

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 27

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KURT MUHLEMANN

Appeal No. 2003-0018
Application No. 09/035,431

ON BRIEF

Before KRASS, RUGGIERO and DIXON, Administrative Patent Judges.
KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-8.

The invention is directed to an electro-optical display device, the nature of which is best illustrated by reference to independent claim 1, reproduced as follows:

1. An electro-optical display device comprising:
an electro-optical display medium between two supporting

Appeal No. 2003-0018
Application No. 09/035,431

plates,

a controller that is configured to provide a driver voltage that is dependent on an indication of temperature of the electro-optical display medium, to compensate for changes in said temperature, and

a temperature sensor that

provides a digitized temperature value as the indication of the temperature of the electro-optical display medium, and

is arranged on one of the supporting plates.

The examiner relies on the following references:

Nash	5,029,982	Jul. 09, 1991
Endo	5,852,430	Dec. 22, 1998
		(filed Apr. 09, 1996)
Takasu et al. (Takasu)	6,067,062	May 23, 2000
		(filed Aug. 23, 1991)

Claims 1-8 stand rejected under 35 U.S.C. § 103. As evidence of obviousness, the examiner offers Endo and Nash with regard to claims 1, 3, 7 and 8, adding Takasu with regard to claims 2 and 4-6.

Reference is made to the briefs and answer for the respective positions of appellant and the examiner.

OPINION

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,

Appeal No. 2003-0018
Application No. 09/035,431

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 teachings, suggestions or implications 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

Appeal No. 2003-0018
Application No. 09/035,431

arguments. See Id.; In re Hedges, 783 F.2d 1038, 1040, 228 USPQ 685, 687 (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, 1051, 189 USPQ 143, 146-147 (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 and are deemed to be waived [see 37 CFR 1.192 (a)].

It is the examiner's position, with regard to independent claim 1, that Endo teaches the claimed subject matter but for the physical location of the temperature sensor on one of the supporting plates. Thus, the examiner turns to Nash for a teaching of a physical configuration of a temperature sensor directly on a supporting plate of liquid crystal panel 12, with the temperature sensor 20 on the glass supporting plate 40b. The examiner concludes that it would have been obvious to modify Endo with Nash such that the temperature sensor of Endo is placed on one of the supporting plates of the liquid crystal medium "because it would result in a more precise temperature reading of liquid crystal medium, as taught by Nash (column 2, lines 14-17, column 3, lines 8-14), thus a better control of LCD contrast in spite of temperature change" (answer-page 4).

Appeal No. 2003-0018
Application No. 09/035,431

We will not sustain the rejection of independent claim 1 under 35 U.S.C. § 103 because, in our view, the examiner has not established a prima facie case of obviousness by providing the requisite motivation for combining the references and, moreover, even if the skilled artisan was led to combine the references, the instant claimed subject matter would not result.

Independent claim 1 requires, inter alia, a temperature sensor that provides a "digitized temperature" and is arranged on one of the supporting plates. While it is true that Nash discloses a temperature sensor arranged on a supporting plate, neither Nash nor Endo discloses a temperature sensor that provides a "digitized temperature value." It is clear from the disclosures of the references that each provides for an analog signal from the temperature sensor. Each reference teaches that the analog temperature signal is provided to an analog-digital converter so that a digitized signal is eventually produced. Normally, it would appear obvious to convert an analog signal to digital form and vice-versa, depending on the particular circumstances. However, in this case, appellant explains, very emphatically, that the analog nature of the temperature measurement in the prior art caused problems because of the inaccuracies introduced by the transmission of analog temperature

Appeal No. 2003-0018
Application No. 09/035,431

measurements. Accordingly, appellant teaches the digitizing of a measured temperature value at the location of the sensor itself, rather than digitizing the measured temperature at a location remote from the liquid crystal display in order to greatly reduce these inaccuracies.

We interpret the language of independent claim 1, viz., "a temperature sensor that provides a digitized temperature value as the indication of the temperature....," as requiring the digitizing of the temperature value at the location of the sensor, as argued by appellant. As such, and since Endo and Nash provide for analog temperature sensing and then sending the analog signal to an analog-to-digital converter, some distance from the sensor, it cannot be said that either of the references co-locate the digitization of the sensed temperature with the temperature sensor, as required by our interpretation of independent claim 1, or that it would have been obvious to do so from the teachings of these references.

We note that the examiner does not contend that the references teach co-locating the temperature sensor and the digitizing of that signal. In fact, the examiner indicates, at page 6 of the answer, that the "transmission path...is extremely

Appeal No. 2003-0018
Application No. 09/035,431

short," thus implying that the analog-to-digital converter is remote from the temperature sensor, and not at the sensor, as required by the claims in accordance with our interpretation and with appellant's argument.

Since we do not sustain the rejection of independent claim 1, we also will not sustain the rejection of dependent claims 2-8 because the rejection employs the same two references with regard to claims 3, 7 and 8 and, with regard to claims 2 and 4-6, the rejection of which relies on Takasu, in addition to Endo and Nash, Takasu does not provide for the deficiencies of the principal references.

Accordingly, the examiner's decision is reversed.

REVERSED

ERROL A. KRASS)	
Administrative Patent Judge)	
)	
)	
)	
)	
JOSEPH F. RUGGIERO)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
)	
)	
JOSEPH L. DIXON)	
Administrative Patent Judge)	

EK/RWK

Appeal No. 2003-0018
Application No. 09/035,431

U.S. PHILIPS CORPORATION
580 WHITE PLAINS ROAD
TARRYTOWN, NY 10591