

No. 13-369

---

---

In the Supreme Court of the United States

NAUTILUS, INC., PETITIONER

*v.*

BIOSIG INSTRUMENTS, INC.

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

BRIEF FOR THE UNITED STATES  
AS AMICUS CURIAE SUPPORTING RESPONDENT

NATHAN K. KELLEY  
*Solicitor*  
KRISTI L. R. SAWERT  
STACY B. MARGOLIES  
*Associate Solicitors*  
*United States Patent and*  
*Trademark Office*  
*Alexandria, Va. 22313*

DONALD B. VERRILLI, JR.  
*Solicitor General*  
*Counsel of Record*  
STUART F. DELERY  
*Assistant Attorney General*  
MALCOLM L. STEWART  
*Deputy Solicitor General*  
CURTIS E. GANNON  
*Assistant to the Solicitor*  
*General*  
MARK R. FREEMAN  
DARA S. SMITH  
*Attorneys*  
*Department of Justice*  
*Washington, D.C. 20530-0001*  
*SupremeCtBriefs@usdoj.gov*  
*(202) 514-2217*

## QUESTIONS PRESENTED

1. Whether a patent claim may satisfy the requirement of 35 U.S.C. 112, ¶ 2 (2006) that a patent applicant “particularly point[] out and distinctly claim[]” the invention sought to be patented, when a term in the claim is subject to multiple reasonable interpretations.

2. Whether the statutory presumption of patent validity in 35 U.S.C. 282 (2006) affects the application of the definiteness requirement in 35 U.S.C. 112, ¶ 2 (2006), when a patent-infringement defendant asserts a defense of invalidity based on indefiniteness.

**TABLE OF CONTENTS**

Page

Interest of the United States ..... 1

Statement..... 1

Summary of argument .....9

Argument:

    A. A patent claim is “particular[]” and “distinct[]”  
        under Section 112 if a person skilled in the relevant  
        art would reasonably understand what is claimed ..... 12

        1. Definiteness is evaluated from the perspective  
           of other skilled artisans in light of the specifi-  
           cation and prosecution history.....13

        2. The need to interpret a patent claim by  
           choosing between two or more plausible  
           readings does not make the claim fatally  
           indefinite .....16

        3. This Court should discountenance certain  
           language that the Federal Circuit has used  
           to describe the test for evaluating definiteness .....22

    B. Indefiniteness, like any other invalidity defense,  
        must sometimes be established by clear-and-  
        convincing evidence .....24

    C. Petitioner has failed to establish that a person  
        skilled in the art would not reasonably understand  
        the scope of respondent’s patent claim .....27

Conclusion.....33

**TABLE OF AUTHORITIES**

Cases:

*Bancorp Servs., LLC v. Hartford Life Ins. Co.*,  
359 F.3d 1367 (Fed. Cir. 2004) .....23

*Carnegie Steel Co. v. Cambria Iron Co.*, 185 U.S. 403  
(1902) .....2, 13, 14, 15, 19

*Carr, In re*, 297 F. 542 (D.C. Cir. 1924) .....22

IV

Cases—Continued:	Page
<i>Datamize, LLC v. Plumtree Software, Inc.</i> , 417 F.3d 1342 (Fed. Cir. 2005) .....	7, 8
<i>Dickinson v. Zurko</i> , 527 U.S. 150 (1999).....	27
<i>Eibel Process Co. v. Minnesota &amp; Ontario Paper Co.</i> , 261 U.S. 45 (1923) .....	20, 29
<i>Every Penny Counts, Inc. v. Wells Fargo Bank, N.A.</i> , No. 11-cv-2826, 2014 WL 869092 (M.D. Fla. Mar. 5, 2014).....	24
<i>Exhibit Supply Co. v. Ace Patents Corp.</i> , 315 U.S. 126 (1942) .....	16
<i>Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.</i> , 535 U.S. 722 (2002).....	12, 15, 16, 17
<i>Fitzgerald v. Barnstable Sch. Comm.</i> , 555 U.S. 246 (2009) .....	22
<i>General Elec. Co. v. Wabash Appliance Corp.</i> , 304 U.S. 364 (1938) .....	13
<i>Graham v. John Deere Co.</i> , 383 U.S. 1 (1966) .....	13, 16
<i>Hogg v. Emerson</i> , 52 U.S. (11 How.) 587 (1850).....	15
<i>Honeywell Int’l, Inc. v. United States</i> , 609 F.3d 1292 (Fed. Cir. 2010), cert. denied, 131 S. Ct. 3021 (2011).....	23
<i>Incandescent Lamp Patent, The</i> , 159 U.S. 465 (1895) .....	31
<i>J.E.M. Ag Supply, Inc. v. Pioneer Hi-Bred Int’l, Inc.</i> , 534 U.S. 124 (2001) .....	14
<i>KSR Int’l Co. v. Teleflex Inc.</i> , 550 U.S. 398 (2007) .....	27
<i>Lighting Ballast Control LLC v. Philips Elecs. N. Am. Corp.</i> , No. 2012-1014, 2014 WL 667499 (Feb. 21, 2014) .....	25
<i>Lorillard v. Pons</i> , 434 U.S. 575 (1978).....	22
<i>Markman v. Westview Instruments, Inc.</i> , 517 U.S. 370 (1996) .....	<i>passim</i>
<i>McClain v. Ortmyer</i> , 141 U.S. 419 (1891).....	3, 13
<i>Merrill v. Yeomans</i> , 94 U.S. (4 Otto) 568 (1876) .....	19

Cases—Continued:	Page
<i>Microsoft Corp. v. i4i Ltd. P’ship</i> , 131 S. Ct. 2238 (2011) .....	11, 25, 26, 27
<i>Miller v. Fenton</i> , 474 U.S. 104 (1985) .....	26
<i>Minerals Separation, Ltd. v. Hyde</i> , 242 U.S. 261 (1916) .....	19, 20, 29
<i>Miyazaki, Ex parte</i> , No. 2007-3300, 89 U.S.P.Q.2d 1207 (B.P.A.I. Nov. 19, 2008) .....	20, 21
<i>Morris, In re</i> , 127 F.3d 1048 (Fed. Cir. 1997) .....	21
<i>Mowry v. Whitney</i> , 81 U.S. (14 Wall.) 620 (1871) ...	14, 20, 29
<i>Ornelas v. United States</i> , 517 U.S. 690 (1996) .....	26
<i>Permutit Co. v. Graver Corp.</i> , 284 U.S. 52 (1931) .....	13
<i>Prater, In re</i> , 415 F.2d 1393 (C.C.P.A. 1969) .....	21
<i>Reno v. Koray</i> , 515 U.S. 50 (1995) .....	18
<i>Schreiber, In re</i> , 128 F.3d 1473 (Fed. Cir. 1997) .....	32
<i>Schriber-Schroth Co. v. Cleveland Trust Co.</i> , 311 U.S. 211 (1940) .....	16
<i>Smith v. Snow</i> , 294 U.S. 1 (1935) .....	18
<i>Star Scientific, Inc. v. R.J. Reynolds Tobacco Co.</i> , 537 F.3d 1357 (Fed. Cir. 2008), cert. denied, 556 U.S. 1106 (2009) .....	8, 23
<i>Teva Pharm. USA, Inc. v. Sandoz, Inc.</i> , cert. granted, No. 13-854 (Mar. 31, 2014) .....	26
<i>United Carbon Co. v. Binney &amp; Smith Co.</i> , 317 U.S. 228 (1942) .....	13, 18
<i>United States v. Adams</i> , 383 U.S. 39 (1966) .....	15
<i>United States v. Hayes</i> , 555 U.S. 415 (2009) .....	18
<i>Warner-Jenkinson Co. v. Hilton Davis Chem. Co.</i> , 520 U.S. 17 (1997) .....	22
<i>W.L. Gore &amp; Assocs. v. Garlock, Inc.</i> , 721 F.2d 1540 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984) .....	15
<i>Zletz, In re</i> , 893 F.2d 319 (Fed. Cir. 1989) .....	21, 22

## VI

Statutes and regulation:	Page
Act of July 8, 1870, ch. 230, § 26, 16 Stat. 201 .....	12
Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) .....	2
Patent Act of 1952, 35 U.S.C. 1 <i>et seq.</i> :	
35 U.S.C. 2(a)(1) .....	1
35 U.S.C. 102 (2006) .....	25, 32
35 U.S.C. 103 (2006) .....	25, 32
35 U.S.C. 103(a) (2006) .....	13, 15
35 U.S.C. 111 (2006) .....	2
35 U.S.C. 112 (2006) .....	<i>passim</i>
¶ 1 .....	13, 14, 15, 32
¶¶ 1-2 .....	2, 12
¶ 2 .....	<i>passim</i>
35 U.S.C. 162 (2006):	
¶ 1 .....	13
¶ 2 .....	14
35 U.S.C. 163 (2006) .....	14
35 U.S.C. 282 (2006) .....	25
¶ 1 .....	3, 10, 24, 25
¶ 2(3) .....	3, 25
35 U.S.C. 302 (2006) .....	5
35 U.S.C. 302-307 (2006) .....	5
35 U.S.C. 303(a) (2006) .....	5
35 U.S.C. 304 (2006) .....	5
35 U.S.C. 305 (2006) .....	5
37 C.F.R. 1.75(d)(1) .....	15

VII

Miscellaneous:	Page
<i>Supplementary Examination Guidelines for Determining Compliance With 35 U.S.C. 112 and for Treatment of Related Issues in Patent Applications</i> , 76 Fed. Reg. (Feb. 9, 2011).....	32
p. 7162 .....	2
p. 7164 .....	20, 21

**In the Supreme Court of the United States**

---

No. 13-369

NAUTILUS, INC., PETITIONER

*v.*

BIOSIG INSTRUMENTS, INC.

---

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

---

**BRIEF FOR THE UNITED STATES  
AS AMICUS CURIAE SUPPORTING RESPONDENT**

---

**INTEREST OF THE UNITED STATES**

This case concerns the Patent Act’s requirement that the specification of each patent “shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.” 35 U.S.C. 112, ¶ 2 (2006). The United States Patent and Trademark Office (PTO) is “responsible for the granting and issuing of patents,” 35 U.S.C. 2(a)(1), and the Court’s decision will significantly affect the enforcement of patents issued by the PTO. The United States therefore has a substantial interest in the Court’s resolution of the questions presented.

**STATEMENT**

1. Each written application for a patent must include “a specification as prescribed by section 112” of the

Patent Act. 35 U.S.C. 111 (2006).<sup>1</sup> In relevant part, Section 112 prescribes as follows:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

35 U.S.C. 112, ¶¶ 1-2.

Under the so-called “definiteness” requirement in Section 112, ¶ 2, each patent must conclude with claims that, when construed in light of the specification and the relevant prosecution history, communicate the legal scope of the patent grant to persons skilled in the relevant art. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 373 (1996); *Carnegie Steel Co. v. Cambria Iron Co.*, 185 U.S. 403, 432, 437-438 (1902); see generally *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 (Feb. 9, 2011) (*PTO Definiteness Guidelines*).

---

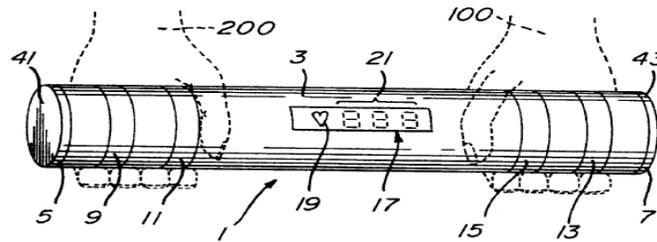
<sup>1</sup> In the Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011), Congress made minor amendments to several of the Patent Act provisions that are implicated here. The amended versions are inapplicable to this case because the underlying patent application and this proceeding both predate those amendments. See Pet. Br. 2 n.1, 17 n.5, 26 n.7. Accordingly, this brief’s citations to Title 35 of the United States Code refer to the 2006 edition.

That requirement serves the dual purposes of “secur[ing] to the patentee all to which he is entitled” and of “appris[ing] the public of what is still open to them.” *Markman*, 517 U.S. at 373 (brackets omitted) (quoting *McClain v. Ortmyer*, 141 U.S. 419, 424 (1891)).

An inventor’s failure to comply with any requirement of Section 112, including the definiteness requirement, will render “the patent or any claim in suit” invalid. 35 U.S.C. 282, ¶ 2(3). In a patent-infringement suit, however, the “patent shall be presumed valid,” and the “burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity.” 35 U.S.C. 282, ¶ 1.

2. Respondent is the assignee of U.S. Patent No. 5,337,753 (the ’753 patent), which relates to an improved heart-rate monitor for use during exercise. J.A. 40, 52. The ’753 patent explains that prior-art monitors were often inaccurate in detecting the electrical signals generated by the heart (electrocardiograph or ECG signals) because of the presence of other electrical signals in the same frequency range that are generated by the muscles used in moving an arm or squeezing the monitor with fingers (electromyogram or EMG signals). J.A. 52. The ’753 patent claims an improved monitor designed to eliminate interference from the EMG signals. *Ibid.*

The patent describes a heart-rate monitor contained in a cylindrical bar that a user grasps with two hands, so that each hand contacts two electrodes, which are “ring member[s] of a conductive material force-fit onto the” bar and “spaced from” each other. J.A. 56-57. The device is illustrated in Figure 1 of the patent:



J.A. 42. Each pair of electrodes includes a “common” electrode (numbers 11 and 15 in the figure), which is connected to ground, and a “live” electrode (numbers 9 and 13). *Ibid.* The live electrodes are connected to a difference amplifier with inputs of opposite polarity. J.A. 56-57.

The specification explains that each pair of electrodes receives both ECG and EMG signals. J.A. 57-58. Because the EMG signals from one hand are of “substantially equal magnitude and phase” as those from the other hand, combining those two signals with opposite polarities in the difference amplifier effectively cancels them out. J.A. 57. By contrast, the ECG signals detected on one hand are already of “opposite phase” to those detected on the other hand. J.A. 58. When their inputs are combined with opposite polarity, the effect is to add them together, resulting in a total output that “substantially” reflects only the ECG signals. *Ibid.*

Claim 1 of the '753 patent recites a “heart rate monitor for use by a user in association with exercise apparatus and/or exercise procedures” with a structure that tracks the illustration above. J.A. 61-63. The claim specifies that the invention comprises an “elongate member” (*i.e.*, the cylindrical bar) with a “display device”; a “live electrode” and a “common electrode” arranged on each half of the cylindrical bar “in spaced relationship with each other”; “electronic circuitry including a difference amplifier” with terminals of oppo-

site polarity; and electrical connections between the live electrodes and a difference amplifier's two input terminals of opposite polarity. J.A. 61-62. The claim further specifies that the electrodes are arranged so that a user may grasp the bar “with one hand of the user on said first half contacting said first live electrode and said first common electrode, and with the other hand of the user on said second half contacting said second live electrode and said second common electrode.” J.A. 62. The claim also specifies that, when the user grasps the electrode pairs, the combination of the EMG and ECG signals in the amplifier will produce an output with “a substantially zero [EMG] signal” and a “non-zero [ECG] signal.” J.A. 62-63.

3. The dispute in this case arose in the late 1990s, when petitioner's predecessor began selling exercise equipment with heart-rate monitors that respondent alleges infringe the '753 patent. Pet. App. 8a.

a. In 2004, respondent sued petitioner for patent infringement in federal district court. Pet. App. 8a. While that case was pending, petitioner submitted two requests for a reexamination of the '753 patent—an administrative proceeding in the PTO in which a patent examiner reconsiders a previously issued patent. *Id.* at 8a-9a.<sup>2</sup> The PTO granted the requests, and the parties

---

<sup>2</sup> See generally 35 U.S.C. 302-307. “Any person at any time” may request a reexamination, 35 U.S.C. 302, which the PTO may grant if the Director determines that the request raises a “substantial new question of patentability,” 35 U.S.C. 303(a), 304. A reexamination may result in the cancellation or narrowing, but not the enlargement, of any claim in the challenged patent. 35 U.S.C. 305. Because reexamination proceedings are limited to questions of patentability over the prior art, see 35 U.S.C. 303(a), a reexamination will not consider invalidity issues arising under Section 112 (such as alleged indefiniteness).

voluntarily dismissed the district-court action without prejudice pending the outcome of the reexamination. *Id.* at 9a.

The reexamination focused primarily on whether the '753 patent was anticipated or rendered obvious by U.S. Patent No. 4,444,200. Pet. App. 9a. That 1984 patent—known after its inventor as “Fujisaki”—described a heart-rate monitor “having a pair of grip sensors adapted to be gripped with both hands for sensing heart pulse signals.” *Id.* at 9a n.1. In the Fujisaki monitor, each sensor “is composed of two conductive cylindrical electrodes arranged in an axially aligned relationship and electrically insulated from each other.” *Ibid.* The Fujisaki monitor’s circuitry “includes a differential amplifier having inputs from the grip sensors for amplifying the difference between the heart pulse signals.” *Ibid.*

The PTO reexamination initially rejected claim 1 of the '753 patent on the ground that it had been anticipated by Fujisaki. Pet. App. 9a. The inventor argued, however, that neither Fujisaki nor a different reference cited by the examiner had disclosed the innovation in his monitor (*i.e.*, that the differential amplifier could be employed to cancel electrical noise from the user’s muscles and thereby isolate heart signals). J.A. 83-91. The examiner was persuaded, and the PTO issued a reexamination certificate confirming the patentability of the '753 patent’s claims without amendment. J.A. 197-200. The examiner found that the “crucial claim language” distinguishing respondent’s monitor from the prior art was claim 1’s requirement that the muscle signals “will be subtracted from each other to produce a substantially zero [EMG] signal at the output of said difference amplifier.” J.A. 78-79 (emphasis omitted) (quoting passage reprinted at J.A. 62).

b. After the reexamination, respondent re-filed its infringement action against petitioner. Pet. App. 9a-10a. Following a claim-construction hearing, the district court issued an order concluding that the phrase “spaced relationship” in claim 1 means that “there is a defined relationship between the live electrode and the common electrode” on one side of the device and “the same or a different defined relationship” between the electrodes on the other side. *Id.* at 40a, 43a-44a.

Despite that construction, in February 2012, the district court granted petitioner’s motion for summary judgment of invalidity for indefiniteness. With respect to the phrase “spaced relationship,” the court concluded that “nothing in the specification[] or the claim or the file history” would teach a skilled artisan “this proper spacing that should be used.” Pet. App. 50a, 103a. At a hearing, the court explained that the claim language “did not tell me or anyone what precisely the space should be. \* \* \* Not even any parameters as to what the space should be.” *Id.* at 72a. The court issued an order memorializing the ruling, *id.* at 38a-39a, and entered judgment in petitioner’s favor, *id.* at 36a-37a.

4. The court of appeals reversed and remanded. Pet. App. 3a-32a.

a. The court of appeals explained that, under Federal Circuit precedent, a patent claim is invalid for indefiniteness “only when it is ‘not amenable to construction’ or ‘insolubly ambiguous.’” Pet. App. 13a (quoting *Data-mize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005)). Under that standard, the court said, a claim is indefinite if it cannot meaningfully be construed by a court or “if reasonable efforts at claim construction result in a definition that does not provide sufficient particularity and clarity to inform skilled

artisans of the bounds of the claim.” *Ibid.* (quoting *Star Scientific, Inc. v. R.J. Reynolds Tobacco Co.*, 537 F.3d 1357, 1371 (Fed. Cir. 2008), cert. denied, 556 U.S. 1106 (2009)).

Applying that standard, the court of appeals held that claim 1 of the ’753 patent is not invalid due to any ambiguity in the phrase “spaced relationship.” Pet. App. 15a. The court explained that the claim language, specification, and drawings in the ’753 patent “provide sufficient clarity to skilled artisans as to the bounds of this disputed term.” *Id.* at 16a. The court observed that, because the claim requires “the live and common electrodes to independently detect electrical signals at two distinct points of a hand,” “the distance between the live electrode and the common electrode cannot be greater than the width of a user’s hands.” *Ibid.* And because the patent contemplates that the electrodes of each pair must be distinct from each other, the space cannot be so small that the live and common electrodes “effectively merg[e] \* \* \* into a single electrode with one detection point.” *Ibid.* Those “inherent parameters,” the court concluded, could be sufficient for a skilled artisan “to understand the metes and bounds” of the claim language. *Ibid.*

The court of appeals also stated that another requirement of claim 1—*i.e.*, that the difference amplifier produce a “substantially zero” EMG signal—“sheds further light on the meaning of ‘spaced relationship.’” Pet. App. 16a-17a. The court cited a declaration submitted by the patent’s inventor during the reexamination proceeding. That declaration stated that skilled artisans can readily determine with common electrical equipment whether a given electrode design and arrangement substantially removes EMG signals—and can adjust

variables like the spacing, size, shape, and material of the electrodes to achieve that desired output. *Id.* at 18a-19a. The court concluded that, taken together, “[t]hese parameters constitute the metes and bounds of ‘spaced relationship’ as articulated in the ’753 patent. Nothing more rigorous is required under § 112, ¶ 2.” *Id.* at 21a.

b. Judge Schall concurred. Pet. App. 29a-32a. He agreed that the majority had “correctly set[] forth our law on indefiniteness,” *id.* at 29a, and he joined the court’s conclusion that the phrase “spaced relationship” is not indefinite, *id.* at 30a. In Judge Schall’s view, however, the majority erred in inferring a functional correlation between the “spaced relationship” requirement and the separate requirement of claim 1 that the difference amplifier must cancel the EMG signals. *Id.* at 31a-32a. Rather, in his view, the inherent physical parameters of the electrode arrangement—close enough for a user’s hand to touch both electrodes, but not so close as to cause the electrodes to merge—provided sufficient guidance for persons skilled in the art. *Id.* at 31a. Judge Schall therefore disagreed with the majority’s view that “the ‘spaced relationship’ limitation itself—rather than other limitations of claim 1—included a functional requirement to remove EMG signals.” *Ibid.*

#### SUMMARY OF ARGUMENT

A. Under 35 U.S.C. 112, ¶ 2, a patent must “particularly point[] out and distinctly claim[] the subject matter which the applicant regards as his invention.” Because patents are technical documents addressed to a technical audience, that definiteness requirement is to be evaluated from the perspective of persons skilled in the art to which the invention pertains. A patent claim satisfies that definiteness requirement if, in light of the accompanying specification and of the patent’s prosecu-

tion history before the PTO, a person skilled in the art would reasonably understand the scope of the claim.

A claim is not rendered indefinite merely because some interpretation is required to choose between two or more competing readings. Otherwise, few patents could survive suits for their enforcement. Such suits often require a judge to engage in claim construction that may depend on both expert testimony and a sophisticated analysis of the patent. See *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 389-390 (1996). This Court has rejected indefiniteness challenges even when the Court was not unanimous about how to construe a claim. Nor should courts be required to follow the same approach as the PTO, which deliberately employs a lower standard of ambiguity for claims in a still-pending patent application. As courts have recognized for nearly a century, that difference in approach is appropriately rooted in the distinct roles played by the PTO and the courts, and in the fact that claims are easily amended before a patent is issued but not once an issued patent becomes the subject of litigation.

While the Federal Circuit has often employed the correct approach to evaluating definiteness under Section 112, it has also stated that a claim is indefinite only when it is “not amenable to construction” or is “insolubly ambiguous.” Pet. App. 13a (citation omitted). Because those two phrases, especially when taken in isolation, are susceptible to misapplication, it would be appropriate for this Court to discountenance their use while reaffirming that the definiteness inquiry should be grounded in the reasonable understanding of a person skilled in the relevant art.

B. The statutory presumption of patent validity, 35 U.S.C. 282, ¶ 1, generally “requires an invalidity defense

to be proved by clear and convincing evidence.” *Microsoft Corp. v. i4i Ltd. P’ship*, 131 S. Ct. 2238, 2242 (2011). While the presumption of validity does not alter the degree of clarity required by Section 112, the clear-and-convincing-evidence standard sometimes applies to a defense of indefiniteness. Some definiteness challenges may be decided as purely legal questions. But when a question of definiteness depends on a factual predicate—as when it turns on what a person skilled in the relevant art would understand—a defendant must show by clear-and-convincing evidence that a skilled artisan would not have understood the meaning of the disputed claim terms.

C. In this case, petitioner contends that respondent’s patent is invalid because of purported ambiguity in the requirement that electrodes be in “spaced relationship” with each other. J.A. 61. That phrase—which appears in many patent claims—is not indefinite. The claim makes clear that the electrodes in each pair must be close enough that they can be grasped by a single hand but sufficiently separated to generate an electrical signal between two detection points. Petitioner identifies no sound reason to believe that a person skilled in the art of bioelectrical signal measurement would be unable to determine, within those limits, how to space electrodes in conformity with the claim.

Although petitioner emphasizes the differences between the majority and concurring opinions in the court below, those two opinions did not disagree about the ultimate question of what claim 1 of respondent’s patent covers. Rather, they disagreed only as to whether certain functional limitations inhered in the phrase “spaced relationship” or instead in *other* language within the claim. Because that disagreement did not render the

claim as a whole indefinite, the Court should reject petitioner’s challenge under Section 112, ¶ 2.

#### ARGUMENT

The requirement that a patent claim be definite, see 35 U.S.C. 112, ¶ 2, promotes the “delicate balance the law attempts to maintain between inventors, who rely on the promise of the law to bring the invention forth, and the public, which should be encouraged to pursue innovations, creations, and new ideas beyond the inventor’s exclusive rights.” *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 731 (2002). Under this Court’s precedents, a patent claim satisfies that definiteness requirement if, in light of the specification and the prosecution history, a person skilled in the art would reasonably understand the scope of the claim. Here, notwithstanding the court of appeals’ use of some phrases that might make mischief when read in isolation, that court correctly concluded that a skilled artisan would understand the scope of claim 1 of respondent’s patent.

#### A. A Patent Claim Is “Particular[.]” And “Distinct[.]” Under Section 112 If A Person Skilled In The Relevant Art Would Reasonably Understand What Is Claimed

Like its 1870 statutory predecessor, Section 112 of the Patent Act of 1952 requires a patent applicant to describe his invention and to supply “one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.” 35 U.S.C. 112, ¶¶ 1-2; see Act of July 8, 1870, ch. 230, § 26, 16 Stat. 201. The latter requirement is satisfied when a person skilled in the relevant art would reasonably understand the scope of the claimed invention.

**1. *Definiteness is evaluated from the perspective of other skilled artisans in light of the specification and prosecution history***

A patent claim defines the scope of the patentee’s exclusive rights, thereby “secur[ing] to the patentee all to which he is entitled” and “appris[ing] the public of what is still open to them.” *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 373 (1996) (brackets omitted) (quoting *McClain v. Ortmyer*, 141 U.S. 419, 424 (1891)). As petitioner notes (Br. 28-29), this Court has often emphasized the importance of the notice function of patent claims. See, e.g., *General Elec. Co. v. Wabash Appliance Corp.*, 304 U.S. 364, 372 (1938); *Permutit Co. v. Graver Corp.*, 284 U.S. 52, 60 (1931). The Court has warned in particular that a “zone of uncertainty” about a patent’s scope has the effect of “discourag[ing] invention.” *United Carbon Co. v. Binney & Smith Co.*, 317 U.S. 228, 236 (1942).

a. Patents are technical documents, however, that are addressed to a technical audience, not “to lawyers, or even to the public generally.” *Carnegie Steel Co. v. Cambria Iron Co.*, 185 U.S. 403, 437 (1902). Consistent with that fact, a patent must disclose its invention to the satisfaction of other persons “skilled in the art to which [the invention] pertains, or with which it is most nearly connected.” 35 U.S.C. 112, ¶ 1; cf. 35 U.S.C. 103(a) (whether an invention is non-obvious must be evaluated from the perspective of “a person having ordinary skill in the art”); *Graham v. John Deere Co.*, 383 U.S. 1, 14 (1966) (same).<sup>3</sup>

---

<sup>3</sup> Petitioner attempts (Br. 26) to draw a contrast between Section 112 and a separate provision specifying that “[n]o plant patent shall be declared invalid for noncompliance with section 112 of this title if the description is as complete as is reasonably possible.” 35 U.S.C.

The patent for an improved method of manufacturing steel in *Carnegie Steel* was addressed “to the manufacturers of steel,” and the Court found that “any description which is sufficient to apprise *them* \* \* \* of the definite feature of the invention \* \* \* is sufficiently definite to sustain the patent.” 185 U.S. at 437 (emphasis added). When the Court rejected a challenge to a patent for a method of manufacturing cast-iron railroad wheels, it explained that a specification is “sufficient” when it is “comprehensible” to “those skilled in the art,” even “though the unskilled may not be able to gather from it how to use the invention.” *Mowry v. Whitney*, 81 U.S. (14 Wall.) 620, 644 (1871).

Whether a patent claim is sufficiently definite under Section 112 therefore must be evaluated from the perspective of a person skilled in the relevant art. If a skilled practitioner in the same field would understand the boundaries of the claimed invention, the applicant has satisfied its burden under Section 112, ¶ 2, to provide notice to the public of the scope of the claims. That is true even if a lay judge or jury could not understand the same language without some difficulty. By the same token, when a claim appears clear to a judge or jury, it may still be invalid under Section 112 if the relevant

---

162, ¶ 1. Such plant patents, however, protect only asexual reproduction of certain plants, 35 U.S.C. 163, and are not materially analogous to the utility patent at issue here. See generally *J.E.M. Ag Supply, Inc. v. Pioneer Hi-Bred Int'l, Inc.*, 534 U.S. 124, 134-135 (2001). Unlike utility patents, they do not require a description sufficient to “enable” someone else “to make and use the [invention].” 35 U.S.C. 112, ¶ 1. Nor do they require there to be *any* “claim” apart from the plant that is “shown and described.” 35 U.S.C. 162, ¶ 2.

audience—persons skilled in the art—would perceive a fatal ambiguity.<sup>4</sup>

b. The Court has also identified two other sources that contribute to the construction of disputed patent claims. First, a claim should be interpreted not in isolation, but in conjunction with the patent’s specification. See, e.g., *Markman*, 517 U.S. at 389-390; *United States v. Adams*, 383 U.S. 39, 49 (1966); *Carnegie Steel*, 185 U.S. at 432; *Hogg v. Emerson*, 52 U.S. (11 How.) 587, 606 (1850). That follows from the text of Section 112, which shows that the claims are actually part of the specification. See 35 U.S.C. 112, ¶ 2 (“The specification shall conclude with one or more claims.”). In defining the metes and bounds of the invention, the summing-up language of the claims draws upon—and is intended to be understood in light of—the preceding written description setting forth the invention in “full, clear, concise, and exact terms.” 35 U.S.C. 112, ¶ 1; see 37 C.F.R. 1.75(d)(1) (“[T]he terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description.”).

Second, a patent’s “prosecution history” before the PTO is “relevant to construing [its] claims.” *Festo*, 535

---

<sup>4</sup> The knowledge of persons skilled in the art must be evaluated as of the time of the patent application rather than the time of an infringement trial. See *W.L. Gore & Assocs. v. Garlock, Inc.*, 721 F.2d 1540, 1556-1558 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). Terms with a recognized meaning among skilled practitioners at the time of the application may acquire new or different connotations before the end of the 20-year patent term. Such changes in usage cannot retrospectively render a patent indefinite, just as post-patent technological developments cannot render a patent invalid on grounds of obviousness. See 35 U.S.C. 103(a) (non-obviousness is judged “at the time the invention was made”).

U.S. at 741; see *Graham*, 383 U.S. at 33; *Exhibit Supply Co. v. Ace Patents Corp.*, 315 U.S. 126, 136-137 (1942); *Schriber-Schroth Co. v. Cleveland Trust Co.*, 311 U.S. 211, 217-218, 220-221 (1940). In *Festo*, the Court explained that amendments made during prosecution to overcome an examiner’s objections under Section 112 become part of the interpretive background of the allowed claims and may give rise to estoppel in litigation. See 535 U.S. at 736-737. A skilled practitioner seeking to construe a patent claim of potentially uncertain scope will therefore look to the prosecution history of the patent for evidence of the claim’s meaning.

Accordingly, a patent claim satisfies Section 112, ¶ 2, if a person skilled in the art would reasonably understand the scope of the claim, in light of the specification and other intrinsic evidence, including the prosecution history. Indeed, the parties do not appear seriously to dispute that overarching proposition. See, *e.g.*, Pet. Br. 25 (“One skilled in the relevant art thus must be able to know from reading the claim’s language in context what the one invention is that the patent encompasses.”); *id.* at 35 (“A claim that appears ambiguous on its face” nevertheless “may be clear when read in light of the specification.”); Resp. Br. 1.

***2. The need to interpret a patent claim by choosing between two or more plausible readings does not make the claim fatally indefinite***

To the extent petitioner contends (Br. 46-47) that a patent is invalid as indefinite whenever the parties to infringement litigation reasonably disagree over the interpretation of a claim term, petitioner goes too far—as do supporting amici who demand the kind of certainty

associated with titles to real property.<sup>5</sup> For both principled and practical reasons, this Court has repeatedly declined in this context to require faultless precision, or to hold that patent claims are invalid whenever judges or litigants reasonably disagree about their construction.

a. “[T]he nature of language” may “make[] it impossible to capture the essence of a thing in a patent application.” *Festo*, 535 U.S. at 731. A claim therefore may not “describe with complete precision the range of [an invention’s] novelty.” *Ibid.* In such circumstances, however, the Court has recognized the “doctrine of equivalents,” under which the “scope of a patent is not limited to its literal terms but instead embraces all equivalents to the claims described.” *Id.* at 732. The Court in *Festo* acknowledged that the doctrine of equivalents comes at a cost, since it expands the patent’s coverage to encompass a (potentially uncertain) range of additional conduct beyond the patent’s literal terms. *Ibid.* (“If competitors cannot be certain about a patent’s extent, they may be deterred from engaging in legitimate manufactures outside its limits, or they may invest by mistake in competing products that the patent secures.”); cf. Pet. Br. 3 (“Other inventors and entrepreneurs cannot invest with confidence in developing new inventions if they cannot know what existing patents cover.”). The Court nevertheless recognized that some uncertainty is “the price of ensuring the appropriate incentives for innovation.” *Festo*, 535 U.S. at 732.<sup>6</sup>

---

<sup>5</sup> See, e.g., Elec. Frontier Found. Amicus Br. 2.

<sup>6</sup> The doctrine of equivalents would have been potentially applicable here if claim 1 of respondent’s patent, rather than referring to live and common electrodes “in spaced relationship with each other,” J.A. 61, had specified in millimeters the precise distance

If the mere existence of a bona fide dispute about a patent’s scope were evidence of indefiniteness, few patents could survive their own enforcement. When this Court held in *Markman* that claim construction is a question for judges rather than juries, it recognized that resolving such questions may depend on both expert testimony and a “necessarily sophisticated analysis of the whole [patent].” 517 U.S. at 389-390. The *Markman* Court sought to minimize the “zone of uncertainty” decried in *United Carbon*. *Id.* at 390 (quoting *United Carbon*, 317 U.S. at 236). It did not suggest, however, that the mere existence of a reasonable dispute—or one that could not be resolved without litigation—would mean that the underlying patent was invalid. Cf. *Smith v. Snow*, 294 U.S. 1, 14 (1935) (when a claim is “fairly susceptible of two constructions,” a court should adopt the one “which will secure to the patentee his actual invention”).

b. Nor does disagreement among judges about a patent’s scope establish that the patent is fatally indefinite. Cf. Pet. Br. 4, 48-49. Such disagreements do not render a criminal statute too ambiguous to be enforced.<sup>7</sup> And the Court’s patent cases demonstrate that a claim may

---

between the electrodes. Despite that specificity, a competing device with electrodes situated a different distance apart could be sufficiently equivalent to infringe the patent.

<sup>7</sup> See, e.g., *United States v. Hayes*, 555 U.S. 415, 420, 429-430 (2009) (noting division among circuits, and within the court of appeals’ decision, before finding the rule of lenity inapplicable in a criminal case in which two Members dissented from the Court’s construction of the statute); *Reno v. Koray*, 515 U.S. 50, 64-65 (1995) (“A statute is not ambiguous for purposes of lenity merely because there is a division of judicial authority over its proper construction.”) (citation and internal quotation marks omitted).

be sufficiently definite, notwithstanding a division of judicial opinion about how it should be construed.

In *Carnegie Steel*, for example, the Court recognized that aspects of the invention “might have been described more definitely” if the patent had specified the size of a reservoir and what it meant by a “considerable quantity” of molten metal. 185 U.S. at 437. The Court nevertheless found that the claim was “sufficiently definite to sustain the patent.” *Ibid.* The Court reached that conclusion notwithstanding the view of four dissenting Justices who were “unable to assent to the construction” adopted by the Court because they found a different construction to be “incontrovertible.” *Id.* at 454, 481-482 (White, J., dissenting); see *Merrill v. Yeomans*, 94 U.S. (4 Otto) 568, 574 (1876) (holding that a patent sufficiently claimed a process for deodorizing heavy hydrocarbon oils, notwithstanding Justice Clifford’s dissenting view that, when “properly construed,” the claim was for “the described new manufacture, and not, as decided by a majority of the court, merely for the process”).

c. Similarly, a claim is not rendered indefinite merely because some limitations of the claim may need to be varied through experimentation. The patent in *Minerals Separation, Ltd. v. Hyde*, 242 U.S. 261 (1916), for example, involved an improved process for extracting valuable minerals from crushed ore, but it did not specify the “amount of oil and the extent of agitation necessary.” *Id.* at 270. The Court rejected an indefiniteness objection, explaining that, given the variations in the composition of ores, “it is obviously impossible to specify in a patent the precise treatment which would be most successful and economical in each case.” *Id.* at 271. The Court held that the claim was “clearly sufficiently definite to guide those skilled in the art to its successful

application.” *Ibid.* In *Eibel Process Co. v. Minnesota & Ontario Paper Co.*, 261 U.S. 45 (1923), the Court rejected an indefiniteness challenge to a patent for using gravity to increase the speed of a paper-making machine by placing a wire at a “high” or “substantial elevation above the level.” *Id.* at 50, 65-66. The Court held that greater precision was not required because the pitch of the wire would need to vary “due to the varying conditions of speed and stock existing in the operations of [such] machines,” and that someone skilled in the art could determine the appropriate pitch. *Id.* at 65-66; see *Mowry*, 81 U.S. (14 Wall.) at 644 (refusing to invalidate patent for failure to describe how much heat to apply to cast-iron wheel because “it is obvious that only vague and uncertain directions could have been given”).

d. Petitioner contends (Br. 45) that this Court should adopt the approach of the PTO, which deliberately uses what the agency calls “a lower threshold of ambiguity when reviewing a pending claim for indefiniteness” than the one used by the Federal Circuit. *Ex parte Miyazaki*, No. 2007-3300, 89 U.S.P.Q.2d 1207, 1211 (B.P.A.I. Nov. 19, 2008); see *PTO Definiteness Guidelines*, 76 Fed. Reg. at 7164. Rather than applying certain canons of construction that permit limiting a claim to preserve its validity or to account for statements made during examination (as courts do), PTO examiners will reject a claim as indefinite if, when viewed in light of the specification as understood by a person skilled in the art, the claim “is amenable to two or more plausible claim constructions.” *Miyazaki*, 89 U.S.P.Q.2d at 1211; see *PTO Definiteness Guidelines*, 76 Fed. Reg. at 7164.

The difference between the PTO and judicial approaches, however, stems not from divergent interpretations of Section 112, but from the distinct roles that

the PTO and the courts play in the patent system. “The lower threshold is applied [during patent examination] because the patent record is in development and not fixed.” *PTO Definiteness Guidelines*, 76 Fed. Reg. at 7164. During that period, the PTO construes patent claims broadly “in an effort to establish a clear record of what [the] applicant intends to claim.” *Ibid.* If such a construction yields more than one plausible interpretation of a claim during examination, the PTO appropriately requires the applicant “to more precisely define the metes and bounds of the claimed invention.” *Miyazaki*, 89 U.S.P.Q.2d at 1211; see *PTO Definiteness Guidelines*, 76 Fed. Reg. at 7164. By contrast, once a patent has been issued and is under review by a court, simple amendments are impossible, the full prosecution record is available, and courts endeavor to adopt saving constructions. At that point, applying the PTO’s lower threshold would simply promote gamesmanship by encouraging litigants to seek invalidation of claims based on latent ambiguities in terms that cannot be easily modified and that have no bearing on infringement or invention. Cf. Am. Bar Ass’n Amicus Br. 19-20 & n.9.

For nearly a century, the courts have recognized that the PTO (and formerly the Patent Office) may appropriately insist on a greater degree of clarity than would the court in an infringement suit. See, e.g., *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997) (“It would be inconsistent with the role assigned to the PTO in issuing a patent to require it to interpret claims in the same manner as judges.”); *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989) (“[D]uring patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed.”); *In re Prater*, 415 F.2d 1393, 1404-1405

(C.C.P.A. 1969); *In re Carr*, 297 F. 542, 543-544 (D.C. Cir. 1924). As the D.C. Circuit explained 90 years ago, once “a patent has issued,” a patentee may no longer “control the phraseology of his claims,” so the courts will construe them to preserve validity “if possible”; before the patent has issued, however, “there is no reason \* \* \* why an applicant \* \* \* should not draw his claims to cover his actual invention only.” *Carr*, 297 F. at 543-544. The PTO therefore is justified in using a lower threshold for indefiniteness to ensure that claims, once fixed and issued to the public, are as “precise, clear, correct, and unambiguous” as possible. *Zletz*, 893 F.2d at 322.

Congress is presumably “aware of an administrative or judicial interpretation of a statute” and “adopt[s] that interpretation when it re-enacts a statute without change.” *Lorillard v. Pons*, 434 U.S. 575, 580-581 (1978); see *Fitzgerald v. Barnstable Sch. Comm.*, 555 U.S. 246, 258-259 (2009) (construing statute in light of pre-enactment circuit-court precedent about materially similar predecessor statutes). Accordingly, this Court should be particularly loath to disturb the settled distinction that the PTO and the courts have recognized between the pre- and post-issuance contexts, which long predates the 1952 enactment of the Patent Act. Cf. *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 25-28 (1997) (declining to find that the 1952 Patent Act had vitiated the previously established “doctrine of equivalents”).

**3. *This Court should discountenance certain language that the Federal Circuit has used to describe the test for evaluating definiteness***

Relying on prior Federal Circuit decisions, the court below declared that a patent claim is indefinite under

Section 112 “only when” the claim is “insolubly ambiguous” or “not amenable to construction.” Pet. App. 13a (citation and internal quotation marks omitted). As petitioner explains (Br. 37-39), those formulations, taken in isolation, are in tension with the statutory requirement that an applicant “particularly point[] out and distinctly claim[]” the invention. 35 U.S.C. 112, ¶ 2.<sup>8</sup> The phrase “amenable to construction” could also be read to suggest that a patent claim satisfies Section 112 if a *court* can ascribe meaning to its language. See, e.g., *Honeywell Int’l, Inc. v. United States*, 609 F.3d 1292, 1301 (Fed. Cir. 2010) (“A claim is indefinite only if the claim is insolubly ambiguous, and no narrowing construction can properly be adopted.”) (internal quotation marks, citations, and brackets omitted), cert. denied, 131 S. Ct. 3021 (2011). But a court’s ability to wrest some meaning from a patent claim’s words does not necessarily mean that the relevant audience (*i.e.*, persons skilled in the art) would understand what was claimed.

The Federal Circuit itself generally has avoided that misconception, as it has recognized that the ability to reduce “the meaning of a claim term into words is not dispositive of whether the term is definite.” *Star Scientific, Inc. v. R.J. Reynolds Tobacco Co.*, 537 F.3d 1357, 1371 (2008), cert. denied, 556 U.S. 1106 (2009). It has often employed the phrase “insolubly ambiguous” as shorthand for the unobjectionable proposition that a claim may be sufficiently definite even though considerable study and analysis are required to determine its meaning. See, e.g., *Bancorp Servs., LLC v. Hartford*

---

<sup>8</sup> Some of the amici that do not expressly support petitioner also recognize that the Federal Circuit’s formulations are problematic. See, e.g., Yahoo! Inc. Amicus Br. 6-15; Am. Intellectual Prop. Law Ass’n Amicus Br. 7-9.

*Life Ins. Co.*, 359 F.3d 1367, 1371 (Fed. Cir. 2004) (“[A] claim is not indefinite merely because it poses a difficult issue of claim construction; if the claim is subject to construction; i.e., it is not insolubly ambiguous, it is not invalid for indefiniteness.”).

Nevertheless, the phrases “insolubly ambiguous” and “amenable to construction” are susceptible to possible misapplication by district courts.<sup>9</sup> And their repetition may encourage patent drafters to attempt to exploit potential ambiguities rather than to cure them. See Pet. Br. 30-32. It would therefore be appropriate for the Court to discountenance the use of those phrases, and to make clear in particular that they cannot appropriately be used as stand-alone tests for indefiniteness under Section 112. Rather, consistent with the statute and this Court’s decisions, the definiteness inquiry should be grounded in the reasonable understanding of a person skilled in the relevant art.

**B. Indefiniteness, Like Any Other Invalidity Defense, Must Sometimes Be Established By Clear-And-Convincing Evidence**

With respect to the second question presented, petitioner contends (Br. 39-43) that the statutory presumption of patent validity, 35 U.S.C. 282, ¶ 1, can have no bearing on a court’s evaluation of the definiteness of a patent claim “once the patent’s compliance with Section 112 is put in issue.” Pet. Br. 43. That is incorrect.

---

<sup>9</sup> See, e.g., *Every Penny Counts, Inc. v. Wells Fargo Bank, N.A.*, No. 11-cv-2826, 2014 WL 869092, at \*4 (M.D. Fla. Mar. 5, 2014) (finding that “the account,” as used in claim, “lacks definiteness,” because it might mean several different things and “no informed and confident choice is available among the contending definitions,” but that “the extent of the indefiniteness \* \* \* falls far short of the ‘insoluble ambiguity’ required to invalidate the claim”).

1. Petitioner correctly observes (Br. 43) that the statutory presumption “has nothing to do with the degree of clarity that Section 112, ¶ 2, demands.” The presumption requires courts and litigants to assume that an issued patent comports with the requirements of Section 112. But it does not authorize issued patent claims to be less particular or distinct than the statute otherwise requires, just as the presumption does not alter the substantive rules of novelty under Section 102 or obviousness under Section 103.

2. Petitioner is wrong, however, in its further contention (Br. 41-43) that the presumption of validity—and its accompanying clear-and-convincing-evidence standard—does not apply when a defendant in a patent-infringement lawsuit asserts a defense of indefiniteness. Section 282 states that, in any patent-infringement suit, “[a] patent shall be presumed valid,” and the “burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity.” 35 U.S.C. 282, ¶ 1. That presumption “requires an invalidity defense to be proved by clear and convincing evidence.” *Microsoft Corp. v. i4i Ltd. P’ship*, 131 S. Ct. 2238, 2242 (2011). The statute provides no ground for distinguishing indefiniteness from other defenses of invalidity; it includes “[i]nvalidity \* \* \* for failure to comply with any requirement of [S]ection[] 112” in its list of defenses. 35 U.S.C. 282, ¶ 2(3).

As petitioner notes (Br. 41), the court below described indefiniteness as “a legal issue” that is resolved “without deference.” Pet. App. 12a.<sup>10</sup> Petitioner seeks

---

<sup>10</sup> The Federal Circuit recently reaffirmed its view that claim construction is a question of law always subject to de novo review. See *Lighting Ballast Control LLC v. Philips Elecs. N. Am. Corp.*, No. 2012-1014, 2014 WL 667499, at \*1 (Feb. 21, 2014) (en banc). The

to ground that conclusion in the introductory paragraph of *Markman*, which petitioner quotes for the proposition that claim construction is “‘a matter of law,’ which lies ‘exclusively within the province of the court.’” Br. 42 (quoting 517 U.S. at 372). But *Markman*’s substantive discussion was more nuanced. The Court recognized that claim construction “‘falls somewhere between a pristine legal standard and a simple historical fact,’” and that, even though the inquiry was entrusted solely to judges, it had “‘evidentiary underpinnings” and might sometimes depend on expert testimony about a “‘meaning peculiar to a trade or profession.” 517 U.S. at 388, 389, 390 (quoting *Miller v. Fenton*, 474 U.S. 104, 114 (1985)).

Petitioner also relies (Br. 41) on Justice Breyer’s concurring opinion in *Microsoft*, which stated that the clear-and-convincing-evidence standard would be inapplicable to a claim of invalidity resting on “‘how the law applies to facts as given.” 131 S. Ct. at 2253. But “‘there is no rigid rule” requiring de novo review of a “‘mixed question of law and fact,” such as the “‘application of an objective legal standard to the facts.” *Ornelas v. United States*, 517 U.S. 690, 701 (1996) (Scalia, J., dissenting). When a question of definiteness depends on a factual predicate—as when it turns on what a person skilled in the relevant art would have understood at a particular time—a defendant must show by clear-and-convincing

---

United States filed an amicus brief at the en-banc stage in *Lighting Ballast*, contending (at 2-3, 7-9) that some claim-construction decisions depend on subsidiary factual findings that should receive deferential review (including, *e.g.*, findings about how a skilled artisan would have understood claim terms at the time of the invention). This Court has granted review of that question in *Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc.*, cert. granted, No. 13-854 (Mar. 31, 2014).

evidence that a person skilled in the relevant art would not have understood the meaning of the disputed claim terms. Cf. *Microsoft*, 131 S. Ct. at 2243 (“[T]he same factual questions underlying the PTO’s original examination of a patent application will also bear on an invalidity defense in an infringement action.”); *Dickinson v. Zurko*, 527 U.S. 150, 152 (1999) (holding that, in certain proceedings, the PTO’s factual findings are subject to review under the Administrative Procedure Act’s substantial-evidence standard).<sup>11</sup>

**C. Petitioner Has Failed To Establish That A Person Skilled In The Art Would Not Reasonably Understand The Scope Of Respondent’s Patent Claim**

In reversing the district court’s judgment of indefiniteness, the court below used the phrases “insolubly ambiguous” and “amenable to construction,” Pet. App. 13a, which, as discussed above, could be misapplied. The court of appeals’ judgment should be affirmed, however, because petitioner has failed to establish any disqualifying ambiguity in claim 1 of respondent’s patent.

1. Claim 1 of respondent’s patent states that a “live electrode” and a “common electrode” should be arranged on each half of the heart monitor’s cylindrical bar “in spaced relationship with each other.” J.A. 61. Petitioner’s indefiniteness argument rests (Br. 47-49, 52) on the purported ambiguity of the phrase “spaced relationship.” Within the context of the specification as a whole, the phrase is not indefinite.

---

<sup>11</sup> When there is no material factual dispute, definiteness can be decided as a purely legal question. Cf. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 427 (2007) (discussing obviousness).

The phrase “spaced relationship” has appeared in the claims of more than 22,000 granted patents since 1976. See Intellectual Prop. Law Ass’n of Chi. Amicus Br. 18. It means only that two things are some distance apart from each other—which is essentially what the district court concluded after the claim-construction hearing. Pet. App. 43a-44a. Read as a whole, however, respondent’s specification and its diagrams provide significantly more precision than that.

Respondent’s claim makes clear that the electrodes in each pair must be close enough for the user’s left or right hand to “contact[]” both the live and the common electrode at once. J.A. 62. That contact results in EMG and ECG signals “between” the live and the common electrode, J.A. 62-63, which means that the space between them cannot be so small that they effectively merge into a single electrode with only one detection point. Those minimum and maximum distances—far enough to generate a signal, no greater than the width of a hand—are further substantiated by the figures and by other language within the written specification. J.A. 42 (fig. 1, reproduced at p. 4, *supra*, showing hands in contact with pairs of separated electrodes); J.A. 57 (describing each hand as being “in physical and electrical contact with both electrodes”).

Petitioner identifies no sound reason to believe that a person skilled in the art of bioelectrical signal measurement would be unable to determine, within those limits, how to space electrodes in conformity with the claim. In fact, the evidence in the record indicates that the entire device “could have been built within a matter of hours

by a person of ordinary skill in the art in 1992, and without any significant experimentation.” J.A. 226.<sup>12</sup>

2. In arguing that the phrase “spaced relationship” is fatally indefinite, petitioner emphasizes (Br. 48-49) what it calls the “starkly” different readings of the majority and concurring opinions in the court below. But mere disagreement between judges does not establish that a claim is indefinite. See pp. 18-19, *supra*. In any event, petitioner is wrong in asserting (Br. 48) that the disagreement between the two opinions “bears directly on the scope of the patent.” In fact, the opinions below do not suggest any meaningful disagreement between the panel majority and Judge Schall regarding the ultimate question of *what claim 1 covers*. Rather, the disagreement concerns only whether particular functional limitations are imposed by the phrase “spaced relationship,” or instead by *other* language within the claim.

If an allegedly infringing device had electrodes that were “spaced” in a way sufficient to satisfy Judge Schall’s construction (*i.e.*, separated from each other by less than a hand’s breadth), but the device were calibrated in some way that did not allow the EMG signals to cancel each other, the device would not practice respondent’s patent. Under Judge Schall’s view, that exclusion from the patent’s coverage would not result from a failure to place electrodes in a “spaced relationship.” It would instead result from the failure to configure the apparatus as required by a subsequent passage of claim 1: “so that” the left- and right-hand EMG “signals will be subtracted from each other to produce a substantially zero [EMG] signal at the output of said

---

<sup>12</sup> As noted above, the need for some experimentation would not render a claim indefinite under this Court’s decisions in *Minerals Separation*, *Eibel Process*, and *Mowry*. See pp. 19-20, *supra*.

difference amplifier.” J.A. 62. Thus, Judge Schall noted with disapproval that the majority’s “analysis proceeds as if the ‘spaced relationship’ limitation itself—*rather than other limitations of claim 1*—included a functional requirement to remove EMG signals.” Pet. App. 31a (emphasis added). Judge Schall did *not* disagree, however, with the majority’s view that claim 1 as a whole imposes that functional limitation.<sup>13</sup>

The majority, applying what petitioner calls “a narrower, functional view” (Br. 49), concluded that a device does not have the requisite “spaced relationship” if its processed EMG signals are not “substantially remov[ed].” Pet. App. 16a-17a. For the reasons stated in Judge Schall’s concurrence, that aspect of the majority’s analysis is unpersuasive. If the two electrodes on an allegedly infringing device are sufficiently removed from each other to prevent the electrodes from merging into one, but some *other* aspect of the device’s configuration prevents the EMG signals from cancelling, the latter fact provides no sound basis for disputing that the electrodes are in a “spaced relationship.”

For purposes of the indefiniteness inquiry, however, the crucial point is that the choice between the two readings of “spaced relationship” has no practical bearing on the ultimate scope of the claim’s coverage. Under both approaches, a new device will not infringe respondent’s patent if it does not combine EMG signals of simi-

---

<sup>13</sup> Petitioner suggests (Br. 48) that claim 1 is ambiguous in its application to a hypothetical device using “additional circuitry” to remove EMG signals. But a device that employed such circuitry to reduce EMG signals would not infringe because the claim specifies that the signals are reduced by “subtract[ing]” (*i.e.*, combining with reversed polarity) two signals that have “substantially equal magnitude and phase” as detected at the electrodes. J.A. 62.

lar magnitude with opposite polarity and thereby substantially remove them at the difference amplifier's output. The question whether that functional limitation inheres in the phrase "spaced relationship," or solely in other language within the claim, is of no practical import and creates no meaningful ambiguity regarding the scope of the claim as a whole. Thus, someone wishing to innovate around respondent's patent need not be stymied by uncertainty about whether the majority or concurring opinion is correct.<sup>14</sup>

Petitioner emphasizes (Br. 50-52) that this Court has invalidated patents that claimed an invention in purely functional terms. Although functional claims are objectionable when they sweep beyond the disclosure in the patent itself to encompass *every* apparatus that performs the recited function, see *The Incandescent Lamp Patent*, 159 U.S. 465, 476 (1895), some functional language in patent claiming is to be expected. Indeed, many ordinary nouns (*e.g.*, "fastener," "amplifier") denote classes of structures that perform particular functions. Nothing in the Patent Act precludes an inventor from describing an invention (and distinguishing it from the prior art) partly by reference to its function, provided that a skilled artisan can reasonably discern the

---

<sup>14</sup> By the same token, one might legitimately dispute whether two electrodes that are *more* than a hand's breadth apart are in a "spaced relationship" within the meaning of claim 1. Respondent's invention depends on the user's ability to grip both electrodes simultaneously with a single hand; yet it would seem odd to say that electrodes cease to be in a "spaced relationship" as they become farther separated. Again, however, that theoretical debate is of no practical significance. The claim as a whole unambiguously requires that the electrodes be close enough to be gripped with a single hand, whether or not the phrase "spaced relationship" imposes that limitation.

scope of the claimed invention. See *In re Schreiber*, 128 F.3d 1473, 1478 (Fed. Cir. 1997); see generally *PTO Definiteness Guidelines*, *supra*. Here, respondent did not claim *every* heart-rate monitor that causes EMG signal output to be substantially zero, but only a specific monitor equipped with specific circuitry to achieve that function. There was nothing improper about that approach.

3. The court of appeals suggested that respondent's patent may not "include disclosure sufficiently commensurate with the scope of the claims." Pet. App. 22a. As the court noted, however, any such deficiency would give petitioner a defense under 35 U.S.C. 112, ¶ 1, but not under the provision at issue here. Pet. App. 22a-23a. Petitioner implies (Br. 12-15) that respondent's invention is insufficiently different from the Fujisaki patent. Whether the claim language encompasses the prior art, however, would be a question not of definiteness under Section 112, ¶ 2, but of anticipation under 35 U.S.C. 102, or obviousness under 35 U.S.C. 103.

Petitioner has failed to establish that any ambiguity in the phrase "spaced relationship" in claim 1 of respondent's patent would prevent a person skilled in the relevant art from reasonably understanding the scope of the claim. The Court therefore should reject petitioner's indefiniteness challenge under Section 112.

CONCLUSION

The judgment of the court of appeals should be affirmed.

Respectfully submitted.

NATHAN K. KELLEY  
*Solicitor*  
KRISTI L. R. SAWERT  
STACY B. MARGOLIES  
*Associate Solicitors*  
*United States Patent and*  
*Trademark Office*

DONALD B. VERRILLI, JR.  
*Solicitor General*  
STUART F. DELERY  
*Assistant Attorney General*  
MALCOLM L. STEWART  
*Deputy Solicitor General*  
CURTIS E. GANNON  
*Assistant to the Solicitor*  
*General*  
MARK R. FREEMAN  
DARA S. SMITH  
*Attorneys*

APRIL 2014