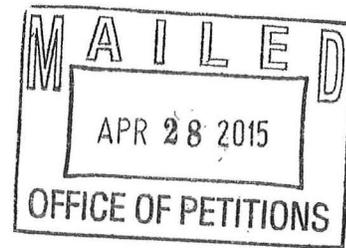




SHOOK, HARDY & BACON L.L.P.
(Cerner Corporation)
Intellectual Property Department
2555 GRAND BOULEVARD
KANSAS CITY MO 64108-2613



In re Application of :
Mark A. HOFFMAN, et al. :
Application No. 11/028,262 :
Filed: January 3, 2005 :
Attorney Docket No. CRNI.116916 :

ON PETITION

This is a decision on the petition filed, November 24, 2014, under 37 CFR 1.181(a)(3) requesting the Director exercise her supervisory authority and overturn the decisions of the Director, Technology Center 1600 (Technology Center Director), dated July 3, 2014 and September 23, 2014, which refused to designate a new grounds of rejection in the Examiner's Answer mailed March 24, 2014

The petition to overturn the decisions of the Technology Center Director dated July 3, 2014 and September 23, 2014, is **DENIED**¹.

RELEVANT BACKGROUND

On May 30, 2013, a final Office action was mailed.

On August 30, 2013, a Notice of Appeal was filed.

On November 26, 2013, an Appeal Brief was filed.

On March 24, 2014, an Examiner's Answer was mailed.

On May 15, 2014, a petition to invoke supervisory authority was filed.

On July 3, 2014, a decision by the Technology Center Director denying the petition filed May 15, 2014 was mailed.

On August 28, 2014, a petition requesting reconsideration of the July 3, 2014 petition decision was filed.

On September 23, 2014, a decision by the Technology Center Director denying the petition filed August 28, 2014 was mailed.

STATUTE, REGULATION, AND EXAMINING PROCEDURE

35 U.S.C. 132 states:

(a) Whenever, on examination, any claim for a patent is rejected, or any objection or requirement made, the Director shall notify the applicant thereof, stating the reasons for such rejection, or objection or requirement, together with such information and references as may be useful in judging of the propriety of continuing the prosecution of his application; and if after receiving such notice, the applicant persists in his claim for a patent, with or without amendment, the application shall be reexamined. No amendment shall introduce new matter into the disclosure of the invention.

35 U.S.C. 134 states:

a) PATENT APPLICANT.— An applicant for a patent, any of whose claims has been twice rejected, may appeal from the decision of the primary examiner to the Patent Trial and Appeal Board, having once paid the fee for such appeal.

37 CFR 41.39 states:

(a) Content of examiner's answer. The primary examiner may, within such time as may be directed by the Director, furnish a written answer to the appeal brief.

(1) An examiner's answer is deemed to incorporate all of the grounds of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory action and pre-appeal brief conference decision), unless the examiner's answer expressly indicates that a ground of rejection has been withdrawn.

(2) An examiner's answer may include a new ground of rejection. For purposes of the examiner's answer, any rejection that relies upon any Evidence not relied upon in the Office action from which the appeal is taken (as modified by any advisory action) shall be designated by the primary examiner as a new ground of rejection. The examiner must obtain the approval of the Director to furnish an answer that includes a new ground of rejection.

37 CFR 41.41(a) states:

Timing. Appellant may file only a single reply brief to an examiner's answer within the later of two months from the date of either the examiner's answer, or a decision refusing to grant a petition under § 1.181 of this title to designate a new ground of rejection in an examiner's answer.

37 CFR 41.45(a) states:

Timing. Appellant in an application or ex parte reexamination proceeding must pay the fee set forth in § 41.20(b)(4) within the later of two months from the date of either the examiner's answer, or a decision refusing to grant a petition under § 1.181 of this chapter to designate a new ground of rejection in an examiner's answer.

MPEP 1207.03(a) II states, in relevant part:

There is no new ground of rejection when the basic thrust of the rejection remains the same such that an appellant has been given a fair opportunity to react to the rejection. See *In re Kronig*, 539 F.2d 1300, 1302-03, 190 USPQ 425, 426-27 (CCPA 1976). Where the statutory basis for the rejection remains the same, and the evidence relied upon in support of the rejection remains the same, a change in the discussion of, or rationale in support of, the rejection does not necessarily constitute a new ground of rejection. *Id.* at 1303, 190 USPQ at 427 (reliance upon fewer references in affirming a rejection under 35 U.S.C. 103 does not constitute a new ground of rejection).

Factual Situations That Do Not Constitute a New Ground of Rejection

1. Citing a different portion of a reference to elaborate upon that which has been cited previously.

If the examiner's answer cites a different portion of an applied reference which goes no farther than, and merely elaborates upon, what is taught in the previously cited portion of that reference, then the rejection does not constitute a new ground of rejection. For example, in *In re DBC*, 545 F.3d 1373 (Fed. Cir. 2008), the examiner rejected the claims under 35 U.S.C. 103 over a combination of references, including the English translation of the abstract for a Japanese patent. The examiner cited the English abstract for two claim limitations: (1) Mangosteen rind, and (2) fruit or vegetable juice. The Board affirmed the rejection under 35 U.S.C. 103 over the same references, but instead of citing the abstract, the Board cited an Example on page 16 of the English translation of the Japanese reference, which was not before the examiner. *DBC*, 545 F.3d at 1381. Importantly, the Board cited the Example for the same two claim

limitations taught in the abstract, and the Example merely elaborated upon the medicinal qualities of the mangosteen rind (which medicinal qualities were not claimed) and taught orange juice as the preferred fruit juice (while the claim merely recited fruit or vegetable juice). Hence, the Example merely provided a more specific disclosure of the same two generic limitations that were fully taught by the abstract. The court held that this did not constitute a new ground of rejection because "the example in the translation goes no farther than, and merely elaborates upon, what is taught by the abstract." *DBC*, 545 F.3d at 1382 n.5.

3. Relying on fewer than all references in support of a 35 U.S.C. 103 rejection, but relying on the same teachings.

If the examiner's answer removes one or more references from the statement of rejection under 35 U.S.C. 103, and relies on the same teachings of the remaining references to support the 35 U.S.C. 103 rejection, then the rejection does not constitute a new ground of rejection. For example, in *In re Kronig*, 539 F.2d 1300, 1302 (CCPA 1976), the examiner rejected the claims under 35 U.S.C. 103 over four references. The Board affirmed the rejection under 35 U.S.C. 103, but limited its discussion to three of the references applied by the examiner. *Id.* The Board relied upon the references for the same teachings as did the examiner. The court held that this did not constitute a new ground of rejection. *Kronig*, 539 F.2d at 1303 ("Having compared the rationale of the rejection advanced by the examiner and the board on this record, we are convinced that the basic thrust of the rejection at the examiner and board level was the same."). See also *In re Bush*, 296 F.2d 491, 495-96 (CCPA 1961) (Examiner rejected claims 28 and 29 under 35 U.S.C. 103 based upon "Whitney in view of Harth;" Board did not enter new ground of rejection by relying only on Whitney).

4. Changing the order of references in the statement of rejection, but relying on the same teachings of those references.

If the examiner's answer changes the order of references in the statement of rejection under 35 U.S.C. 103, and relies on the same teachings of those references to support the 35 U.S.C. 103 rejection, then the rejection does not constitute a new ground of rejection. For example, in *In re Cowles*, 156 F.2d 551, 552 (CCPA 1946), the examiner rejected the claims under 35 U.S.C. 103 over "Foret in view of either Preleuthner or Seyfried." The Board affirmed the rejection under 35 U.S.C. 103, but styled the statement of rejection as to some of the rejected claims as "Seyfried in view of Foret," but relied on the same teachings of Seyfried

and Foret on which the examiner relied. The court held that this did not constitute a new ground of rejection. *Cowles*, 156 F.2d at 554. See also *In re Krammes*, 314 F.2d 813, 816–17 (CCPA 1963) (holding that a different "order of combining the references" did not constitute a new ground of rejection because each reference was cited for the "same teaching" previously cited).

5. Considering, in order to respond to applicant's arguments, other portions of a reference submitted by the applicant.

If an applicant submits a new reference to argue, for example, that the prior art "teaches away" from the claimed invention (see MPEP § 2145), and the examiner's answer points to portions of that same reference to counter the argument, then the rejection does not constitute a new ground of rejection. In *In re Hedges*, 783 F.2d 1038 (Fed. Cir. 1986), the claimed invention was directed to a process for sulfonating diphenyl sulfone at a temperature above 127° C. *Id.* at 1039. The examiner rejected the claims under 35 U.S.C. 103 over a single reference. The applicant submitted three additional references as evidence that the prior art teaches away from performing sulfonation above 127° C, citing portions of those references which taught lower temperature reactions. The Board affirmed the rejection, finding the applicant's evidence unpersuasive. On appeal, the Solicitor responded to the applicant's "teaching away" argument by pointing to other portions of those same references which, contrary to applicant's argument, disclosed reactions occurring above 127° C. The court held that this did not constitute a new ground of rejection because "[t]he Solicitor has done no more than search the references of record for disclosures pertinent to the same arguments for which [applicant] cited the references." *Hedges*, 783 F.2d at 1039–40.

OPINION

Petitioner specifically requests that the Director overturn the Technology Center Director's decisions of July 3, 2014 and September 23, 2014 and designate that the Examiner's Answer contains new grounds of rejection because "Appellants are at a disadvantage as the Office relies on Antonarakis and Harnden (for the first time) to support its obviousness rejection in the Examiner's Answer. The Office's rationale for the rejection now cites and relies on Antonarakis and Harnden as opposed to Appellants' specification."

A thorough review of the record shows that the final Office action of May 30, 2013 set forth, *inter alia*, the following rejections:

Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being made obvious by Gardner (US 7,225,183; Filed Jan. 28, 2003), Ashburner et al. (The Gene Ontology Consortium, 2000), and Ding et al. (Journal of Information Science, 2002, pp. 123-136), in view of **Antonarakis et al.** (Human Mutation, 1998, 11:1-3), and **White et al.** (1997; IDS filed 08/31/2007). **(Emphasis added).**

Claims 22-39 are rejected under 35 U.S.C. 103(a) as being made obvious by Gardner (US 7,225,183; Filed Jan. 28, 2003), Ashburner et al. (The Gene Ontology Consortium, 2000), Ding et al. (Journal of Information Science, 2002, pp. 123-136), Antonarakis et al. (Human Mutation, 1998, 11:1-3), and White et al. (1997), as applied to claims 20 and 21, above, and further in view of Hamosh et al. (Nucleic Acids Research, 2002, vol. 30, no. 1, 52-55), and **the Admitted Prior Art on pages 21-25 of the instant specification (ISCN)**. See MPEP 2129 [R-6] and MPEP 706.02 (III). **(Emphasis added).**

Additionally, the Examiner's Answer of March 24, 2014 set forth, *inter alia*, the following rejections:

Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being made obvious by Gardner (US 7,225,183; Filed Jan. 28, 2003), Ashburner et al. (The Gene Ontology Consortium, 2000), and Ding et al. (Journal of Information Science, 2002, pp. 123-136), in view of **Antonarakis et al.** (Human Mutation, 1998, 11:1-3; IDS filed 02/20/2013), and **White et al.** (1997; IDS filed 08/31/2007). **(Emphasis added).**

Claims 22-39 are rejected under 35 U.S.C. 103(a) as being made obvious by Gardner (US 7,225,183; Filed Jan. 28, 2003), Ashburner et al. (The Gene Ontology Consortium, 2000), Ding et al. (Journal of Information Science, 2002, pp. 123-136), Antonarakis et al. (Human Mutation, 1998, 11:1-3), and White et al. (1997), as applied to claims 20 and 21, above, and further in view of Hamosh et al. (Nucleic Acids Research, 2002, vol. 30, no. 1, 52-55), and **Harnden (An International System for Human Cytogenetic Nomenclature, 1985; IDS filed 02/20/2013), hereinafter referred to as ISCN for consistency.** **(Emphasis added).**

With respect to petitioner's argument that the examiner's reliance upon Antonarakis, et al. and White, et al. constitutes a new ground of rejection, it is clear from the final Office action and the Examiner's Answer that Antonarakis, et al. and White, et al. were positively stated as being relied upon by the examiner in both of those Office actions. Specifically, the final Office action stated:

However, the specification (on pages 15-18) explicitly cites prior art teachings that provide guidelines and naming conventions for human biology discrete concepts including a human protein hierarchy, human genome hierarchy, human transcriptome hierarchy, human amino acid variant hierarchy, human nucleotide variant hierarchy (**Antonarakis**, 1998; **White**, 1997). Accordingly, these references are relied upon as admitted prior art. See MPEP 2129 [R-6] and MPEP 706.02 (III). Therefore, it would have been obvious to someone of ordinary skill in the art at the time of the instant invention to have modified the multi-tier ontologies provided by Gardner, Ashburner, and Ding for using concepts for human protein, human genome, human transcriptome, human amino acid variant, and human nucleotide variant (**Antonarakis**, 1998, and **White**, 1997), and defining relationships between these concepts with predictable results, since structured vocabularies and naming conventions for these concepts were known in the art. One of ordinary skill in the art would have expected that the above references could have been combined with a reasonable expectation of success since multi-tiered ontology systems apply. **(Emphasis added)**.

And the Examiner's Answer stated:

However, **Antonarakis** teaches Human Genome Organization (HUGO) Guidelines for human gene nomenclature, including insertions, deletions, introns, exons, identifiers, etc. (pages 2-3). Additionally, **White** teaches nomenclature and naming conventions for handling nucleotide variations, gene symbols, names, segments, coding sequences, homologies, proteins, and hierarchies (pages 469-470, Table I). In other words, concepts and naming conventions associated with human genome, human proteome, human transcriptome, human amino acid variant, and human nucleotide variant information were both known in the art and routinely associated with databases. Therefore, absent any evidence to the contrary, it would have been obvious to someone of ordinary skill in the art at the time of the instant invention to have populated the multi-tier ontologies made obvious by Gardner, Ashburner, and Ding by using additional concepts for human protein, human genome, human transcriptome, human amino acid variant, and human nucleotide variant, since data relating to these categories (concepts) was known in the art as were the structured vocabularies and naming conventions for organizing this information in searchable relational databases, in view of **Antonarakis** and **White**. One of ordinary skill in the art would have expected that the above references could have been combined with a reasonable expectation of success since Gardner and Ding provide software and algorithms for linking new/different concepts in the ontology and creating new tiers, as set forth above. The motivation would have been to create a more robust ontology by including newly discovered information, as suggested by Gardner [Col. 5, ~[9, Col. 16, ~[5] and Ashburner [Box 1]. **(Emphasis added)**.

It is clear from a comparison of the rejections set forth in the final Office action and the Examiner's Answer that the references to Antonarakis, et al. and White, et al. were positively cited and are being relied upon for the same reasons in both of those Office actions. While there is more detail in the Examiner's Answer (references to page numbers and Table 1), and the language "Accordingly, these references are relied upon as admitted prior art. See MPEP 2129 [R-6] and MPEP 706.02 (III)" from the final Office action was not included in the Examiner's Answer; the thrust of the rejection remains the same. If the Examiner's Answer cites a different portion of an applied reference which goes no farther than, and merely elaborates upon, what is taught in the previously cited portion of that reference, then the rejection does not constitute a new ground of rejection. See MPEP 1207.03(a) II, *supra*. Given that petitioner was clearly familiar with both references, as evidenced by their citation in the specification, petitioner had a fair opportunity to react to the thrust of the rejection. Accordingly, a new ground of rejection with respect to Antonarakis, et al. and White, et al. has not been introduced in the Examiner's Answer.

With respect to petitioner's argument that the examiner's reliance upon Harnden constitutes a new ground of rejection, it is clear from the final Office action and the Examiner's Answer that Harnden was positively stated as being relied upon by the examiner in both of those Office actions. Specifically, the final Office action stated:

However, the specification (on pages 21-25) explicitly cites prior art teachings that provide guidelines and naming conventions for human biology discrete concepts including a human allele hierarchy, human trinucleotide repeat hierarchy, human chromosomal hierarchy, human methylation status hierarchy, human gene hierarchy, human tel hierarchies, human chromosomal arm and band hierarchies, human centromere hierarchy, human exon hierarchy, human intron hierarchy (**OMIM, and ISCN, 1985**). Accordingly, these references are relied upon as admitted prior art. See MPEP 2129 [R-6] and MPEP 706.02 (III). Furthermore, Hamosh teaches **OMIM**, a knowledgebase of discrete concepts relating to human genes and genetic disorders. Therefore, it would have been obvious to someone of ordinary skill in the art at the time of the instant invention to have modified the multi-tier ontologies provided by Gardner, Ashburner, Ding, White, and Antonarakis by including additional concepts for human allele hierarchy, human trinucleotide repeat hierarchy, human chromosomal hierarchy, human methylation status hierarchy, human gene hierarchy, human tel hierarchies, human chromosomal arm and band hierarchies, human centromere hierarchy, human exon hierarchy, human intron hierarchy, as claimed, since such concepts were known in the art, and defining relationships between these concepts with predictable results, since structured vocabularies and naming conventions for these concepts were also known in the art, in view of Hamosh (**OMIM**) and **ISCN**. One of ordinary skill in the art would have expected that the

above references could have been combined with a reasonable expectation of success since multi-tiered ontology systems apply logic-based programs to structured terminology in order to link dependent data (i.e. child data) with the appropriate category of parent data, as shown above by Gardner, Ding, and Ashburner [Box 1]. The motivation would have been to improve the search procedure by including newly discovered information, as suggested by Gardner [Col. 5, ~[9, Col. 16, ~[5] and Ashburner [Box 1]. **(Emphasis added)**.

And the Examiner's Answer stated:

However, these branching features do not amount to unobvious variations over the prior art, as they are simply different categories of information (in an ontology) which are known in the art and routinely stored in databases using codes and naming conventions. For example, Hamosh teaches a searchable naming system (**OMIM**) cataloging information for human alleles and gene names suitable for use with ontologies (Abstract, page 53, entire, and Figure 2). Furthermore, **ISCN** teaches nomenclature, terminologies, and codes relating to human chromosomal and genetic aberrations (discrete concepts) which includes human allele, human trinucleotide repeat, human chromosomal, human methylation status, human gene, human tel, human chromosomal arm and band, human centromere, human exons, and human introns information (see at least Tables I-IV on pages 12, 17, 21, and 41, and entire Section 2.4, especially pages 20-30). The differences between the claimed invention and the prior art were therefore encompassed in known variation or in principal known in the prior art. Therefore, absent any evidence to the contrary, it would have been obvious to someone of ordinary skill in the art at the time of the instant invention to have populated the multi-tier ontologies made obvious by Gardner, Ashburner, Ding, White, and Antonarakis with additional concepts relating to human chromosomal and genetic aberrations, such as human allele, human trinucleotide repeat, human chromosomal, human methylation status, human gene, human tel, human chromosomal arm and band, human centromere, human exon, and human intron information, as claimed, since data relating to these categories was known in the art as were the structured vocabularies, codes, and naming conventions for organizing this information (in searchable relational databases), as taught by Hamosh and **ISCN**. One of ordinary skill in the art would have expected that the above references could have been combined with a reasonable expectation of success since Gardner and Ding already use relational database and structured terminology for linking new types of data in the ontology. The motivation would have been to create a more robust ontology by including newly discovered information, as suggested by Gardner [Col. 5, ~[9, Col. 16, ~[5] and Ashburner [Box 1]. **(Emphasis added)**.

It is clear from a comparison of the rejections set forth in the final Office action and the Examiner's Answer that the reference to Harnden (also referred to as ISCN, see the preamble of the rejection of claims 22-39 in the Examiner's answer which states: "Harnden (An International System for Human Cytogenetic Nomenclature, 1985; IDS filed 02/20/2013), hereinafter referred to as ISCN for consistency.") was positively cited and is being relied upon for the same reasons in both of those Office actions. While there is more detail in the Examiner's Answer (references to page numbers and Tables I-IV), and the language "Accordingly, these references are relied upon as admitted prior art. See MPEP 2129 [R-6] and MPEP 706.02 (III)" from the final Office action was not included in the Examiner's Answer; the thrust of the rejection remains the same. If the examiner's answer cites a different portion of an applied reference which goes no farther than, and merely elaborates upon, what is taught in the previously cited portion of that reference, then the rejection does not constitute a new ground of rejection. See MPEP 1207.03(a) II, *supra*. Given that petitioner was clearly familiar with the reference, as evidenced by its citation in the specification, petitioner had a fair opportunity to react to the thrust of the rejection. Accordingly, a new ground of rejection with respect to Harnden (also referred to as ISCN) has not been introduced in the Examiner's Answer.

For the reasons set forth above, the Technology Center Director's decision to refuse petitioners' request to designate that the Examiner's Answer contains a new grounds of rejection is not shown to be in clear error.

Petitioner is given **TWO (2) MONTHS** from the mailing date of this decision to file the Appeal Forwarding Fee in accordance with 37 CFR 41.45. Extensions of time under 37 CFR 1.136(a) of this title for patent applications are not applicable to the time period set forth in this section. Furthermore, petitioner is given **TWO (2) MONTHS** from the mailing date of this decision to file only a single Reply Brief in accordance with 37 CFR 41.41. Extensions of time under 37 CFR 1.136(a) of this title for patent applications are not applicable to the time period set forth in this section.

DECISION

A review of the record indicates that the Technology Center Director did not abuse her discretion or act in an arbitrary and capricious manner in the petition decisions of July 3, 2014 and September 23, 2014. The record establishes that the Technology Center Director had a reasonable basis to support her findings and conclusion. The petition is granted to the extent that the decisions of the Technology Center Director of July 3, 2014 and September 23, 2014 have been reviewed, but is denied with respect to making any change therein. As such, the decisions of July 3, 2014 and September 23, 2014 will not be disturbed. The petition is **denied**.

Telephone inquiries concerning this decision should be directed to David Bucci at (571) 272-7099.



Andrew Hirshfeld
Deputy Commissioner for
Patent Examination Policy/
Petitions Officer

¹ This decision may be viewed as a final agency action within the meaning of 5 U.S.C. § 704 for purposes of seeking judicial review. See MPEP 1002.02