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File Number: T 295/90 - 3.4.2  
Application No.: 83 300 928.5  
Publication No.: 0 087 912  
Title of invention: Recording apparatus

Classification: G03B 27/32

D E C I S I O N  
of 8 July 1991

Proprietor of the patent: MITA INDUSTRIAL CO. LTD.  
Opponent: Almagrange, Ltd.

Headword:

EPC Articles 114(1) and 111(1)

Keyword: "New document filed in appeal; remittal to the Opposition Division"

Headnote



Case Number : T 295/90 - 3.4.2

**D E C I S I O N**  
**of the Technical Board of Appeal 3.4.2**  
**of 8 July 1991**

**Appellant :** Almagrange, Ltd.  
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**Decision under appeal :** Interlocutory decision of Opposition Division of  
the European Patent Office dated 29.01.1990  
concerning maintenance of European patent  
No. 0 087 912 in amended form.

**Composition of the Board :**

**Chairman :** E. Turrini  
**Members :** W.W.G. Hofmann  
M.V.E. Lewenton

## Summary of Facts and Submissions

- I. European patent No. 0 087 912 was granted on the basis of European patent application No. 83 300 928.5.
- II. On opposition by the Appellant, the patent was maintained in amended form by an interlocutory decision of the Opposition Division.

In the decision, the following documents were referred to:

- (D1) EP-A-33 453,
- (D2) GB-A-1 450 705,
- (D3) US-A-4 317 629 (which is not prepublished),
- (D4) GB-A-2 071 960,
- (D5) US-A-4 283 731,
- (D6) JP-A-54-30 831,
- (D7) JP-A-55-41 537,
- (D8) US-A-4 081 843,
- (D9) US-A-3 800 080,
- (D10) EP-A-19 878.

The Opposition Division considered that, having regard to these documents, the patent as amended met the requirements of the EPC.

- III. The Appellant lodged an appeal against this decision.
- IV. In the Grounds for Appeal, the Appellant referred to a further document,
  - (D11) JP-A-54-94 846.

V. Oral proceedings were held, at the end of which the Appellant requested that the decision under appeal be set aside and that the European patent No. 0 087 912 be revoked.

The Respondent (Patentee) requested that the appeal be dismissed and that the patent be maintained on the basis of the following documents:

Claim 1 as submitted in the oral proceedings of 8 July 1991;  
Claims 2 and 3 as granted;  
Description, column 1, line 3 to column 7, line 12 as granted,  
with inserts <1>, <2> and <3> for insertion after column 2, line 6; column 1, line 42; and column 1, line 50, handed over during the oral proceedings of 24 January 1989 and including handwritten amendments;  
Figures 1 and 2 as granted.

VI. Claim 1 now under consideration reads as follows:

"A recording apparatus having a printer mechanism (5) for printing pages of image information successively onto sheets of copy paper, each page of image information being printed upon a separate sheet of copy paper; and an image control circuit (2) for receiving successive pages of image information to be printed and for delivering pages of image information controllably to said printer mechanism (5) to enable said printer mechanism (5) to print each page of image information upon a separate sheet of copy paper, said control circuit being capable of causing reprinting of a page corresponding to a page lost in a paper jam, characterised by said image control circuit (2) including a plurality of page memories (3,4), each of said plurality of page memories (3,4) being for storing one page of image information to be printed upon a

separate sheet of copy paper, a first changeover switch (9) for writing each page of image information selectively into said plurality of page memories (3,4), a second changeover switch (11) for selectively reading each page of image information from said plurality of page memories (3,4), and control means (10,18) for controlling said first and second changeover switches (9,11) normally to cause succeeding pages of image information to be written into alternate ones of said plurality of page memories (3,4) and normally to cause said second changeover switch (11) selectively to read a page of image information from one of said plurality of page memories (3,4) while said first changeover switch (9) is selectively writing a page of image information into another of said plurality of page memories (3,4), said control means (10,18) being operative to cause a new page of image information to be written into one of the page memories in response to a discharging signal provided upon discharge of a copy sheet containing data read from that same one of the page memories, and being responsive to a paper jam occurrence in said printer mechanism (5) with a paper jam occurring after the image has been formed causing said second changeover switch (11) to be placed in a condition to read a page of image information from the page memory (3,4) which contains image information for the page associated with said paper jam occurrence, and with a paper jam occurring during image formation causing said second changeover switch (11) to be maintained in position to read a page of image information for the page memory (3,4) which contains image information for the page associated with the paper jam occurrence, and being responsive to actuation of a paper-jam clearance button to provide a print signal to cause said apparatus to print with the second changeover switch (11) in its reading position to read a page of image information from the page memory (3,4) which contains the image information for the page associated with said paper jam occurrence."

VII. The arguments presented by the Appellant are in substance as follows:

Even without taking into account the newly cited document D11, the subject-matter of Claim 1 can be shown to lack an inventive step. Document D6 teaches that delays during printing can be avoided by using two one-page memories with alternating reading and writing. The problem on which the subject-matter of the patent is based, i.e. printing image information on a subsequent sheet of copying paper in a relatively reduced period of time after the jammed sheet has been removed, does not in itself make any contribution to inventive step, as already stated by the Opposition Division. Under these circumstances, a person skilled in the art will immediately see that in a machine (according to document D6) having two one-page memories the information for the just printed page remains available and can be used for reprinting. The person skilled in the art is assisted by document D1 in finding this solution, which document teaches that copies lost in a jam should be reprinted immediately after the jam.

Document D11 relates to a recording apparatus having two one-page memories which are alternately written and read. If something goes wrong with the printing, reprinting is effected using the data stored in the data buffer. The transfer of further data is only started by a completion signal in respect of the printing of the data from the same buffer. The features that the abnormality during the outputting process of the printer is a paper jam, and that first and second changeover switches and a discharging signal upon discharge of a copy sheet are provided, are implicitly also comprised in the teaching of document D11. The only remaining difference according to Claim 1, i.e. the paper jam clearance button, has been

acknowledged by the Respondent himself to be conventionally provided in copiers, and, moreover, is equivalent to an automatic retry signal restarting the error recovery process after the jam has been removed, as it is suggested in document D11. Thus, having regard to document D11, the subject-matter of Claim 1 lacks an inventive step.

Moreover, the patent does not sufficiently describe the invention (Article 83 EPC) since Claim 1 also comprises switches implemented in software whereas the description does not mention such an arrangement at all.

VIII. The Respondent's arguments may be summarised as follows:

Document D1 relates to an apparatus which uses two memories which are not page memories. Contrary to this document, the present invention requires the provision of a plurality of page memories with each page memory being used to record one page only of image information, regardless of page length. The difficulties of document D1 regarding jam recovery only result from the fact that each memory is loaded with a series of pages, so that when a jam occurs, it is necessary to calculate from the sequence those pages which have not been printed. There is no disclosure in document D1 of changeover switches, of means for controlling the changeover switches, and of control means responsive to a paper jam occurrence, as required by the present invention. Even when combined with document D6, the teaching still does not reach the present invention since document D6 does no more than disclose the use of alternate single-page-memories and contains no idea of the simple manner in which the present invention provides protection against the effects of paper jams, with the consequence of non-delivery of a copy preventing over-writing of a memory until that page from the memory has been properly printed.

Document D11 does not appreciate the great simplicity which can be achieved in overcoming the prime problem with copiers, that is the essentially mechanical problems which occur from paper jams. This document is primarily concerned with errors in the transfer of the information to the printer, and not with mechanical paper jam effects. Document D11 does not contain any disclosure of the present arrangement whereby switches are controlled by detection of failure to discharge a printed copy with the correct copy being reprinted upon actuation of a paper jam clearance or reset button.

Regarding the ground of alleged insufficient disclosure of the invention, no reason can be seen why Claim 1 should not be broader in scope than a specific example disclosed in the description.

#### Reasons for the Decision

1. The appeal is admissible.
2. As compared with the original Claim 1, present Claim 1 contains additional features which can be summarised as follows:
  - a) Each (single page) information is printed on a separate sheet of copy paper. This feature is originally disclosed at many places in the description, e.g. page 2, lines 5 and 6, and page 5, line 20 to page 6, line 4.
  - b) The control means control the first and second changeover switches so that normally succeeding pages of image information are written into alternate page memories and the second changeover switch is caused



to read selectively a page of image information from one of the page memories while the first changeover switch is selectively writing a page of image information into another page memory. These steps of control (regarding clarity of the expression "switch ... is writing/reading ...", see point 3.2 below) result directly from the example disclosed on page 8, line 17 to page 10, line 5, and from the corresponding curves in Figure 2.

- c) A new page of image information is written into one of the page memories in response to a discharging signal provided upon discharge of a copy sheet containing data read from that same page memory. This feature directly results from the example described on page 9, lines 14 to 24 and page 11, lines 1 to 8 and 12 to 18, and shown in Figure 2.
- d) The alternative relating to the second changeover switch being either placed in or maintained in a condition to read the image information associated with the paper jam, depending on whether the jam occurred during or after image formation (which is not identical with "during or after printing"), is disclosed on page 10, lines 6 to 21, on page 11, line 21 to page 12, line 6, and in Figure 2.
- e) The paper jam clearance button and its function is disclosed on page 8, lines 1 to 4, page 10, lines 16 to 25, and page 12, lines 1 to 6.

The features which were added to Claim 1 after grant, i.e. the above-mentioned features c), d) and e), do not mean an extension, but rather a limitation of the scope of the claim.

Thus, the Board is satisfied that Claim 1 does not violate Article 123(2) and (3) EPC.

3.1 It is true that in Claim 1 the terms "first changeover switch" and "second changeover switch" do not specify the type of switch used. Such a switch might be any element or combination of elements capable of selectively connecting and disconnecting specific electrical leads. In the Board's view (contrary to the opinion of the Appellant), not even the description and the drawings can be understood to point to a specific type of switch since in electronics switching elements are often merely symbolised as mechanical switches. However, the art of switching between different connections is well developed in electronics, so that even without any detailed advice in the patent in suit, the person skilled in the art will be able to find a suitable type of switch for carrying out the invention. Therefore the requirements of Article 83 EPC are fulfilled.

3.2 Although strictly speaking a switch itself cannot read or write information, the Board agrees with the Opposition Division that a skilled reader will readily understand the intended function of the two changeover switches mentioned in Claim 1 (Article 84 EPC).

3.3 The description requires adaptation which, however, was not deemed necessary at the present stage in view of the decision given below.

4. Documents D1 to D10

4.1 Neither one of documents D1 to D10 discloses all the features of the recording apparatus specified in Claim 1, so that neither one of these documents destroys the novelty of the claimed subject-matter (Article 54 EPC). This fact is not contested by the Appellant.

4.2 Document D6 describes a recording apparatus having, in agreement with the subject-matter of present Claim 1, two one-page memories which are alternately used so that the information from one of the memories is read while succeeding information is written into the other memory. The problem of reducing the period of time required for re-copying a page after a jammed sheet of copying paper has been removed (cf. column 1, lines 43 to 47 of the patent specification), is not mentioned in document D6, and no means are provided for solving this problem.

Although it is true that the fact alone of finding this problem cannot be considered inventive since a person skilled in the art would principally try to avoid delays in re-copying after a paper jam, it is nevertheless not irrelevant for which purpose according to Claim 1 the new page of image information is written into one of the page memories in response to a discharging signal provided upon discharge of a copy sheet containing data read from that same one of the page memories. Since not only this last-mentioned feature, but also the underlying problem are not even approximately touched in document D1 or any other of documents D1 to D10, the skilled person had no reason to provide this feature in the apparatus of document D6. Unless combined with the above problem, the feature of delaying (in the apparatus of document D6) the writing of new page information until the copy sheet is discharged, instead of starting writing immediately after the previous information has been read, would only appear as an unnecessary waste of time.

4.3 Thus, the Board agrees with the finding of the Opposition Division as to the fact that documents D1 to D10 are not sufficient to render the subject-matter of Claim 1 (in the version underlying the appealed decision as well as in the present version) obvious (Article 56 EPC).

5. Document D11

5.1 Document D11 was cited by the Appellant for the first time in the Statement of the Grounds of Appeal, i.e. in a stage of the proceedings long after expiry of the time limit for opposition. The Appellant has not given any reason why he did not file this document at an earlier time. Nevertheless, the Board, having examined document D11 of its own motion in accordance with Article 114(1) EPC, comes to the conclusion that this document cannot be disregarded and has to be admitted into the procedure, in accordance with the principles set out in the decision T 156/84 - 3.4.1 (OJ EPO 1988, 372; point 3. of the Reasons), since it comes much closer to the subject-matter of the patent in suit than each of the previously cited documents D1 to D10 and appears to be highly relevant for judging inventive step.

This document relates to a recording apparatus in which a control circuit ("input-output control apparatus") transfers data from a processing system to a printer ("input-output unit") and uses two memories for alternately writing and reading pages of image information. An important point appears to be that the start of a new writing operation into one of the memories depends on a "printing completion report" indicating that the printing on one page has completely finished. In the event that during the printing process "any abnormality has been found", reprinting will be effected using the data stored in the data memory (error recovery).

5.2 The filing of document D11 has created a new situation which has not yet been considered by the first instance.

Accordingly, the Board deems it appropriate in the present circumstances to make use of the power conferred upon it by Article 111(1) EPC not to decide on the requests of the parties, but to remit the case to the Opposition Division for further prosecution so as to allow the requests to be examined in the first instance, taking into account the additional document D11, and not to deprive the parties of one such instance, in compliance with earlier decisions of the Boards of Appeal (T 156/84 above, point 3.8; T 273/84: OJ EPO 1986, 346, points 6 and 7 of the Reasons; T 326/87 to be published).

**Order**

**For these reasons, it is decided that:**

1. The decision under appeal is set aside.
2. The case is remitted to the Opposition Division for further prosecution on the basis of the Respondent's (Patentee's) request.

**The Registrar:**

**The Chairman:**

**P. Martorana**

**E. Turrini**