No. 13-369

IN THE Supreme Court of the United States

NAUTILUS, INC.,

Petitioner,

v.

BIOSIG INSTRUMENTS, INC.,

Respondent.

ON WRIT OF CERTIORARI TO THE COURT OF APPEALS FOR THE FEDERAL CIRCUIT

BRIEF OF AMICI CURIAE ELECTRONIC FRONTIER FOUNDATION AND PUBLIC KNOWLEDGE IN SUPPORT OF PETITIONER

CHARLES DUAN PUBLIC KNOWLEDGE 1818 N St. NW, Suite 410 Washington, DC 20036 (202) 861-0020 DANIEL K. NAZER Counsel of Record MICHAEL BARCLAY JULIE P. SAMUELS ELECTRONIC FRONTIER FOUNDATION 815 Eddy Street San Francisco, CA 94109 (415) 436-9333 daniel@eff.org

Attorneys for Amici Curiae

251688



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INTEREST OF AMICI CURIAE¹

The Electronic Frontier Foundation ("EFF") is a nonprofit civil liberties organization that has worked for more than 20 years to protect consumer interests, innovation, and free expression in the digital world. EFF and its 29,000 active members have a strong interest in helping the courts and policy-makers strike the appropriate balance between intellectual property and the public interest.

Public Knowledge is a non-profit organization that is dedicated to preserving the openness of the Internet and the public's access to knowledge; promoting creativity through balanced intellectual property rights; and upholding and protecting the rights of consumers to use innovative technology lawfully. As part of this mission, Public Knowledge advocates on behalf of the public interest for a balanced patent system, particularly with respect to new and emerging technologies.

Both EFF and Public Knowledge have previously served as amici in key patent cases. *E.g., Microsoft Corp. v. i4i Ltd. P'ship*, 131 S. Ct. 2238 (2011); *Bilski v. Kappos*, 130 S. Ct. 3218 (2010); *Quanta Computer, Inc. v. LG Elecs. Corp.*, 553 U.S. 617 (2008).

^{1.} No counsel for a party authored this brief in whole or in part, and no such counsel or party made a monetary contribution intended to fund the preparation or submission of this brief. No person other than the *amici curiae*, or their counsel, made a monetary contribution intended to fund its preparation or submission. Petitioner's counsel consented to this brief's filing in writing on February 18, 2014. Respondent's counsel consented to this brief's filing in writing on February 19, 2014. Websites cited in this brief were last visited on February 26, 2014.

SUMMARY OF ARGUMENT

A developer wishes to build a hotel by a highway, and is searching the records of deeds for a prospective plot of land. The search reveals a recordation of an easement stating in part, "the western boundary is in a *spaced relationship* with the highway."

What can the developer do? "Spaced relationship" could mean a foot from the highway, or a yard, or a mile. The developer could guess at the meaning, but a wrong guess could render the entire investment in building the hotel a waste. Should the case be brought to court, different judges or juries could reasonably disagree on the meaning. Worse yet, when the easement owner sues the developer, the owner will have the benefit of hindsight in making his argument for interpreting the property claim, but the developer has no such benefit when choosing where to build the hotel. The cards are stacked against the developer, a deadweight loss for the hotel business and for the economy at large.

Beyond creating this uncertainty for developers, allowing ambiguous words in property claims would encourage owners of real property to exploit such ambiguities, so that they might later alter or stretch the grant. Rather than providing adequate notice to the public, such deeds would deter the public from improving land for fear of the breadth of such vaguely worded instruments.

Such ambiguous descriptions of the metes and bounds of real property would never be tolerated, but for years the Federal Circuit has tolerated equally ambiguous descriptions of the metes and bounds of patents. Indeed, the term "spaced relationship," so clearly improper in the hypothetical example above, is the exact term held "definite" by that court in the present case.

Certainly patents differ in many respects from real property, but clarity in the boundaries should not be one such difference. The claims of a patent serve a public notice function, informing others of what may and may not be done. But the Federal Circuit's "insolubly ambiguous" test for indefiniteness of patent claims abrogates this public notice function, permits the proliferation of indeterminate claims, invites abuse by clever patent drafters, and contributes to a general and widespread sense that patents are unclear and uninformative documents. The test thus fails to serve the constitutional mandate that patents "promote the Progress of Science and the useful Arts." U.S. Const. art. 1, § 8, cl. 8.

In practice, the Federal Circuit's test certainly fails the notice function. This brief gives examples from several asserted patents where patent owners deliberately used increasingly vague language to threaten innovative companies. Rather than permit this to go on, the Court should require patent owners to claim their inventions with precision.

Thus, this Court should restore the Patent Act's requirement of particularity and distinctness. Indeed, the Court has already stated the correct test: patent claims must "clearly distinguish what is claimed from what went before in the art and clearly circumscribe what is foreclosed from future enterprise." *United Carbon Co. v. Binney & Smith Co.*, 317 U.S. 228, 236 (1942). Claims that are subject to multiple reasonable interpretations do not

satisfy this standard and should be held invalid. Moreover, to provide effective notice to the public, patents should satisfy this standard *when issued*. Only then will patents provide clear notice of what is covered and what is not; a requirement necessary to promote innovation.

Finally, adopting a more rigorous test will not unduly harm the rights of patent owners, who control their own claim language and can draft clear claims accordingly. Patent owners have several ways to correct issued patents that might be indefinite under a rule that properly enforces § 112(b). The Patent Act provides for reissue, reexamination, continuation, and supplemental examination procedures that can correct any supposed ambiguities in claim language.

ARGUMENT

I. THE PATENT ACT REQUIRES THAT CLAIMS BE DEFINITE ENOUGH TO PROVIDE CLEAR NOTICE TO THE PUBLIC.

A. Patent Claims Are Supposed to Give the Public Clear Notice of What Is Covered and What Is Not.

The Patent Act requires that a patent application "shall conclude with one or more claims *particularly pointing out and distinctly claiming* the subject matter which the inventor or a joint inventor regards as the invention." 35 U.S.C. § 112(b) (emphasis added). The requirement of particular and distinct claiming was first adopted in 1870. *See* Act of July 8, 1870, ch. 230 § 26, 16 Stat. 198, 201. The 1870 Patent Act was part of a program to codify then-existing precedent. *See generally* Joshua D. Sarnoff,

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The Historic and Modern Doctrines of Equivalents and Claiming the Future, Part I, 87 J. Pat & Trademark Off. Soc'y 371, 400-403 (2005). In particular, the Act codified the shift to peripheral claiming – where the outer scope of a patent is set forth in claim language. See Brooks v. Fiske, 56 U.S. 212, 215 (1853) ("The patentee ought to state distinctly what it is for which he claims a patent, and describe the limits of the monopoly."). The requirement of particular and distinct claiming has remained in the Patent Act ever since. See Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co., 520 US 17, 26 (1997) (explaining that the Patent Act of 1952 did not materially alter this section).²

As the Court has long emphasized, § 112(b) serves a crucial purpose: "The object of the patent law in requiring the patentee to 'particularly point out and distinctly claim the part, improvement or combination which he claims as his invention or discovery' is not only to secure to him all to which he is entitled, but to apprise the public of what is still open to them." McClain v. Ortmayer, 141 U.S. 419, 424 (1891). Without such a requirement, ambiguous patent claims would create a "zone of uncertainty which enterprise and experimentation may enter only at the risk of infringement claims" and thereby "discourage invention only a little less than unequivocal foreclosure of the field." United Carbon Co., 317 U.S. at 236. Put simply, a "patent holder should know what he owns, and the public should know what he does not." Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722, 730-31 (2002).

^{2.} The America Invents Act of 2011 renumbered what had been 35 U.S.C. § 112 ¶2 as 35 U.S.C. § 112(b), but left the statutory text unchanged. *See* Pub. L. No. 112-29, § 4(c), 125 Stat. 284, 296 (2011).

B. The Federal Circuit's "Insolubly Ambiguous" Standard Ignores the Court's Precedents, Unfairly Favors Patent Owners, and Disserves the Public Notice Function of Patents.

The Federal Circuit has abandoned both the plain language of § 112(b) and this Court's long-standing authority requiring clarity in patent claims. The appeals court instead holds that a patent claim is definite unless it is "insolubly ambiguous." *Exxon Research & Eng'g Co.* v. United States, 265 F.3d 1371, 1375 (Fed. Cir. 2001); see also Biosig Instruments, Inc. v. Nautilus, Inc., 715 F.3d 891, 898 (Fed. Cir. 2013). Under this test, a patent claim is valid "if the meaning of the claim is discernible, even though . . . the conclusion may be one over which reasonable persons will disagree." Exxon Research, 265 F.3d at 1375. By allowing claims with multiple reasonable interpretations, the Federal Circuit's test expressly tolerates ambiguity. Even worse, the court's doctrine upholds claims that are so obscure that they are almost impossible to interpret. The Federal Circuit requires only that "claims be amenable to construction, however difficult that task may be." Id. at 1375 (emphasis added).

The Federal Circuit's error is founded on a misapplication of the standard of proof in patent cases. In the decision below, the appeals court suggested that by "embracing this [insolubly ambiguous] standard, 'we accord respect to the statutory presumption of patent validity." *Biosig Instruments*, 715 F.3d at 902 (quoting *Exxon Research*, 265 F.3d at 1375); see also Halliburton Energy Servs., Inc. v. M-I LLC, 514 F.3d 1244, 1249 (Fed. Cir. 2008) (arguing that indefiniteness "requires such an exacting standard" because an accused infringer must

"show[] by clear and convincing evidence that a skilled artisan could not discern the boundaries of the claim.").

It is correct that patent law requires invalidity defenses be proved by clear and convincing evidence. See Radio Corp. of Am. v. Radio Eng'g Labs., 293 U.S. 1, 2 (1934). Indeed, in Microsoft Corp. v. i4i Ltd. P'ship, 131 S. Ct. 2238 (2011), this Court held that the Patent Act of 1952 did not disturb this long-standing rule. But the evidentiary standard of proof has no bearing on the substantive legal standards for invalidity. Justice Breyer made this point in his i4i concurrence:

[T]he evidentiary standard of proof applies to questions of fact and not to questions of law. ... Where the ultimate question of patent validity turns on the correct answer to legal questions what these subsidiary legal standards mean or how they apply to the facts as given—today's strict standard of proof has no application.

Id. at 2253 (Breyer, J. concurring). In applying the clear and convincing standard to the substantive legal test for indefiniteness under 35 U.S.C. § 112(b), the Federal Circuit has made precisely this error.

In other areas of the law, it is common knowledge that the standard of proof is unrelated to the substantive facts to be proved. Consider the following analogy. A man commits a homicide. The government criminally prosecutes him for murder and the victim's family civilly sue him for wrongful death. In both cases the government/ plaintiffs must prove the same fact – that the defendant committed the homicide. However, the government must do so beyond a reasonable doubt, whereas the family need only do so by a preponderance of the evidence. The fact that the government has a higher standard of proof doesn't mean (by itself) that the government must prove additional facts as to whether the defendant killed the victim. The underlying *fact* to be proven doesn't change just because the government has a higher standard of proof. Here, the underlying fact to be proven (by clear and convincing evidence) is that a patent claim fails to "particularly point out and distinctly claim" the invention – *not* that the claim merely isn't "insolubly ambiguous."

The Federal Circuit's "insolubly ambiguous" test is part of an unfortunate trend where the appeals court has added detailed and rigid requirements that find no support in the Patent Act. These unsupported doctrines have tended to heavily favor patentees over accused infringers. See Medtronic, Inc. v. Mirowski Family Ventures, LLC, 134 S. Ct. 843, 849 (2014) (placing burden of proving non-infringement on declaratory judgment licensee was contrary to "settled case law"); KSR Int'l Co. v. Teleflex, Inc., 550 U.S. 398 (2007) (rejecting the rigid "teaching, suggestion, or motivation" test for non-obviousness); eBay Inc. v. MercExchange, LLC, 547 U.S. 388, 391-92 (2006) (finding that "[n]othing in the Patent Act" supported the Federal Circuit's "general rule that courts will issue permanent injunctions against patent infringement absent exceptional circumstances").

The Federal Circuit's "insolubly ambiguous" standard similarly ignores plain statutory language. In effect, the appeals court reads "particularly point out and distinctly claim" out of the Patent Act. This tolerance of vague claims undermines the notice function of patents. It leaves the public unsure of their rights and allows patentees to stretch their patents in abusive and unpredictable ways.

II. THE FEDERAL CIRCUIT'S ERRONEOUS TEST HAS LED TO ONGOING DISTORTION AND ABUSE OF THE PATENT SYSTEM.

The error of the "insolubly ambiguous" test is no mere theoretical problem; rather it has practical effects that have distorted the patent system, fostered abuse, and hampered innovation. First, this section will consider several examples of actually litigated patents, to see how aggressive patent assertors take advantage of patent ambiguities in a manner detrimental to the public interest and the foundational principles of the patent system. Second, amici will look generally at how vagueness in patent claims generally spurs patent abuse. Finally, the section will observe how, exactly as the Court has feared, the low bar for definiteness has created a "zone of uncertainty" that hinders innovation and dissemination of knowledge.

A. Claims from Litigated Patents Demonstrate the Danger of Language Intentionally Selected for Ambiguity.

Patent owners can and do use ambiguous language to create the perception that their claims cover technologies their disclosure does not support. Consider a claim that is just shy of being "insolubly ambiguous." A court, by definition, can construe the claim by bringing to bear all of its interpretive tools, aided by protracted and expensive legal proceedings. But innovators who seek to learn from the patent, or small businesses facing a demand letter asserting its claims, do not have the benefit of the court's expertise and authority – yet they must still decide how to act, taking into account the patent's ambiguity and the cost of litigation. Current law therefore allows a broad and problematic gap between patents' perceived scope and their actual legal effect. Patentees can and do exploit this gap by applying for patents with ambiguous language that is open to narrow or broad interpretation. The PTO or the courts may, upon investigation or after concessions by the patentee, know that the language is to be interpreted narrowly. But members of the public lack the court's resources and act at their own risk. Knowing this, patent owners have incentives to draft increasingly ambiguous claims.

This section presents examples of litigated patents where the patentee did exactly that. In the following two examples, the applicant applied for and received continuation patents with increasingly ambiguous language in an apparent effort to broaden their claims' effective scope.

Patent	Claim Language	Note
6,978,253	"performance of	Used
Claim 1	the buyer while	throughout
Dec 20,	participating in a	specification
2005	Price-Determining-	
	Activity (PDA)"	
8,050,982	"the buyer's	Used twice in
Claim 1	participation in a	specification
Nov 1, 2011	competitive activity"	
8,494,917	"receiving data from	Used once in
Claim 1	a buyer representing	specification
Jul 23, 2013	participation in an	
	intermediary activity"	

Priceplay.com, Inc.

The three patents in this family are generally directed to a system or method of auctioning a product in which the final price is determined in part by the purchaser's performance in an activity. With each continuation, the patents' claims define the scope of that activity more ambiguously. Each successive patent therefore provides the public with less information about its actual coverage.

The earliest-issuing patent, U.S. Pat. No. 6,978,253, uses the term "Price-Determining-Activity (PDA)." This term is used throughout the text of the patent specification, which defines it and gives detailed examples of activities it covers, including video games, simulated stock market bets, and sports wagering. '253 Patent, col. 7, ll. 40–42, 53–54 & 66. Thus, the patent makes clear that the activity is akin to an entertaining game of some sort.

The next-issued patent, U.S. Pat. No. 8,050,982, replaces "Price-Determining-Activity" with "competitive activity... collateral to the price." The specification refers to this term only twice, when describing "a competitive/ entertaining collateral price-determining activity (PDA)." '982 Patent, col. 1, ll. 65–67; see also id. col. 2, ll. 12–16. The specification is unclear as to whether "competitive activity," like "Price-Determining-Activity," encompasses only entertaining activities. Instead, the plain meaning of "competitive activity" could encompass all sorts of activities, such as business negotiations, that are far afield from the games and wagers contemplated by the original patent.

Ambiguity only increases with the most recently issued patent, U.S. Pat. No. 8,494,917, which uses the term "intermediary activity." Its specification uses this term only once, *see* '917 Patent, col. 2, ll. 25-28, and its scope is undoubtedly more uncertain. While the specification suggests that "intermediary activities" include "electronic competition and/or entertainment," *id.*, the broad term "intermediary" confounds such a direct construction. "Intermediary activity" could be construed to encompass virtually any activity.

This ambiguity may not be "insoluble" by a court, but it certainly serves to confuse the public as to the bounds of Priceplay's patent monopoly. Introducing ambiguity into continuation patents allows patentees to create the appearance that their claims are broader than a court might construe them—here, covering all "intermediary activities" rather than simply games and gambling.

Patent	Claim Language
5,625,465	"system for inputting information from a
Claim 1	hard copy document having character
Apr. 29,	recognition capabilities for recognizing at
1997	least a portion of alpha/numeric characters
	appearing on said document"
5,768,416	"method of inputting information from a
Claim 1	diversity of hard copy documents"
June 16, 1998	
6,094,505	"parsing a portion of data from a hard copy
Claim 1	document corresponding to at least one
Jul. 25, 2000	field"
6,683,697	"an extraction mode to parse at least a portion
Claim 1	of said document or file to automatically
Jan. 27, 2004	extract at least one field"

Eon-Net LP

In *Eon-Net LP v. Flagstar Bancorp*, 653 F.3d 1314, 1316 (Fed. Cir. 2011), the patent owner attempted to extend its patent to cover technologies its specification did not support, by introducing ambiguous claim language. Eon-Net owns a family of patents relating to paperless office technology, in which paper documents are scanned into a computer system.

The original patent claims made clear that the technology related to scanning paper documents. The earliest patent in the family, as well as its next two continuations, describe the input as a "hard copy document," a clear term that refers to a paper copy. U.S. Pat. No. 5,265,465; U.S. Pat. No. 5,768,416; U.S. Pat. No. 6,094,505.

But as technologies changed, Eon-Net sought to also cover electronic files. Its next continuation patent, U.S. Pat. No. 6,683,697, uses the term "document or file" instead of "hard copy document." Despite the fact that the '697 Patent's specification refers only to hard copy documents, Eon-Net strenuously argued that the term "document or file" covered electronic content as well, and asserted the patent in litigation based on this argument. *Eon-Net LP*, 653 F.3d at 1321.

After *nine paragraphs* of analysis, the Federal Circuit concluded that the term "document or file" was limited to hard copy documents. *Id.* at 1321-23. Indeed, the Federal Circuit upheld sanctions against Eon-Net for its advocacy of the opposing position, in conjunction with its other litigation misconduct and abusive behavior. *Id.* at 1327-28. Among this abusive behavior was "exploiting the high cost to defend complex litigation to extract a nuisance value settlement" from over a hundred companies. *Id.* at 1327. If the '697 patent's claims had clearly stated that they covered only systems involving "hard copy documents," Eon-Net's massive campaign of abusive litigation would likely have been prevented. Those hundred companies could have easily read the claims and determined that they did not cover electronic files. But instead, because Eon-Net was allowed to use the ambiguous language "document or file," it was able to persist in its abusive practices, exploiting the high cost of obtaining clarity through judicial claim construction.

Other examples: Lodsys LLC and Beneficial Innovations, Inc.

There are many other examples of patentees using vague claim terms to cover products and services that plainly fall beyond the appropriate scope of the patent. For example, a patent assertion entity called Lodsys LLC owns a patent family relating to fax-era technology. Using hopelessly vague claim terms like "trigger event" and "perception information," Lodsys has argued that its patents cover in-app purchases on all modern smart phones. Citing to the Federal Circuit's decision in this case, the district court upheld Lodsys's vague claim terms as definite. *See Lodsys, LLC v. Brother Int'l Corp.*, 2:11-CV-0090-JRG, 2013 WL 2949959 at *36 (E.D. Tex. June 14, 2013) (citing *Biosig Instruments*, 715 F.3d at 898).

Another patent assertion entity, called Beneficial Innovations, Inc., owns a patent family relating to playing blackjack over a network. It has leveraged vague claim terms like "unrequested" advertising in an attempt to cover essentially all online advertising. *See Beneficial Innovations, Inc. v. Blockdot, Inc.*, 2:07-CV-00263-TJW-CE, 2010 WL 2246291 at *1-3 (E.D. Tex. June 3, 2010). All of these examples share a common thread of a patent family in which, due to laxity in enforcing claim clarity rules, patent applicants have sought to obtain less clear, more ambiguous patents. The patents use vague and broad language that "unnecessarily require[s] the district court to engage in excessive claim construction analysis." *Eon-Net LP*, 653 F.3d at 1327. This negatively impacts the public because many will "choose to settle early in the litigation rather than expend the resources required to demonstrate to a court that the asserted patents are limited" beyond the possibly broad language. *Id*. To prevent this abuse of the public trust, the Court should demand greater clarity in claim language, by enforcing § 112 where the Federal Circuit has failed to do so.

B. Sanctioned Vagueness Has Led to Abusive Business Practices Asserting Patents.

These examples are not outliers, but rather are indicative of a widespread problem of patent abuse, a problem made possible by lax enforcement of claim definiteness requirements. Stakeholders reported to the Federal Trade Commission that the patent system "generally creates 'an incentive to be as vague and ambiguous as you can with your claims' and to 'defer clarity at all costs." Fed. Trade Comm'n, *The Evolving IP Marketplace: Aligning Patent Notice and Remedies* with Competition 85 (2011) ("Evolving IP").³ "Patent applicants have an incentive to keep issued patent claims

^{3.} Available at, http://www.ftc.gov/os/2011/ 03/110307patentreport.pdf. See also FTC Report Recommends Improvements in Patent System to Promote Innovation and Benefit Consumers, Federal Trade Commission (Mar. 7, 2011), available at, http://www.ftc.gov/opa/2011/03/patentreport.shtm.

vague because vagueness allows for ex post gaming." Michael Risch, *The Failure of Public Notice in Patent Prosecution*, 21 Harv. J.L. & Tech. 179, 180 (2007). One economist traced how patents with "fuzzy boundaries" have created "a business opportunity based on acquiring patents that can be read to cover existing technologies and asserting those patents." James Bessen et al., *The Private and Social Costs of Patent Trolls*, 34 Regulation 26, 34 (2012). In this way, ambiguous patents—mostly relating to software—have fed the recent explosion in litigation by non-practicing entities (also known as patent trolls).

Importantly, ambiguous patents give rise to abusive patent litigation because the harms of ambiguity fall almost unilaterally on accused infringers, who "disproportionately" bear the "risks and harms resulting from ambiguous patents." Phil Goldberg, Progressive Policy Inst., *Stumping Patent Trolls on the Bridge* to Innovation 4 (2013).⁴ For one thing, the patent assertors can exploit the benefit of hindsight: the product manufacturer must guess at all the possible meanings of a patent claim before manufacturing a product in order to avoid infringement, while the patent owner can tailor a favored interpretation after the fact, after seeing the manufactured product. See Tun-Jen Chiang, Fixing Patent Boundaries, 108 Mich. L. Rev. 523, 573 (2010).

Also, the "insolubly ambiguous" standard unfairly prevents parties from fully presenting their cases in litigation, by forcing them to choose between arguing

^{4.} Available at, http://www.progressivepolicy.org/wp-content/uploads/2013/09/10.2013-Goldberg_Stumping-Patent-Trolls-On-The-Bridge-To-Innovation.pdf

for a claim construction and arguing for indefiniteness. Under the Federal Circuit standard, a claim is indefinite only when it is "not amenable to construction." *Datamize*, *LLC v. Plumtree Software*, *Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005). Arguing in favor of a particular claim construction undermines any argument that the claim cannot be construed. But *failing* to argue for a claim construction will waive that position on appeal. *Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1346-47 (Fed. Cir. 2001). This Hobson's choice complicates accused infringers' ability to defend their cases, creating an unjustified unfairness that accrues to the benefit of patent owners.

C. The Lack of Clarity in Patents Has Caused Fundamental Harm to the Patent System.

This Court has demanded definiteness in claims to avoid a "zone of uncertainty" that would result from indefiniteness. *United Carbon Co.*, 317 U.S. at 236. Unfortunately, due to the Federal Circuit's standard, this hypothetical zone of uncertainty has become a stark reality.

One survey of researchers in the nanotechnology field found numerous complaints on the usefulness of patents as technical disclosures. Lisa Larrimore Ouellette, *Do Patents Disclose Useful Information?*, 25 Harv. J.L. & Tech. 545 (2012). Among the surveyed researchers, 36% never read patents, many of them complaining about "the style in which patents are written—patents were called 'vague,' 'legal jargon,' 'incomprehensible,' and lacking 'technical detail.'' Id. at 572. Those who had read patents had similar complaints: "To a scientist," an academic chemist wrote, "the patent literature looks like an invention of lawyers for the benefit of other patent lawyers." *Id.* at 577. Only 38% of surveyed researchers believed that one could reproduce an invention from the patent specification—a clear indication that disclosure and dissemination of knowledge, the cornerstone goals of the patent system, are not being served. *Id.*

Academics, scholars, and practitioners have echoed the same concerns that patents are unreadably vague. As one commentator observed, "the Federal Circuit has permitted a number of vague general disclosures that don't actually communicate very much to anyone, and patent lawyers often have incentives to write such vague disclosures." Mark A. Lemley, The Myth of the Sole Inventor, 110 Mich. L. Rev. 709, 745 (2012); see also Christa J. Laser, A Definite Claim On Claim Indefiniteness, 10 Chi.-Kent J. Intell. Prop. 25, 27 (2010) ("If the Federal Circuit does not correct this trend soon, a competitor's ability to accurately determine the metes and bounds of current patents might deteriorate further."); Kirk M. Hartung, Claim Construction: Another Matter of Chance and Confusion, 88 J. Pat. & Trademark Off. Soc'y 831, 844 (2006) ("[I]f reasonable people can disagree about the definition of the claim terms, how does this notify the public of the patentee's right to exclude?")

Those outside of academic circles have expressed the most concern about the difficulty of understanding patents and particularly patent claims. One author, in describing how to read patent claims, laments that they are "a dense form of legal English," further explaining that the "drafting of patent claims is a black art" because claims are "full of magic words." Rob Weir, *How Not to* *Read a Patent* (Aug. 13, 2009).⁵ "Patents are so vague," one attorney said, that "[i]f someone claims infringement, the only way to resolve it is through litigating." Rich Steeves, *New Report Examines the Economic Cost of Patent Trolls* (Oct. 11, 2013).⁶ Where litigation is "the only way" to assess the meaning of a patent, that patent has failed to serve its public notice function.

III. ANY TEST FOR CLAIM DEFINITENESS SHOULD GUARANTEE SUFFICIENT PUBLIC NOTICE.

A. Claims Subject to Two Plausible Interpretations Should Be Held Indefinite.

Section 112(b) of the Patent Act requires that patent claims be clear and unambiguous: "The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or joint inventor regards as the invention." A patent claim should therefore allow the public to know, at the time the patent issues, what is and what is not covered. This is the only way the claim enables the public to understand "the subject matter" the patentee claims as "the invention."

The statutory language mandates this precision. Dictionaries from the years prior to 1952 and 1870 confirm that the key words of the Patent Act had consistent and clear meaning at the relevant times:

^{5.} Available at, http://www.robweir.com/blog/2009/08/how-not-to-readpatent.html

^{6.} Available at, http://www.insidecounsel.com/2013/10/11/new-report-examines-the-economic-cost-of-patent-tr

Particular: "1. Relating to a portion of anything; separate; sole; single; individual; specific...2. Of or pertaining to a single person, class, or thing; not general; not common" *Webster's New International Dictionary* 1783 (2d ed. 1948).

Particularly: "1. In detail or in particulars; item by item, or part by part. . . . 3. In a particular manner; expressly." *Id.* at 1783.

Particular: "1. Pertaining to a single person or thing; not general; as, this remark has a *particular* application. 2. Individual; noting or designating a single thing by way of distinction. . . ." Webster's Dictionary 800 (Imperial ed. 1864).

Particularly: "Distinctly; singly." Id. at 801.

Distinct: "1. Distinguished; discriminated by a visible sign; marked out. 2. Distinguished by nature or station; not the same; separate; individual . . . 3. That may be clearly seen or discerned; clear; plain; well-defined" *Webster's New International Dictionary* 755-56 (2d ed. 1948)

Distinctly: "1. Separately. 2. With distinctness; not confusedly; without blending of one thing with another; hence, clearly; obviously." *Id.* at 756.

Distinct: "So separated as not to be confounded with any other thing; . . . not confused." *Webster's Dictionary* 354 (Imperial ed. 1864). **Distinctly:** "Separately; with distinctness; not confusedly; without the blending of one part or thing with another; as a proposition *distinctly* understood; a figure *distinctly* defined." *Id.* at 353.

The plain meaning of 'particularly' and 'distinctly' requires that the applicant provide *clear and unambiguous* claim language describing the scope of his or her invention. *Cf. Carcieri v. Salazar*, 555 U.S. 379, 387 (2009) (where the statutory text is plain it should be interpreted according to its terms). This means that a claim subject to multiple reasonable interpretations—which is *necessarily* an ambiguous claim—does *not* satisfy the statutory requirement of particularity and distinctness. The Patent Act "leave[s] no excuse for ambiguous language or vague descriptions." *Merrill v. Yeomans*, 94 U.S. (4 Otto) 568, 573 (1877).

This Court outlined the correct standard in *United Carbon Co.*, 317 U.S. at 236:

The statutory requirement of particularity and distinctness in claims is met only when they clearly distinguish what is claimed from what went before in the art and clearly circumscribe what is foreclosed from future enterprise.

This standard is faithful to both the language and purpose of the Patent Act. By informing the public of what is and what is not covered a clear patent claim helps competitors make the right decisions about whether to seek a license or design around a patent. *Festo Corp.*, 535 U.S. at 730-31 ("This clarity is essential to promote progress, because it enables efficient investment in innovation."). Precise claims also allow courts, and the public, to more effectively evaluate the validity of patents. *United Carbon Co.*, 317 U.S. at 236 (Patent "claims must be reasonably clearcut to enable courts to determine whether novelty and invention are genuine.").

Ultimately, clear and unambiguous patent claims serve the public interest by ensuring that patents are kept within their legitimate scope. *See Medtronic*, 134 S. Ct. at 851 (The public "has a 'paramount interest in seeing that patent monopolies . . . are kept within their legitimate scope.") (quoting *Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co.*, 324 U.S. 806, 816 (1945)).

B. The Public Should Be Able to Assess the Scope of Patent Claims Without Needing to Resort to Judicial Construction.

Before a patent can be declared indefinite under the Federal Circuit's test, the patent must go through formal claim construction proceedings. *Biosig Instruments*, 715 F.3d at 891 ("A claim is indefinite only when it is 'not amenable to construction' or 'insolubly ambiguous.""); *see also id.* at 896-97 (before holding the claims indefinite, the district court conducted a *Markman* hearing, issued a claim construction order, and then heard summary judgment motions), *id.* at 905 (concurring opinion of Judge Schall, noting that Biosig's claims were "amenable to construction").

Such extended proceedings – claim construction hearings, rulings, and then summary judgment proceedings – are time consuming and costly. In district courts, claim meaning is often resolved at a formal, expensive claims construction proceeding with expert testimony and extensive attorney argument. ABA, Patent *Litigation Strategies Handbook*, 742-43, 746 n.226 (Barry L. Grossman & Gary M. Hoffman eds., 2d ed. 2005). These hearings often take place "near, or after, the close of discovery." Id. at 749. In a typical patent case, the median cost of litigating through the close of discovery is between \$350,000 and \$3 million. See McZeal v. Sprint Nextel Corp., 501 F.3d 1354, 1362 (Fed. Cir. 2007) (citing AIPLA, Report of the Economic Survey 2007, at 35 (2007)). Many of the district courts – especially the ones that hear the most patent cases - have extensive rules for claim construction proceedings.⁷ Under those rules, claim construction takes up to a year or longer to complete and requires detailed (and costly) disclosures of invalidity and infringement contentions, in addition to disclosure, briefing, and hearings about the parties' actual claim construction positions.

Given how expensive this is, it is not surprising that claim construction only happens to a small subset of issued patents. For example, in 2012 the U.S. PTO issued about 276,000 patents. U.S. Patent and Trademark Office, U.S. Patent Statistics Chart, Calendar Years 1963-2013.⁸ However, there were only about 4,800 patent suits filed in 2012. Executive Office of the President, Patent

^{7.} See, e.g., Patent Local Rules of the Northern District of California, *available at*, http://www.cand.uscourts.gov/localrules/patent; Rules of Practice for Patent Cases before the Eastern District of Texas, *available at*, http://www.txed.uscourts.gov/cgi-bin/view_document.cgi?document=1179&download=true

^{8.} Available at, http://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm

Assertion and U.S. Innovation 5 (June 2013).⁹ This means that (roughly) only about two percent of all patents are litigated, and since not all lawsuits proceed through claim construction proceedings, only a far smaller percentage of patents will be construed by a court.

If the public cannot assess the scope of a patent until after claim construction costing millions of dollars and taking a year or longer – even assuming that the patent is one of the small percentage that went through claim construction – then patents are not satisfying the notice requirements discussed above. To remedy this, claims must be subject to only one reasonable interpretation *when issued*, and the legal standard for indefiniteness should require such clarity.

C. An Appropriately Rigorous Test for Definiteness of Claims Would Not Diminish Patent Owners' Rights.

The Federal Circuit often justifies its test by saying it is necessary to protect patent owners. But a rigorous definiteness test would still protect patent owners' rights. Claims can easily be drafted unambiguously, with only one reasonable interpretation.

1. Precise Claim Drafting, Not Ambiguous Patents, Is the Best Way to Protect Both Patent Owners and Third Parties

In this case, the indefinite nature of Biosig's patent claims is a problem of Biosig's own making (as it is for

^{9.} Available at, http://www.whitehouse.gov/sites/default/files/ docs/patent_report.pdf

other patentees who deliberately write vague claims). Biosig (and other patentees) have ignored the mandate of § 112(b) that claims be definite and give clear notice to the public and third parties.

It would be straightforward to rewrite most claims to avoid indefiniteness. For example, Biosig's claims could easily be redrafted to be clear (additions to the actual claim language are underlined, deletions are in strikethrough):

a first live electrode and a first common electrode mounted on said first half in spaced relationship with each other <u>spaced at a</u> <u>distance great enough to prevent a short circuit</u> <u>between the electrodes, and less than the width</u> <u>of a human hand</u>

This change would have avoided the lack of public notice that the ambiguous, issued claims suffer. True, the redrafted claims might be anticipated or obvious in view of U.S. Patent No. 4,444,200 to Fujisaki (the "inner and outer cylindrical electrodes 21 and 22 are arranged in axially aligned relationship and electrically insulated from each other", col. 2, lines 57-60). (The parties discussed this potential validity challenge at length in their certiorari petition briefs.) But a party should not be permitted to draft indefinite claims to save the patent from anticipation or obviousness.

As another example, let's return to the "easement" analogy in the introduction. Instead of an easement where "the western boundary is in a spaced relationship with the highway," the easement could instead easily have been written as of a certain specified width (in feet), or at least as a "western boundary far enough away from the highway to accommodate standard power and communication lines."

2. The Public and Third Parties Should Not Bear the Risk of Indefinite Claims

The burden should be on the patentees to write clear claims, not on third parties who bear the risk of indefinite claims that don't provide adequate notice. As the lower court once stated:

[A]s between the patentee who had a clear opportunity to negotiate broader claims but did not do so, and the public at large, it is the patentee who must bear the cost of its failure to seek protection for this foreseeable alteration of its claimed structure.

Sage Prods., Inc. v. Devon Indus., Inc., 126 F.3d 1420, 1425 (Fed. Cir. 1997); see also Akamai Techs., Inc. v. Limelight Networks, Inc., 692 F.3d 1301, 1349-50 (Fed. Cir. 2012) (en banc) (Linn, J., dissenting) ("[T]he claim drafter is the least cost avoider of the problem of unenforceable patents due to joint infringement, and this court is unwise to overrule decades of precedent in an attempt to enforce poorly-drafted patents."), cert. granted, No. 12-786.

This rule is rooted in principles of fairness and economics. The patent applicant – who presumably knows what he or she has invented – is in the best position to provide clarity about the patent claims at the outset. This is consistent with the notice requirements of claims discussed above.

By comparison, unsuspecting third party infringers are not in a position to provide such clarity, because indefinite claims do not provide adequate notice to the public. For example, the FTC states that little clarity exists in claim language typically used in software patents. As a result, many in the information technology sector have admitted to "frequently" not performing clearance searches and even simply ignoring patents. *Evolving IP* at 80 ("the notice function 'is not well served at all"), *id.* at 83 (noting a "fundamentally poor fit" between claim language and software-related patents). If patent claims are so indefinite that the public cannot even perform a search to try to find patents that might affect one's business, then the public notice function has failed its purpose.

Imposing ex post facto liability on infringing parties because of indefinite claims opens them up to risks they neither intended to take nor could have anticipated. Such imposition of liability would remove the burden from the party best-positioned to bear it (the patent owner, by drafting unambiguous claims in the first place) and impermissibly shifts it to a third party in the worst position to bear it.

3. The Court Should Ignore any Argument of Settled Expectations

Biosig or its amici might argue that changing the indefiniteness standard would call into question the patentability of potentially millions of patents that were drafted under the Federal Circuit's rule. In essence, they would argue that since patent attorneys drafted patent claims that were (often deliberately) ambiguous but nevertheless were valid under the Federal Circuit's rule, it would disrupt settled expectations of such attorneys and their inventor clients to change the rule now.

The Court should reject any such arguments, and fix the lower court's incorrect rule. Indeed, it has done so in the past, when the Court rejected arguments that long-standing practices should be deferred to because the inventive community had allegedly relied on them. See Ass'n for Molecular Pathology v. Myriad Genetics, Inc., 133 S. Ct. 2107, 2118-19 (2013) (rejecting deference to the PTO's long-standing rule allowing gene patenting); Brief for the Respondents at 14-17, KSR Int'l Co. v. Teleflex, Inc., 550 U.S. 398 (2007) (No. 04-1350)¹⁰ (respondent argued that the Federal Circuit's obviousness standard should not be changed, because "millions of patents have been issued in reliance on the suggestion test, each of which would become susceptible to *post hoc* litigation in federal district courts around the nation if this Court were to call that standard into question.").

4. Patent Owners Can Correct any Deficiencies in Issued Patents

In any event, patent owners have several ways to correct issued patents that might be indefinite under a rule that properly enforces § 112(b). The Patent Act provides for reissue, reexamination, continuation, and supplemental examination procedures that can correct any supposed ambiguities in claim language.

^{10.} Available at, http://www.scotusblog.com/movabletype/archives/KSR%20FINAL.pdf

The reissue statute allows a patent owner to ask the PTO to reissue a patent that is "wholly or partly inoperative or invalid . . . by reason of the patentee claiming more or less than he had a right to claim" 35 U.S.C. § 251(a). The PTO's regulations permit filing a reissue application if "the claims are too narrow or too broad." *See* U.S. Patent & Trademark Office, *Manual of Patent Examining Procedure* § 1402 (8th ed. Rev. Aug. 9, 2012).¹¹ This would encompass patent claims that are indefinite and thus (usually) overbroad.

A patent owner may also correct § 112(b) defects using the new supplemental examination procedure of the America Invents Act, 35 U.S.C. § 257. See U.S. Patent and Trademark Office, Supplemental Examination, Question SE3080¹² (noting that § 112 issues may be considered). Also, in some cases a patent could instead be reexamined, under 35 U.S.C. § 302. Finally, instead of the abuse of the continuation process described in Section II.A. above, patent owners should instead be incentivized to use continuations to make their claims particular and distinct.

Thus, if this Court's decision correctly applying § 112(b) results in some existing patents having indefiniteness issues, patent owners have several ways to correct any such defects – and at the same time put the public on notice of what they actually invented.

^{11.} Available at, http://www.uspto.gov/web/offices/pac/mpep/s1402.html

^{12.} Available at, http://www.uspto.gov/aia_implementation/faqs-supplemental-exam.jsp

CONCLUSION

This Court long has warned against claims that "like a nose of wax... may be turned and twisted in any direction." *White v. Dunbar*, 119 U.S. 47, 51 (1886). The Federal Circuit's "insolubly ambiguous" rule permits the very abuse that the Court warned against over a century ago. Since the term "spaced relationship" is indefinite under a proper interpretation of § 112(b), the lower court's judgment of validity should be reversed.

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Respectfully submitted,

CHARLES DUAN PUBLIC KNOWLEDGE 1818 N St. NW, Suite 410 Washington, DC 20036 (202) 861-0020 DANIEL K. NAZER *Counsel of Record* MICHAEL BARCLAY JULIE P. SAMUELS ELECTRONIC FRONTIER FOUNDATION 815 Eddy Street San Francisco, CA 94109 (415) 436-9333 daniel@eff.org

Attorneys for Amici Curiae