

No. 13-369

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IN THE  
**Supreme Court of the United States**

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NAUTILUS, INC.,

*Petitioner,*

*v.*

BIOSIG INSTRUMENTS, INC.,

*Respondent.*

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ON PETITION FOR A WRIT OF CERTIORARI TO THE  
UNITED STATES COURT OF APPEALS  
FOR THE FEDERAL CIRCUIT

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**REPLY BRIEF**

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**REPLY BRIEF**

There are two million unexpired United States patents. Thousands more issue every week. Most were drafted by a patent bar in which “[b]road, to the point of inherently ambiguous, claim drafting is not just a matter of poor drafting skills . . . [but] is a prized talent . . . .” *Enzo Biochem, Inc. v. Applera Corp.*, 605 F.3d 1347, 1348 n.2 (Fed. Cir. 2010) (Plager, J., dissenting from denial of reh’g).

The primary culprit is the Federal Circuit’s lax approach to definiteness in patent claims, which this petition seeks to overturn. It is contrary to the statute and this Court’s precedent in three ways.

First, the Federal Circuit does not require a patent claim to be particular and distinct. A claim open to multiple reasonable interpretations, as permitted by the Federal Circuit, is ambiguous. It is not particular and distinct. A claim read three different ways by four judges, as in this action, is not particular and distinct. A claim requiring a “formidable” effort to understand, as permitted by the Federal Circuit, is not particular and distinct. A claim that recites a desired function or result without specifying *how* to achieve that result, is not particular and distinct. The Federal Circuit simply is not enforcing the statute’s particular and distinct claiming requirement.

Second, the Federal Circuit’s proposed cure for an indistinct patent claim—namely, a claim construction from the Federal Circuit—is too late. Good fences make good neighbors, but not if the fence is built years after the shooting

starts. Respondent overstates Petitioner’s position on this point. Of course, there is a need for claim construction. There is a need for claim construction because claims are drafted to be understood by persons of skill in the art and jurors are not skilled in the art. Courts construe claims so they can be understood by a jury. But, this need for claim construction does not dilute the statutory mandate that each claim have a single, clear, distinct meaning to those of skill in the art from the day the patent issues. Without that, the patent fails its notice function. Patent claims will not be drafted with a particular and distinct meaning unless this Court reaffirms that they must by statute.

Third, whether a claim is particular and distinct is a matter of law, for a judge, just as is claim construction. It is not fact finding governed by the “clear and convincing” evidence standard. The Federal Circuit’s reliance on the statutory presumption of validity to justify its acceptance of ambiguities in patent claims is, therefore, misplaced.

The Court should grant the petition.

## **I. THE FEDERAL CIRCUIT’S APPROACH DOES CONFLICT WITH THIS COURT’S PRECEDENT**

Respondent wrongly contends that there is no conflict between the Federal Circuit’s “insolubly ambiguous” standard and this Court’s precedent.

In *General Electric Co. v. Wabash Appliance Corp.*, 304 U.S. 364 (1938), the Court explained that “[t]he limits of a patent must be known for the protection of the patentee, the encouragement of the inventive genius of

others, and the assurance that the subject of the patent will be dedicated ultimately to the public.” *Id.* at 369. That demands more than the Federal Circuit’s standard, which allows the limits of a patent to be unknown to the public, even skilled artisans, until construed by the courts.

The issue in *General Electric* was similar to the issue presented here. In *General Electric*, the asserted claims related to filaments for electric incandescent lamps. *Id.* at 368. The patentee sought to remedy “sagging” and “offsetting” that plagued prior-art lamps, reducing their efficiency and shortening their lifespan. *See id.* at 366. Similarly, Mr. Lekhtman purportedly sought to improve existing heart rate monitors by remedying problems of EMG interference.

The Court noted that the claimed filament structure existed in the prior art. *Id.* at 369-70. Similarly, the relevant Lekhtman circuitry existed in the prior art devices (such as Fujisaki). The Court also noted that “the specification of the [asserted] patent does not attempt in any way to describe the filament, except by mention of its coarse-grained quality.” *Id.* at 373. Similarly, the Lekhtman patent contains no meaningful description of the electrodes’ spaced relationship.

The Court found the functional language in the patent claim inadequate to define the structural characteristics of the filament’s grains. *Id.* at 370 (referring to the functional clause, “to prevent substantial sagging and offsetting during a commercially useful life for the lamp”). “Apart from the statement with respect to their function, nothing said about their size distinguishes the

earliest filaments . . .” *Id.* Similarly, here, nothing said in the patent about the electrodes’ “spaced relationship” distinguishes the prior art. The Lekhtman claims fail to recite (or exclude) any particular spacing. Moreover, they fail even to link electrode spacing to the desired functional result.

The Court ultimately held that “a characteristic essential to novelty may not be distinguished from the old art solely by its tendency to remedy the problems in the art met by the patent.” *Id.* at 371-72 (characterizing this as the vice of functional claiming). In contrast, the Federal Circuit’s opinion in this case essentially holds the opposite. This Court should reaffirm this important principle and reject Respondent’s attempt to define a structural limitation in purely result-oriented terms.

The earlier Supreme Court authorities cited by Respondent do not counsel otherwise. For example, the patent in *Minerals Separation, Ltd. v. Hyde*, 242 U.S. 261 (1916), related to a method for extracting minerals by agitating crushed ore with a “considerably reduced” amount of oil compared to the prior art. *See* U.S. Pat. No. 835,120, at 1:9-35 (suggesting “a fraction of one per cent” oil compared to prior-art mixtures of four to six percent). The Court upheld only the claims reciting specific limits on the amount of oil used (*e.g.*, “a small proportion . . . amounting to a fraction of one per cent”) and *invalidated* claims reciting less precise amounts (*e.g.*, “a small quantity”). *See Hyde*, 242 U.S. at 271. And in *Eibel Process Co. v. Minn. & Ontario Paper Co.*, 261 U.S. 45 (1923), the Court upheld claims reciting “high” and “substantial” elevations where only “small or trivial” elevations were found in the prior art. *Id.* at 58. Thus, the claims held sufficiently definite in those



cases recited non-functional limitations distinguishing the claimed inventions from the prior art. Conversely, the Lekhtman patent recites only a “spaced relationship” without any specific structural limitations to distinguish the prior art.

Furthermore, much of the specific language relied upon by Respondent relates to the adequacy of the patent disclosure under what is now 35 U.S.C. § 112(a) (providing that patents must “enable any person skilled in the art . . . to make and use the [invention]”), and not the particular and distinct claiming requirement of Section 112(b). *See Hyde*, 242 U.S. at 271 (holding that “[the patent] is clearly sufficiently definite to guide those skilled in the art to its successful application”); *Eibel Process*, 261 U.S. at 66 (“[O]ne versed in paper making could find in Eibel’s specifications all he needed to know, to avail himself of the invention.”). The question of whether a skilled artisan could practice the claimed invention is not dispositive of definiteness. For example, in *General Electric*, this Court held that even “assum[ing] that [the inventor] has sufficiently informed those skilled in the art how to make and use his filament,” the inventor nonetheless failed to comply with the definiteness requirement. 304 U.S. at 368-69.

#### **A. THE PRESUMPTION OF VALIDITY SHOULD NOT DILUTE THE DEFINITENESS REQUIREMENT**

A misplaced reliance on the presumption of validity has led the Federal Circuit to expressly dilute the statutory requirement of particular and distinct patent claiming: “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.” Pet. App. 22a (quoting *Exxon Research & Eng’g Co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001)).

The Federal Circuit shields vague and imprecise claim language with its permissive “insolubly ambiguous” standard, and in so doing, has re-assigned the burden imposed by poor claim drafting to the public. It has turned the definiteness requirement on its head by protecting patent owners at the expense of competitors and the public. See, e.g., *Universal Oil Prods. Co. v. Globe Oil & Ref’g Co.*, 322 U.S. 471, 484-85 (1944) (“The claim is required to be specific for the very purpose of protecting the public against extension of the scope of the patent.”); *Gen. Elec.*, 304 U.S. at 369 (“The statute seeks to guard against unreasonable advantages to the patentee and disadvantages to others arising from uncertainty as to their rights . . .”).

Respondent mistakenly argues that indefiniteness in this case turns on factual findings. Respondent analogizes to claim construction and relies upon this Court’s purported recognition of underlying factual issues. Resp’t Br. 31. Yet the very opinion cited by Respondent held that claim construction should be treated “as purely legal.” *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 391 (1996). There are no factual determinations in claim construction, and in any event there is no dispute that Respondent has taken the positions illustrated at page 9 of the Petition as to what spacings fall inside or outside of the claimed “spaced relationship.”

Respondent does not even attempt to address the view, as expressed by some Members of this Court, that “[m]any claims of invalidity rest . . . upon how the law applies to facts as given. . . . Do they show that the patent applicant described his claims properly? § 112. Where the ultimate question of patent validity turns on the correct answer to legal questions . . . today’s strict standard of proof has no application.” *Microsoft Corp. v. i4i Ltd.*, 131 S. Ct. 2238, 2253 (2011) (Breyer, J., concurring).

This Court should take this opportunity to clarify the import of the statutory presumption to legal issues. *See id.* (“By preventing the ‘clear and convincing’ standard from roaming outside its fact-related reservation, courts can increase the likelihood that discoveries or inventions will not receive legal protection where none is due.”). And by rejecting the Federal Circuit’s misplaced reliance on the statutory presumption of validity, this Court may establish a consistent definiteness standard for pending and issued patents. *See 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 (2011) (“[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.”).

**II. THIS CASE IS AN EXCELLENT VEHICLE  
TO ADDRESS THE FEDERAL CIRCUIT'S  
DEPARTURE FROM THE PROPER  
DEFINITENESS STANDARD**

**A. THE PATENT DOES NOT CLEARLY  
DISTINGUISH WHAT IS CLAIMED FROM  
THE PRIOR ART**

Respondent insists that the spaced relationships shown in close prior-art references (the Fujisaki patent and Lekhtman's own prior device, both shown at page 9 of the Petition) are not the claimed "spaced relationship." Respondent relies on claim language requiring the circuitry "to produce a substantially zero electromyogram signal at the output of said differential amplifier." Nothing in the patent, however, ties this functional result to the spacing limitation.

Respondent emphasizes Mr. Lekhtman's alleged "recogni[tion] that EMG removal is dependent on electrode size, spacing, width, material, and geometry." Resp't Br. 13. But the patent claims do not reflect that. Of those features, only a "spaced relationship" is claimed. Respondent's argument that the size, shape, and materials of a given electrode pair all affect the definition of a "spaced relationship" is needlessly obscure, and is nowhere to be found in the patent itself, coming into the record only in the named inventor's after-the-fact declaration during reexamination, more than a decade after the patent had issued.

Respondent's arguments beg the critical question of whether claims must be distinct from the day the patent

issues. Nautilus submits that there must be a clear meaning to the claim language “spaced relationship,” and that meaning must be apparent from the start to persons of skill in the art. Respondent, and the Federal Circuit, would allow the meaning to be made clear long after the patent issued. That is the wrong standard.

**B. RESPONDENT’S FUNCTIONAL TEST  
DOES NOT DEFINE THE CLAIMED  
“SPACED RELATIONSHIP”**

Respondent relies on “oscilloscope testing” to resolve the ambiguity in the patent over when the claims read on a given “spaced relationship.” Respondent’s reliance is misplaced. Testing related to a functional limitation recited later in the claim—like the functional claim language addressed in *General Electric*—does not define the structural limitation at issue, much less “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).

And contrary to Respondent’s contentions, Nautilus has identified multiple ambiguities in the testing cited by Respondent. *See, e.g.*, Brief of Defendant-Appellee, 48-51, *Biosig Instruments, Inc. v. Nautilus, Inc.*, 715 F.3d 891 (Fed. Cir. 2013) (No. 26). For example, one of Respondent’s experts (Dr. Galiana, giving her opinion prior to reexamination) tested for a detectable heart wave using a filtered signal. *See* JA1052. Mr. Lekhtman tested for a signal ratio, at a different place in the circuit, and eschewed using a filter. *See* JA245; JA231. He simply ran a new test. Moreover, Mr. Lekhtman admitted that,

for at least one prior-art device, satisfactory removal of EMG signals depends on *how the electrodes are grasped*, and he distinguished the device on that basis. *See* JA256. In contrast, Respondent’s prior expert, Dr. Galiana, made no such distinction, and indeed made no mention of testing using different “grasps.”

**C. RESPONDENT’S SHIFTING POSITIONS  
AND THE COURTS’ COMPETING  
CONSTRUCTIONS HIGHLIGHT THE  
AMBIGUITY IN THE CLAIMS**

During the reexamination, Respondent distinguished the spaced relationship of the electrodes shown in prior-art devices as being too close or asymmetric. *See* JA233; JA241.

In the district court, Respondent convinced the judge that these distinctions were not clear disclaimers of claim scope because those distinctions were contradicted by Respondent’s arguments elsewhere in the file history. Respondent successfully urged the court to adopt a construction of “spaced relationship” that covers *any* spaced relationship, close or far, symmetric or asymmetric. *See* Pet. App. 43a-44a. When Nautilus pointed out that a person of skill in the art could not apply this construction consistently with Respondent’s arguments in reexamination distinguishing the spaced relationships of electrodes shown in the prior art, Respondent changed positions again. This time, Respondent attempted to preserve the validity of the claims by referencing functional limitations not found in the court’s construction. Respondent argued that the claims were definite based on the testing that Respondent introduced into the record during reexamination.

The district court declined to adopt the functional approach urged by Respondent and found the claims invalid for indefiniteness. The Federal Circuit majority reversed the district court's indefiniteness conclusion based on a functional construction tied to the test results. *See* Pet. App. 20a.

In contrast, Judge Schall would have construed “spaced relationship” as any “fixed spatial relationship” that allows both electrodes to be held simultaneously, but not touch. *Id.* at 31a (declining to “presume[] a functional linkage between the ‘spaced relationship’ limitation and the removal of EMG signals”). But this construction contradicts Respondent's position in the reexamination that the prior-art devices illustrated at page 9 of the Petition do not show the claimed “spaced relationship” between the electrodes.

These constructions are irreconcilable, as are Respondent's shifting positions. They affect whether the spacing used in a given device falls inside or outside the scope of the claims. They illustrate the mischief caused by a rule that allows a claim to survive even though it conveys multiple, inconsistent meanings to reasonable people. This case is therefore an excellent vehicle for addressing this issue, and for reversing the Federal Circuit's erroneous approach.

### **III. THIS ISSUE IS OF GREAT IMPORTANCE**

The definiteness of claim terms should not turn on “whether those terms can be given *any reasonable meaning.*” *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005) (emphasis

added). Nor should claim construction be used to “inform skilled artisans of the bounds of the claim,” Pet. App. 13a (quoting *Star Scientific, Inc. v. R.J. Reynolds Tobacco Co.*, 537 F.3d 1357, 1371 (Fed. Cir. 2008)), rather than articulating in lay terms the understanding of those skilled in the art. The Federal Circuit has shifted the public-notice function from the issued patent claims to a court’s claim construction and has thereby burdened the public with the very uncertainty that the statute was designed to prevent.

This tolerance of ambiguous patent claims has had predictable and regrettable consequences as described in the Petition and the *amici* briefs. *See, e.g.*, Brief of *Amici Amazon.com, Inc., et al.*, 2-12. It has invited patent drafters to obfuscate their inventions and forced courts to waste judicial resources trying to make sense of unclear and overbroad terms. And the Federal Circuit’s tacit approval of patent owners exploiting ambiguous (but not “insolubly ambiguous”) claim language at the expense of competitors and the public amounts to an endorsement of the very “zone of uncertainty” prohibited by the Supreme Court. *See United Carbon*, 317 U.S. at 236.

The current Administration and numerous stakeholders have recently and specifically expressed concern regarding vague and overbroad patents, and the Court should avail itself of the opportunity to clarify the statutory mandate. Unlike *Applera*, this case presents a clear example of the Federal Circuit’s invocation and application of the “insolubly ambiguous” standard in the context of simple technology and a focused record.



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