor only mentioned a single display and its advantages (see the fifth page, third paragraph of the letter filed on 04/06/88; see also the last paragraph of the sixth page and the first and second paragraphs of the last page). This feature is not mentioned explicitly in the description or in the claims of the patent as granted and the Proprietor did not mention any willingness to amend Claim 1 in relation with this point.

4.4 Therefore, the Board is of the opinion that the Opponents could have been taken by surprise at least by this last amendment, which did not correspond to an objection of the Opposition division and which was not based on an explicit disclosure in the patent as granted.

4.5 After submitting the proposed amended Claim 1, the Opposition Division gave the parties ten minutes for studying the suggested version of Claim 1 (see the last sentence of paragraph 2 of the minutes). In the opinion of

the Board, the limited time allowed cannot be considered as sufficient for the Opponents to study the allowability of the amendments, some of them based on implicit disclosure in an embodiment in the patent as granted, and the patentability of the subject-matter of the suggested Claim 1 with regard to the available prior art and to the crucial importance of said new features on the issue of the decision.

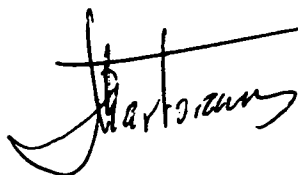
- 4.6 In view of the above considerations, the Board is of the opinion that a substantial procedural violation has been made and therefore, since the appeal also is deemed to be allowable, a basis for reimbursement of the appeal fee under Rule 67 EPC is given.
5. Since the main request of the Appellants is allowable, the Board considers that the study of the auxiliary requests of Appellant I is not necessary.

Order

For these reasons, it is decided that:

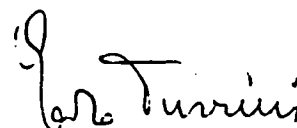
1. The decision under appeal is set aside and the patent is revoked.
2. The appeal fees are reimbursed to the Appellants.

The Registrar



P. Martorana

The Chairman



E. Turrini

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