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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 14

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte LAVAUGHN F. WATTS, JR.

Appeal No. 1998-0526
Application 08/395,335

ON BRIEF

Before URYNOWICZ, JERRY SMITH and HECKER, 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 24-69, which constitute all the claims remaining in the application. An amendment after final rejection was filed on June 23, 1997 and was entered by the examiner.

The disclosed invention pertains to a clock manager for a central processing unit (CPU). More particularly, the invention adjusts the clock signal being sent to the CPU based on the activity of the CPU and the temperature of the CPU.

Representative claim 24 is reproduced as follows:

24. An apparatus, comprising:

a central processing unit (CPU);

a monitor for measuring the relative amount of idle time within and temperature associated with said CPU; and

a clock manager coupled to said monitor, said clock manager selectively modifying a clock signal being sent to said CPU to optimize the utilization percentage of said CPU.

The examiner relies on the following reference:

Georgiou et al. (Georgiou) 5,189,314 Feb. 23, 1993

Claims 24-45 stand rejected under 35 U.S.C. § 102(b) as being anticipated by the disclosure of Georgiou. Claims 46-69 stand rejected under 35 U.S.C. § 103 as being unpatentable over the teachings of Georgiou and the common knowledge in the art. The rejection of some of the claims under the second paragraph of 35 U.S.C. § 112 has been withdrawn in view of the amendment after final rejection noted above [answer, page 2].

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

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of anticipation and obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellant's arguments set forth in the briefs 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 the disclosure of Georgiou does not fully meet the invention as recited in claims 24-45. We are also of the view that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth

in claims 46-69. Accordingly, we reverse.

We consider first the rejection of claims 24-45 as being

anticipated by the disclosure of Georgiou. Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.); cert. dismissed, 468 U.S. 1228 (1984); W.L. Gore and Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

With respect to each of these claims, the examiner indicates how he reads these claims on the disclosure of Georgiou on pages 3-4 of the answer. Appellant argues that each of the independent claims recites a monitor for measuring some activity level of the CPU and “temperature associated with said CPU” [brief, pages 7-12]. According to appellant,

the activity monitor of Georgiou does not measure anything whether it is idle time, activity time, temperature or utilization percentage [id., page 12]. The examiner points to several portions of Georgiou to support his position that CPU activity is measured, and the

examiner points to the monitoring of heat buildup in Georgiou's chip as meeting the temperature measurement of the claims [answer, pages 5-6]. Appellant responds that the estimate of heat buildup in Georgiou is not the same as a measurement of temperature of the CPU as claimed [reply brief].

Although we agree with the examiner that Georgiou does disclose the broad function of measuring the relative idle time of its CPU, we agree with appellant that there is no disclosure in Georgiou of measuring the temperature associated with the CPU. The system of Georgiou operates on the assumption that only the commodity of heat dissipation is relevant. In other words, one could change the temperature of the environment in Georgiou, and it would have no effect on

the activity monitor because the heat dissipation calculations are unrelated to the temperature. In the claimed invention, however, the actual temperature of the CPU is measured and used to determine the modification to be made to the clock signal. Although it appears tempting to relate the heat measurements of Georgiou to temperature measurements, the fact remains that the estimate of heat buildup in Georgiou requires no measurement of the actual temperature of the CPU and no such temperature measurement is disclosed by Georgiou.

Since we agree with appellant that every limitation of claims 24-45 is not fully disclosed by Georgiou, we do not sustain the examiner's rejection of claims 24-45 under 35 U.S.C. § 102.

We now consider the rejection of claims 46-69 under 35 U.S.C. § 103 as unpatentable over the teachings of Georgiou in view of the common knowledge in the art. 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 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 appellant have been considered in this decision. Arguments which appellant could have made but chose not to make in the brief have not been considered [see 37 CFR § 1.192(a)].

Claims 46-69 depend from one or more of the independent claims discussed above. The examiner relies on Georgiou for teaching all the limitations of these independent claims as noted above. The examiner's explanation of this rejection does not

overcome the deficiencies of Georgiou noted above. Thus, there

are differences between the claimed invention and the disclosure of Georgiou which have not been properly addressed by the examiner. The failure to address the obviousness of these differences between the claimed invention and the

applied prior art results in a failure to properly establish a prima facie case of obviousness. As noted above, the failure to make the prima facie case of obviousness by the examiner must result in a reversal of the rejection made under 35 U.S.C. § 103.

We also note that the examiner's reliance on "common knowledge in the art" is not a sufficient basis to support the obviousness rejection of each of the dependent claims. We agree with appellant that where the level of such common knowledge is being contested, the examiner has the burden to provide evidence in the record to support the examiner's conclusion of obviousness. Such evidence is lacking in this record.

In conclusion we have not sustained either of the examiner's rejections of the claims. Therefore, the decision

of the examiner rejecting claims 24-69 is reversed.

REVERSED

STANLEY M. URYNOWICZ, JR. Administrative Patent Judge	)	
JERRY SMITH Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
STUART N. HECKER Administrative Patent Judge	)	

js/ki

Ronald O. Neering
Texas Instruments Incorporated
P.O. Box 65574 MS 219
Dallas, TX 75265