

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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***Ex parte*** SEIJI MOCHIZUKI, KAZUHISA KAWAKAMI,  
MASAHIRO ISONO, YUKIHIRO HANAOKA and ATSUSHI NISHIOKA

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Appeal No. 2000-2263  
Application No. 08/925,387

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ON BRIEF

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Before BARRETT, FLEMING and BARRY, **Administrative Patent Judges**.

FLEMING, **Administrative Patent Judge**.

**DECISION ON APPEAL**

This is a decision on appeal from the final rejection of claims 8 through 14, all the claims pending in the present application. Claims 1 through 7 have been canceled.

The present invention relates to an ink cartridge for use with an ink jet recording apparatus that performs a recording operation by jetting a series of ink droplets onto a recording

paper through a nozzle. On page 5 of the specification, Appellants disclose that Fig. 4 is a perspective view of the ink cartridge and a holder. On page 11 of the specification, Appellants disclose that the ink feeding needle 15 disposed at the innermost end of the cartridge 9 projects toward the ink cartridge 8 at the position where it is located slightly behind the position determining shaft 16 and the guide pin 17. Thus, when the ink cartridge 8 is firmly retained by the leaf spring 13, the ink feeding needle 15 pierces through the sealing member 3 and the ink outlet piece 2 to reach the interior of the ink bag 1.

Independent claim 8 is reproduced as follows:

8. An ink cartridge assembly for an ink jet recording apparatus, comprising:

a cartridge containing a supply of ink and having a front plate, said front plate including at least one hole and an ink outlet piece; and

a cartridge holder for mounting said cartridge, said cartridge holder having at least one guiding shaft and an ink feeding needle projecting from an inner end of said cartridge holder, said guiding shaft being positioned in said at least one hole of said cartridge and for guiding and properly locating said cartridge relative to said cartridge holder in both an upward/ downward direction and a leftward/rightward direction, the longitudinal axis of said guiding shaft defining a thrust direction, said ink feeding needle piercing said ink outlet piece and projecting into an interior of said

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cartridge when said cartridge is mounted in said cartridge holder;

wherein said ink feeding needle is disposed slightly behind said guiding shaft in said thrust direction so that said ink feeding needle is positioned in contact with said ink outlet piece when said cartridge is properly positioned in said cartridge holder by said hole and said guiding shaft.

The Examiner relies on the following references:

Kitahara	0,364,284	Apr. 18, 1990
Nakamura et al. (Nakamura)	0,380,199	Aug. 01, 1990

Claims 8 and 13 stand rejected under 35 U.S.C. § 103 as being unpatentable over Appellants' admitted prior art Figs. 7 and 8 in view of Nakamura. Claims 9 through 12 and 14 stand rejected under 35 U.S.C. § 103 as being unpatentable over Appellants' admitted prior art Figs. 7 and 8 and in view of Nakamura and Kitahara.

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the briefs<sup>1</sup> and answer for the respective details thereof.

#### OPINION

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<sup>1</sup> Appellants filed an appeal brief on September 7, 1999. Appellants filed a reply brief on January 4, 2000. The Examiner mailed an office communication on January 24, 2000 stating that the reply brief has been entered and considered.

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We will not sustain the rejection of claims 8 through 14 under 35 U.S.C. § 103.

The Examiner has failed to set forth a *prima facie* case. It is the burden of the Examiner to establish why one having ordinary skill in the art would have been led to the claimed invention by the express teachings or suggestions found in the prior art, or by implications contained in such teachings or suggestions. *In re Sernaker*, 702 F.2d 989, 995, 217 USPQ 1, 6 (Fed. Cir. 1983). "Additionally, when determining obviousness, the claimed invention should be considered as a whole; there is no legally recognizable 'heart' of the invention." *Para-Ordnance Mfg. v. SGS Importers Int'l, Inc.*, 73 F.3d 1085, 1087, 37 USPQ2d 1237, 1239 (Fed. Cir. 1995), *citing W. L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1548, 220 USPQ 303, 309 (Fed. Cir. 1983).

On pages 4 and 5 of the brief, Appellants argue that neither the admitted prior art Figs. 7 and 8 nor Nakamura teaches or suggests an ink feeding needle located slightly behind the position determining shaft as recited in independent claim 8. Appellants argue that Nakamura does not address the ink feeding needle/ink outlet piece alignment

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problem solved by Appellants' invention because it lacks a replaceable ink cartridge and, therefore, those necessarily related elements. Appellants point out that Nakamura's ink reservoir 31 is integral with interchangeable ink-jet type printing head 31. Appellants further argue that Nakamura contains absolutely no motivation to employ an ink feeding needle slightly behind the free ends of the position determining shafts as required in independent claim 8.

As pointed out by our reviewing court, we must first determine the scope of the claim. "[T]he name of the game is the claim." ***In re Hiniker Co.***, 150 F.3d 1362, 1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998). Moreover, when interpreting a claim, words of the claim are generally given their ordinary and accustomed meaning, unless it appears from the specification or the file history that they were used differently by the inventor. ***Carroll Touch, Inc. v. Electro Mechanical Sys., Inc.***, 15 F.3d 1573, 1577, 27 USPQ2d 1836, 1840. Although an inventor is indeed free to define the specific terms used to describe his or her invention, this must be done with reasonable clarity, deliberateness, and

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precision. ***In re Paulsen***, 30 F.3d 1475, 1479, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994).

We note that independent claim 8 recites "said ink feeding needle is disposed slightly behind said guiding shaft in said thrust direction so that said ink feeding needle is positioned in contact with said ink outlet piece when said cartridge is properly positioned in said cartridge holder by said hole and said guiding shaft." Therefore, we find that the scope of Appellants' claim 8 positively requires the ink feeding needle being disposed slightly behind the guiding shaft.

In the Examiner's answer, the Examiner does not point to any teaching in Appellants' prior art Figs. 7 and 8 or in Nakamura of locating the ink feeding needle slightly behind the guiding shaft. See pages 4 and 5 of the answer. The Examiner, however, argues that one of ordinary skill in the art would have made the modification to provide the ink feeding needle behind the position guiding shaft. On pages 7 and 8 of the answer, the Examiner points to the admitted prior art of Figs. 7 and 8 and the specification, page 2, lines 8 through 19, for a teaching of the motivation of providing

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aligning the ink cartridge before making fluid communication. The Examiner also points to Nakamura stating that Nakamura provides the motivation in that the position of the determining shafts 36 are located on the front surface.

The Federal Circuit states that "[t]he mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." **In re Fritch**, 972 F.2d 1260, 1266 n.14, 23 USPQ2d 1780, 1783-84 n.14 (Fed. Cir. 1992), **citing In re Gordon**, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). It is further established that "[s]uch a suggestion may come from the nature of the problem to be solved, leading inventors to look to references relating to possible solutions to that problem." **Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.**, 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996), **citing In re Rinehart**, 531 F.2d 1048, 1054, 189 USPQ 143, 149 (CCPA 1976) (considering the problem to be solved in a determination of obviousness). The Federal Circuit reasons in **Para-Ordnance Mfg. Inc. v. SGS Importers Int'l Inc.**, 73 F.3d 1085, 1088-89, 37 USPQ2d 1237, 1239-40 (Fed. Cir. 1995), that for the

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determination of obviousness, the court must answer whether one of ordinary skill in the art who sets out to solve the problem and who had before him in his workshop the prior art, would have been reasonably expected to use the solution that is claimed by the Appellants. However, "[o]bviousness may not be established using hindsight or in view of the teachings or suggestions of the invention." **Para-Ordnance Mfg.**, 73 F.3d at 1087, 37 USPQ2d at 1239, **citing W. L. Gore**, 721 F.2d at 1551, 1553, 220 USPQ at 311, 312-13. In addition, our reviewing court requires the Patent and Trademark Office to make specific findings on a suggestion to combine prior art references. **In re Dembiczak**, 175 F.3d 994, 1000-01, 50 USPQ 1614, 1617-19 (Fed. Cir. 1999).

Upon our review of Appellants' specification and drawings, we find no admission of motivation known to those skilled in the art at the time of the invention to locate the ink feeding needle slightly behind the guiding determining shafts. The statements found on page 2 of Appellants' specification is their discovery of the problem which led to their invention and was not available to those skilled in the art.

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Upon our review of Nakamura, we fail to find any teaching or suggestion or motivation for providing an ink feeding needle located slightly behind the position determining shaft as recited in Appellants' independent claim 8. Nakamura is not concerned with the problem of aligning an ink feeding needle with an ink outlet piece as solved by Appellants' invention. Nakamura is not faced with this problem because Nakamura's invention relates to a replaceable ink cartridge in which the ink reservoir is integral with the interchangeable jet type printing head 31. As a result, Nakamura would have provided absolutely no motivation or reason to those skilled in the art to employ an ink feeding needle slightly behind the free ends of the position determining shaft as required in Appellants' independent claim 8.

In view of the foregoing, we have not sustained the rejection of claims 8 through 14 under 35 U.S.C. § 103. Accordingly, the Examiner's decision is reversed.

REVERSED

LEE E. BARRETT )  
Administrative Patent Judge )  
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MICHAEL R. FLEMING	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
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LANCE LEONARD BARRY	)	
Administrative Patent Judge	)	

MRF:clm

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Sughrue, Mion, Zinn, MacPeak & Seas  
2100 Pennsylvania Ave., N.W.  
Washington, DC 20037-3202