

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

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

Ex parte ULRICH SIMON and STEFAN WILHELM

Appeal No. 2003-0735
Application 09/238,859

HEARD: August 19, 2003

Before KRASS, JERRY SMITH, and RUGGIERO, Administrative Patent Judges,

RUGGIERO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal from the final rejection of claims 2, 4, 5, and 7-9, which are all of the claims pending in the present application. Claims 1, 3, and 6 have been canceled. At page 3 of the Answer, the Examiner indicates that the rejections of claims 2, 4, 5, and 7-9 under 35 U.S.C. § 112, first paragraph, and of claim 9 under 35 U.S.C. § 103(a), have

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been withdrawn. Accordingly, only the Examiner's 35 U.S.C. § 103(a) rejection of claims 2, 4, 5, 7, and 8 is before us on appeal.

The claimed invention relates to a laser scanning microscope which includes an acousto-optic tunable filter (AOTF) in the laser input-coupling beam path. Further associated with the AOTF is a temperature gauge which is connected to a cooling and heating device by an electronic controller which functions to maintain the temperature of the AOTF and its environment at a constant value.

Representative claim 2 is reproduced as follows:

2. In a laser scanning microscope with an AOTF (acousto-optic tunable filter) in the laser input-coupling beam path, an improvement comprising:

a temperature gauge being provided in one of the environment of the AOTF and the vicinity thereof and connected therewith;

means for one of cooling and heating of the AOTF and its environment; and

wherein said means for one of heating and cooling includes regulation of said AOTF and its environment to a constant temperature value.

The Examiner relies on the following prior art reference:¹

Kemeny et al. (Kemeny)	5,039,855	Aug. 13, 1991
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¹ In addition, the Examiner relies on the admitted prior art at pages 1 and 2 of Appellants' specification.

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Claim 2, 4, 5, 7, and 8, all of the appealed claims, stand finally rejected under 35 U.S.C. § 103(a) as being unpatentable over the admitted prior art in view of Kemeny.²

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the Briefs³ and the Answer for the respective details.

OPINION

We have carefully considered the subject matter on appeal, the rejection advanced by the Examiner, the arguments in support of the rejection, and the evidence of obviousness relied upon by the Examiner as support for the rejection. We have, likewise, reviewed and taken into consideration, in reaching our decision, Appellants' arguments set forth in the Briefs along with the Examiner's rationale in support of the rejection 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 and the level of skill in the particular art would have suggested to one of ordinary skill in

² Although the Examiner included claim 6 in the statement of the grounds of rejection, claim 6 was cancelled in the amendment filed July 16, 2001 (Paper No. 13).

³ The Appeal Brief was filed April 2, 2002 (Paper No. 17). In response to the Examiner's Answer mailed June 18, 2002 (Paper No. 18), a Reply Brief was filed August 23, 2002 (Paper No. 20), which was acknowledged and entered by the Examiner in the communication dated October 31, 2002 (Paper No. 22).

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the art the obviousness of the invention as set forth in claims 2, 4, 5, 7, and 8. Accordingly, we affirm.

Appellants indicate (Brief, page 7) that appealed claims 2, 4, 5, 7, and 8 stand or fall together as a group. Consistent with this indication, Appellants' arguments are directed solely to features which are set forth in independent claim 2.

Accordingly, we will select independent claim 2 as the representative claim for all the claims on appeal, and claims 4, 5, 7, and 8 will stand or fall with claim 2. Note In re King, 801 F.2d 1324, 1325, 231 USPQ 136, 137 (Fed. Cir. 1986); In re Sernaker, 702 F.2d 989, 991, 217 USPQ 1, 3 (Fed. Cir. 1983).

As a general proposition in an appeal involving a rejection under 35 U.S.C. § 103, an Examiner is under a burden to make out a prima facie case of obviousness. If that burden is met, the burden of going forward then shifts to Appellants 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 In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); 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).

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With respect to representative independent claim 2, the Examiner, as the basis for the obviousness rejection, proposes to modify the disclosure of the admitted prior art. According to the Examiner (Answer, page 4), the admitted prior art discloses the claimed invention, including a recognition of the need to maintain AOTF temperature at a constant value, except for a temperature gauge provided in the environment of the AOTF and a heater controller to control the AOTF temperature so that it remains at a constant value. To address these deficiencies, the Examiner turns to the Kemeny reference which describes a heater controller (166) for an AOTF which maintains, in response to a temperature sensor (167, 170), the temperature of the AOTF to constant value within a 1 degree tolerance. According to the Examiner (id.), the skilled artisan would have been motivated and found it obvious to add a temperature sensor, a heater, and heater controller as taught by Kemeny to the device of the admitted prior art ". . . in order to be able to provide corrections for variations in the temperature of the AOTF, as already suggested by Kemeny"

After reviewing the Examiner's analysis, it is our view that such analysis carefully points out the teachings of the admitted prior art and the Kemeny reference, reasonably indicates the perceived differences between this applied prior art and the

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claimed invention, and provides reasons as to how and why the prior art teachings would have been modified and/or combined to arrive at the claimed invention. In our opinion, the Examiner's analysis is sufficiently reasonable that we find that the Examiner has at least satisfied the burden of presenting a prima facie case of obviousness. The burden is, therefore, upon Appellants to come forward with evidence and/or arguments which persuasively rebut the Examiner's prima facie case of obviousness. 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 Briefs have not been considered [see 37 CFR § 1.192(a)].

Appellants' arguments in response assert a failure by the Examiner to set forth a prima facie case of obviousness since proper motivation for the proposed combination of the admitted prior art and Kemeny has not been established. In particular, Appellants contend (Brief, pages 11-14; Reply Brief, pages 4-7) that, in contrast to the claimed invention and the admitted prior art which are directed to laser scanning microscopes, Kemeny's disclosure is directed to a spectrometer. In a related argument, Appellants further assert that the operation of the spectrometer of Kemeny involves a purposeful change in temperature of the AOTF

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which is the direct opposite of the claimed invention in which the AOTF is regulated to a constant temperature value.

After careful review of the applied prior art references in light of the arguments of record, we are in general agreement with the Examiner's position as stated in the Answer. At the outset, we would point out that we do not find to be persuasive Appellants' assertion (Reply Brief, pages 2-4) that the Examiner, by deleting in the rationale provided in the Answer a portion of the statement of the line of reasoning expressed in the final Office action (Paper No. 14), has made an impermissible new ground of rejection. Our review of the record before us finds it apparent that the portion of the reasoning deleted from the final Office action applies specifically to the limitations in claim 9, the obviousness rejection of which the Examiner has withdrawn. In our view, the portion of the Examiner's rationale carried over from the final Office action to the Answer, which applies specifically to the limitations of appealed claim 2, is a restatement of the Examiner's position as to claim 2, and not a new rejection thereof.

As to the merits of the Examiner's obviousness rejection of representative claim 2, we find Appellants' arguments to be without merit. Initially, we find no basis in the disclosure of Kemeny, and Appellants have pointed to none, for Appellants'

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contention that the temperature of Kemeny's AOTF is purposefully varied as opposed to being maintained at a constant value as claimed. Our review of Appellants' specification as well as the disclosure of Kemeny reveals that, in both cases, acoustic waves of particular frequencies are applied to the AOTF crystals (TeO_2 in both cases) to produce at the AOTF output a desired wavelength for a particular application, i.e., microscope in Appellants' case and a spectrometer in Kemeny. Further, in both situations, the proper operating temperature of the AOTF crystal lies within a specified range (Kemeny, at column 8, lines 16-19 discloses this range as between 40-50 degrees Celsius). In our opinion, a fair reading of the disclosure of Kemeny, in particular the above cited passage, would indicate that, once a desired AOTF crystal operating temperature within the specified 40-50 degree C range is selected, the temperature is maintained to a constant value within a 1 degree tolerance (which is also Appellants' tolerance as disclosed at page 2, line 19 of the specification).

We further find to be unpersuasive Appellants' contention that the fact that the disclosures of the admitted prior art, directed to a microscope, and Kemeny, directed to a spectrometer, involve different devices would lead away from their combination. It is apparent to us, however, from the line of reasoning expressed in the Answer that the Examiner is not suggesting the

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bodily incorporation of Kemeny's spectrometer into the microscope of the admitted prior art. Rather, as pointed out by the Examiner (Answer, page 5), it is ". . . Kemeny's teaching that a temperature sensor and a heating/cooling controller are needed when using an AOTF that is used to modify the Prior Art." "The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference. . . . Rather, the test is what the combined teachings of those references would have suggested to those of ordinary skill in the art." In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). See also In re Sneed, 710 F.2d 1544, 1550, 218 USPQ 385, 389 (Fed. Cir. 1983) and In re Nievelt, 482 F.2d 965, 967, 179 USPQ 224, 226 (CCPA 1973).

For the above reasons, since it is our opinion that the Examiner's prima facie case of obviousness has not been overcome by any convincing arguments from Appellants, the Examiner's 35 U.S.C. § 103(a) rejection of independent claim 2, as well as dependent claims 4, 5, 7, and 8, which fall with claim 2, is sustained.

In summary, we have sustained the Examiner's 35 U.S.C. § 103(a) rejection of all of the claims on appeal. Therefore, the decision of the Examiner rejecting claims 2, 4, 5, 7, and 8 is affirmed.

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

AFFIRMED

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

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