

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 12

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CHRISTOPHER A. BODE, THOMAS J. SONDERMAN, ALEXANDER J.
PASADYN, ANTHONY J. TOPRAC, JOYCE C. OEY HEWETT
ANASTASIA OSHELSKI PETERSON and MICHAEL L. MILLER

Appeal No. 2005-0166
Application 09/789,872

ON BRIEF

Before KRASS, JERRY SMITH and FLEMING, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 1-48, which constitute all the claims in the application.

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and distinctly claim the invention. Finally, claims 1-48 stand rejected under 35 U.S.C. § 103. As evidence of obviousness the examiner offers Simmons taken alone.

Rather than repeat the arguments of appellants or the examiner, we make reference to the brief and the answer for the respective details thereof.

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner, the arguments in support of the rejections and the evidence of obviousness relied upon by the examiner as support for the obviousness rejection. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellants' arguments set forth in the brief along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

It is our view, after consideration of the record before us, that claims 1-48 comply with the written description requirement of 35 U.S.C. § 112. We are also of the view that claims 1-48 particularly point out the invention in a manner which complies with 35 U.S.C. § 112. Finally, we are of the view that the evidence relied upon and the level of skill in the

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particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 1-48. Accordingly, we reverse.

We consider first the rejection of claims 1-48 under the first paragraph of 35 U.S.C. § 112. It is the position of the examiner that the claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the specification was filed, had possession of the claimed invention. Specifically, the rejection seems to object to the fact that the description of the invention is a generalized philosophy of the concept of computer and mathematical modeling without providing a clear-cut methodology of specific input data, output data and the transfer function prediction. The examiner also asserts that the specification does not support specifically how manufacturing characteristic data can generate a manufacturing metric distribution and adjust target values as claimed [answer, pages 3-5].

Appellants argue that the operation of a manufacturing system as claimed is well known to those of ordinary skill in the art. Appellants argue that Figure 2 of the application and its corresponding description clearly teaches how to generate a

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manufacturing metric distribution by relating manufacturing characteristic data to the metric of interest and adjusting the target value based on the metric distribution [brief, pages 3-5].

The examiner responds that there is no explanation of how the target monitor evaluates the manufacturing metric distribution, and what is meant by a predetermined strategy. The examiner asserts that the specification does not support the generation of manufacturing metrics using manufacturing data [answer, pages 14-16].

We will not sustain the examiner's rejection of the claims under the first paragraph of 35 U.S.C. § 112. The purpose of the written description requirement is to ensure that the applicants convey with reasonable clarity to those skilled in the art that they were in possession of the invention as of the filing date of the application. For the purposes of the written description requirement, the invention is "whatever is now claimed." Vas-cath, Inc. v. Mahurkar, 935 F.2d 1555, 1564, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991). We agree with appellants that everything recited in the claimed invention has clear support in the specification as filed. Although some of the examiner's comments may suggest that the examiner is questioning enablement compliance rather than written description compliance,

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we see no reason why the artisan would have any difficulty practicing the claimed invention. The description of Figure 2 in the specification adequately explains how to make and use the claimed invention.

We now consider the rejection of claims 1-48 under the second paragraph of 35 U.S.C. § 112. With respect to each of the independent claims, the examiner appears to assert that the claimed correlation step does not generate statistical distribution data so that it does not generate a first manufacturing metric distribution as claimed [answer, pages 5-13].

Appellants argue that the use of the term correlate in the claimed invention is consistent with its general meaning [brief, pages 5-7]. The examiner responds that Figure 2 of the application does not depict correlating the manufacturing characteristic data with a first manufacturing metric as claimed [answer, pages 17-18].

We will not sustain the examiner's rejection of the claims under the second paragraph of 35 U.S.C. § 112. The general rule is that a claim must set out and circumscribe a particular area with a reasonable degree of precision and particularity when read in light of the disclosure as it would be

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by the artisan. In re Moore, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971). Acceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed in light of the specification. Seattle Box Co., v. Industrial Crating & Packing, Inc., 731 F.2d 818, 826, 221 USPQ 568, 574 (Fed. Cir. 1984). We essentially agree with all of appellants' arguments in the brief. Notwithstanding the examiner's assertions to the contrary, we are unable to find any reason why the artisan would have any difficulty understanding the scope of the claimed invention in light of the disclosure. The correlation of manufacturing characteristic data, such as the critical dimension of a gate electrode, with a manufacturing metric, such as power consumption, would be clearly understood in light of the description of appellants' Figure 2.

We now consider the rejection of claims 1-48 under 35 U.S.C. § 103(a) as unpatentable over the teachings of Simmons taken alone. Appellants have indicated that the claims on appeal stand or fall together [brief, page 3]. Consistent with this indication appellants have made no separate arguments with respect to any of the claims on appeal. Accordingly, all the claims before us will stand or fall together. Note In re King, 801 F.2d 1324, 1325, 231 USPQ 136, 137 (Fed. Cir. 1986); In re

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Sernaker, 702 F.2d 989, 991, 217 USPQ 1, 3 (Fed. Cir. 1983).

Therefore, we will consider the rejection against independent claim 1 as representative of all the claims on appeal. See In re King, 801 F.2d 1324, 1325, 231 USPQ 136, 137 (Fed. Cir. 1986); In re Sernaker, 702 F.2d 989, 991, 217 USPQ 1, 3 (Fed. Cir. 1983).

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore

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Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See Id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976). Only those arguments actually made by appellants have been considered in this decision. Arguments which appellants could have made but chose not to make in the brief have not been considered and are deemed to be waived [see 37 CFR § 41.37(c)(1)(vii)(2004)].

The examiner has indicated how he finds the claimed invention to be obvious over the teachings of Simmons [answer, pages 13-14]. Appellants argue that Simmons does not generate a distribution relating a manufacturing characteristic to a manufacturing metric as claimed. Appellants also argue that Simmons does not mention process target values at all, much less

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adjusting a process target value based on a manufacturing metric distribution [brief, pages 7-8]. The examiner responds that the manufacturing metric distribution of the claimed invention is not supported by the specification. The examiner also responds that the measurements made in Simmons meet the definition of metric as claimed [answer, page 19].

We will not sustain the examiner's rejection of the claims under 35 U.S.C. § 103 for essentially the reasons argued by appellants in the brief. The claims require a correlation between manufacturing characteristic data, such as the gate dimension of a transistor, with a manufacturing metric, such as the power consumption or speed of the transistor. In other words, the power consumption or speed of a transistor is measured for varying values of the gate dimension so as to correlate each gate dimension with a corresponding power consumption or speed. The value of the process target value, such as a given gate dimension, can then be adjusted depending on whether one is producing transistors to emphasize power consumption or speed. As noted above, the examiner's position that this type of claimed correlation is not supported by the disclosure is without merit. We agree with appellants that the process described in Simmons does not relate to the adjustment of a target value based on a

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manufacturing metric distribution as claimed.

In summary, we have not sustained any of the examiner's rejections of the claims on appeal. Therefore, the decision of the examiner rejecting claims 1-48 is reversed.

REVERSED

ERROL A. KRASS)	
Administrative Patent Judge)	
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JERRY SMITH)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
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MICHAEL R. FLEMING)	
Administrative Patent Judge)	

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Williams, Morgan & Amerson, P.C.
10333 Richmond, Suite 1100
Houston, TX 77042