

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 29

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte GARY M. NOBEL, NICHOLAS NICOLOFF JR.,
THOMAS M. SABO and CLAYTON L. HOLSTUN

Appeal No. 2000-0703
Application No. 08/490,268

ON BRIEF

Before JERRY SMITH, LALL, and GROSS, Administrative Patent Judges
LALL, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the Examiner's final rejection of claims 1 through 6, 8, 10, 13 through 20 and 24 through 26, all of the pending claims in the application.

The disclosed invention relates to an inkjet printer with a printhead wherein means are provided to cause all nozzles and ink ejection elements in the printhead to be used about the same to

promote uniform wear of the ink ejection elements and the nozzles. In one embodiment, the invention achieves this by not always beginning the printing of each line of text with the top nozzles in the printhead by controlling the activation of the ink ejection elements and paper shifting so that, sometimes, other than the top nozzles are aligned with the top of a line of text to printed. This is shown in Figures 3 and 4 and described on page 4 of the specification. This approach results in uniformity of the use of the ink ejection elements and nozzles in the printhead. A further understanding of the invention can be achieved from the following claim:

1. A printing method for achieving more uniform wear of nozzles in an inkjet printhead, each of said nozzles having an associated ink ejection element which is energized to cause a droplet of ink to be expelled through an associated nozzle, said method comprising the steps of:

selectively energizing ink ejection elements in said printhead during one or more first scans of said printhead across a recording medium, wherein certain ones of said ink ejection elements during said one or more first scans are energized more frequently than other ink ejection elements in said printhead;

transporting said recording medium through a print zone such that an area to be printed upon during one or more second scans of said printhead resides in said print zone; and

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selectively energizing ink ejection elements in said printhead during said one or more second scans of said printhead across said recording medium to cause said certain ones of said ink ejection elements to be used less frequently than in said one or more first scans, and to cause said other ink ejection elements to be used more frequently than in said one or more first scans so as to achieve more uniform wear of all ink ejection elements and nozzles in said printhead.

The examiner relies upon the following reference:

Admitted Prior art.

Claims 1 through 6, 8, 10, 13 through 20 and 24 through 26 stand rejected under 35 U.S.C. § 112, first paragraph for lack of written description.

Claims 1 through 6, 8, 10, 13 through 20 and 24 through 26 stand rejected under 35 U.S.C. § 112, first paragraph for lack of enablement.

Claims 1 through 6, 8, 10, 13 through 20 and 24 through 26 stand rejected under 35 U.S.C. § 102 as being anticipated by the Admitted Prior art.

Rather than repeat the arguments of appellants and the examiner, we make reference to the brief (paper no. 24, filed February 16, 1999), the reply brief (paper no. 26, filed June 7, 1999) and the answer (paper no. 25, filed April 26, 1999) for the respective details thereof.

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OPINION

We have considered the rejections advanced by the examiner and the supporting arguments. We have, likewise, reviewed the appellants' arguments set forth in the briefs.

We reverse.

We consider the three grounds of rejections separately.

Rejection under 35 U.S.C. § 112, first paragraph, written description.

The written description requirement serves "to ensure that the inventor had possession, as of the filing date of the application relied on, of the specific subject matter later claimed by him; how the specification accomplishes this is not material." In re Wertheim, 541 F.2d 257, 262, 191 USPQ 90, 96 (CCPA 1976). In order to meet the written description requirement, the appellants do not have to utilize any particular form of disclosure to describe the subject matter claimed, but "the description must clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed." In re Gosteli, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989). Put another way, "the applicant must . . . convey

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with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention." Vasilkov-Cath, Inc. v. Mahurkar, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991). Finally, "[p]recisely how close the original description must come to comply with the description requirement of section 112 must be determined on a case-by-case basis." Eiselstein v. Frank, 52 F.3d 1035, 1039, 34 USPQ2d 1467, 1470 (Fed. Cir. 1995) (quoting Vasilkov-Cath, 935 F.2d at 1561, 19 USPQ2d at 1116).

In rejecting claims 1 through 6, 8, 10, 13 through 20 and 24 through 26 under this ground, the examiner asserts (answer at pages 3 and 4) that "[o]n page 10, lines 20-31 there is reference that [a] part of the invention is modifying the program memory stored in memory (46). **However, there is not a description of such modification within the specification.**" (Emphasis original). Appellants respond by pointing to Figures 6 through 10 and pages 12 and 13 of the disclosure for the description of the claimed invention. Thus, appellants argue (brief at page 7) that

[t]hus, those skilled in the art would have already designed inkjet printers with instructions for shifting the paper incremental amounts and starting the printing with certain nozzles in the printhead and are

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thoroughly familiar with print masks. These designers would fully understand how to implement a modification to their prior designs to print lines of text starting from other than the top nozzle in a printhead.

We agree with the appellants' position. Appellants have clearly indicated the problem and the solution of the problem in the disclosure. Appellants disclose with adequate written description (for example, page 9, lines 7 through 11; page 10, line 32 through page 11, line 14; page 12, line 3 through page 13, line 36) that various nozzles and ink ejection elements are activated at different occasions instead of always using the top ink ejection elements and nozzles to assure the uniform wearing of the nozzles and the ink ejection elements. Therefore, we do not sustain the rejection of claims 1 through 6, 8, 10, 13 through 20 and 24 through 26 for lack of a written description.

Rejection under 35 U.S.C. § 112, first paragraph,
Lack of Enablement

The test for enablement is whether one skilled in the art could make and use the claimed invention from the disclosure coupled with information known in the art without undue experimentation. See United States v. Telectronics, Inc., 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988); In re Stephens, 529 F.2d 1343, 1345, 188 USPO 659, 661 (CCPA 1976).

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Thus, the dispositive issue is whether Appellants' disclosure, considering the level of ordinary skill in the art as of the date of Appellants' application, would have enabled a person of such skill to make and use Appellants' invention without undue experimentation. The threshold step in resolving this issue is to determine whether the Examiner has met his burden of proof by advancing acceptable reasoning consistent with the enablement requirement.

In response to the lack of enablement rejection of claims 1 through 6, 8, 10, 13 through 20 and 24 through 26 (answer at page 4), appellants argue (brief at page 8) that

[e]ssentially, the Examiner is asking for the exact firmware or software code in the program memory 46 [Fig.6 of the disclosure] to carry out at least one embodiment of the claimed inventions There is no requirement for enablement that the actual software code or firmware used to implement an invention be disclosed.

Appellants have also submitted a declaration under 37 CFR 1.132 by Gary Nobel (paper no. 6), wherein Gary Nobel, one of ordinary skill in the art, states (pages 1-2),

such engineers are familiar with the printer, hardware, software, and firmware needed for receiving data in a well-known format from a computer and converting these commands into signals which control the firing of the

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ink-jet printing elements, the scanning of the carriage across the medium, and the shifting of the medium.

[] Those familiar with printers, . . . would understand that the hardware structure of Fig. 6 is conventional and that modifying the operation of the conventional printer in accordance with the claims in my patent application may be performed by minor software or firmware (for speed) changes.

We are of the view that the examiner has not presented any convincing arguments to show that undue experimentation is necessary to carry out the invention as claimed. Instead, we agree with appellants (reply brief at page 3) that "[t]he patent laws make clear that software code is not required to enable an invention. More specifically, programming a printer to carry out certain techniques is analogous to programming a computer." We conclude that the invention as disclosed in the specification would have enabled an artisan to shift the position of the printing medium and the activation of the ink ejection elements and the nozzles in the recited manner, resulting in a uniform wear of the ink ejection elements and the nozzles. Therefore, we do not sustain the rejection of claims 1 through 6, 8, 10, 13 through 20 and 24 through 26 for lack of enablement.

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Rejection under 35 U.S.C. § 102

The examiner rejects claims 1 through 6, 8, 10, 13 through 20 and 24 through 26 under this ground of rejection at pages 4 and 5 of the examiner's answer. The examiner points to Figure 6 of the specification and asserts, (Id. at page 5) that

[t]herefore, it is inherent in the selection process of various nozzles in the scan operation that are (sic) topmost nozzle is used as well as other levels of nozzles which would minimize wear of all the nozzles.

Appellants argue (brief at page 12) that

[t]he conventional printer system of Fig. 6 [of the specification] using conventional printing instructions cannot achieve the uniform wear result shown in Fig. 5B. Therefore, Fig. 6 using conventional printing instructions does not anticipate any of the claims of the present invention. (emphasis original).

We agree with appellants' position. For a rejection under 35 U.S.C. § 102, the rejecting reference must show each and every element of the claim explicitly or implicitly, or it must inherently possess the elements as claimed. However, in this instance, the examiner has not shown how Figure 6 of the disclosure explicitly, implicitly or inherently possesses the recited characteristics. Therefore, we do not sustain the anticipation rejection of claims 1 through 6, 8, 10, 13 through 20 and 24 through 26.

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In conclusion, we have not sustained the rejection of claims 1 through 6, 8, 10, 13 through 20 and 24 through 26 under 35 U.S.C. § 112, first paragraph for either lack of written description or lack of enablement; nor have we sustained the rejection of these claims under 35 U.S.C. § 102 as being anticipated by the admitted prior art.

Accordingly, the decision of the examiner rejecting claims 1 through 6, 8, 10, 13 through 20 and 24 through 26 is reversed.

REVERSED

JERRY SMITH)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
PARSHOTAM S. LALL)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
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