

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

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Ex parte OMAR S. KHALIL, SHU-JEN YEH,  
STANISLAW KANTOR, CHARLES F. HANNA  
and ERIC B. SHAIN

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Appeal No. 2005-1147  
Application No. 09/834,440

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ON BRIEF

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Before SMITH, LEVY, and BLANKENSHIP, 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 1-18, which constitute all the claims in the application.

The disclosed invention pertains to a method and apparatus for the determination of a disease state in a human subject.

Representative claim 1 is reproduced as follows:

1. A method for the determination of a disease state in a human subject, said method comprising the steps of:

(a) measuring at least one optical property at a first area on a body part of said human subject to obtain a first set of data, said first area being subjected to a first temperature program;

(b) measuring at least one optical property at a second area on said body part to obtain a second set of data, said second area being subjected to a second temperature program, said second temperature program being different from the first temperature program, said second area of said body part being morphologically similar to, adjacent to, but not substantially overlapping with said first area of said body part;

(c) inserting said first set of data and said second set of data into a mathematical relationship to calculate a mathematical output; and

(d) comparing said mathematical output to a category selector to determine said disease state of said human subject.

The examiner relies on the following references:

Skates et al. (Skates)	5,800,347	Sep. 1, 1998
Mills	5,978,691	Nov. 2, 1999

Claims 1-4, 6, 7, 9-12, 14 and 16-18 stand rejected under 35 U.S.C. § 102(b) as being anticipated by the disclosure of Mills. Claims 5, 8, 13 and 15 stand rejected under 35 U.S.C. § 103(a). As evidence of obviousness the examiner offers Mills taken alone with respect to claims 5, 13 and 15, and Mills in view of Skates with respect to claim 8.

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 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 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 the evidence relied upon supports each of the examiner's rejections. Accordingly, we affirm.

We consider first the rejection of claims 1-4, 6, 7, 9-12, 14 and 16-18 as being anticipated by the disclosure of Mills. 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).

The examiner has indicated how he finds the claimed invention to be fully met by the disclosure of Mills [answer, page 4]. With respect to each of independent claims 1, 9 and 17, appellants argue that the claims recite measurements at adjacent areas on a body part, whereas Mills discloses measurements made at adjacent fingers. Appellants argue that each individual finger in Mills constitutes a separate body part. Thus, appellants argue that the separate body parts of Mills does not anticipate the claimed separate areas on a single body part. Appellants also point to portions of Mills which they allege demonstrate that Mills contemplated using combinations of body parts rather than a single body part as claimed [brief, pages 6-8]. The examiner responds that the hand in Mills is a single body part, and the adjacent fingers constitute adjacent areas on the hand. The examiner asserts that the appropriate interpretation of the claimed invention permits the hand in Mills to meet the claimed single body part. The examiner also explains

why the portions of Mills cited by appellants fail to overcome the rejection [answer, pages 7-9].

We will sustain the examiner's anticipation rejection of claims 1-4, 6, 7, 9-12, 14 and 16-18 for essentially the reasons argued by the examiner in the answer. When the hand of a human subject is considered to be a "body part" within the meaning of the claim, we agree with the examiner that the measurements in Mills on adjacent fingers constitute measurements at adjacent areas on the body part as argued by the examiner. Although appellants were permitted to file a reply brief, they have failed to specifically address the examiner's interpretation that a hand can be considered to be a body part within the meaning of the claims. Thus, the examiner's response to the arguments section of the answer has raised persuasive arguments in support of the anticipation of the claimed invention by Mills, which arguments have gone totally un rebutted by appellants. Thus, this record completely supports the position argued by the examiner.

We now consider the rejection of claims 5, 8, 13 and 15 under 35 U.S.C. § 103. 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 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 unpatentable over the teachings of Mills or Mills in view of Skates [answer, pages 5-7]. The examiner's analysis is sufficiently complete and logical to establish a prima facie case of obviousness. Appellants make the same arguments with respect to Mills that we discussed above. Appellants also argue that Mills does not teach the division of the population of human subjects into two sub-populations, but Skates was cited to provide that teaching [brief, pages 8-10]. The examiner responds that Skates makes up for the lack of teachings in Mills and that all of appellants' arguments were addressed in the rejection under 35 U.S.C. § 102 [answer, pages 9-11].

We will sustain the examiner's rejection of claims 5, 8, 13 and 15 for the reasons argued by the examiner in the answer. All of appellants' arguments with respect to this rejection have been

found to be unpersuasive for reasons discussed above and as explained by the examiner.

In summary, we have sustained each of the examiner's rejections of the claims on appeal. Therefore, the decision of the examiner rejecting claims 1-18 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv).

AFFIRMED

JERRY SMITH	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	BOARD OF PATENT
STUART S. LEVY	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
	)	
	)	
	)	
HOWARD B. BLANKENSHIP	)	
Administrative Patent Judge	)	

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APPEAL NO. 2005-1147

APPLICATION NO. 09/834,440

APJ JERRY SMITH

APJ LEVY

APJ BLANKENSHIP

DECISION: **AFFIRMED**/yolunda

**PREPARED:** Sep 1, 2005

**OB/HD**

**PALM**

**ACTS 2**

**DISK (FOIA)**

**REPORT**