

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MARK G. HARWARD

Appeal No. 1997-3358
Application No. 08/477,742

ON BRIEF

Before URYNOWICZ, THOMAS, and BARRY, Administrative Patent Judges.

BARRY, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the final rejection of claims 21-40. We affirm-in-part.

BACKGROUND

The invention at issue in this appeal enables built-in, self-testing of a smart memory. A smart memory is a memory that includes on-chip processing capabilities that allow for implementation of a parallel processing system. The performance of such a system depends on the reliability of its components, particularly on the reliability of its smart memories.

The invention enables a smart memory to perform a self-test to detect its operability. Because the self-test is done internally, it can be completed quickly so as not to degrade the efficiency of a parallel processing system in which the smart memory resides.

Claim 32, which is representative for our purposes, follows:

32. A method of self-testing a smart memory including a data RAM, a broadcast RAM, and a data path which includes a plurality of processing elements operable to perform specific functions, comprising the steps of:

writing a pattern to the data RAM and the broadcast RAM;

comparing the contents of the data RAM with the pattern using memory test circuitry; and comparing the contents of the broadcast RAM with the pattern using said memory test circuitry;

testing said specific functions of said plurality of processing elements of the data path with data path test circuitry in accordance with results of said comparing steps; and

controlling said writing, comparing and testing steps using a test controller.

The references relied on in rejecting the claims follow:

| | | |
|---|-----------|---------------------------------|
| Jacobson | 4,715,034 | Dec. 22, 1987 |
| Choy | 5,075,892 | Dec. 24, 1991 |
| Eikill et al. 1993. (Eikill) 1992) | 5,274,648 | Dec. 28, (filing Feb. 3, |

Claims 21-23 and 25-34 and stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent Application No. 08/224,407.¹ Claims 21-40 stand

¹ The examiner should consider (provisionally) rejecting the claims of U.S. Patent Application No. 08/224,407 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of the instant application.

rejected under 35 U.S.C. § 103 as obvious over Choy in view of Eikill further in view of Jacobson. Rather than repeat the arguments of the appellant or examiner in toto, we refer the reader to the briefs and answer for the respective details thereof.

OPINION

In reaching our decision in this appeal, we considered the subject matter on appeal and the rejections advanced by the examiner. Furthermore, we duly considered the arguments and evidence of the appellant and examiner. After considering the totality of the record, we are not persuaded that the examiner erred in provisionally rejecting claims 21-23 and 25-34 under the judicially created doctrine of obviousness-type double patenting. We are persuaded, however, that he erred in rejecting claims 21-40 under 35 U.S.C. § 103. Accordingly, we affirm-in-part. Our opinion addresses the following issues seriatim:

- obviousness-type double patenting of claims 21-23 and 25-34

- obviousness of claims 21-40.

Obviousness-Type Double Patenting of Claims 21-23 and 25-34

The appellant argues, "there can be no double patenting until there is a patent for 08/224,407." (Reply Br. at 7.) The examiner replies, "a provisional rejection can be used for obvious-type double patenting rejection against ... claims in a copending application" (Examiner's Answer at 21.) We agree with the examiner.

Claims may be provisionally rejected for obviousness-type double patenting over claims in a commonly assigned, copending patent application. In re Wetterau, 356 F.2d 556, 557-58, 148 USPQ 499, 501 (CCPA 1966). This is true even if the claims in the copending application stand rejected. Ex parte Karol, 8 USPQ2d 1771, 1773 (Bd. Pat. App. & Int. 1988).

Here, the provisional rejection over claims 1-20 of U.S. Patent Application No. 08/224,407 does not fail merely because the claims are not yet patented. In addition, the appellant

states his intent to file a terminal disclaimer, if claims 1-20 are allowed, to obviate the obviousness-type double patenting rejection.² (Appeal Br. at 14.)

For the foregoing reasons, we are not persuaded that the examiner erred in provisionally rejecting claims 21-23 and 25-34 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent Application No. 08/224,407. Therefore, we affirm pro forma the provisional rejection of claims 21-23 and 25-34 under the judicially created doctrine of obviousness-type double patenting. Our affirmance is based only on the arguments made in the briefs. Arguments not made therein are not before us, are not at issue, and are thus considered waived. Next, we address the obviousness of claims 21-40.

Obviousness of Claims 21-40

² A patentee or applicant may disclaim or dedicate to the public the entire term, or any terminal part of the term of a patent under 35 U.S.C. § 253. "The statute does not provide for a terminal disclaimer of only a specified claim or claims. The terminal disclaimer must operate with respect to all claims in the patent." M.P.E.P. § 804.02.

We begin by noting the following principles from In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993).

In rejecting claims under 35 U.S.C. Section 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). Only if that burden is met, does the burden of coming forward with evidence or argument shift to the applicant. Id. "A prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art." In re Bell, 991 F.2d 781, 782, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993) (quoting In re Rinehart, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA 1976)). If the examiner fails to establish a prima facie case, the rejection is improper and will be overturned. In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

With these in mind, we analyze the appellant's argument.

The appellant argues, "It is not seen where the cited references ... suggest that the data path ... processing elements operable to perform specific functions ... are tested by data path test circuitry." (Appeal Br. at 13.) The examiner's reply follows.

Eikill ... shows that a data bus (66) is joined to all of the processing devices and memory cards via data lines (92 & 96) for transmitting data pattern

according to commands from the processing devices (figure 1, column 4 lines 45-53, column 5 lines 5-19, column 5 lines 52-54 and column 6 lines 6-12). It would have been obvious to one skilled in the art to realize that transmitting function is Eikill's data path includes transmitting and receiving functions (column 5 lines 52-54 & column 6 lines 45-53). Such transmitting and receiving functions of the data bus are equivalent to the claimed "specific processing" functions. (Examiner's Answer at 15.)

He alleges, "It would have been obvious to one skilled in the art at the time the invention was made to realize that ... the performance of the processor can be test [sic] while testing the memory array." (Id. at 17.) We agree with the appellant.

Each of claims 21-31 specifies in pertinent part the following limitations: "data path test circuitry, coupled to said data path, for testing said specific functions of said plurality of processing elements of said data path" Similarly, each of claims 32-40 specifies in pertinent part the following limitations: "testing said specific functions of said plurality of processing elements of the data path with data path test circuitry" In summary, the claims recite circuitry for testing processing elements.

The examiner fails to show a teaching or suggestion of the claimed limitations. "Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor." Para-Ordnance Mfg. v. SGS Importers Int'l, 73 F.3d 1085, 1087, 37 USPQ2d 1237, 1239 (Fed. Cir. 1995), cert. denied, 519 U.S. 822 (1996) (citing W.L. Gore & Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1551, 1553, 220 USPQ 303, 311, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984)). The mere fact that prior art may be modified as proposed by an examiner does not make the modification obvious unless the prior art suggested the desirability thereof. In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992); In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

Here, the examiner admits, "Choy does not show the data path test circuitry for testing the path" (Examiner's Answer at 7.) Although Eikill "includes two processing devices, identified as **18** and **20**," col. 4, ll. 10-11, the examiner fails to identify any teaching of testing the processing devices. Noting that Eikill only teaches testing

memories, the examiner alleges, "it would have been obvious ... to realize that not only the memory array integrity can be test [sic] ... but also the performance of the processor can be test [sic] while testing the memory array." (Id. at 17.) Because the examiner has not shown that the references teach testing a processor, his allegation amounts to impermissible reliance on the appellant's teachings or suggestions. The addition of Jacobson has not been shown to cure the defects of Choy and Eikill.

For the foregoing reasons, we are not persuaded that teachings from the prior art would appear to have suggested the claimed limitation of circuitry for testing processing elements. The examiner has not established a prima facie case of obviousness. Therefore, we reverse the rejection of claims 21-40 under 35 U.S.C. § 103.

CONCLUSION

To summarize, the provisional rejection of claims 21-23 and 25-34 under the judicially created doctrine of

obviousness-type double patenting is affirmed. The rejection of claims 21-40 under 35 U.S.C. § 103 is reversed.

No period for taking subsequent action concerning this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED-IN-PART

| | | |
|-----------------------------|---|-----------------|
| STANLEY M. URYNOWICZ, JR. |) | |
| Administrative Patent Judge |) | |
| |) | |
| |) | |
| |) | |
| |) | BOARD OF PATENT |
| JAMES D. THOMAS |) | APPEALS |
| Administrative Patent Judge |) | AND |
| |) | INTERFERENCES |
| |) | |
| |) | |
| |) | |
| LANCE LEONARD BARRY |) | |
| Administrative Patent Judge |) | |

Appeal No. 1997-3358
Application No. 08/477,742

Page 12

LLB/kis

Tammy L. Williams
TEXAS INSTRUMENTS
P. O. Box 655474 MS 219
Dallas, TX 75265

Appeal No. 1997-3358
Application No. 08/477,742

Page 13

Appeal No. 1997-3358
Application No. 08/477,742

Page 14