

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT R. ALFANO and YURY BUDANSKY

Appeal No. 97-3292
Application 08/522,827¹

ON BRIEF

Before STONER, Chief Administrative Patent Judge,
COHEN and FRANKFORT, Administrative Patent Judges.

COHEN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 14 and 16 through 20. These claims constitute all of the claims remaining in the application.

Appellants' invention pertains to a method of examining a

¹ Application for patent filed September 1, 1995. According to appellants, the application is a continuation of Application 08/166,196, filed December 13, 1993, now abandoned.

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subcutaneous sample. An understanding of the invention can be derived from a reading of exemplary claim 14, a copy of which appears in the APPENDIX to the brief (Paper No. 17).

As evidence of obviousness, the examiner has applied the documents listed below:

Alfano et al 1992 (Alfano)	5,131,398	Jul. 21,
Wilk 21, 1993	5,246,424	Sep.
Shipp 1993	5,263,937	Nov. 23,
Janes et al 1994 (Janes) 1991)	5,280,788	Jan. 25, (filed Feb. 26,

The following rejection is before us for review.

Claims 14 and 16 through 20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Alfano in view of Janes and Shipp or Wilk.

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The full text of the examiner's rejection and response to the argument presented by appellants appears in the final rejection and answer (Paper Nos. 14 and 18), while the complete statement of appellants' argument can be found in the brief (Paper No. 17).

OPINION

In reaching our conclusion on the obviousness issue raised in this appeal, this panel of the board has carefully considered appellants' specification and claims, the applied patents,² and the respective viewpoints of appellants and the examiner. As a consequence of our review, we make the determination which follows.

² In our evaluation of each of the applied patents, we have considered all of the disclosure thereof for what it would have fairly taught one of ordinary skill in the art. See In re Boe, 355 F.2d 961, 965, 148 USPQ 507, 510 (CCPA 1966). Additionally, this panel of the board has taken into account not only the specific teachings, but also the inferences which one skilled in the art would reasonably have been expected to draw from the disclosure. See In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

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We reverse the examiner's rejection of appellants' claims under 35 U.S.C. § 103. Our reasoning in support of this conclusion appears below.

Figs. 7(a) through 7(f) of the present application illustrate appellants' procedure for examining subcutaneous organ tissue, such as inside a breast, for cancer (specification, page 11). As further disclosed (specification, page 10), the

needle 35 of the probing end of assembly 31, Figs. 3, 5(a), and 5(b), is provided with a curved or plane mirror 81 for reflecting the light emitted from a quartz fiber bundle 33 at a 90 degree angle and with a quartz window 83 through which the 90 degree reflected light is transmitted to a tissue sample. According to appellants, "[o]ne advantageous feature associated with this construction is that an entire area can be examined by rotating assembly 31 about its horizontal axis like a periscope."

Independent method claim 14 comprises, inter alia, the

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step of inserting an optic probe through a hollow tube, with the optic probe comprising, inter alia, an optic fiber bundle and a hollow needle, the optic fiber bundle disposed coaxially within the hollow needle, the hollow needle having a mirror for reflecting light transmitted to and from the optic fiber bundle at approximately a 90 degree angle relative to the longitudinal axis of the optic fiber bundle and having a window through which the reflected light may pass.

We turn now to the evidence of obviousness.

Alfano teaches an in-vivo spectroscopy diagnosis technique or method for distinguishing cancerous tissue from noncancerous tissue. As disclosed by the patentee (column 7, lines 44 through 47), instead of an endoscope 17 (Fig. 11), the probe may comprise an optical fiber bundle inside a needle for use in probing, i.e., penetrating directly inside a tissue such as the breast for direct optical biopsy.

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The Shipp patent, for example, reveals the known practice relative to the use of a trocar wherein a blade (clearly suggestive of a solid needle) is removed from the trocar in order to allow surgical instruments to pass therethrough. We are in accord with the examiner's view that the combined teachings of Alfano and Shipp or Wilk would have clearly been suggestive to one having ordinary skill in the art of inserting the probe disclosed by Alfano through a hollow tube previously inserted (with a solid needle subsequently removed) to obtain the expected advantage thereof.

The Janes patent makes us aware that, at the time of appellants' invention, it was a known practice in the art to follow an in-vivo optical diagnosis of tissue (system of Fig. 14 using a probe 268) with the removal of samples (column 2, lines 34 through 36 and column 6, lines 60 through 62). With this latter knowledge, it is clear to this panel of the board that one having ordinary skill in the art would have additionally found it obvious to take a sample subsequent to practicing the modified Alfano procedure, supra, for the self

evident advantage of verifying the findings relative to the optical diagnosis.

Notwithstanding our determinations, supra, like appellants' (brief, page 6), the difficulty we have with the examiner's rejection is that it fails to take into account the specific optic probe of step (d) in claim 14; the optic probe being an expressly defined entity necessary for practicing the claimed invention. More specifically, claim 14 requires an optic probe comprising, inter alia, an optic fiber bundle and a hollow needle having a "mirror" for reflecting light at "approximately a 90 degree angle relative to the longitudinal axis of said optic fiber bundle" and having a "window through which said reflected light may pass." The examiner has not provided evidence that

this particularly claimed optic probe was known or would have been obvious when appellants' invention was made.³ For the

³ The optical needle of Janes (Figs. 3A, 3B and Figs. 8A, 8B) includes cladding for achieving internal reflection but lacks a mirror, as disclosed and claimed. Further, it is apparent from a consideration of the noted drawing figures in Janes that, with the configuration of the depicted optical needle, light is not reflected at approximately a

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reasons set forth, supra, we conclude that the method of claim 14, considered as a whole, would not have been obvious based upon the applied prior art. Thus, the rejection of claims 14 and 16 through 20 under 35 U.S.C. § 103 must be reversed.

The decision of the examiner is reversed.

90 degree angle relative to the longitudinal axis of an optic fiber bundle, as now claimed.

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REVERSED

BRUCE H. STONER, JR.)
Chief Administrative Patent Judge))
IRWIN CHARLES COHEN)
Administrative Patent Judge) BOARD OF PATENT
CHARLES E. FRANKFORT) APPEALS AND
Administrative Patent Judge) INTERFERENCES

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