

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID LOUIS KAMINSKY and DAVID M. OGLE

Appeal 2007-2464
Application 10/404,297
Technology Center 2100

Decided: February 29, 2008

Before HOWARD B. BLANKENSHIP, ALLEN R. MACDONALD, and
ST. JOHN COURTENAY III, *Administrative Patent Judges*.

BLANKENSHIP, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1-18, which are all the pending claims. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Appellants' invention relates to contact management; i.e., management of "contacts" such as those that may be stored on paper or in electronic address books. (*See Spec. ¶ 2.*) A logical contact hierarchy stored in a database can be searched for a closest matching contact. (Abstract.)

Claim 1 reads as follows:

1. A method for matching nearest contacts in a logical contact hierarchy, the method comprising the steps of:

establishing an anchor contact in the logical contact hierarchy;

computing a distance within the logical contact hierarchy between said anchor contact and a selected contact, for each contact in the logical contact hierarchy; and,

selecting as a nearest matching contact, a contact from among contacts in said logical contact hierarchy having a shortest computed distance within the logical contact hierarchy.

The Examiner relies on the following references as evidence of unpatentability.

Vora	US 6,539,379 B1	Mar. 25, 2003 (filed Aug. 23, 1999)
Hyatt	US 6,678,692 B1	Jan. 13, 2004 (filed Jul. 10, 2000)
Boreham	US 6,768,988 B2	Jul. 27, 2004 (filed May 29, 2001)

Claims 1-6 stand rejected under 35 U.S.C. § 101 as being directed to nonstatutory subject matter.

Claims 1, 3, 4, 7, 9, 10, 13, 15, and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hyatt and Vora.

Claims 2, 5, 6, 8, 11, 12, 14, 17, and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hyatt, Vora, and Boreham.

Section 101 rejection

In a § 101 analysis, the critical question must be answered: “What did the applicant invent?” *Arrhythmia Research Technology, Inc. v. Corazonix Corp.*, 958 F.2d 1053, 1059 (Fed. Cir. 1992) (quoting *In re Grams*, 888 F.2d 835, 839 (Fed. Cir. 1989)).

Claim 1 purports “[a] method” comprising three steps, and thus is nominally drawn to a “process.” In our initial reading of the claim, we observe there is no physical transformation of any article to another state or thing.

“A process is . . . an act, or series of acts, performed upon the subject matter to be transformed and reduced to a different state or thing.”

Cochrane v. Deener, 94 U.S. 780, 788 (1877). “Transformation and reduction of an article “to a different state or thing” is the clue to the patentability of a process claim that does not include particular machines.”” *Diamond v. Diehr*, 450 U.S. 175, 184, 209 USPQ 1, 7 (1981) (quoting *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972)).

There are cases suggesting that the lack of transformation is not determinative with respect to whether a claimed process is statutory. Those cases, however, involved inventions that at least used *machines* to transform *data*. For example, our reviewing court in *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 1357 (Fed. Cir. 1999), set forth (citing *In re Alappat*, 33 F.3d 1526, 1544 (Fed. Cir. 1994) (en banc)) that a § 101 inquiry is directed to the determination of whether the claimed subject

matter as a whole is a disembodied mathematical concept representing nothing more than a “law of nature” or an “abstract idea,” or if the mathematical concept has been reduced to some practical application rendering it “useful.” A claimed process that produces a useful, concrete, tangible result without pre-empting other uses of the mathematical principle falls within the scope of § 101. *AT&T Corp.* at 1358. The process held to be statutory in *AT&T Corp.*, however, required the use of switches and computers. *See, e.g., id.* at 1358 (AT&T's claimed process used “switching and recording mechanisms” to create a “signal” useful for billing purposes).¹

Here, under a broad but reasonable interpretation of claim 1, the subject matter of the claim requires at most human thought and paperwork. The second step of claim 1 is “computing” a distance. Human beings are quite capable of “computing,” and did so for millennia before the development of the electronic digital computer.

Claim 1 does not recite any particular way of implementing the steps. Claim 1 does not require any machine or apparatus to perform the steps. Claim 1 does not recite any electrical, chemical, or mechanical acts or results, which are typical in traditional process claims. Claim 1 does not call for any physical transformation of an article to a different state or thing, nor does it require any transformation of data or signals. Claim 1 represents mere abstraction; i.e., a disembodied mathematical concept representing nothing more than an “abstract idea,” which has not been reduced to some

¹ As recited in the portion of *State Street Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998), reproduced by Appellants at page 5 of the Appeal Brief, the “useful, concrete, and tangible result” in *State Street* related to a claim directed to a machine programmed with software.

practical application that renders it “useful.” As the Supreme Court has made clear, “[a]n idea of itself is not patentable.” *In re Warmerdam*, 33 F.3d 1354, 1360 (quoting *Rubber-Tip Pencil Co. v. Howard*, 87 U.S. (20 Wall.) 498, 507, 22 L.Ed. 410 (1874)).

We thus sustain the rejection of claim 1 under 35 U.S.C. § 101 as being directed to nonstatutory subject matter.² Claims 2-6 fall with claim 1. See 37 C.F.R. § 41.37(c)(1)(vii).

Section 103(a) rejections

The Examiner rejects instant claim 1 under § 103(a) over Hyatt and Vora. According to the Examiner, Hyatt teaches all of claim 1 except for a hierarchy in which the nodes are “contacts.” Vora is relied upon as teaching a “contact” hierarchy. The Examiner concludes that the combination of the references demonstrates the *prima facie* obviousness of the claimed subject matter. (Ans. 4-5.)

Hyatt teaches a search technique based on classification of database records in accordance with a predominant concept or feature. The concepts are defined in relation to a hierarchy of concepts. For each database record, a key concept, or its location in the hierarchy, is stored in association with the database record to facilitate searching by using key concepts father than textual or other specific content. Hyatt teaches determining the key concept location for each database record, by computing a distance value for each node. Hyatt Abstract.

² Appellants seem to present arguments (App. Br. 6-7) against a non-existent ground of rejection based on the invention lacking “utility.” The rejection is based on the claims being directed to subject matter that is not statutory under § 101, which is the rejection that we affirm.

The process of automatically finding a concept location involves associating “coverage” and “anticoverage” quantities with each branch of the hierarchy. A “distance” quantity is associated with each node in the hierarchy. The distance is computed for the top node first, and then for successively lower nodes, based on the coverage and anticoverage of the branches followed to reach the lower nodes. Hyatt col. 8, ll. 45-53. The “coverage” of a branch is the total of all the key word hits at nodes in the hierarchy that are positioned below the branch. The “anticoverage” of a branch may be expressed as the difference between the total number of hits on the entire hierarchy and the coverage of the same branch. Col. 8, l. 54 - col. 9, l. 5. *See also* col. 10, ll. 15-62; Figs. 5-7.

Appellants submit that the calculation of a “distance” quantity as described by Hyatt is not “computing a distance” as claimed. According to Appellants, the “distance” described by Hyatt does not correspond to the “ordinary and customary meaning” of “distance” as known to one skilled in the art. (App. Br. 7-10.)

Appellants do not point to any intrinsic evidence (e.g., the Specification) in support of the position. Nor have Appellants provided any extrinsic evidence (e.g., dictionaries or treatises from the art) in support of the position. The evidence that we do have is the Hyatt reference, which uses the express term “distance,” and which clearly describes computing a “distance,” whether the “distance” is considered to be a distance “value,” a distance “quantity,” or a distance something else. As the Examiner indicates, instant claim 1 does not specify how the “distance” is to be computed. Nor does the claim specify the unit values for the “distance.” We find Appellants’ argument to be not persuasive.

In a related matter, Appellants also allege that Hyatt does not teach computing a distance within the logical hierarchy “between said anchor contact and a selected contact.” (App. Br. 10-11.) We find the Examiner’s response (Ans. 11-12) to be persuasive and Appellants’ response (Reply Br. 5-6), in turn, not. We agree with the Examiner that because all the distance computations in Hyatt are based on the top node or “anchor,” Hyatt teaches computing a distance between the anchor node (or “contact”) and a selected node (or “contact”) for each node (or “contact”) in the hierarchy.

Contrary to Appellants’ allegations in the briefs, we consider the Examiner’s basis for the proposed combination of Hyatt and Vora to be well founded. *See Cable Elec. Prods., Inc. v. Genmark, Inc.*, 770 F.2d 1015, 1025 (Fed. Cir. 1985) (“[T]he suggestion to modify the art to produce the claimed invention need not be expressly stated in one or all of the references used to show obviousness. ‘Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.’”) (quoting *In re Keller*, 642 F.2d 413, 425 (CCPA 1981)).

Moreover, we are not persuaded that one needs to go beyond Hyatt to demonstrate the unpatentability of instant claim 1 under 35 U.S.C. § 102 or 103. Appellants call the nodes in the hierarchy of claim 1 “contacts.” However, what the nodes may be deemed to represent does not modify the method set forth by the claim, even assuming, for present purposes, that the nodes or “contacts” may be stored and processed by a machine. That the nodes are considered to be “contacts” does not change the functions specified by claim 1, which, on this record, are taught by Hyatt. The “contacts” of claim 1 represent nonfunctional descriptive material.

The content of the nonfunctional descriptive material carries no weight in the analysis of patentability over the prior art. *Cf. In re Lowry*, 32 F.3d 1579, 1583 (Fed. Cir. 1994) (“Lowry does not claim merely the information content of a memory. . . . [N]or does he seek to patent the content of information resident in a database.”). *See also Ex parte Nehls*, <http://www.uspto.gov/web/offices/dcom/bpai/prec/fd071823.pdf>; *Ex parte Curry*, 84 USPQ2d 1272 (BPAI 2005) (nonprecedential) (Fed. Cir. Appeal No. 2006-1003, *aff’d* Rule 36 Jun. 12, 2006); *Manual of Patent Examining Procedure* § 2106.01 (8th ed., Rev. 6, Sept. 2007).

We have considered all of Appellants’ arguments in response to the rejection of claim 1 over the prior art. We sustain the rejection.

Appellants place claim 7 in a separate heading in the Appeal Brief, and allege that the Examiner has not clearly designated the teachings of Hyatt being relied upon in the rejection. We disagree. (*See Ans. 6-7; rejection mailed Jan. 24, 2006 at 5-6.*)

Claim 7 is a “system” claim similar to claim 1, but requires a “hierarchical query processor.” Hyatt clearly describes a processor (e.g., Fig. 2, element 40). The Examiner finds the Hyatt processor to be a “hierarchical query” processor as claimed. Appellants’ arguments have not demonstrated the Examiner’s rejection of claim 7 to be deficient in any respect. We sustain the rejection of claim 7.

In response to the § 103(a) rejection of claim 2 over Hyatt, Vora, and Boreham, Appellants submit they are “unable to determine” where Boreham teaches “performing at least one boolean operation” as claimed. (App. Br. 14.) The Examiner helps Appellants at page 13 of the Answer.

Appellants' only other response to the rejection of claim 2 is the allegation that the Examiner has not shown a "realistic" motivation for combining the teachings of Hyatt, Vora, and Boreham. However, Appellants neglect to provide us with the basis for the belief; the position thus rests on mere allegation.

Moreover, applying Boolean operations in database applications was well known in the art.³ A person having ordinary skill in the art uses known elements for their intended purpose. *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57 (1969) (radiant-heat burner used for its intended purpose in combination with a spreader and a tamper and screed). "[W]hen a patent 'simply arranges old elements with each performing the same function it had been known to perform' and yields no more than one would expect from such an arrangement, the combination is obvious." *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1740 (2007) (quoting *Sakraida v. Ag Pro, Inc.*, 425 U.S. 273, 282 (1976)). Appellants have provided no evidence tending to show that performing Boolean operations on a hierarchical database was "uniquely challenging or difficult for one of ordinary skill in the art." See *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007) (citing *KSR*, 127 S. Ct. at 1740-41).

We have considered claims 1, 2, and 7 in our review of the rejections. See 37 C.F.R. § 41.37(c)(1)(vii). Because none of the claims have been shown to be rejected in error, we sustain the rejection of claims 1, 3, 4, 7, 9, 10, 13, 15, and 16 under 35 U.S.C. § 103(a) as being unpatentable over Hyatt and Vora and the rejection of claims 2, 5, 6, 8, 11, 12, 14, 17, and 18

³ Again, for present purposes, we assume that claim 2 requires a machine for "performing at least one Boolean operation" as claimed.

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under 35 U.S.C. § 103(a) as being unpatentable over Hyatt, Vora, and Boreham.

CONCLUSION

The rejection of claims 1-6 under 35 U.S.C. § 101 as being directed to nonstatutory subject matter is affirmed. The rejection of claims 1-18 under 35 U.S.C. § 103(a) is affirmed.

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

AFFIRMED

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