

2007-1130

**IN THE UNITED STATES COURT OF APPEALS FOR
THE FEDERAL CIRCUIT**

**IN RE BERNARD L. BILSKI
and RAND A. WARSAW**

APPEAL FROM THE BOARD OF PATENT APPEALS AND
INTERFERENCES OF THE UNITED STATES PATENT AND
TRADEMARK OFFICE
(Serial Number 08/833,892)

**BRIEF FOR *AMICUS CURIAE*
KONINKLIJKE PHILIPS ELECTRONICS N.V.
IN SUPPORT OF APPELLANT**

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CERTIFICATE OF CORPORATE INTEREST

The undersigned attorney certifies as follows:

1. The full name of every party or amicus represented by me is
Koninklijke Philips Electronics, N.V. (aka Royal Philips
Electronics)
2. The name of the real party in interest is
Not Applicable
3. All parent corporations and publicly held companies that own 10
percent or more of the stock of the party represented by me are:
None
4. The names of all law firms and partners or associates that appeared for
the party now represented by me in the agency below, or are expected
to appear in this Court are:
 - a. Jack E. Haken
 - b. Todd Holmbo

April 3 , 2008

Jack E. Haken

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STATEMENT OF INTEREST OF *AMICUS CURIAE*

Amici curiae Koninklijke Philips Electronics N.V. is the parent corporation of a worldwide family of companies (“Philips”). Philips has been inventing and manufacturing electronic and electrical products for over 115 years and is one of the largest users of the patent systems in the United States and other industrialized countries.

Last year Philips filed U.S. patent applications for over 1,000 inventions. Scientists and engineers at our laboratories have made pioneering advances in the fields of high efficiency lighting, medical diagnosis and imaging, high definition television, optical CD and DVD recording, and digital rights management. Our annual income from patent licensing activities is in excess of five hundred million dollars.

Philips is investing billions of dollars to build its businesses in the medical diagnostics, patient monitoring and energy-efficient lighting sectors. We are keenly interested in assuring that the U.S. patent system continues to provide protection and economic incentives for continued research in these fields. In our experience, effective patent protection in America and other jurisdictions can best be achieved when the patent system provides a

sufficient spectrum of broad patent claim forms to assure that unauthorized users of our inventions can be charged with acts of direct infringement.

On February 15, 2008 this Court requested supplemental briefing by the parties within 20 days to address five important questions and ordered that amicus briefs may be filed 30 days thereafter without leave of the Court.

SUMMARY OF THE ARGUMENT

The Court’s analysis of the scope of patentable processes must begin with a rigorous construction of the definition of a “process” in 35 U.S.C. §100(b) and adhere to the Supreme Court’s principle that Congress plainly contemplated that the patent laws would be given wide scope. The Court should decline to narrow the scope of 35 U.S.C. §101 where Congress has given no indication that it intends the result. The broadly defined categories of patentable subject matter should accommodate rather than deter effective protection of cutting edge technologies.

The Court should recognize that the defined statutory term “**PROCESS**”¹, is a broad category that was intended to capture and encompass

¹ Here, and in the discussions that follow, we distinguish the defined term “**PROCESS**” with bold face small capital letters and use normal font “process” for pre-1952 contexts.

both traditional step-by-step manufacturing methods together with all of the techniques and systems that were patentable as arts under the pre-1952 statutes and precedents. In particular the Court should avoid the temptation to limit the modern defined term by incorporating precedents that were originally only applied in the narrow context of traditional manufacturing methods.

There are only three appropriate judicially-created exceptions to patentability within the broad categories recited in §101: laws of nature, physical phenomena, and abstract ideas. Separate exceptions to patentability for mental steps and business methods were properly rejected by this Court's predecessor and are incompatible with the expected course of technological development. The fact that one or more steps in a process may not, in isolation, be novel or independently eligible for patent protection is irrelevant to the question of whether the claim as a whole recites subject matter eligible for patent protection under §101. Neither novelty nor obviousness have any place in a proper test for §101 patentable subject matter.

However, this does not imply that the Court can or should enforce any patent monopoly for the exclusive use of mental processes or methods of

mental analysis. Abstract ideas, which may often include mental steps, should remain outside the scope of patentable subject matter. The Court should expressly recognize that the Constitutional right to freedom of thought prohibits the patent system from imposing civil or criminal liabilities purely on the basis of thoughts or mental processes. But this doctrine should only be applied as a limitation at the stages of determining patent infringement and/or remedies and not as an underlying condition of patentability. In an appropriate case, the Court should declare that mental steps, human judgment, decisions and thought processes do not constitute any part of an infringing use of a patented process under 35 U.S.C. §271. Mental process steps should also receive special scrutiny for subject matter that lacks novelty or is obvious under 35 U.S.C. §102 and/or §103.

The Court should reaffirm the precedents of *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368 (Fed. Cir., 1998), and *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352 (Fed. Cir. 1999) as well as the Court of Customs and Patent Appeals' rejection of the mental steps doctrines as set forth in *In re Prater*, 415 F.2d 1378 (C.C.P.A., 1969); , *Rehearing granted, (Rich J. dissenting)* 415 F.2 d 1378 (C.C.P.A., 1969) ; *modified on rehearing* 415 F.2d 1393 (C.C.P.A., 1969), *In re Bernhart*, 417

F.2d 1395 (C.C.P.A. 1979) and *In re Musgrave*, 431F.2d 882 (C.C.P.A., 1970.)

The Court should also recognize that Congress has now expressly endorsed the patentability of business methods by enactment of the 1999 amendment which added the provisions of 35 U.S.C. §273 to the patent statutes.

ARGUMENT

I. The Supreme Court has Repeatedly Instructed that 35 U.S.C. §101 Must be Broadly Construed.

The Supreme Court is unequivocal in its instruction that the patentable subject matter provisions must be broadly construed and has cautioned that courts "should not read into the patent laws limitations and conditions which the legislature has not expressed". Congress plainly contemplated that the patent laws would be given wide scope. *Diamond v. Chakrabarty*, 447 U.S. 303, 308 (1980). The *Chakrabarty* Court also noted that: "The relevant legislative history also supports a broad construction." and the Supreme Court has repeatedly declined constructions that would narrow the broad scope of patentable subject matter.

"In the face of [highly visible decisions supporting a broad interpretation of §101], ... Congress ... failed to pass legislation indicating that it disagrees As in

Chakrabarty, we decline to narrow the reach of §101 where Congress has given us no indication that it intends this result.” *J.E.M. AG Supply, Inc. d/b/a Farm Advantage Inc. v. Pioneer Hi-Bred Int’l. Inc.* 534 U.S. 124 145-146 (2001), (affirming that new plant varieties are §101 patentable subject matter.)

Congress had the opportunity to consider this Court’s *State Street Bank* decision when it amended the patent statutes in 1999 and chose to expressly authorize patents that cover business methods through enactment of the prior user defense of 35 U.S.C. §273. (Pub. L. 106-113, §4302, 113 Stat. 1501A-555).² The Court should recognize that Congress’ express endorsement of the patentability of business methods.

II. Supreme Court Precedents Demonstrate that Statutory Processes are a Broad Collective Category that Includes Far More than Simple Manufacturing Methods.

The word "process" is defined in *35 U. S. C. §100(b)*:

"The term '**PROCESS**' means process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material." (emphasis added).

² §273(a)(3) expressly defined the term **method** as “a method of doing or conducting business. §273(b)(1) created a new, limited defense against patent infringement by subject matter that would otherwise infringe one or more claims for such a [business] method.

Any attempt to interpret this statutory definition necessarily confronts the repeated use of the term “process” and should take care to distinguish the defined term **PROCESS** from the generic use of process that follows in the body of the definition.

The term **PROCESS** was added to the statute in 1952. But processes enjoyed patent protection before 1952 as a form (i.e., a species or subset) of “art” as the term was first used in the 1793 Patent Act. In *Corning v Burden*, 56 U.S. 252, 267 (1854) Justice Grier explained:

“[A process] **is included under the general term ‘useful art’**. An art may require one or more processes or machines to produce a certain result or manufacture.” (emphasis added).

Later in the 19th century Justice Bradley stated:

“A process is an act or mode of acting. ... a conception of the mind, seen only by its effects when being executed or performed.” *Tilghman v. Proctor* 102 U.S. 707, 728 (1881)

The Court should recognize that the defined statutory term “**PROCESS**”, is a broad category that was intended to encompass both traditional step-by-step manufacturing methods as well as all of the techniques and systems that were patentable as arts under the pre-1952

statutes and precedents³ and any corresponding modern subject matter. In particular the Court should avoid the temptation to limit the modern defined term by incorporating precedents that were only considered and applied before 1952 in the narrow context of traditional manufacturing methods.⁴

³ For example, Samuel Morse’s fifth telegraph claim: “the system of signs, consisting of dots and spaces, and horizontal lines, for numerals, letters, words, or sentences, substantially as herein set forth and illustrated, for telegraphic purposes”, held patentable by the Supreme Court (*O’Reilly v. Morse* 56 U.S.62, 86 (1854)), does not refer to process steps, manufacturing methods or changes in tangible articles, but this claim is now to be regarded as covering the **PROCESS** (or “art”) of signaling. *In re Nuijten*, 500 F. 3d 1346, 1357 n.9 (Fed. Cir., 2007) *rehearing denied* 84 U.S.P.Q. 2d (BNA) 1335 (2008).

⁴ Fundamental principles of statutory construction should be applied to interpret the scope of §101 “**PROCESS**” in accord with the express definition of § 100(b). Statutory construction begins, of course, with the language of the statute. *Chakrabarty*, 447 U.S. at 308. 35 U.S.C. §101 provides in relevant part: “Whoever invents or discovers any . . . [**PROCESS**] . . . may obtain a patent therefor...”, and 35 U.S.C. §100(b) expressly defines “**PROCESS**” to mean “process, art or method. . . .”

A fundamental canon of statutory interpretation is that, “unless otherwise defined, words will be interpreted as taking their ordinary, contemporary, common meaning” at the time Congress enacted the statute. *Perrin v. U.S.*, 444 U.S. 37, 42 (1979). Further, this Court and the Supreme Court have repeatedly held that it is improper to read limitations and conditions into § 101 which the legislature has not expressed. *Chakrabarty*, 447 U.S. at 308; *Diamond v. Diehr*, U.S. 450 U.S. 175 (1980) at 182; *State Street Bank*, 149 F.3d at 1373. Applying these principles, this Court should find that except for the three well-established exclusions from patentability (i.e., laws of nature, physical phenomena and abstract ideas), the term “**PROCESS**” of § 101 encompasses any process, art or method as those words were commonly understood at the time § 100(b) and §101 were enacted.

III. Answers to Questions Raised in the Court’s Order of February 15th 2008:

(1) Whether claim 1 of the 08/833,892 patent application claims patent-eligible subject matter under 35 U.S.C. § 101?

We take no position as to the patentability of any claims at issue in this case.

(2) What standard should govern in determining whether a process is patent-eligible subject matter under §101?

As a first principle, the Court must recognize and confirm that the term “PROCESS” as used in § 101 is expressly defined in §100(b) and finally resolve any ambiguity in §100(b). In particular, any standard must recognize that §101 PROCESSES are a broad category that includes all of the subject matter that was referred to as “the arts” in pre-1952 case law and thus includes methods (e.g. methods of testing and medical diagnosis, signal processing, energy management and control and electrical filtering, authentication and verification) which have historically been regarded as patentable arts but do not involve manufacturing processes, or inherently produce any physical transformations of raw materials or commodities.⁵

Methods for non-destructive testing and diagnosis are a classic

⁵ Any physical transformations that may occur during e.g. medical tests are arguably incidental to the main purposes. See *Laboratory Corp. of America Holdings v. Metabolite Laboratories Inc.* 548 U.S. 124 (2006) *Bryer J: dissenting from the dismissal of a writ of certiorari* “Neither *Cochrane* nor *Gottschalk* can help them because [the claimed method of testing for vitamin deficiencies] is *not* a process for transforming blood or any other matter”

example of traditionally patentable useful arts which strive to measure and characterize the physical properties of materials and commodities without producing any physical transformation of the test article. Quality assurance processes in the electronics and aerospace industries typically stress components with forces and physical conditions beyond their expected working limits and only accept articles whose physical properties remain unchanged after the stress. A method that applies fluorescent dye to test for cracks in airplane brake rotors should be no less patentable when applied to good rotors, which do not absorb the dye, than it is when applied to faulty rotors which undergo a transformation by absorbing the chemicals. Process patent claims should be available to protect the invention against all unauthorized users, without regard to the pass-fail outcome of the tests.

Methods for energy management and system control provide another relevant example of traditionally patentable arts whose intended purpose is often to maintain the physical properties of articles and materials in an unchanged, stable state by means of predictive filtering, application of negative feedback or other similar technologies in the face of a potentially hostile external environment.

The fact that one or more steps in a process may not, in isolation, be novel or independently eligible for patent protection is irrelevant to the question of whether the claim as a whole recites subject matter eligible for patent protection under §101. Neither novelty nor obviousness have any place in a proper test for §101 patentable subject matter. *In re Musgrave* 431 F.2d 882, 890 - 893.

(3) Whether the claimed subject matter is not patent-eligible because it constitutes an abstract idea or mental process; when does a claim that contains both mental and physical steps create patent-eligible subject matter?

There is no doctrine that differentiates patentable processes upon a determination that any or all claimed physical process steps are performed by human actions or by machines⁶. A process does not become less patentable if a particular step calls for mixing ingredients in a ball mill, a mortar and pestle or by rubbing them between the chemist's hands. Likewise, a process step which calls for a calculation, correlation or decision should not be allowed or denied patent protection on the basis of whether it

⁶ *Corning v Burden* 56 U.S. 252, 268 (1854) explains that in the mid 18th century, patentable process included "all methods ... which are not effected by mechanism or mechanical combinations".

is carried out by an electrical or mechanical computer, by pencil and paper or in a technician's brain.

Forty years ago the Court of Customs and Patent Appeals abandoned the Abrams test⁷ and mental steps doctrines (*In re Musgrave* 431 F.2d 882, 889) in large part upon recognition that there was a spectrum of process steps that lay between those that could be characterized as either purely physical or purely mental.

“Purely mental steps (e.g. 'believing') are quite different from purely physical steps (“e.g. 'heating'”) in many respects, not the least of which is that the former are much less susceptible to specific definition or delineation. Between the purely mental and purely physical ends of the spectrum there lie an infinite variety of steps that may be either machine-implemented or performed in, or with the aid of, the human mind (e.g. 'comparing' and 'determining'). ... It may well be that the step of 'comparing' may be 'mental' in one process yet 'physical' in another.” *In re Prater* 415 F.2d. 1993, 1402 n22.

Since that time, advances in artificial intelligence and neural network technologies only serve to make the boundaries between physical and mental steps more uncertain. It is accordingly unlikely that any new mental step conditions on patentability will stand the test of time.

To be sure, abstract ideas, which may include mental steps, should remain outside the scope of patentable subject matter.

⁷ *In re Abrams*, 188 F.2d. 165 (C.C.P.A. 1951)

Likewise, we should never endorse a system which imposes civil or criminal liability purely on the basis of human thoughts or mental processes. Our Constitution gives freedom of thought the same security as freedom of conscience.⁸ *In re Prater*, 415 F.2d 1378 n.5 (C.C.P.A., 1969) (*Rich J. dissenting from the grant of rehearing en banc*). But this doctrine should be applied as a limitation when determining infringement and/or remedies and not as an underlying condition of patentability.

In an appropriate case, the Court should declare that mental steps, human judgment, decisions and thought processes do not constitute any part of an infringing use of a patented process under 35 U.S.C. §271.

(4) Whether a method or process must result in a physical transformation of an article or be tied to a machine to be patent-eligible subject matter under §101?

No. See our answer to question III(2) *supra*.

At very least, we believe that the §101 process category must also include methods for testing, monitoring, diagnosis, signal processing and electrical filtering, energy production, control and management, verification ,and authentication.

⁸ The Patent Office raised First Amendment principles in its argument for rehearing of *Prater*, citing *Thomas v Collins* 323 U.S. 516, 531(1945). But the *en banc* Court found it unnecessary to discuss constitutional aspects in its decision on the merits. *Prater* 415 F. 2d 1393, 1400 n.20 (1969).

(5) Whether it is appropriate to reconsider *State Street Bank* and *AT&T Corp. v. Excel* in this case and, if so, whether those cases should be overruled in any respect?

No. The Court should reaffirm the precedents of *State Street Bank* and *AT&T Corp. v. Excel* as well as the rejection of the mental steps doctrines as set forth in *Prater*, *Bernhart*, and *Musgrave*.

CONCLUSIONS

The Court should confirm that §§ 100(b) and 101 patentable processes are a broad category that includes all of the subject matter that was recognized as patentable, as useful arts, before the 1952 Patent Act and that the principle that §101 patentable subject matter includes “everything under the sun made by man” is only limited by the three well-established express exclusions: laws of nature, physical phenomena and abstract ideas.

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CERTIFICATE OF COMPLIANCE

I hereby certify under FRAP §32 that this brief contains 3303 words, as counted by the Microsoft Office Word 2003 word processing program used to prepare the brief, and therefore complies with the applicable type-volume limitation of the rules.

Jack E. Haken

CERTIFICATE OF SERVICE

The undersigned certifies that on April 1, 2008, I served two copies of this brief on the Solicitor of the United States Patent and Trademark Office, to Office of the Solicitor, Madison West 08C43, 600 Dulany Street, Alexandria VA and to David C. Hanson, Esq., +6 The Webb Law Firm, 700 Koppers Building, 436 Seventh Avenue, Pittsburgh PA 15219 by commercial courier service (Federal Express) for next day delivery.

I also certify that on April 1, 2008, I filed an original and thirty copies of this brief at the Office of the Clerk, United States Court of Appeals for the Federal Circuit by commercial courier service (Federal Express) for next day delivery.
