

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

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PETER T. GEORGE

Appeal No. 2007-0133
Application No. 10/223,466
Technology Center 3700

ON BRIEF

Decided: February 21, 2007

Before ROBERT E. NAPPI, LINDA E. HORNER,
and ANTON W. FETTING, *Administrative Patent Judges*.

ANTON W. FETTING, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. §134 from the examiner's final rejection of claims 1 through 40, which are all of the claims pending in this application.

We AFFIRM IN PART.

BACKGROUND

The appellant's invention relates to a method and apparatus to predict and plan activity levels after rapid changes in time zones. (Spec 2). An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below.

1. A method of predicting sleep and activity levels, comprising providing a chart, providing lines and shapes representing personal daily wake drives and a sleep drive, providing on the chart indications of time of day at a starting location, providing on the chart indications of time of day at a destination location, displaying on the chart personal daily wake drives and sleep drives related to the time of day at the starting location and the time of day at the destination.

PRIOR ART

There is no prior art reference of record relied upon by the examiner in rejecting the appealed claims.

REJECTIONS

Claims 1 through 40 stand rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter.

Claims 1 through 40 stand rejected under 35 U.S.C. § 112, first paragraph, as not enabling a person of ordinary skill in the art to make and use the claimed subject matter from the original disclosure.

Claims 27 through 30 stand rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejections, we make reference to the examiner's final rejection¹ (mailed May 4, 2004) and answer (mailed Jun. 14, 2006) for the reasoning in support of the rejection, and to appellant's brief (filed Oct. 13, 2005) and reply brief (filed Jul. 7, 2006) for the arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner. As a consequence of our review, we make the determinations that follow.

Claims 1 through 40 rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter.

The examiner rejects the claims under 35 U.S.C. §101 because the claimed invention is not within the technological arts and because presenting ideas on a tangible medium such as a chart does not, by itself, bring the invention within the scope of patentable subject matter. (Final Rejection 2).

The appellant contends that the process claims 1-15 and 31-38 contain concrete steps and the apparatus claims 16-30 and 39-40 contain elements used in processes that contain concrete steps that result in a tangible description of the optimal sleep and wake time of a user. The appellant argues that the claims therefore provide a useful, concrete and tangible result and thus are directed toward statutory subject matter. (Br. 11-31, responding to each claim individually).

¹ The examiner's answer refers back to the final rejection for the rejection rationale.

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As to the examiner's argument that the claimed subject matter is not within the technological arts, the Board of Patent Appeals and Interferences held in the precedential opinion, *Ex parte Lundgren*, 76 USPQ2d 1385 (Bd. Pat. App. & Int. 2005), there is currently no judicially recognized separate "technological arts" test to determine patent eligible subject matter under §101. Therefore, we find the examiner's argument unpersuasive.

However, as to the examiner's argument that presenting ideas on a tangible medium such as a chart does not, by itself, bring the invention within the scope of patentable subject matter, we must examine the claims and the law to resolve this question.

35 U.S.C. §101 provides:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Our reviewing court further interpreted this as follows:

The Supreme Court has interpreted this statutory range of patentable subject matter to be quite broad, but hardly universal. "In choosing such expansive terms as 'manufacture' and 'composition of matter,' modified by the comprehensive 'any,' Congress plainly contemplated that the patent laws would be given wide scope." *Diamond v. Chakrabarty*, 447 U.S. 303, 308 [206 USPQ 193] (1980). That wide scope nevertheless excludes laws of nature, natural phenomena, and abstract ideas. "Such discoveries are 'manifestations of ... nature, free to all men and reserved exclusively to none.'" *Id.* at 309, (quoting *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 [76 USPQ 280] (1948)). *See also Diamond v. Diehr*, 450 U.S. 175, 185 [209 USPQ 1] (1981); *Parker v. Flook*, 437 U.S. 584, 589 [198 USPQ 193] (1978).

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"Phenomena of nature, though just discovered, mental processes, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work." *Gottschalk v. Benson*, 409 U.S. 63, 67 [175 USPQ 673] (1972).

SmithKline Beecham Corp. v. Apotex Corp., 403 F.3d 1331, 1359-60, 74 USPQ2d 1398, 1417-18 (Fed. Cir. 2005) (concurring opinion, Judge Gajarsa).

Thus, the claimed invention as a whole must accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1373, 47 USPQ2d 1596, 1601-02 (Fed. Cir. 1998). The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research. See e.g., *Brenner v. Manson*, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96 (1966); *In re Ziegler* 992, F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)). A process that consists solely of the manipulation of an abstract idea is not concrete or tangible. See *In re Warmerdam*, 33 F.3d 1354, 1360, 31 USPQ2d 1754, 1759 (Fed. Cir. 1994). See also *In re Schrader*, 22 F.3d 290, 295, 30 USPQ2d 1455, 1459 (Fed. Cir. 1994).

Claims 1, 5 through 15, 35 and 37 are drawn to methods of drawing a chart. The end result of these claims is just that, a chart. There is no functional relationship between the drawings on the chart and the underlying substrate upon which the chart is drawn. Nothing in the claim limits the claimed subject matter to data describing actual measurements² of real world data.

The chart is no more than an abstract representation of the ideas behind the drawing contents. This is no more directed toward a concrete, tangible and useful result than was the gray scale in *Abele*. See *In re Abele*, 684 F.2d 902, 909, 214 USPQ 682, 685 (CCPA 1982) (where the claim presented “no more than the calculation of a number and display of the result, albeit in a particular format.”)

On the other hand, claims 2 through 4, 16 through 34, 36 and 38 through 40 are drawn to methods and apparatus of changing a chart by use of moving parts, which use the functional relationship between the movable parts of the chart and the underlying substrate to alter the presentation. Therefore, these claims are drawn to more than the mere abstract ideas identified by the chart’s contents. The specification teaches how the moveable parts are to be manipulated to determine accumulated sleep debt, which is useful to determining how much sleep is needed.

Accordingly we sustain the examiner’s rejection of claims 1, 5 through 15, 35 and 37, and do not sustain the examiner’s rejection of claims 2 through 4, 16 through 34, 36 and 38 through 40 under 35 U.S.C. § 101 as directed to non-statutory subject matter.

² Although the claims refer to “representing personal” data, the elements are just that, representations of such data, not measurements of actual personal data. The specification at 5 discloses that “[t]hese instructions assume a normal sleep-wake cycle . . .”

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Claims 1 through 40 rejected under 35 U.S.C. § 112, first paragraph, as not enabling a person of ordinary skill in the art to make and use the claimed subject matter from the original disclosure.

The examiner contends the specification does not teach precisely how to make and use the invention. (Final Rejection 3). This is not the criterion for enablement.

Any analysis of whether a particular claim is supported by the disclosure in an application requires a determination of whether that disclosure, when filed, contained sufficient information regarding the subject matter of the claims as to enable one skilled in the pertinent art to make and use the claimed invention. The standard for determining whether the specification meets the enablement requirement was cast in the Supreme Court decision of *Mineral Separation v. Hyde*, 242 U.S. 261, 270 (1916) which postured the question: is the experimentation needed to practice the invention undue or unreasonable? That standard is still the one to be applied. *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988). Accordingly, even though the statute does not use the term "undue experimentation," it has been interpreted to require that the claimed invention be enabled so that any person skilled in the art can make and use the invention without undue experimentation. *Id.* See also *United States v. Telectronics, Inc.*, 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988) ("The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation."). A patent need not teach, and preferably omits, what is well known in the art. *In re Buchner*, 929 F.2d 660, 661, 18 USPQ2d 1331, 1332 (Fed. Cir. 1991); *Hybritech, Inc. v. Monoclonal*

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Antibodies, Inc., 802 F.2d 1367, 1384, 231 USPQ 81, 94 (Fed. Cir. 1986), *cert. denied*, 480 U.S. 947 (1987); and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1463, 221 USPQ 481, 489 (Fed. Cir. 1984).

In order to make a rejection, the examiner has the initial burden to establish a reasonable basis to question the enablement provided for the claimed invention. *In re Wright*, 999 F.2d 1557, 1562, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993) (examiner must provide a reasonable explanation as to why the scope of protection provided by a claim is not adequately enabled by the disclosure). A specification disclosure which contains a teaching of the manner and process of making and using an invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented must be taken as being in compliance with the enablement requirement of 35 U.S.C. 112, first paragraph, unless there is a reason to doubt the objective truth of the statements contained therein which must be relied on for enabling support. Assuming that sufficient reason for such doubt exists, a rejection for failure to teach how to make and/or use will be proper on that basis. *In re Marzocchi*, 439 F.2d 220, 224, 169 USPQ 367, 370 (CCPA 1971). As stated by the court, "it is incumbent upon the Patent Office, whenever a rejection on this basis is made, to explain *why* it doubts the truth or accuracy of any statement in a supporting disclosure and to back up assertions of its own with acceptable evidence or reasoning which is inconsistent with the contested statement. Otherwise, there would be no need for the applicant to go to the trouble and expense of supporting his presumptively accurate disclosure." 439 F.2d at 224, 169 USPQ at 370.

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The examiner has provided no evidence that a person of ordinary skill in the art would not know how to make and use the invention from the disclosure. The specification is highly detailed and, as the examiner admits (Final Rejection 3), there are many examples. The examiner further contends that specification does not show how to make the chart personal. (Answer 4-5). The appellant responds that personalization occurs as the operator manipulates the chart. (Reply Br. 4-5). We agree that changing the aspect of a chart by modifying its presentation according to personal criteria may characterize a chart as personal.

Accordingly we do not sustain the examiner's rejection of claims 1 through 40 under 35 U.S.C. § 112, first paragraph, as not enabling a person of ordinary skill in the art to make and use the claimed subject matter from the original disclosure.

Claims 27 through 30 rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention.

The examiner contends the phrase “wave-like” is indefinite. (Final Rejection 3-4). The claims refer to crests and troughs in describing the wave-like entities. A person of ordinary skill in the art would understand that a wave-like entity with peaks and troughs would be represented by a figure resembling a wave with peaks and troughs. Therefore, we find the examiner's arguments to be unpersuasive.

Accordingly we do not sustain the examiner's rejection of claims 27 through 30 under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention.

CONCLUSION

To summarize,

- The rejection of claims 1, 5 through 15, 35 and 37 under 35 U.S.C. § 101 as directed to non-statutory subject matter is sustained.
- The rejection of claims 2 through 4, 16 through 34, 36 and 38 through 40 under 35 U.S.C. § 101 as directed to non-statutory subject matter is not sustained.
- The rejection of claims 1 through 40 under 35 U.S.C. § 112, first paragraph, as not enabling a person of ordinary skill in the art to make and use the claimed subject matter from the original disclosure is not sustained.
- The rejection of claims 27 through 30 under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention is not sustained.

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

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AFFIRMED IN PART

ROBERT E. NAPPI)
Administrative Patent Judge)
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