
IN THE
Supreme Court of the United States

NAUTILUS, INC.,
Petitioner,

v.

BIOSIG INSTRUMENTS, INC.,
Respondent.

**On Petition for a Writ of Certiorari
to the United States Court of Appeals
for the Federal Circuit**

**BRIEF OF AMAZON.COM, INC., GOOGLE INC.,
LIMELIGHT NETWORKS, INC., SAP AMERICA, INC.,
NEWEGG INC., NETAPP, INC., GARMIN LTD.,
SAS INSTITUTE INC., MEDIAFIRE, ESRI,
AND J.C. PENNEY CORPORATION, INC.
AS *AMICI CURIAE* IN SUPPORT OF
PETITION FOR A WRIT OF CERTIORARI**

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QUESTIONS PRESENTED

The patent statute requires patent claims to be “definite”—the application must “particularly point[] out and distinctly claim[] the subject matter which the applicant regards as his invention.” 35 U.S.C. § 112, ¶ 2.* The Federal Circuit holds that this requirement is met so long as a court can find that the claim has some discernible meaning and that it is not “insolubly ambiguous,” even when the claim is capable of multiple reasonable interpretations. App. 21a-22a.

The questions presented are:

Whether the Federal Circuit’s “insolubly ambiguous” standard is consistent with the text and purpose of § 112 as interpreted by this Court; and

Whether the Federal Circuit’s “insolubly ambiguous” standard is compelled by the statutory presumption that patents are valid.

* Paragraph 2 of 35 U.S.C. § 112 was replaced with the redesignated § 112(b) by the Leahy-Smith America Invents Act, Pub. L. No. 112-29, § 4(c), 125 Stat. 284, 296 (2011). Cites in this brief are to the pre-AIA version of the provision applied below. App. 12a n.8.

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INTEREST OF *AMICI CURIAE*¹

Amici are some of America’s leading technology companies. Collectively, they have invested billions of dollars in research and development, employ the world’s most innovative computer scientists and engineers, and create hundreds of thousands of other rewarding American jobs. Their contributions in technology and commerce have transformed society in countless ways. They also are repeatedly defendants in costly patent-infringement lawsuits involving vague patents having broad but indefinite scope.

INTRODUCTION

The Court should grant the petition and reverse the decision below because the Federal Circuit’s construction of § 112, ¶ 2 of the Patent Act conflicts with the statute and undermines the notice function of patents—distorting incentives for inventors, taxing future innovation, and creating a host of other social costs that are borne daily by the public. The statute requires claims to “particularly point[] out and distinctly claim[] the subject matter which the applicant regards as his invention.” 35 U.S.C. § 112, ¶ 2. That the statute requires such precision in the

¹ Pursuant to Supreme Court Rule 37.6, counsel for *amici* represent that they authored this brief in its entirety and that none of the parties or their counsel, nor any other person or entity other than *amici* or their counsel, made a monetary contribution intended to fund the preparation or submission of this brief. Pursuant to Rule 37.2(a), counsel for *amici* represent that all parties were provided notice of *amici*’s intention to file this brief at least 10 days before its due date. Pursuant to Rule 37.3(a), counsel for *amici* represent that all parties have consented to the filing of this brief. Petitioner has filed a letter granting blanket consent to the filing of *amicus* briefs; written consent of respondent to the filing of this brief is being submitted contemporaneously with this brief.

patent *application* underscores the importance of requiring precision at the outset: If a patent, as defined by the claims, is not clear and understandable to persons of ordinary skill in the art, it creates unacceptable uncertainty and incalculable social costs.

The Federal Circuit’s (mis)interpretation of § 112, ¶ 2 ignores both the text and purpose of the statute by refusing to invalidate a patent for indefiniteness unless the claims are either “not amenable to construction or insolubly ambiguous.” App. 13a (internal quotations omitted). That standard—in general and as applied below—undermines the purpose of the indefiniteness inquiry, which is to ensure that what a patent covers and does not cover is clear at the time the patent issues, so that “[t]he public [is not] deprived of rights supposed to belong to it, without being clearly told what it is that limits these rights.” *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 390 (1996) (quoting *Merrill v. Yeomans*, 94 U.S. 568, 573 (1877)).

ARGUMENT

I. PATENT INDEFINITENESS IS A GROWING PROBLEM OF NATIONAL ECONOMIC IMPORTANCE

The “first” problem identified by the Federal Trade Commission’s recent study of how patent abuse is harming innovation is the failure of many patents to provide public “notice . . . of what technology is protected.” FTC, *The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition* 2 (Mar. 2011). Following a three-year study, including multiple hearings involving participants representing diverse interests, the FTC found that clear notice of claim scope “is essential for patents to operate as a property system.” *Id.* at 74. “Effective notice fosters

efficient innovation investment by enabling firms to select technologies with knowledge of applicable patent rights. It removes uncertainty, which causes some firms to shy away from procompetitive innovation for fear of the penumbra that surrounds a patent's actual reach, and which induces others to engage unnecessarily in costly design-around efforts." *Id.* at 134. "[W]hen patents provide clear notice of their boundaries . . . parties [are able] to contract efficiently, with confidence as to the technology rights that are conveyed, facilitating both collaboration among firms with complementary expertise and competition among inventions in technology markets." *Id.* at 74. Good fences make good neighbors.

Conversely, "[p]oor patent notice undermines innovation and competition by raising the risk of . . . infringement and imposing 'a very high overhead' on innovation." *Id.* at 76 (citation omitted). "Poor patent notice may cause firms to cut back on procompetitive innovation, reducing competitive vigor and depriving consumers of new technologies. Firms reduce their R&D expenditures in the face of increased uncertainty." *Id.* at 77. Poorly defined patents may force a firm to incur unnecessary costs, further "burdening innovative activities and raising prices" charged to consumers. *Id.* at 78. And, of course, even for firms whose commitment to innovation remains undeterred by ambiguous patents, litigation diverts large sums of otherwise useful capital away from further investment in new production.²

² The academic literature anticipates the FTC's findings. See William M. Landes & Richard A. Posner, *The Economic Structure of Intellectual Property Law* 324 (2003) ("[A]n indefinite claim would tend to enlarge the practical scope of the patent beyond its lawful bounds by imposing legal risks on competi-

The problem isn't just that an unwitting infringer will stumble across an unclear boundary and be taxed with the cost of a lawsuit and the risk of a large jury award or an injunction. Ambiguous patents deter investments in new innovations in adjacent areas. James Bessen & Michael J. Meurer, *Patent Failure: How Judges, Bureaucrats, and Lawyers Put Innovators At Risk* 219 (2008) (“Our empirical analysis has shown that poor patent notice has reduced the incentives to invent.”). The patent system has long been understood to advance science and the useful arts in two equally important ways. On the one hand, the patent laws protect an inventor’s investment in specific technology against free riding. On the other, the patent laws incentivize the public (and protect its right) to solve the same problem in better and more efficient ways. Both engines of innovation are of equal importance to the proper functioning of our patent system. Ambiguous patents unduly reward the first engine of innovation while depriving the public of the important benefits of the second.

For similar reasons, the patent laws do not allow patents on abstract ideas or that claim all ways of achieving a desired result (*i.e.*, “functional” patents): Such patents “inhibit future innovation” and needlessly “foreclose[] more future invention than the underlying discovery could reasonably justify.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1301 (2012); *see O’Reilly v. Morse*, 56 U.S.

tors, who would be buying an infringement suit if they mistook those bounds because the patent claim was unclear.”); F.M. Scherer, *New Perspectives on Economic Growth and Technological Innovation* 87 (1999) (Federal Circuit decisions tolerating indefinite patents “make innovation more dangerous—indeed, much like walking through a mine field”).

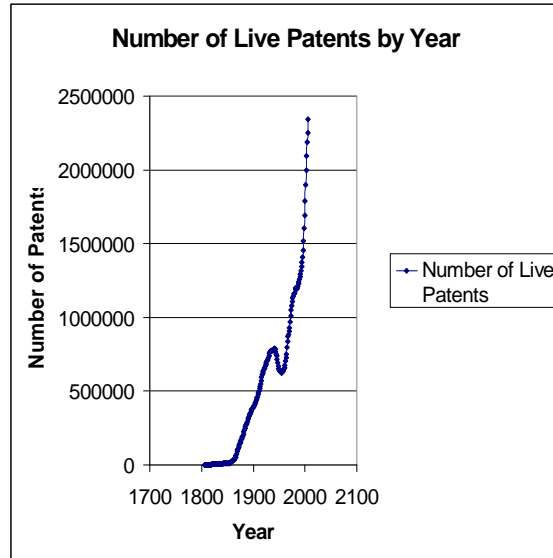
(15 How.) 62, 112-13 (1854) (rejecting claim to all machines for writing or printing at a distance using “electric or galvanic current” to avoid deterring “some future inventor, in the onward march of science, [who] may discover a mode of writing or printing at a distance by means of the electric or galvanic current, without using [Morse’s specific invention],” and whose “invention may be less complicated—less liable to get out of order—less expensive in construction, and in its operation”).

The problem of excessive foreclosure is particularly urgent because empirical evidence indicates that many of the most important innovations are *unpatented*. A study of the top 100 industrial innovations worldwide each year, from 1977 to 2004, showed that more than 90% were not patented. Roberto Fontana et al., *Reassessing Patent Propensity: Evidence from a Data-Set of R&D Awards, 1977-2004*, Working Papers 2013/09, at 28, tbl. 9 (2013). Yet those who successfully conceive, develop, and invest in such innovations bear much of the social costs of indefinite patents.

The Federal Circuit’s rule is responsible for much of these substantial social costs. The FTC found that, especially in the field of information technology, patents often fail to set forth well-defined boundaries and may describe only a problem to be solved or a result to be obtained. “General statements” of desired results “that fail to explain how the computer performs the claimed functions may leave the outer boundaries of the claim difficult to decipher.” FTC, *The Evolving IP Marketplace* 100 (citing *Halliburton Oil Well Cementing Co. v. Walker*, 329 U.S. 1, 12 (1946), and noting that the Court’s decision “warn[ed] about the potential ambiguity of functional

claims”). The FTC identified as a major cause the shift by the Federal Circuit away from requiring a patent claim to “reasonably apprise[] those of skill in the art of its scope.” *Id.* at 95 (quoting *In re Warmerdam*, 33 F.3d 1354, 1361 (Fed. Cir. 1994), and citing *Exxon Research & Eng’g Co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001)). The FTC accordingly urged courts to do more to “focus on indefiniteness [and] to address functional claiming in general, in order to ensure disclosure of what is within and what is outside of the patent.” *Id.* at 102.

Indefiniteness is becoming an even greater problem as more patents are issued by the Patent and Trademark Office and more extant patents are being enforced by patent-assertion entities (“PAEs”). This Court noted in 1877 that “[t]he growth of the patent system . . . ha[d] reached a stage in its progress where the variety and magnitude of the interests involved require accuracy, precision, and care in the preparation of all the papers on which the patent is founded.” *Merrill*, 94 U.S. at 573. As of 1877, the Patent Office had been in operation 40 years and had issued approximately 100,000 patents. With a patent system of that scale, the Court remarked, there could be “no excuse for ambiguous language or vague descriptions. The public should not be deprived of rights supposed to belong to it, without being clearly told what it is that limits these rights.” *Id.* Today, more than eight and a half million patents have issued and more than two million of them are unexpired and remain in effect. About five thousand additional patents issue every week.



More of these patents are being enforced in lawsuits attacking vast swaths of American commerce. Suits brought by PAEs have tripled in just the last two years, rising from 29% to 62% of all infringement suits. Executive Office of the President, *Patent Assertion and U.S. Innovation 1* (June 2013). “Estimates suggest that PAEs may have threatened over 100,000 companies with patent infringement last year alone.” *Id.* “PAEs take advantage of uncertainty about the scope or validity of patent claims, especially in software-related patents [where] it has been difficult to separate the ‘function’ of the software (e.g. to produce a medical image) from the ‘means’ by which that function is accomplished.” *Id.* The problem is growing particularly acute for companies like *amici*. About 84% of patent lawsuits filed between 2007 and 2011 by “patent monetization entities” (“PMEs”) involved software patents. Gov’t Accountability Office, *Intellectual Property: Assessing Factors That Affect Patent Infringement Litigation Could Help Improve*

Patent Quality 22 (Aug. 2013). The GAO blames the increase in patent litigation in large part on “patents with unclear property rights, overly broad claims, or both,” in particular “claims in software-related patents [that] are often overly broad, unclear or both.” *Id.* at 28.³

With more patents and more enforcement, “nothing can be more just and fair, both to the patentee and to the public, than that the former should understand, and correctly describe, just what he has invented, and for what he claims a patent.” *Merrill*, 94 U.S. at 573-74.

II. THE PROBLEM OF INDEFINITE PATENTS CANNOT BE SOLVED BY THE PTO ALONE; THE FEDERAL CIRCUIT’S REFUSAL TO POLICE INDEFINITE PATENTS DISTORTS PATENTEE BEHAVIOR AT THE PTO

Efforts by the PTO to improve patent clarity through examination—while critically important—are necessarily insufficient because of institutional limitations on the examination process.⁴ The PTO

³ The GAO found that “functional claims and other overly broad claims may allow patent owners who sue for infringement to argue in court that their patent covers (1) an entire technology when it may only cover a small improvement, or (2) future technologies that their patent did not originally intend to cover. For example, representatives from one PME we spoke with said they had successfully sued companies for infringement even though the companies were implementing their idea in a completely different manner than described in their patent—noting that they had patented their invention before the technology to best implement it was actually available.” GAO Report 29.

⁴ This past June, the President expressed concerns about “patents with overly broad claims” and requested that the PTO “develop strategies to improve claim clarity.” White House, *FACT SHEET: White House Task Force on High-Tech Patent Issues* (June 4, 2013). If and when such strategies are adopted,

must examine hundreds of thousands of patent applications each year. The amount of time that an examiner can devote to each application is necessarily limited. On average, an examiner spends a total of 18 hours examining each patent application—including time spent on reviewing the initial application, searching through prior art, comparing prior art to the proposed claims, and writing office actions accepting or rejecting the proposed claims. Dan L. Burk & Mark A. Lemley, *The Patent Crisis and How the Courts Can Solve It* 23 (2009). And there is a predictable information asymmetry between the examiner—who has ordinary skill in the art but who cannot be as familiar with the invention as the applicant (and who likely is less familiar with the specific problem the invention solves)—and the applicant. Moreover, under Federal Circuit law, a patent must issue unless the patent examiner can build a case for *denying* the application. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992).⁵ The PTO accordingly cannot

they would affect only patents to be issued in the future, not the more than two million patents already issued and in effect.

⁵ Ordinarily, an applicant bears the burden of proving its entitlement to a government benefit or privilege. *See, e.g., Fagan v. Shinseki*, 573 F.3d 1282, 1286 (Fed. Cir. 2009). But, under Federal Circuit precedent, patent prosecution takes the opposite approach: the patent *examiner* “bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability.” *Oetiker*, 977 F.2d at 1445; *see also* Manual of Patent Examining Procedure § 716.01(d) (8th ed. rev. 9, Aug. 2012) (“MPEP”). In other words, the Federal Circuit requires the PTO effectively to presume that it should award an exclusive property right to anyone who asks for it. If the examiner’s initial review does not result in “a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of the patent.” *Oetiker*, 977 F.2d at 1445. In order to find that a patent claim is indefinite, the “Examiner Must Establish a Clear Record” of indefiniteness and “must set

act as an efficient or fully effective gatekeeper against vague patents; that responsibility lies in the end with the Article III courts.

At least one Federal Circuit judge has forcefully recognized this very point. In a dissent from denial of panel rehearing in *Enzo Biochem, Inc. v. Applera Corp.*, 605 F.3d 1347 (Fed. Cir. 2010), Federal Circuit Judge Plager noted recent efforts by the PTO to apply a revitalized indefiniteness standard during the application process—namely, the holding of the PTO Board of Patent Appeals and Interferences that, “if a claim is amenable to two or more plausible claim constructions, the USPTO is justified in requiring the applicant to more precisely define the metes and bounds of the claimed invention by holding the claim unpatentable under [§ 112, ¶ 2] as indefinite.” *Id.* at 1349 (quoting *Ex parte Miyazaki*, No. 2007-3300, 2008 WL 5105055, at *5 (B.P.A.I. Nov. 19, 2008)). Judge Plager contrasted the Federal Circuit’s contrary doctrine as a candidate for reform: The indefiniteness doctrine “could go considerably further in promoting [the public-notice] objective than it currently does, with the not inconsequential benefit of shifting the focus from litigation over claim construction to clarity in claim drafting.” *Id.*⁶ When this Court

forth the specific term or phrase that is indefinite and why the metes and bounds are unclear.” MPEP § 2173.02. Placing the burden of showing unpatentability on the PTO examining staff increases the likelihood that ambiguous patents will in fact issue.

⁶ See 605 F.3d at 1349 (“The court now spends a substantial amount of judicial resources trying to make sense of unclear, overbroad, and sometimes incoherent claim terms. It is time for us to move beyond sticking our fingers in the neverending leaks in the dike that supposedly defines and figuratively surrounds a claimed invention. Instead, we might spend some time figuring out how to support the PTO in requiring that the walls sur-

called for the views of the United States regarding the *certiorari* petition in *Applera*, the government acknowledged that the Federal Circuit “may on occasion have” departed from the proper standard in certain cases by “conducting a definiteness inquiry that in substance was insufficiently rigorous.” U.S. Br. 15, *Applera Corp. v. Enzo Biochem, Inc.*, No. 10-426 (U.S. filed May 17, 2011).

A failure by the courts to demand precision in claim drafting reinforces incentives for patent applicants to write vague patents. Today, too many patents are purposely written so that potential infringers have great difficulty reliably determining whether particular activities would infringe. *See Bessen & Meurer, Patent Failure* 46-72. Too many patentees simply game the system by drafting patent claims that can be read narrowly during examination—to avoid prior art—and broadly during litigation—to sweep in activities that the patentee never even conceived. *See id.* at 57.⁷ And yet, because of

rounding the claimed invention be made of something other than quicksand.”).

⁷ *See also* Michael Risch, *The Failure of Public Notice in Patent Prosecution*, 21 Harv. J.L. & Tech. 179, 188 (2007) (“Patent applicants have an incentive to allow claims to remain vague so that they can mold the claims to fit the future product of a currently unknown, potential infringer or to avoid invalidation if previously undiscovered prior art comes to light.”); R. Polk Wagner, *Understanding Patent-Quality Mechanisms*, 157 U. Pa. L. Rev. 2135, 2149 (2009) (“[A] patentee will almost certainly seek substantial vagueness, thus gaining flexibility to effectively alter the scope and description of the patent according to changing circumstances.”); Lee Petherbridge, *On the Development of Patent Law*, 43 Loy. L.A. L. Rev. 893, 902 (2010) (“seek vagueness”); Stephen M. McJohn, *Patents: Hiding From History*, 24 Santa Clara Computer & High Tech. L.J. 961, 971 (2008) (“[E]xperts in claim drafting offer the following advice to inven-

the Federal Circuit’s permissive approach, fewer than 6% of patent invalidations are based on indefiniteness. John R. Allison & Mark A. Lemley, *Empirical Evidence on the Validity of Litigated Patents*, 26 *AIPLA Q.J.* 185, 208, tbl. 1 (1998). And, over time, fewer and fewer district court decisions are finding challenged claims to be indefinite. Christa J. Laser, *A Definite Claim on Claim Indefiniteness: An Empirical Study of Definiteness Cases of the Past Decade with a Focus on the Federal Circuit and the Insolubly Ambiguous Standard*, 10 *Chi.-Kent J. Intell. Prop.* 25, 33 (2010).

III. THE PROBLEM OF INDEFINITENESS SHOULD BE ADDRESSED BY ENFORCING THE STATUTE AND THIS COURT’S PRECEDENTS THAT REQUIRE CLAIMS TO BE REASONABLY CLEAR AT THE TIME THE PATENT ISSUES SO THAT THE PUBLIC CAN KNOW WHAT IS AND WHAT IS NOT COVERED

The Federal Circuit’s test for indefiniteness, both on its face and as applied in this case, conflicts with the statute and this Court’s precedents.

The Patent Act requires that “[a]n application for patent . . . shall include . . . a specification as prescribed by section 112.” 35 U.S.C. § 111(a)(2)(A). Section 112, in turn, requires the patent applicant to define the patent claims precisely: “The specification shall conclude with one or more claims particularly

tors and patent drafters: Do not define the terms used in your claims; do not identify the category of invention in the preamble to the claims; do not identify features of the invention as ‘important;’ and do not even use the word ‘invention’ in the written description. Such claim drafting has been described as a trend toward ‘intentional obscurity.’”) (footnote omitted).

pointing out and distinctly claiming the subject matter which the applicant regards as his invention.” *Id.* § 112, ¶ 2.

This Court has stated that “the very purpose” of a patent claim is to “mak[e] the patentee define *precisely* what his invention is; and it is unjust to the public, as well as an evasion of the law, to construe it in a manner different from the plain import of its terms.” *White v. Dunbar*, 119 U.S. 47, 52 (1886) (emphasis added); see *Merrill*, 94 U.S. at 573-74; *Evans v. Eaton*, 20 U.S. (7 Wheat.) 356, 434 (1822) (a patent must give “warning”: “to put the public in possession of what the [patentee] claims as his own invention, so as . . . to guard against prejudice or injury from the use of an invention which the party may otherwise innocently suppose not to be patented,” and “at the same time . . . taking from the inventor the means of practising upon the credulity or the fears of other persons, by pretending that his invention is more than what it really is”). “This clarity is essential to promote progress, because it enables efficient investment in innovation. 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).

The Federal Circuit’s approach cannot be squared with these requirements. In the decision below, the Federal Circuit held that a court cannot invalidate a claim as indefinite unless the claim is found to have no discernible meaning. “[W]e have not insisted that claims be plain on their face in order to avoid a determination of invalidity for indefiniteness. ‘If the meaning of the claim is discernible, even though the task may be formidable and the conclusion may be

one over which reasonable persons will disagree, we have held the claim sufficiently clear to avoid invalidity on indefiniteness grounds.” App. 21a-22a (citations omitted; quoting *Exxon*, 265 F.3d at 1375). “A claim is indefinite only when it is ‘not amenable to construction’ or ‘insolubly ambiguous.’” App. 13a (quoting *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005)). Whether a claim term has discernible meaning, the Federal Circuit held, requires the term to be construed by a court in a *Markman* hearing usually following discovery, and too often following an appeal.

The Federal Circuit’s standard is fundamentally flawed in three important respects. First, the test is applied too late. Here, it wasn’t until review of the district court’s claim construction on appeal that the public knew what the patent covered. Second, the claim did not provide clear notice of what it covered on its face. This patent is an example where “reasonable persons will disagree” about what the claim covers; indeed, the four judges below construed the claim three different ways. Third, the court’s test permits a finding that a claim is definite when it can discern the *function* the invention is supposed to perform even when the patent is agnostic about *how* to perform it—thereby preempting all future solutions to the same problem.

A. Clarity Is Required When the Patent Issues

Notice of what a patent covers is needed at the time the patent issues to be “fair . . . to the public.” *Merrill*, 94 U.S. at 573. Under the Federal Circuit’s standard, however, such notice may not be available from the published claim itself but emerges only after full construction of the claim (here, after *appellate* claim construction)—meaning that the public is

threatened with the expense and delay of litigation despite the fact that a claim is indefinite on its face.

Delaying notice of what the patent covers taxes and deters not only innovation but other investments in infrastructure and jobs. Productive firms are regularly sued for infringing patents the bounds of which cannot be discerned absent long and costly litigation. These firms may choose to avoid an area entirely because if their own invention succeeds it will be subject to exclusion or royalty payments to the holder of the indefinite patent. If the only way to determine what is already patented is to endure litigation to construe claim terms, not only innovators but members of the public must add the costs of litigation to other variable costs of doing business. The statute, as written, places the burden of reducing the social costs of ambiguity on the party best able to reduce them—the applicant. By contrast, the Federal Circuit improperly shifts these costs away from the applicant and towards the public, which cannot reduce them. Such a legal rule not only is contrary to the statute, but meets the very definition of inefficiency. See Ronald H. Coase, *The Problem of Social Cost*, 3 J.L. & Econ. 1 (1960).

Tolerating ambiguous claim scope (until the claims are definitively construed in litigation) encourages litigation both because litigation is needed to establish the boundaries of the patent claim and because uncertainty over claim scope itself makes litigation more likely. Landes & Posner, *The Economic Structure of Intellectual Property Law* 347 (“Other things being equal, the more certain law is, the less likely is litigation.”); Herbert Hovenkamp, *Innovation and the Domain of Competition Policy*, 60 Ala. L. Rev. 103, 121 (2008) (“[T]he more poorly patent boundaries are

defined, the higher are litigation costs in relation to patent value.”). Waiting years and spending millions of dollars in litigation to find out what a low-value patent covers is precisely the situation where the property right may not be worth creating in the first place. Harold Demsetz, *Toward a Theory of Property Rights*, 57 Am. Econ. Rev. 347, 350-53 (1967) (when costs of enforcing property rights are disproportionate to the value of the rights, the social value of the rights will be slight or even negative); Herbert Hovenkamp, *Competition for Innovation*, 2012 Colum. Bus. L. Rev. 799, 826-27 (“[T]he patent system has not taken the social value of notice seriously. In general, the more intangible a property right is, and the more ambiguous its boundaries, the more important it is that notice be provided. Further, the cost of providing notice of a particular property right is almost always less than the cost of searching among many.”).

This case exemplifies the failure to provide timely notice. The patent-in-suit issued in 1994. The patentee sued the petitioner in 2004 and again in 2010. In 2012, the district court held the patent claim was indefinite. Finally, in 2013, after the patent expired, the Federal Circuit struggled to find a “discernible meaning” and in two separate opinions provided two different interpretations of the claim. During the entire life of this patent, the public was deprived of the “*quid pro quo*” for the patent right—the “precision of disclosure [that was] essential to warn the industry concerned of the precise scope of the monopoly asserted.” *Universal Oil Prods. Co. v. Globe Oil & Ref. Co.*, 322 U.S. 471, 484 (1944); *cf. FCC v. Fox Television Stations, Inc.*, 132 S. Ct. 2307, 2317 (2012) (“A fundamental principle in our legal system is that laws which regulate persons or enti-

ties must give fair notice of conduct that is forbidden or required.”).

B. The Claim Must Be Reasonably Clear on Its Face

The Federal Circuit’s substantive standard for indefiniteness conflicts also with the statute and this Court’s precedents by failing to require that the claim be definite on its face, App. 21a (“we have not insisted that claims be plain on their face”), and instead allowing the claim to be susceptible to different meanings “over which reasonable persons will disagree,” App. 22a (internal quotations omitted). The Federal Circuit held that “[g]eneral principles of claim construction apply when determining indefiniteness.” App. 14a. Courts are to “primarily consider the intrinsic evidence consisting of the claim language, the specification, and the prosecution history. In addition . . . courts may consider certain extrinsic evidence in resolving disputes regarding indefiniteness . . . [including] evidence not publicly available at the time of the invention.” *Id.* (citations omitted). Only if, after what may be a “formidable” task, the court finds that the claim is “insolubly ambiguous” will the claim be held indefinite. App. 13a, 22a (internal quotations omitted).

The statute requires the applicant to particularly point out and distinctly claim what is invented. That requirement is inconsistent with a standard that directs courts to expend “formidable” efforts just to understand the extent of claims. Here, the Federal Circuit was apparently unconcerned by the fact that the critical claim term was construed three different ways by four judges. It is an error “to suppose that a claim in a patent is like a nose of wax, which may be turned and twisted in any direction, by merely refer-

ring to the specification, so as to make it include something more than, or something different from, what its words express. . . . The claim is a statutory requirement, prescribed for the very purpose of making the patentee define precisely what his invention is.” *White*, 119 U.S. at 51-52. Indeed, the Patent Office applies the same statutory provision but does not permit claims to be susceptible to multiple interpretations. “[I]f the language of a claim . . . is such that a person of ordinary skill in the relevant art would read it with more than one reasonable interpretation, then a rejection under § 112, ¶ 2 is appropriate.” Notice, *Supplementary Examination Guidelines for Determining Compliance With 35 U.S.C. 112 and for Treatment of Related Issues in Patent Applications*, 76 Fed. Reg. 7162, 7164 (Feb. 9, 2011); see *Miyazaki*, 2008 WL 5105055, at *5. The Federal Circuit’s approach to a critical patent doctrine, once again, departs from the express words of the Patent Act, and, once again, this Court should intervene. *E.g.*, *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 407 (2007) (granting *certiorari* because the Federal Circuit decided a case “in a manner contrary to [the Patent Act] and our precedents”); *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 392 (2006) (Federal Circuit ignored the “principles of equity” expressly stated in the injunction statute) (quoting 35 U.S.C. § 283).

C. A “Functional” Construction Cannot Resolve Indefiniteness

The category of indefinite claims overlaps with—and displays the same ills as—improper “functional” claims. As the FTC found in its study of patent notice, *supra* pp. 2-3, a critical category of indefinite patents are ones that describe a problem or a

result, as opposed to describing a particular way that achieves the result. The claim construction the Federal Circuit majority adopted produces such a functional claim. The “spaced relationship” of the claim was defined by the majority to mean whatever spacing works to remove the electrical signal from the muscles that is interfering with the desired heart muscle signal. App. 20a. In other words, the court held the claim definite because it could discern the function that the claimed “spaced relationship” was intended to perform—even though the patent was not particular or distinct about how to perform it. In the absence of a definite solution to the “how to” problem, the patent should never have issued. This Court long ago held that the statutory definiteness requirement for claims—now in § 112, ¶ 2, but in the similarly worded pre-1952 patent statute as well—prohibited claim language that was purely functional at the point of novelty over prior art. *Halliburton*, 329 U.S. at 8-10 (relying on, e.g., *General Elec. Co. v. Wabash Appliance Corp.*, 304 U.S. 364, 371 (1938), and *Holland Furniture Co. v. Perkins Glue Co.*, 277 U.S. 245, 256-57 (1928)).

In *Halliburton*, the Court invalidated a claim that identified the very point of novelty of the claimed combination “in terms of what it will do rather than in terms of its own physical characteristics or its arrangement in the new combination apparatus.” *Id.* at 9. The Court condemned “the broadness, ambiguity, and overhanging threat of the functional claim” at issue, which, in the pertinent element, covered any device that performed the function of clearly and regularly catching and recording echoes from tubing joints in oil wells. *Id.* at 12. “Just how many different devices there are of various kinds and characters

which would serve to” perform that function “we do not know,” the Court explained, and, “unless frightened from the course of experimentation by broad functional claims like these, inventive genius may evolve many more devices to accomplish the same purpose.” *Id.* See *Ibormeith IP, LLC v. Mercedes-Benz USA, LLC*, No. 2013-1007, slip op. 7, 11-12 (Fed. Cir. Oct. 22, 2013) (Taranto, J.) (functionally defined claim held indefinite because it was not limited to a particular solution; merely providing figures that “a person of ordinary skill in the art *could* use to design his or her own method” of achieving function insufficient).

IV. THE PRESUMPTION OF VALIDITY DOES NOT JUSTIFY EXTRAORDINARY EFFORTS TO SALVAGE INDEFINITE CLAIMS

The Federal Circuit defended its current rule based on the presumption that patents are valid. App. 22a. “By embracing this standard, ‘we accord respect to the statutory presumption of patent validity, and we protect the inventive contribution of patentees, even when the drafting of their patents has been less than ideal.’” *Id.* (quoting *Exxon*, 265 F.3d at 1375).⁸

But this Court’s decisions make clear that a patent must first be definite—“fair upon its face”—to enjoy a presumption of validity. *Radio Corp. of Am. v. Radio Eng’g Labs., Inc.*, 293 U.S. 1, 8 (1934) (applying common-law presumption of validity prior to 1952 amendment of the Patent Act). In one of this Court’s

⁸ The Federal Circuit has further strived to avoid invalidating ambiguous patents by requiring indefiniteness to be shown by “clear and convincing evidence.” *E.g.*, *Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1249-50 (Fed. Cir. 2008); *but see Ibormeith*, slip op. 7 (“adequate disclosure is a question of law that we decide *de novo*”).

earliest patent cases, the Court specifically rejected the argument that the patentee be given “the benefit of a liberal construction in support of the patent” in order to “uphold” the action of the Patent Office. *Merrill*, 94 U.S. at 572-73; *see id.* (rather than strain to give “full effect to all that is found in the application on which the Patent Office acted, [and] uphold that which was really invented, and which comes within any fair interpretation of the patentee’s assertion of claim,” holding claim invalid because the patentee had failed to give “the world . . . fair notice of what he claims, of what his patent covers”). This Court’s decisions instead emphasize that “[t]he [patent] monopoly is a property right; and like any property right, its boundaries should be clear.” *Festo*, 535 U.S. at 730-32; *see Markman*, 517 U.S. at 373 (“[i]t has long been understood that a patent must describe the exact scope of an invention”); *United Carbon Co. v. Binney & Smith Co.*, 317 U.S. 228, 236 (1942) (“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.”); *see also Microsoft Corp. v. i4i Ltd. P’ship*, 131 S. Ct. 2238, 2253 (2011) (Breyer, J., concurring) (“[w]here the ultimate question of patent validity turns on the correct answer to legal questions”—including whether the patent applicant described his claims properly under § 112—“today’s strict standard of proof has no application”).

What a patent covers is a distinct question from whether it is valid, even though indefiniteness may be cause for invalidating the patent. And the particular errors in the Federal Circuit’s decision below—holding that claim scope need not be particular and distinct when the patent issues; that a claim is defi-

nite even when it is subject to multiple reasonable interpretations; and that a claim can be made definite by defining it in terms of an achieved function—can be reviewed and corrected without regard to the presumption of validity.

CONCLUSION

The Court should grant the petition.

Respectfully submitted.

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