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D E C I S I O N
of 19 August 1996

Case Number: T 0802/95 - 3.4.2

Application Number: 90310693.8

Publication Number: 0420697

IPC: G03G 15/052, G03G 15/00

Language of the proceedings: EN

Title of invention:
Reprographic machines with adjustable magnification

Applicant:
XEROX CORPORATION

Opponent:
-

Headword:
-

Relevant legal provisions:
EPC Art. 84, 54 and 56

Keyword:
"Clarity (after amendments): yes"
"Novelty: yes"
"Inventive step: yes"

Decisions cited:
-

Catchword:
-



Case Number: T 0802/95 - 3.4.2

D E C I S I O N
of the Technical Board of Appeal 3.4.2
of 19 August 1996

Appellant:

XEROX CORPORATION
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Rochester
New York 14644 (US)

Representative:

Reynolds, Julian David
Rank Xerox Ltd
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Decision under appeal:

Decision of the Examining Division of the European
Patent Office posted 23 March 1995 refusing
European patent application No. 90 310 693.8
pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: E. Turrini
Members: M. Chomentowski
B. J. Schachenmann

Summary of Facts and Submissions

- I. European patent application No. 90 310 693.8 (publication No. 0 420 697) was refused on the grounds that the subject-matter of the submitted claim 1, which concerned a reprographic machine in which the magnification of an incremental area of a fan-folded web having a plurality of equally-spaced holes along at least one longitudinal margin thereof was adjusted for a copy sheet of specified size, lacked an inventive step having regard to D1: US-A-4 647 189 and D2: GB-A-2 188 618.

The Examining division took the following view:

D2 represented the closest prior art because, as the submitted claim 1, it related to a reprographic machine handling fan-folded web originals having incremental areas; D2 taught in particular that the magnification of an original computer form to a selected copy sheet was adjusted, and it was implicit that, since producing test copies was mentioned therein, the selected magnification was such that the image had to fit on the used copy sheet. Starting from D2, the problem to be solved was the automatic adjustment of the magnification of an image of computer forms of different sizes on a copy sheet. This problem was evident because the skilled person in general seeks to automate manual tasks, and the means for solving the same problem were known from D1, except that D1 dealt with unformatted original documents. The present invention resided in the input of the width and length dimensions of an individual incremental area of a computer forms web, thus having sprocket-holes and unusual dimensions, but did not reside in the fact that this incremental area was part of a web. Only straightforward engineering without

inventive merit was necessary for the skilled person to modify the reprographic apparatus of D2 by including the teaching of the automatic magnification adjustment apparatus from D1 to thereby arrive at the claimed machine.

- II. The appellant (applicant) lodged an appeal against this decision.

- III. In an official communication dated 24 May 1996, the Board of appeal expressed the opinion that the submitted claim 1 appeared to lack clarity, but that a new, amended claim 1 annexed to the communication, could meet the mentioned clarity objections and could be allowable having regard to D1 and D2.

- IV. With letter dated 17 July 1996, the appellant expressed its approval of the amendments indicated by the Board and filed a new set of 7 claims with a new, adapted page 2 of the description. The only independent claim reads as follows:

"1. A reprographic machine (10) in which the magnification of an image of an incremental area of a fan-folded web (12), having a plurality of equally-spaced holes along at least one longitudinal margin thereof, is adjusted for a copy sheet of specified size, including:
means (20) for putting into the machine said specified size of the copy sheet, a number equalling the total number of holes along one longitudinal margin of the area and representing the length of the area, and a number representing the width of the area in a direction substantially normal to the said margin;
a calculator (46), responsive to the input means, for calculating the magnification of the image for the copy sheet, and

means, responsive to the calculator output, for adjusting the machine to form an image of the incremental area at the magnification indicated by the calculator."

- V. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the documents on file, and submitted the following arguments in support of its request:

In the reprographic machine of D2, the magnification of a computer form original is not adjusted to a selected copy sheet; the entirety of D2 envisages the reproduction of a CFF (computer fan-folded) web of a single standard size and the required magnification for this is stored as a preset value and relied on when in CFF mode. Moreover, D2 does not teach any means by which the number of holes along one lateral margin of a CFF web may be used as an input in lieu of a conventional length measurement; D2 makes use of the correspondence between hole number and length, but for a quite different purpose, i.e. the passing of successive holes by a sensor is counted until a predetermined number is reached.

The problem addressed by the present invention relates only to the reproduction of CFF type documents in a web and only to adjustment to take into account that such documents will be in one of a plurality of known, different sizes (as the spacing of sprocket holes is generally standardised).

D1 teaches how to enter in the copying machine the length and width measurements of a single sheet placed on the platen, said sheet being of a size which is not a standardized size such as A3 or A4. The machine of D1 has means for calculating a suitable magnification for

reproducing the single original document on the platen onto a copy sheet of the size selected by the user. D1 does not concern a technique whereby adjustment is done for handling original documents in the form of CFF webs, and thus solves a problem which is not related to the present problem. Moreover, the combination of the teachings of D1 and D2 does not lead directly to an apparatus wherein in particular a number of holes representing the length of the incremental area of the original document is used as input value. Therefore, the subject-matter of present claim 1 is not obvious in view of D2 and D1 and, thus, it involves an inventive step.

Reasons for the Decision

1. The appeal is admissible.
2. *Allowability of the amendments*

Only claim 1 of the set of claims having formed the basis for the decision under appeal and which had not been objected having regard to additional subject-matter has been amended and results in present claim 1. The amendments comprise the addition of clarifying features based on the original description and which will be mentioned in the next paragraph, accordingly. In this respect, it is to be noted that, in the description, only page 2 differs from the original text, for adaptation to the present, amended claim 1. Therefore, the Board is satisfied that the European patent application has not been amended in such a way that it contains subject-matter which extends beyond the content of the application as filed (Article 123(2) EPC).

3. *Clarity*

Present claim 1 specifies, in accordance with the description (see page 1, first paragraph and page 7, last paragraph, three first lines), that in the reprographic machine the magnification of an image of an incremental area of a fan-folded web is adjusted for a copy sheet of specified size. Moreover, present claim 1 comprises the feature that data concerning the copy sheet and its size are also input in the machine, which according to the description (see page 2, third complete paragraph; page 7, last paragraph, fifth and sixth lines) is derivable as being essential to the performance of the invention. It is also to be noted that another feature, concerning the number equalling the total number of holes along one longitudinal margin of the incremental area of the original document representing the length of the area, which according to the description (see page 5, last paragraph to page 6, first paragraph, in particular the five first lines and the three last lines of the last paragraph of page 5) is important, is also comprised in present claim 1. Therefore, present claim 1 defines the invention without ambiguity and with all the necessary features and, thus, it satisfies the requirement of clarity of Article 84 EPC.

4. *Novelty*

A reprographic machine comprising all the features of present claim 1 is not known in the state of the art. Therefore, the subject-matter of present claim 1 is new in the sense of Article 54 EPC.

5. *Inventive step*

5.1 According to the present application (see in particular page 1, first paragraph and page 2, third complete paragraph, three first lines), in a machine of the present invention, the magnification of an image of an original document having a plurality of equally-spaced holes along at least one longitudinal margin thereof is adjusted automatically for a copy sheet of a selected size.

5.2 Such an object is not derivable from D2 (see page 1, lines 29 to 38), which aims at providing an apparatus for feeding computer fan-fold (CFF) web to and through a copier, without the use of a tractor or a feed nip, and including means for detecting a misfeed. Indeed, it is stated in D2 (see in particular page 3, lines 71 to 76) that the desired preset degree of magnification or reduction is made effective and any test copies are made if desired, and that after satisfactory reproduction of the test copy, then the necessary number of the first sheet are made. However, the appellant has convincingly argued as follows in this respect: there is no indication in D2 that the size of the copy sheet should be different from a single standard copy sheet size; indeed, the cited text location of D2 can be interpreted as meaning only that the size of the copied image is adjusted to the standard copy sheet size since, in particular, adjusting means responsive to an input information concerning the size of the copy sheet, i.e. the size of the sheet which will carry the printed copied image, is not derivable from D2.

5.3 It is to be noted that another reprographic machine is known from D1 (see column 1, line 42 to column 2, line 7; column 2, line 27 to column 4, line 34; Figure 1(A) to 3), in which the magnification of an

image of an original document is adjusted for a copy sheet of specified size; the machine includes means for inputting said specified size of the copy sheet and information concerning the dimensions of an original document. However, as convincingly argued by the appellant, the document to be copied in the machine of D1 is an unformatted or irregularly sized document, so that the person skilled in the art of D2, with formatted documents (CFF webs) wherein the constant, definite spacing of the holes, which is related to mechanical parts of the computer and not to dimensions of the reprographic machine, is important, would not have taken into account in an obvious way the general "adjusting" teaching of D1. Moreover, as also convincingly argued by the appellant, the combination of the teachings of D1 and D2 does not lead directly to an apparatus wherein in particular a number of holes representing the length of the incremental area of the original document is used as input value. In any case, there is no indication in D1 or D2 for this further step of modification of the machine of D2.

5.4 Therefore, the subject-matter of present claim 1 involves an inventive step in the sense of Article 56 EPC.

6. Since the claims are allowable in the sense of Article 52(1) EPC and the application satisfies the requirements of the Convention, a European patent can be granted.

7. Since the present request of the appellant is allowable, it is not necessary to take into account its auxiliary request for oral proceedings.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the Examining Division with the order to grant a patent on the basis of the following documents:

Description: Pages 1 and 3 to 7 as originally filed;
Page 2 filed with appellant's letter of
17 July 1996;

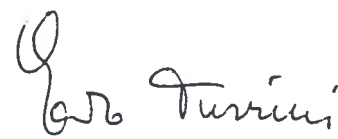
Claims: Nos. 1 to 7 filed with appellant's letter
of 17 July 1996;

Drawings: Sheets 1/6 to 6/6 as originally filed.

The Registrar


E. Görgmayer

The Chairman


E. Turrini

M. C. H.

B. Sch.