UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte GINA E. KELLY and DAVID R. LEVESQUE

Appeal 2008-4996
Application 09/963,251
Technology Center 3600

Decided: [1]April 9, 2009

Before ANTON W. FETTING, DAVID B. WALKER, and
BIBHU R. MOHANTY, *Administrative Patent Judges.*

FETTING, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Gina E. Kelly and David R. Levesque (Appellants) seek review under

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[1] The two month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

35 U.S.C. § 134 of a non-final rejection of claims 1-23, the only claims pending in the application on appeal.

We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b) (2002).

We AFFIRM.

The Appellants invented a way of presenting training materials in a format which closely simulates the medical records which a medical professional uses in daily practice while providing educational instruction and information not usually found in conventional medical records. In a diagnostic medical imaging embodiment the student is presented with information on the full spectrum of diagnostic imaging modalities which may be applied to a given pathology. (Specification 2:10-23).

An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below [bracketed matter and some paragraphing added].

> 1. A computer-based interactive medical training system comprising
> [1] a case study
> [2] presented in a computerized display
> [3] in a virtual patient chart format
> [4] for a patient exhibiting a given medical condition,
> [5] wherein the virtual patient chart format simulates realistic aspects of a patient chart of medical records.

This appeal arises from the Examiner's Non-Final Rejection, mailed May 18, 2007. The Appellants filed an Appeal Brief in support of the appeal on October 9,

2007.

An Examiner's Answer to the Appeal Brief was mailed on November 28, 2007.

PRIOR ART

The Examiner relies upon the following prior art:

Eckmann	US 4,539,435	Sep. 3, 1985
Garcia	US 5,065,315	Nov. 12, 1991
Ramshaw	US 5,791,907	Aug. 11, 1998
Gray	US 6,149,585	Nov. 21, 2000
Allison	US 6,546,230 B1	Apr. 8, 2003

REJECTIONS

Claims 1-23 stand rejected rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter.

Claims 1-23 stand rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention.

Claims 1-4, 6-7, and 9-12 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Allison and Eckmann.

Claim 5 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Allison, Eckmann, and Gray.

Claim 8 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Allison, Eckmann, and Garcia.

Claims 13-23 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Allison, Eckmann, and Ramshaw.

ISSUES

The issues pertinent to this appeal are

- Whether the Appellants have sustained their burden of showing that the Examiner erred in rejecting claims 1-23 rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter.
    - This issue turns on whether the claims describe more than mere non-functional descriptive material under display.
- Whether the Appellants have sustained their burden of showing that the Examiner erred in rejecting claims 1-23 under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention.
    - This issue turns on whether the claims definitely set forth the invention.
- Whether the Appellants have sustained their burden of showing that the Examiner erred in rejecting claims 1-4, 6-7, and 9-12 under 35 U.S.C. § 103(a) as unpatentable over Allison and Eckmann.
    - This issue turns on whether the art describes a patient case history presented as a patient chart.
- Whether the Appellants have sustained their burden of showing that the Examiner erred in rejecting claim 5 under 35 U.S.C. § 103(a) as unpatentable over Allison, Eckmann, and Gray.
- Whether the Appellants have sustained their burden of showing that the Examiner erred in rejecting claim 8 under 35 U.S.C. § 103(a) as unpatentable over Allison, Eckmann, and Garcia.

- Whether the Appellants have sustained their burden of showing that the Examiner erred in rejecting claims 13-23 under 35 U.S.C. § 103(a) as unpatentable over Allison, Eckmann, and Ramshaw.

FACTS PERTINENT TO THE ISSUES

The following enumerated Findings of Fact (FF) are believed to be supported by a preponderance of the evidence.

Facts Related to Claim Construction

01. The patient chart is a medical record file familiar to most medical professionals (Specification 4:25-26).

Eckman

02. Eckman is directed to an automated educational testing system in which students at remote locations are able to use a standard push-button Touch-Tone-type telephone and ordinary telephone lines to interact with an automated educational and testing center (Eckman 2:54-58).

03. Eckman describes an example in which the student is a physician. A publication is generated at regular intervals that might include an article on a novel approach to dealing with a certain medical problem. The publication might also include a case study of a situation to which test questions might be directed (Eckman 4:42-49).

04. Eckman describes how, for each simulated patient management problem, the publication would include a brief patient history and a list of choices for each question (Eckman 5:61-65).

05. Eckman describes an exemplary patient history as follows.

> A 50-year-old white male presents with three weeks of episodic fatigue and exertional dypsnea. Symptoms have occurred at least once daily, and episodes have lasted from a few minutes to about one hour. With the longer attacks, he notes a decreased ability to concentrate on his work. There have been no other associated symptoms.
>
> The past history is notable only for peptic ulcer disease at age 21, with no recurrence, but with occasional acid indigestion. He smokes one pack per day, and has about four ounces of alcohol daily. His family history is unremarkable.
>
> Eckman 6:1-14.

Allison

06. Allison is directed to an online, interactive method for training and testing health care professionals at remote sites. Competency tests and training courses are stored at a central training facility and are accessed from a remote diagnostic system. Diagnostic systems may include different imaging modalities, such as computed tomography (CT), magnetic resonance (MR), nuclear medicine (NM), ultrasound, and x-ray (both conventional film and digital or digitized imaging) (Allison 2:2-32).

Facts Related To The Level Of Skill In The Art

07. Neither the Examiner nor the Appellants have addressed the level of ordinary skill in the pertinent arts of systems analysis and programming, medical simulation systems, medical training, and user interface design. We will therefore consider the cited prior art as representative of the level of ordinary skill in the art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) ("[T]he absence of specific findings on the level of skill in the art does not give rise to reversible error 'where the

prior art itself reflects an appropriate level and a need for testimony is not shown'") (quoting *Litton Indus. Prods., Inc. v. Solid State Sys. Corp.*, 755 F.2d 158, 163 (Fed. Cir. 1985).

Facts Related To Secondary Considerations

08. There is no evidence on record of secondary considerations of non-obviousness for our consideration.

PRINCIPLES OF LAW

Claim Construction

During examination of a patent application, pending claims are given their broadest reasonable construction consistent with the specification. *In re Prater* , 415 F.2d 1393, 1404-05 (CCPA 1969); *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1369 (Fed. Cir. 2004).

Limitations appearing in the specification but not recited in the claim are not read into the claim. *E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1369 (Fed. Cir. 2003) (claims must be interpreted "in view of the specification" without importing limitations from the specification into the claims unnecessarily).

Although a patent applicant is entitled to be his or her own lexicographer of patent claim terms, in *ex parte* prosecution it must be within limits. *In re Corr*, 347 F.2d 578, 580 (CCPA 1965). The applicant must do so by placing such definitions in the specification with sufficient clarity to provide a person of ordinary skill in the art with clear and precise notice of the meaning that is to be construed. *See also In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (although an inventor is free to define the specific terms used to describe the invention, this must be done with reasonable clarity, deliberateness, and precision; where an

inventor chooses to give terms uncommon meanings, the inventor must set out any uncommon definition in some manner within the patent disclosure so as to give one of ordinary skill in the art notice of the change).

Claim Preamble

"A claim preamble has the import that the claim as a whole suggests for it." *Bell Communications Research, Inc. v. Vitalink Communications Corp.*, 55 F.3d 615, 620 (Fed. Cir. 1995). Where a patentee uses the claim preamble to recite structural limitations of his claimed invention, the PTO and courts give effect to that usage. *See id.*; *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257 (Fed. Cir. 1989). Conversely, where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation. *See Bell Communications*, 55 F.3d at 620; *Kropa v. Robie*, 187 F.2d 150, 152 (CCPA 1951).

Statutory Subject Matter

> [Whether a] patent is invalid for failure to claim statutory subject matter under § 101, is a matter of both claim construction and statutory construction.

State St. Bank & Trust Co. v. Signature Fin. Group, 149 F.3d 1368, 1370 (Fed. Cir. 1998).

> 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.

35 U.S.C. § 101.

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 (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, (1948)). *See also Diamond v. Diehr*, 450 U.S. 175, 185 (1981); *Parker v. Flook*, 437 U.S. 584, 589 (1978). "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 (1972).

SmithKline Beecham Corp. v. Apotex Corp., 403 F.3d 1331, 1343-44 (Fed. Cir. 2005).

Thus, the claimed invention as a whole must accomplish a practical application. 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 (*Brenner v. Manson*, 383 U.S. 519, 528-36); *In re Ziegler*, 992, F.2d 1197, 1200-03 (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 (Fed. Cir. 1994). See also *Schrader*, 22 F.3d at 295.

Obviousness

A claimed invention is unpatentable if the differences between it and the prior art are "such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art." 35 U.S.C. § 103(a) (2000); *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1729-30 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 13-14 (1966).

In *Graham*, the Court held that that the obviousness analysis is bottomed on several basic factual inquiries: "[(1)] the scope and content of the prior art are to be determined; [(2)] differences between the prior art and the claims at issue are to be ascertained; and [(3)] the level of ordinary skill in the pertinent art resolved." 383 U.S. at 17. *See also KSR*, 127 S.Ct. at 1734. "The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Id*. at 1739.

"When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability." *Id*. at 1740.

"For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill." *Id.*

"Under the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed." *Id.* at 1742.

Automation of a Known Process

It is generally obvious to automate a known manual procedure or mechanical device. Our reviewing court stated in *Leapfrog Enterprises Inc. v. Fisher-Price Inc.*, 485 F.3d 1157 (Fed. Cir. 2007) that one of ordinary skill in the art would have found it obvious to combine an old electromechanical device with electronic circuitry "to update it using modern electronic components in order to gain the commonly understood benefits of such adaptation, such as decreased size,

increased reliability, simplified operation, and reduced cost. . . . The combination is thus the adaptation of an old idea or invention . . . using newer technology that is commonly available and understood in the art." *Id* at 1163.

Obviousness and Nonfunctional Descriptive Material

Nonfunctional descriptive material cannot render nonobvious an invention that would have otherwise been obvious. *In re Ngai*, 367 F.3d 1336, 1339 (Fed. Cir. 2004). Cf. *In re Gulack*, 703 F.2d 1381, 1385 (Fed. Cir. 1983) (when descriptive material is not functionally related to the substrate, the descriptive material will not distinguish the invention from the prior art in terms of patentability).

ANALYSIS

Claims 1-23 rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter.

The Examiner found that the claims do not require that a computer processor or structure be part of the recited system because they do not define any structural and functional interrelationships between the recited "case study" and other elements of a computer, which permit the functionality to be realized. The Examiner concluded that the claims recite non-functional descriptive material, as no recitation of executable code being embodied on any medium or data structure is provided (Answer 4).

The Appellants contend that the preamble of the claims makes it clear that the claimed "system" is for "medical training," a clearly tangible result. Furthermore, the Appellants argue the system is "computer-based" and it is "interactive," as the detailed description and Web pages of the drawings illustrate. The system presents a "computerized display" in a "virtual patient chart format." The Appellants contend these are clearly tangible results. The Appellants conclude they are not

claiming an abstract idea in a paper patent, they are claiming a medical training system with tangible results illustrated by actual computerized displays, Web pages, of a constructed implementation (Br. 6-7: ¶ B).

We find that the Examiner has failed to set forth a prima facie case for rejecting the claims as drawn to non-statutory subject matter. The Examiner stated that the claims lack structural or functional interrelationships and fail to have a tangible result. The Examiner made no findings as to the nature of the claimed subject matter in comparison to the four enumerated categories of statutory subject matter, *viz*. machine, article of manufacture, process, or composition of matter, nor did the Examiner make any findings as to which if any of the judicially recognized categories of subject matter, *viz*. laws of nature, scientific principals, and abstract ideas, that are excluded from patent protection that the claimed subject matter might fall under. The Examiner also presented no analysis regarding how the claimed subject matter would or would not fall within one of those judicially recognized categories. Accordingly, the Examiner failed to support the rejection with the analysis required to show that the claimed subject matter was non-statutory.

We find that the Appellants have sustained their burden of showing that the Examiner erred in rejecting claims 1-23 rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter.

Claims 1-23 rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention.

The Examiner found that the step of claim 1 of "presented in a computerized display" does not make it clear whether the computer is part of the claim or if all that is claimed is the display on the screen (Answer 5). The Appellants contend

that the cited phrase is a limitation describing the medium in which the case study is presented. The word "computerized" is an adjective modifying the noun "display." We agree with the Appellants. The Appellants' syntactic analysis shows that the phrase "computerized display" is not indefinite, and that contrary to the Examiner's finding, the display as recited is modified by being driven by a computer.

The Appellants have sustained their burden of showing that the Examiner erred in rejecting claims 1-23 under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention.

Claims 1-4, 6-7, and 9-12 rejected under 35 U.S.C. § 103(a) as unpatentable over Allison and Eckmann.

The Appellants argue these claims as a group.[2] Accordingly, we select claim 1 as representative of the group. 37 C.F.R. § 41.37(c)(1)(vii) (2007).

The Examiner found that Allison described a computer based-interactive medical training system and Eckman described a chart simulating realistic aspects of a patient chart of medical records (Answer 3-4).

The Appellants contend that there is no suggestion of a virtual patient chart in Eckman. The Appellants argue that the publication referred to by Eckmann is a book that may include a case study, but that there is no suggestion of a virtual patient chart (Br. 8).

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[2] The Appellants contend that there is a single §103 rejection based on the five references, *viz*. claims 1-23 rejected on the basis of Allison, Eckmann, Gray, Ramshaw, and Garcia (Br. 7-8: ¶ D). This is incorrect. There are four rejections under §103 rejection, and none are based on the five references. Since the only claim specifically argued is claim 1, we therefore treat all claims as argued as a group based on claim 1.

To decide this issue, we must first construe the limitation of a patient chart. The Specification defines a patient chart as a medical record file familiar to most medical professionals (FF 01). That is a patient chart is a medical record file. The scope or degree of familiarity does not define a chart structurally or functionally. There is no evidence in the record linking such familiarity to specific structure that is familiar, or, since such familiarity may change over time, the time period when such familiarity was to be understood.

Eckman describes how, for each simulated patient management problem, the publication would include a brief patient history (FF 04). Eckman's example clearly presents a medical record since it describes medical symptoms, frequency, and correlations, along with medical history information (FF 05). Allison describes a medical training system that stores its courses. Such courses stored on a computer system are files. Thus were Eckman's patient management problems applied in the context of Allison's system, Eckman's example would be a virtual medical record file, which is what we construed a virtual patient chart to be.

Since whether the combination of Eckman and Allison described or suggested a virtual patient chart is the sole issue argued, we conclude that the Appellants have not sustained their burden of showing that the Examiner erred in rejecting claims 1-4, 6-7, and 9-12 under 35 U.S.C. § 103(a) as unpatentable over Allison and Eckmann.

Claim 5 rejected under 35 U.S.C. § 103(a) as unpatentable over Allison, Eckmann, and Gray.

The Appellants have not separately argued claim 5, which therefore stands or falls with claim 1, and thus have not sustained their burden of showing that the Examiner erred in rejecting claim 5 under 35 U.S.C. § 103(a) as unpatentable over

Allison, Eckmann, and Gray.

Claim 8 rejected under 35 U.S.C. § 103(a) as unpatentable over Allison, Eckmann, and Garcia.

The Appellants have not separately argued claim 8, which therefore stands or falls with claim 1, and thus have not sustained their burden of showing that the Examiner erred in rejecting claim 8 under 35 U.S.C. § 103(a) as unpatentable over Allison, Eckmann, and Garcia.

Claims 13-23 rejected under 35 U.S.C. § 103(a) as unpatentable over Allison, Eckmann, and Ramshaw.

The Appellants have not separately argued claims 13-23, which therefore stand or fall with claim 1, and thus have not sustained their burden of showing that the Examiner erred in rejecting claims 13-23 under 35 U.S.C. § 103(a) as unpatentable over Allison, Eckmann, and Ramshaw.

CONCLUSIONS OF LAW

The Appellants have not sustained their burden of showing that the Examiner erred in rejecting claims 1-23 under 35 U.S.C. § 103(a) as unpatentable over the prior art.

The Appellants have sustained their burden of showing that the Examiner erred in rejecting claims 1-23 under 35 U.S.C. § 101 as directed to non-statutory subject matter.

The Appellants have sustained their burden of showing that the Examiner erred in rejecting claims 1-23 under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention.

DECISION

To summarize, our decision is as follows:

- The rejection of claims 1-4, 6-7, and 9-12 under 35 U.S.C. § 103(a) as unpatentable over Allison and Eckmann is sustained.
- The rejection of claim 5 under 35 U.S.C. § 103(a) as unpatentable over Allison, Eckmann, and Gray is sustained.
- The rejection of claim 8 under 35 U.S.C. § 103(a) as unpatentable over Allison, Eckmann, and Garcia is sustained.
- The rejection of claims 13-23 under 35 U.S.C. § 103(a) as unpatentable over Allison, Eckmann, and Ramshaw is sustained.
- The rejection of claims 1-23 rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter is not sustained.
- The rejection of claims 1-23 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 C.F.R. § 1.136(a)(1)(iv) (2007).

AFFIRMED

LV:

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