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

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAY M. EASTMAN, WILLIAM J. FOX,
ROGER J. GREENWALD, KEVIN P. ROESSER,
and JAMES M. ZAVISLAN

Appeal 2006-3381
Application 10/162,317[1]
Technology Center 2800

Decided: March 23, 2007

Before KENNETH W. HAIRSTON, HOWARD B. BLANKENSHIP, and JAY P. LUCAS, *Administrative Patent Judges*.

LUCAS, *Administrative Patent Judge*.

DECISION ON APPEAL

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[1] [1] Application was filed on June 4, 2002. Appellant claims the benefit under 35 U.S.C. § 120 of application 09/502,252, filed February 17, 2000, now U.S. Patent No. 6411434 and the benefit under 35 U.S.C. § 119 of provisional patent application 60/120,534 filed February 17, 1999. The real party in interest is Lucid, Inc. of Rochester, NY.

STATEMENT OF CASE

Appellants appeal from a final rejection of claims 23, 25, 26, 33 to 37, and 40 to 64 under 35 U.S.C. § 134 (2002). The Board of Patent Appeals and Interferences (BPAI) has jurisdiction under 35 U.S.C. § 6(b) (2002).

In the words of the Appellants, the invention relates to "a cassette for retaining a specimen of surgically exposed tissue from a patient in an orientation that facilitates optical sectioning of the tissue by a confocal microscope, or other optical imaging microscope, for Mohs micrographic surgery." Mohs surgery is used to study and cure a skin cancer, and boasts a very high cure rate. The technique was developed by Dr. Fredrick E. Mohs in the 1930's and '40s and has been improved to its present state. A confocal microscope uses special equipment to eliminate out-of-focus light, making a much clearer image of the specimen at a certain optical depth. The cassette of the Appellants holds the specimen on a special slide, by a flexible membrane, to facilitate viewing by the microscope.

The Examiner rejected claims 23, 25, 26, 33 to 37, and 40 to 64 as follows:

A. Claims 23, 26, 33, 41, 46, 48, 49, 53-57 and 60-63 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 3,551,023 (Brackett).

B. Claims 36 and 42-44 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,551,023 (Brackett).

C. Claims 25, 40, and 50 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,551,023 (Brackett) in view of U.S. Patent No. 4,974,952 (Focht).

D. Claims 34, 35, 37, 45, 47, 51, 52, 58, 59, and 64 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,551,023 (Brackett) in view of U.S. Patent No. 5,532,874 (Stein).

Two of the independent claims under appeal read as follows:

23. A method for using a cassette for preparing a tissue specimen for examination by a confocal microscope or other optical imaging microscope comprising the steps of:

locating a tissue specimen on an optically transparent window of a base member;

placing a membrane over at least a substantial portion of said base member including said window to retain the tissue specimen against said window, in which said membrane is sufficiently pliable in response to pressure to be capable of being operated upon to reach said window at one or more locations to shape the tissue specimen upon said window; and

engaging the membrane to the base member to produce a cavity between said membrane and said window.

33. A system for optically imaging sections of a tissue specimen comprising:

a cassette having a window and means for applying pressure onto said tissue specimen to shape said tissue specimen against said window; and

imaging means directed to said tissue specimen through said window to produce images representing one or more sections of said tissue specimen.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Brackett	US 3,551,023	Dec. 29, 1970
Focht	US 4,974,952	Dec. 4, 1990
Stein	US 5,532,874	July 2, 1996

Appellants contend that the claimed subject matter is not anticipated by Brackett, and is not rendered obvious by Brackett, either alone or in combination with Focht or Stein. More specifically, Appellants contend that key elements of the claimed invention, especially with regard to shaping the tissue specimen, are missing from the Brackett reference, and missing from Focht and Stein, and the disclosures cannot properly be combined because the Examiner has failed to establish an adequate reason to combine. The Examiner contends that the venerable Brackett patent contains all of the claimed elements for most of the claims, and alone or in combination with Focht or Stein renders the other claims obvious.

We affirm-in-part.

ISSUE

The issue is whether Appellants have shown that the Examiner erred in rejecting the claims under 35 U.S.C. §§ 102 (b) and 103(a). The issue turns on whether the elements in the Brackett reference anticipate the claims' limitations, or render them obvious alone or in combination with Focht or Stein. Particular focus is on the limitation, "in which said membrane is sufficiently pliable in response to pressure to be capable of being operated upon to reach said window at one or more locations to shape the tissue specimen upon said window."

FINDINGS OF FACT

A. With regard to the rejection of claims 23, 26, 33, 41, 46, 48, 49, 53-57 and 60-63 under 35 U.S.C. § 102(b) as being anticipated by Brackett:

1. Appellants' arguments center around the second limitation, concerning the flexible membrane. Brackett has two flexible membranes, "thin flexible plastic film" (col. 2, l. 60) element 12, which is placed on the substrate 14 below the specimen 15, and "relatively thin plastic film 18 that preferably is of the same thickness, material and size as film 12" (col. 3, ll. 8-10). Film 18 is placed above the specimen, and is used by the Examiner to anticipate membrane 26 of the claimed invention.

2. We find that the film 18 of Brackett is placed "over at least a substantial portion of said base member including said window".

3. We find in Brackett the description, "[d]uring cover slipping, film 18 preferably is aligned with one edge of film 12 … and then wiped toward the opposite edge to squeeze out excess mounting medium and prevent bubbles of air or fluid from being trapped between the films 12, 18. This will provide a film-specimen-film sandwich" (col. 3, l. 10-15). We note from the drawings in Brackett that specimen 15, with liquid mounting medium 17, is near the center of the window, with liquid mounting medium "placed over the specimen and adjacent areas" (col. 3, top, Fig. 5). The Examiner has stated that the claim language "in which said membrane is sufficiently pliable in response to pressure to be capable of being operated upon to reach said window at one or more locations to shape the tissue specimen upon said window" is anticipated by this

construction in Brackett. We find that Brackett does offer a basis for that anticipation as the membranes in Brackett would reach each other beyond the periphery of the specimen and its adjacent mounting medium. Appellants argue that no pressure is applied by membrane 18, but that flexible member is described as being squeezed, to remove air and excess mounting fluid, so the Appellants' argument is not convincing. The claimed "to shape…," if given weight at all (being a statement of purpose), is read on the flattening action of the disclosed squeezing of a tissue specimen. Since the liquid mounting medium 17 in Brackett is located only at and around the centrally located specimen, we find the rest of the "sandwich" beyond the central area anticipates the claimed membrane reaching the "window at one or more locations."

4. Claim 41 specifies that the specimen is obtained through Mohs surgery. No recitation of Mohs surgery is required for anticipation. The implied process step of how the specimen may be acquired does not distinguish the claimed specimen over the microscopic pathology section described by Brackett, which is sufficient to demonstrate prima facie anticipation and shift the burden to Appellants to demonstrate otherwise.

5. Claims 48 and 49 merely recite that the method and system provide a macroscopic image. A macroscopic image is one visible by the naked eye. Brackett provides that teaching.

6. Claims 53, 55, 56, 57, and 60. For these claims, in the Brief (9) the Appellants argue to distinguish their specimen from that of Brackett by mentioning the extra difficulties of imaging a "thick" specimen. The Appellants seem to be referring to limitations concerning the specimen that we do not find in the claims.

7. Claim 54 recites various advanced microscopes that are not itemized in the Brackett reference. However, claim 54 merely requires that the specimen be "imagable" by one of the recited imaging systems. Appellants do not argue that the tissue specimen in Brackett is not imagable by any of the instruments, but seem to argue there is no suggestion for using the devices (an argument that is irrelevant to an anticipation rejection).

8. Claims 61 to 63 recite a limitation concerning the specimen "shaped specially with respect to one or more of said outer edges." Examiner has rejected these claims indicating that the specimen is shaped [as described in paragraph 3 above]. Since the nature of the special shaping is not limited in the claim, we find that the squeezing of the film 18 shapes the specimen in the center of the slide for viewing. That can be considered special.

<u>B. With regard to the rejection of claims 36, 42, 43, and 44 under 35 U.S.C. § 103(a) for being obvious over Brackett:</u>

1. With regard to claims 36 and 44, Examiner has stated that the substitution of one of optical coherence tomography and two-photon microscopy for the general purpose microscope taught by Brackett would have been obvious at the time of the invention. In the Specification, page 16, Appellants have indicated that these techniques are well described in the prior art. The claimed invention relates to a slide cassette usable with any type of microscope, as the cassette is a separate entity. We affirm the Examiner on these claims.

2. With regard to claims 42 and 43, the claims recite "locating a fluid in said cavity having an index of refraction substantially matching that of the tissue specimen." We do not find a teaching in the cited art, or any other documented support, for such a fluid as claimed. Examiner's rejection is reversed for these claims.

3. With regard to claim 44, the limitation of "providing indicia identifying said tissue specimen" is at least rendered obvious, if not anticipated, by the card 20 in Brackett. As Appellants mention in the (Br. 9), that card can provide identifying indicia identifying the tissue specimen, as it is taught in Brackett as being imprinted (col. 3, line 47).

<u>C. With regard to the rejection of claims 25, 40 and 50 under 35 U.S.C. § 103(a) for being obvious over Brackett in view of Focht:</u>

1. Brackett teaches the slide cassette for a tissue specimen and method basically as claimed, with a fluid being applied between the flexible film window and cover slip. Examiner asserts that Focht teaches a fluid port in a similar slide unit, but for live cells and states "[i]t would have been obvious to the ordinarily skilled artisan at the time of the invention to include such means in Brackett's device in order to allow the insertion of various types of fluids into the specimen-containing cavity." We concur with regard to claims 25 and 40.

2. Appellants argue that "…Brackett does not described [sic] any insertable fluid, and Focht fails to mention the index of refraction of its fluid." We agree that the prior art does not sufficiently render Claim 50 obvious, as the index of refraction is not taught as being that of the tissue sample, and we reverse the rejection of that claim.

D. With regard to the rejection of claims 34, 35, 37, 45, 47, 51, 52, 58, 59, and 64 under 35 U.S.C. § 103(a) for being obvious over Brackett in view of Stein:

1. We find that Stein teaches the use of a confocal microscope with a rotating holder for microscope slides. The Examiner asserts that it would be obvious to use a confocal microscope as disclosed by Stein with the slide-cassette of Brackett, instead of a conventional microscope disclosed by Brackett, as claimed in the noted claims. Appellants repeat the arguments above for claims 23, 33 and 58. We find the substitution of microscopes

motivated by a need for tissue observations with more modern equipment would indeed render the noted claims obvious. The rejection of these claims is affirmed.

2. With regard to Claim 64, we repeat the logic in paragraph A8 above.

PRINCIPLES OF LAW

On appeal, Appellants bear the burden of showing that the Examiner has not established a legally sufficient basis for the rejection of the claims.

"In reviewing the [E]xaminer's decision on appeal, the Board must necessarily weigh all of the evidence and argument." *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

In sustaining a multiple reference rejection under 35 U.S.C. § 103(a), the Board may rely on one reference alone without designating it as a new ground of rejection. *In re Bush*, 296 F.2d 491, 496, 131 USPQ 263, 266-67 (CCPA 1961); *In re Boyer*, 363 F.2d 455, 458 n.2, 150 USPQ 441, 444 n.2 (CCPA 1966).

It is axiomatic that anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim. *See In re King*, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986) and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co*., 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984).

Our reviewing court states in *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) that "claims must be interpreted as broadly as their terms reasonably allow." Our reviewing court further states,

"[t]he terms used in the claims bear a 'heavy presumption' that they mean what they say and have the ordinary meaning that would be attributed to those words by persons skilled in the relevant art." *Texas Digital Sys., Inc v. Telegenix, Inc*., 308 F.3d 1193, 1202, 64 USPQ2d 1812, 1817 (Fed. Cir. 2002).

ANALYSIS

In view of the discussion above, we find that the Brackett reference, alone or in combination with Focht and Stein as expressed by the Examiner, teaches a method, system, and device as claimed in all the claims except claims 42, 43 and 50. With regard to those claims, the step of locating a fluid in the cavity with an index of refraction substantially matching that of the tissue specimen has not been demonstrated to be in the prior art as claimed. Similarly, introducing a fluid which corrects for optical distortion due to the surface texture of the specimen has not been demonstrated. These claims are not rendered obvious under 35 U.S.C. § 103(a) by the references.

CONCLUSION OF LAW

Based on the findings of facts and analysis above, we conclude that the Examiner erred in rejecting claims 42, 43, and 50. The rejections of these claims under the statutes as expressed by the Examiner are reversed. The rejections of all the other claims, 23, 25, 26, 33 to 37, 40, 41, 44 to 49, and 51 to 64 are affirmed.

DECISION

The Examiner's rejections of claims 42, 43, and 50 are reversed. The rejections of claims 23, 25, 26, 33 to 37, 40, 41 44 to 49, and 51 to 64 are 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 IN PART

tdl/ce

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