

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

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex Parte JAMES CASAZZA

Appeal No. 2006-2228  
Application No. 10/231,678

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ON BRIEF

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Before KRASS, JERRY SMITH and MACDONALD, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 11, 12, 20-22, and 35-38. After the filing of the appeal brief, the examiner withdrew rejections of claims 11, 12, 20-22, and 36 [answer, page 2]. Therefore, this appeal is now directed to the rejection of claims 35, 37, and 38.

The disclosed invention pertains to a method, apparatus, and program product for providing persistent data during a user session on a networked computer system. A global data cache is divided into three sections: trusted, protected, and unprotected. An authorization mechanism stores and retrieves authorization data from the trusted section of the global data store. A common session manager stores and retrieves data from the protected and unprotected sections of the global data cache. Using the authorization mechanism, software applications may verify that a user is authorized without prompting the user for authorization information. Using the common session manager, software applications may store and retrieve data to and from the global data store, allowing the sharing of data during a user session. After the user session terminates, the data in the global data cache corresponding to the user session is invalidated.

Representative claim 35 is reproduced as follows:

35. A program product comprising:

(A) a common session manager that stores data in the global data cache during a user session, and that invalidates the data in the global data cache after the user session is terminated, the global data cache comprising:

(A1) a trusted section that includes authorization information for a user session;

(A2) a protected section that includes information that may be accessed only if the user is authorized to access the information stored in the protected section; and

(A3) an unprotected section that includes information that may be accessed by any user that has a valid session identifier;

(B) an authorization mechanism that is called by a software application to determine whether a user is authorized to access the software application, the authorization mechanism providing single sign-on capability for all software applications that access the global data cache; and

(C) computer-readable signal bearing media bearing the common session manager and the authorization mechanism.

The examiner does not rely on any references.

Claims 35, 37, and 38 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Rather than repeat the arguments of appellant or the examiner, we make reference to the briefs and the answer for the respective details thereof.

#### OPINION

We have carefully considered the subject matter on appeal and the rejection advanced by the examiner. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellant's 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 claims on appeal are not directed to statutory subject matter. Accordingly, we affirm.

The examiner's rejection, in essence, appears to be based on the examiner's belief that the claimed invention is not limited to tangible products or mediums, but could include a medium such as a carrier wave. The examiner asserts that a signal encoded with functional descriptive material does not fall within any of the categories of patentable subject matter under 35 U.S.C. § 101 [answer, pages 4-7].

Appellant argues that the requirement that the signal bearing media be tangible is without support in the patent laws or regulations. Appellant argues that the examiner is exalting form over substance. Appellant argues that there is no reason why wireless forms of transmission should be treated differently from disks, memories and tangible wires used for transmission. Appellant asserts that if the medium is computer readable, then it is directed to patentable subject matter under 35 U.S.C. § 101 [brief, pages 5-12].

The examiner remains unpersuaded by any of appellant's arguments. The examiner also responds that a carrier wave is not reproducible (useful) at any time, but only works while being transmitted. The examiner notes that this is different from a program stored on a disk which may be useful at any time [answer, page 7].

Appellant responds that the claimed invention is directed to a computer readable signal bearing media. Appellant acknowledges that such media includes tangible media but may also include intangible media. Appellant argues that the technology of today's world requires that software that is

transferred through wireless communications be protected in the same manner that software on a disk is protected. Appellant also responds that the examiner's standard of being reproducible or useful is without any support in the law. Appellant reiterates the arguments made in the main brief and notes that there is no legislative history that supports the distinctions being made by the examiner [reply brief].

We will sustain the examiner's rejection of the claims on appeal. The issue, quite simply, is whether a claimed program product that is broad enough to include a carrier wave is statutory subject matter. We acknowledge that we are not aware of any case law that has specifically decided this question either way. It could be argued that a carrier wave is not statutory subject matter because it does not fall within any of the four categories of statutory subject matter. Even if a carrier wave could be considered to be an article of manufacture, however, we find that such a carrier wave does not operate as the claimed program product. Independent claim 35 recites a common session manager and an authorization mechanism that interact with a computer to perform specific functions and that are stored on computer-readable signal bearing media. It is our view that the functions to be performed by the computer of claim 35 cannot be performed while the information relating to the common session manager and authorization mechanism are within a carrier wave. Specifically, information sent by carrier wave is transmitted by modulating the carrier wave with the information. This information must be received and

demodulated before the information is available for use. Thus, the information, while on the carrier wave, is unavailable to the computer for performing the functions recited in claim 35. It is also likely that all the information necessary to perform the functions of claim 35 never exists within the carrier wave at any one time. In other words, it is typical for information that is transmitted by carrier wave to begin to be received at the receiver before all the information is transmitted. Therefore, it appears to us that a program product for carrying out the claimed invention cannot exist while the information is being transmitted on a carrier wave.

We are sympathetic to appellant's concerns regarding the practical needs caused by today's technology. When technology begins to outpace the patent laws, a question such as the one presented on this appeal can occur. The question of what constitutes statutory subject matter is best resolved by the Congress or by an Article III court. We could reverse this rejection because it raises a new question of patentability, and the limited question presented on this appeal never gets resolved because panel decisions of the Board are non-precedential. By affirming the examiner's rejection, however, we have at least given appellant an opportunity to have this decision considered by a higher authority.

In summary, we have sustained the examiner's rejection of the claims on appeal. Therefore, the decision of the examiner rejecting claims 35, 37, and 38 is affirmed.

Appeal No. 2006-2228  
Application No. 10/231,678

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv).

AFFIRMED

ERROL A. KRASS )  
Administrative Patent Judge )  
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) **BOARD OF PATENT**  
JERRY SMITH ) **APPEALS AND**  
Administrative Patent Judge ) **INTERFERENCES**  
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Judge MacDonald, concurring.

A. INTRODUCTION

I concur with the result reached by the majority and add the following analysis.

Appellant has admitted at pages 2-3 of the Reply Brief filed May 9, 2006, that claims 35, 37, and 38 are intended to include intangible embodiments, as follows:

The word "signal" does appear in the claims, but taken in context, the term signal is part of a phrase "signal bearing" that modifies the term "media." The term "computer-readable signal bearing media" is term is used by appellant to describe in a succinct manner in the claims any media that is computer-readable and that bears a signal. The claimed computer-readable signal bearing media includes tangible embodiments, such as recordable media recited in claim [36]. The claimed computer-readable signal bearing media also includes transmission media, which can include both tangible embodiments (tangible wire transmission) and intangible embodiments (wireless transmission).

The crux of Appellant's argument is as follows (page 5 of Brief filed November 28, 2005):

The examiner has imposed a requirement that the signal bearing media be *tangible* without support in the patent laws or regulations. In the Response to Arguments section of the final office action, the examiner cites the State Street Bank case as requiring that the claimed invention as a whole must accomplish a

practical application by producing a "useful, concrete, and tangible result." This citation to State Street Bank confuses the issue of patentability under 35 U.S.C. § 101 with respect to the pending independent claims. (emphasis added)

## B. DISCUSSION

Appellant has admitted that in claims 35, 37, and 38, the “computer-readable signal bearing media” includes “intangible embodiments (wireless transmissions).” On its face, this in turn includes “carrier waves” or “propagated signals” which are not statutory subject matter. A case involving this issue is presently on appeal to the Federal Circuit: In re Nuijten, No. 06-1301.

A man-made signal represents coded information. A signal can be an abstract quantity describing the information or a measurable physical quantity (e.g., the fluctuations of an electrical quantity, such as voltage) containing information. See In re Walter, 618 F.2d 758, 770, 205 USPQ 397, 409 (CCPA 1980) ("The 'signals' processed by the inventions of claims 10-12 may represent either physical quantities or abstract quantities; the claims do not require one or the other"). Here we interpret the “computer-readable signal bearing media” of

claim 35 to include a time varying electromagnetic signal instead of just an abstract quantity, such as a data format.

The “computer-readable signal bearing media” of claim 35 is considered to be nonstatutory subject matter because a "carrier wave" or a "propagated signal" does not fall within one of the four statutory categories of subject matter under 35 U.S.C. § 101.

The categories of statutory subject matter are "process, machine, manufacture, or composition of matter." 35 U.S.C. § 101. "[N]o patent is available for a discovery, however useful, novel, and nonobvious, unless it falls within one of the express categories of patentable subject matter of 35 U.S.C. § 101." Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 483, 181 USPQ 673, 679 (1974).

A "process" is a series of acts and, since claims 35, 37, and 38 do not recite acts, it is not a process. Compare the method of sharing data in claims 20-22, which are not rejected.

The three product classes of machine, manufacture, and composition of matter have traditionally required physical structure or substance. "The term machine includes every mechanical device or combination of mechanical

powers and devices to perform some function and produce a certain effect or result." Corning v. Burden, 56 U.S. 252, 267 (1854); see also Burr v. Duryee, 68 U.S. 531, 570 (1863) (a machine is a concrete thing, consisting of parts or of certain devices and combinations of devices). Machines do not have to have moving parts. In modern parlance, electrical circuits and devices, such as computers, are referred to as machines. The intangible "carrier wave" or a "propagated signal" embodiment of claim 35 has no concrete tangible physical structure, and does not perform any functions itself. Therefore, any such intangible does not fit within the definition of a "machine."

A "manufacture" and a "composition of matter" are defined in Diamond v. Chakrabarty, 447 U.S. 303, 308, 206 USPQ 193, 196-97 (1980):

[T]his Court has read the term "manufacture" in accordance with its dictionary definition to mean "the production of articles for use from raw or prepared materials by giving to these materials new forms, qualities, properties, or combinations, whether by hand-labor or by machinery." American Fruit Growers, Inc. v. Brogdex Co., 283 U.S. 1, 11 (1931). Similarly, "composition of matter" has been construed consistent with common usage to include "all compositions of two or more substances and ... all composite articles, whether they be results of chemical union, or of mechanical mixture, or whether they be gases, fluids, powders or solids." Shell Development Co. v. Watson, 149 F. Supp. 279, 280 (D.C. 1957) (citing 1 A. Deller, Walker on Patents § 14, p. 55 (1st ed. 1937). [Parallel citations omitted.]

The intangible embodiment is not composed of matter and is clearly not a "composition of matter."

A "manufacture" is the residual category for products. 1 Chisum, Patents § 1.02[3] (2004) (citing W. Robinson, The Law of Patents for Useful Inventions 270 (1890)). If a signal falls within any category of § 101, it must fall within this category. The definition of "manufacture" from Diamond v. Chakrabarty requires a tangible article prepared from materials. "Tangible" refers to something that is discernible by touch. The other cases dealing with manufactures also require a tangible physical article. The CCPA held in In re Hruby, 373 F.2d 997, 153 USPQ 61 (CCPA 1967) that there was no distinction between the meaning of "manufacture" in § 101 and "article of manufacture" in § 171 for designs. The issue in Hruby was whether that portion of a water fountain which is composed entirely of water in motion was an article of manufacture. The CCPA relied on the analysis of the term "manufacture" in Riter-Conley Mfg. Co. v. Aiken, 203 F. 699 (3d Cir.), a case involving a utility patent. The CCPA stated in Hruby: "The gist of it is, as one can determine from dictionaries, that a manufacture is anything made 'by the hands of man' from raw materials, whether literally by hand or by machinery or by art." 373 F.2d at

1000, 153 USPQ at 65. The CCPA held that the fountain was made of the only substance fountains can be made of--water--and determined that designs for water fountains were statutory. Articles of manufacture in designs manifestly require physical matter to provide substance for embodiment of the design. Since an "article of manufacture" under § 171 has the same meaning as a "manufacture" under § 101, it is inevitable that a manufacture under § 101 requires physical matter.

Some further indirect evidence that Congress intended to limit patentable subject matter to physical things and steps is found in 35 U.S.C. § 112, sixth paragraph, which states that an element in a claim for a combination may be expressed as a "means or step" for performing a function and will be construed to cover the corresponding "structure, material, or acts described in the specification and equivalents thereof." "Structure" and "material" indicate tangible things made of matter, not energy.

By Appellant's admission, claims 35, 37, and 38, include intangible embodiments that do not have any tangible physical structure or substance and do not fit the definition of a "manufacture" which requires a tangible object.

My conclusion that a "signal" does not fit within any of the four categories of § 101 is consistent with In re Bonczyk, 10 Fed. Appx. 908 (Fed. Cir. 2001) (unpublished) ("fabricated energy structure" does not correspond to any statutory category of subject matter and it is unnecessary to reach the alternate ground of affirmance that the subject matter lacks practical utility) and with the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, 1300 Off. Gaz. Patent and Trademark Off. (O.G.) 142, 152 (Nov. 22, 2005), in the section entitled "Electro-Magnetic Signals."

C. CONCURRENCE

Upon consideration of the record, and for the reasons given I agree, the decision of the Examiner rejecting claims 35, 37, and 38 under 35 U.S.C. § 101 for failing to recite statutory subject matter is affirmed.

**AFFIRMED**

ALLEN R. MacDONALD  
Administrative Patent Judge

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