# COMMODITY SUPPLY AND EXTRATERRITORIAL PATENT INFRINGEMENT IN *LIFE* TECHNOLOGIES V. PROMEGA

# G. EDWARD POWELL III\*

## INTRODUCTION

The Intellectual Property (IP) Clause of the Constitution, which grants Congress the power to make copyright and patent law in order "[t]o promote the Progress of Science and useful Arts," is one of the few provisions of that document explicitly endorsing a utilitarian rationale for lawmaking. The courts have fallen on a spectrum between two extreme approaches to interpreting statutes enacted under this clause: (1) nearly entire deference to congressional judgments of what promotes progress or (2) strict judicial review of IP statutes in light of the constitutionally required goal. Deference to Congress's judgment in IP cases accords with the principle of separation of powers, but the present levels of industry capture that plague Congress suggest that the laws as written may hinder progress rather than promote it, is

Copyright © 2017 G. Edward Powell.

- 1. U.S. CONST. art. I, § 8, cl. 8.
- 2. James Boyle & Jennifer Jenkins, Intellectual Property: Law and the Information Society Cases and Materials 39 (3d ed. 2016).
- 3. Compare Golan v. Holder, 565 U.S. 302, 326 (2012) (using rational basis review to uphold a copyright law) and Eldred v. Ashcroft, 537 U.S. 186, 208 (2003) (similarly using rational basis review to uphold a copyright law), with Lotus Dev. Corp. v. Borland Int'l, Inc., 49 F.3d 807, 819–20 (1st Cir. 1995) (Boudin, J., concurring) (suggesting a progress-oriented approach to interpreting copyright statutes) and Golan, 565 U.S. at 345 (Breyer, J., dissenting) ("[A] copyright is . . . a bounty designed to encourage new production . . . [t]he statute before us, however, does not encourage anyone to produce a single new work.").
- 4. See Eldred, 537 U.S. at 222 ("The wisdom of Congress' action... is not within our province to second-guess.").
- 5. See JAMES BOYLE, THE PUBLIC DOMAIN 64–65 (2008) (describing conditions likely to result in intellectual property policies that hinder the market-based pattern of technological progress).

<sup>\*</sup> Duke University School of Law, J.D. expected May 2018; B.A. in Religious Studies, University of Chicago, June 2013; M.Sc. in Human Molecular Genetics, Imperial College London, October 2014.

contravention of the Constitution's limitation on Congress's power to make IP law.

Judicial fidelity to both the IP Clause and separation of powers is thus sometimes difficult to maintain. An appropriate middle ground, therefore, has been not to use a strict reading of the IP Clause's stated purpose as a stick to strike down IP laws, but to interpret IP statutes so that they, in a court's own reasoned judgment, promote progress. This method of interpretation helps courts avoid intruding too far into the legislative process as they effectuate the constitutional purpose of IP law.

The Supreme Court took advantage of an opportunity to interpret an ambiguous statute in a way that promotes progress in *Life Technologies v. Promega*. In an opinion by Justice Sotomayor, the Court properly upheld the freedom of manufacturers of unpatented, staple articles of commerce to operate within a global supply chain without fear of patent infringement liability. To that end, the Court interpreted 35 U.S.C. § 271(f)(1) not to reach the supply of only one of the components of a patented invention. §

This Commentary discusses this case, proceeding in five parts. Part One summarizes the facts and procedural background of the case, Part Two introduces the basic legal concept of patent infringement and the history of § 271(f), Part Three states the holdings of both appellate courts, and Part Four states the arguments made by each party before the Supreme Court. Part Five explains the Supreme Court's holding and makes an economic policy argument for the Court's decision as opposed to the Federal Circuit's holding.

## I. FACTS AND PROCEDURAL BACKGROUND

Life Technologies manufactures genetic testing kits in the United Kingdom for sale worldwide.<sup>9</sup> Its kits contain at least five components: primer mix, *Taq* polymerase, PCR reaction mix with nucleotides, buffer solution, and control DNA.<sup>10</sup> These kits are useful for making extra copies of a targeted area of DNA, resulting in a detectable amount of

<sup>6.</sup> See, e.g., Lotus Dev. Corp., 49 F.3d at 821 (Boudin, J., concurring) (discussing the importance of network effects in a determination of whether a computer command menu is entitled to copyright protection).

<sup>7.</sup> Life Techs. Corp. v. Promega Corp., No. 14-1538 (Feb. 22, 2017).

Id. at 11.

<sup>9.</sup> *Id.* at 2; Brief for Petitioners at 6, *Life Techs. Corp.*, No. 14-1538 (Sep. 1, 2016) [hereinafter Brief for Petitioners].

<sup>10.</sup> Life Techs. Corp., slip op. at 2.

DNA being available for analysis and use in forensic, clinical, or research contexts.<sup>11</sup> Each of the components must be present for the kit to function.<sup>12</sup> *Taq* polymerase, a DNA-copying enzyme, is a staple article of commerce<sup>13</sup> and can be purchased on Amazon.<sup>14</sup> For some of the kits, Life Technologies supplied only the *Taq* polymerase from the U.S. and sourced the other components elsewhere.<sup>15</sup>

Promega Corporation, a licensee of the patent on the kit themselves, had sublicensed the patent to Life Technologies under restrictive terms, forbidding the sale of kits for clinical or research use.<sup>16</sup> When Life Technologies sold kits in a manner that violated the license, Promega sued in the Western District of Wisconsin for patent infringement.<sup>17</sup> Life Technologies admitted that their U.S. sales had infringed the patent but denied that they had supplied, from the U.S., a substantial portion of the components of the kits sold abroad, as they had supplied only the Taq polymerase. 18 The jury found that Life Technologies had infringed the patent and calculated damages based on the company's total worldwide sales, implying that they believed the supply of only the *Taq* polymerase for some of the extraterritorially sold kits to be an infringing act under 35 U.S.C. § 271(f). 19 The district court entered judgment as a matter of law (JMOL) for Life Technologies on multiple grounds, one of which was that liability under § 271(f) requires the supply of more than one component.<sup>20</sup> On appeal, the Federal Circuit reversed, holding that substantial evidence supported the original jury verdict, and entered judgment accordingly.<sup>21</sup>

The Supreme Court granted certiorari on the question of whether the Federal Circuit erred in holding that supplying a single, commodity component of a multi-component invention from the United States is

<sup>11.</sup> *Id.* at 2–3; Brief for Respondent at 5, *Life Techs. Corp.*, No. 14-1538 (Oct. 24, 2016) [hereinafter Brief for Respondent].

<sup>12.</sup> Brief for Petitioners, *supra* note 9, at 7.

<sup>13.</sup> Staple articles of commerce are commodities capable of substantial noninfringing use. *See* Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 442 (1984) (describing the "staple article of commerce" doctrine in the copyright context).

<sup>14.</sup> Brief for Petitioners, *supra* note 9, at 7; Transcript of Oral Argument at 4, 41, *Life Techs*. *Corp.*, No. 14-1538 (argued Dec. 6, 2016) [hereinafter Transcript of Oral Argument].

<sup>15.</sup> *Life Techs. Corp.*, slip op. at 2–3; Brief for Petitioners, *supra* note 9, at 8.

<sup>16.</sup> *Life Techs. Corp.*, slip op. at 2–3; Brief for Respondent, *supra* note 11, at 6.

<sup>17.</sup> Life Techs. Corp., slip op. at 3; Brief for Respondent, supra note 11, at 7.

<sup>18.</sup> Id. at 8; Brief for Petitioners, supra note 9, at 10.

<sup>19.</sup> Brief for Petitioners, supra note 9, at 9–10.

<sup>20.</sup> *Life Techs. Corp.*, slip op. at 4; Brief for Petitioners, *supra* note 9, at 10–11.

<sup>21.</sup> Brief for Respondent, *supra* note 11, at 11.

an infringing act under § 271(f)(1).<sup>22</sup> A few weeks after oral argument, Chief Justice Roberts became aware of a conflict of interest and recused himself from the case.<sup>23</sup> The case was thus decided by only seven justices.

# II. LEGAL BACKGROUND

American patent law grants the holder of a patent the exclusive right to make, sell, and use the patented invention within the U.S.<sup>24</sup> Because U.S. patent law largely does not apply extraterritorially, anyone seeking to benefit from an invention patented in the U.S. could avoid liability by confining their manufacturing, sales, and use to non-U.S. markets.<sup>25</sup> A middle scenario, where a manufacturer makes components of an invention in the U.S. but does not make the entire assembled invention, led to the passage of § 271(f).<sup>26</sup>

Section 271(f) is an exception to the general rule basing infringement liability only on conduct within the U.S.<sup>27</sup> It was passed after the Supreme Court decided *Deepsouth Packing Co. v. Laitram Corp.*,<sup>28</sup> holding that a patentee's right to "make" an invention was not infringed by making each of the components of the invention and shipping them abroad for final, trivial assembly.<sup>29</sup> Section 271(f)(1) closes the loophole revealed by *Deepsouth* by prohibiting "suppl[ying] ... from the United States all or a substantial portion of the components of a patented invention . . . to actively induce the combination of such components outside of the United States . . . . "<sup>30</sup> Such a supplier will be liable only if elements analogous to active inducement of patent infringement—knowledge of a valid patent and intent that the patent be practiced—are present.<sup>31</sup> Since patent law does not apply extraterritorially, no act of actual infringement under § 271(a) is required for inducement liability under § 271(f)(1).

<sup>22.</sup> Id. at 12.

<sup>23.</sup> Roberts recuses from patent case after discovering conflict, ASSOCIATED PRESS (Jan. 4, 2017), http://bigstory.ap.org/article/52f85668c4244c0d8363978876acbf85/roberts-recuses-patent-case-after-discovering-conflict.

<sup>24. 35</sup> U.S.C. § 271(a) (2012).

<sup>25.</sup> Deepsouth Packing Co. v. Laitram Corp., 406 U.S. 518, 527 (1972).

<sup>26.</sup> Microsoft Corp. v. AT&T Corp., 550 U.S. 437, 443–44 (2007).

<sup>27.</sup> Id. at 442.

<sup>28. 406</sup> U.S. 518 (1972).

<sup>29.</sup> Id. at 527-28.

<sup>30. 35</sup> U.S.C. § 271(f)(1) (2012).

<sup>31. § 271(</sup>f)(1) requires that the supplier "actively induce" combination of the components, which imports the active inducement standard from § 271(b). Brief for Respondent, *supra* note 11, at 34–35.

Section 271(f)(1) effectively overruled *Deepsouth*; it also prohibits conduct that is further from classic patent infringement than the facts of *Deepsouth* were, as it provides for liability when less than "all" of the components are supplied.<sup>32</sup> The statute allows for infringement liability based on the supply of "a substantial portion of the components," not just "all" of them, in order to close, rather than move, the loophole.<sup>33</sup> Section 271(f)(2) goes even further: it prohibits the supply of even a single component if the component (1) is knowingly specially made or adapted for use in the patented invention, (2) is not a commodity with substantial noninfringing uses, and (3) is intended to be combined with other components to practice the patented invention.<sup>34</sup> The legislative history indicates, and the text suggests, that § 271(f)(1) is modeled on the active inducement provision, § 271(b), and § 271(f)(2) on the secondary liability provision, § 271(c).<sup>35</sup>

The Supreme Court construed § 271(f) narrowly in *Microsoft Corp.* v. *AT&T Corp.*,<sup>36</sup> reading it in light of the presumption against extraterritoriality.<sup>37</sup> Even though the statute expressly conditions liability on extraterritorial conduct—active inducement requires that the induced party actually practice the patent—the presumption "remains instructive in determining the *extent* of the statutory exception," so reading expansive liability into the statute would violate the presumption.<sup>38</sup>

## III. HOLDING

On appeal, the Federal Circuit reversed the district court, holding that one component could be a "substantial portion of the components" as required for liability under § 271(f)(1).<sup>39</sup> The court based its decision on the ordinary meaning of "substantial portion," defining "substantial" to mean "important or essential," and defining "portion" as a "part of a whole."<sup>40</sup> On the facts of the case, evidence supported the proposition that Taq polymerase was a "main" and "major" component, without which the kits would be inoperable; this

<sup>32. § 271(</sup>f)(1).

<sup>33.</sup> *Id*.

<sup>34. 35</sup> U.S.C. § 271(f)(2) (2012).

<sup>35.</sup> See Brief for Respondent, supra note 11, at 29–30 (discussing the legislative history of § 271(f)).

<sup>36. 550</sup> U.S. 437 (2007).

<sup>37.</sup> Id. at 454.

<sup>38.</sup> *Id.* at 455–56 (emphasis in original).

<sup>39.</sup> Promega Corp. v. Life Techs. Corp., 773 F.3d 1338, 1353-54 (Fed. Cir. 2014).

<sup>40.</sup> *Id.* at 1353.

was sufficient evidence to support a jury finding that *Taq* polymerase was a "substantial portion," and thus expose Life Technologies to damages based on their worldwide sales.<sup>41</sup>

The Supreme Court unanimously reversed.<sup>42</sup> Justice Sotomayor's opinion for the Court construed the text of § 271(f)(1) to exclude supply of only one component, as the district court did.<sup>43</sup> The text, structure, and history of the statute indicated that Congress intended to require the supply of multiple components for liability to attach.<sup>44</sup>

#### IV. ARGUMENTS

# 1. Petitioner's Arguments

Before the Supreme Court, Life Technologies argued for reversal on three grounds: (1) the text and structure of the statute suggest that a "substantial portion" approximates "all" and excludes a single component; (2) the presumption against extraterritoriality suggests a narrow reading of the statute; and (3) the statute was intended to close a loophole in classic patent infringement, not impose liability on commodity manufacturers based on the worldwide use of their commodities in patented inventions.<sup>45</sup>

Life Technologies contended that one component is insufficient for liability since "substantial" in the statute is quantitative, not qualitative. Since "substantial portion" follows the quantitative term "all," it should be interpreted in line with the quantitative dictionary meanings of "substantial," and also, contextually, akin to "all." The phrase "substantial portion of the components" also suggests a quantitative interpretation in a way that alternative drafting possibilities, such as "substantial portion of the invention," would not have; "components" being a plural noun suggests that a single important component would not be a "substantial portion of the components." The following contextual phrase, "where such

<sup>41.</sup> Id. at 1356.

<sup>42.</sup> Life Techs. Corp. v. Promega Corp., No. 14-1538, slip op. syllabus at 2–3 (Feb. 22, 2017).

<sup>43.</sup> Id. at 4, 8.

<sup>44.</sup> Id. at 8, 10.

<sup>45.</sup> Brief for Petitioners, *supra* note 9, at 12–14.

<sup>46.</sup> *Id.* at 16.

<sup>47.</sup> Id. at 17-18.

<sup>48.</sup> Brief for the United States as Amicus Curiae Supporting Petitioners at 14, *Life Techs*. *Corp.* No. 14-1538.

components are uncombined," also suggests that multiple components are presumed to be involved in a "substantial portion."

Life Technologies additionally pointed to the text of § 271(f)(2), which expressly provides for liability (under more stringent conditions) when a single component is supplied, suggesting that § 271(f)(2) is the exclusive avenue for liability based on a qualitatively important, single component.<sup>50</sup> To hold that § 271(f)(1) could encompass a single, qualitatively assessed component would be to render § 271(f)(2) surplusage.<sup>51</sup> The Supreme Court, in dicta in *Microsoft*, suggested that the two subsections provided for liability based on the supply of different and non-overlapping numbers of components, reflecting the most natural reading of the statute.<sup>52</sup>

Next, Life Technologies argued that the presumption against extraterritoriality requires interpreting § 271(f) narrowly, as stated in *Microsoft*.<sup>53</sup> This presumption recognizes that U.S. law does not govern the world and favors resolving ambiguities in statutes to minimize the law's impact on foreign conduct.<sup>54</sup> Because § 271(f) conditions liability on the combination of components "outside the United States," it invites the narrow construction that comes with statutes that address extraterritorial conduct.<sup>55</sup> Therefore, any doubt as to whether a single component can be a "substantial portion of the components" should be resolved in favor of Life Technologies.<sup>56</sup>

Finally, Life Technologies argued that the purpose of § 271(f) is to cover conduct similar to conventional patent infringement, not to dramatically expand liability to the manufacture of single commodity components that are used in patented inventions abroad.<sup>57</sup> To expand liability thus would chill U.S. manufacturing and result in suppliers moving their factories overseas to avoid U.S. patent liability.<sup>58</sup> This could not be what Congress intended when passing § 271(f).

<sup>49.</sup> Brief for Petitioners, supra note 9, at 20–21.

<sup>50.</sup> *Id.* at 22–23.

<sup>51.</sup> Id. at 23.

<sup>52.</sup> *Id*.

<sup>53.</sup> Id. at 24.

<sup>54.</sup> Id. at 25.

<sup>55.</sup> Id. at 26-27.

<sup>56.</sup> Id. at 32.

<sup>57.</sup> Id. at 35-36.

<sup>58.</sup> Id. at 38.

# 2. Respondent's Arguments

Promega argued for affirmation of the Federal Circuit's ruling, rejecting Life Technologies' proposed purely numerical interpretation of § 271(f)(1), on three grounds: (1) 'substantial' can be read qualitatively (and should, in this fact-specific inquiry) to support the Federal Circuit's ruling; (2) the presumption against extraterritoriality does not apply here, where no liability is imposed based on foreign conduct; and (3) Life Technologies' fears of unfettered liability grinding international commerce to a halt ignore the statute's specific intent required for active inducement liability<sup>59</sup>

Promega emphasized that the Federal Circuit was merely finding substantial evidence to support a jury verdict, and therefore any legal conclusions regarding how much of a patented invention must be supplied to trigger liability are minimally controlling for future cases, as they simply illustrate facets of a comprehensive fact-based inquiry.<sup>60</sup> Therefore, the Federal Circuit's specific, quoted rationales for reinstating the verdict after the district judge entered a contrary JMOL would not necessarily be sufficient to support a finding of infringement in another case. 61 Even if a defendant supplied a "main" and "major" component of a patented invention, without which the device "would be inoperable," these statements are not the test for liability. 62 Rather, a fact-based inquiry would need to find that the defendant's contribution amounted to a "substantial portion" for liability to attach. 63 Reading the statute to require this sort of inquiry is consistent with the use of the broader term "substantial" as opposed to more clearly quantitative terms, such as Life Technologies' proposed construction, "a large percentage closely approximating all."64

Promega argued that a broad reading of "substantial" is also consistent with the statute's history and purpose, which was to expand liability beyond both classic patent infringement and the facts of *Deepsouth*, not to restrict it.<sup>65</sup> The legislative history indicates that § 271(f)(1) was modeled on the active inducement provision, § 271(b), while § 271(f)(2) parallels the contributory infringement provision, §

<sup>59.</sup> Brief for Respondent, *supra* note 11, at 2–4.

<sup>60.</sup> Id. at 42-43.

<sup>61.</sup> Id.

<sup>62.</sup> *Id*.

<sup>63.</sup> *Id*.

<sup>64.</sup> Id. at 18, 40.

<sup>65.</sup> Id. at 27.

271(c).<sup>66</sup> The crucial difference between the two provisions—the reason for finding liability under one provision and not the other—is thus the relevant specific intent required, not the number of components involved.<sup>67</sup> Since there is overlap between classic active inducement and contributory infringement liability, there is no good reason to read § 271(f)(2) as excluding the possibility of § 271(f)(1) liability for the supply of a single component.<sup>68</sup>

The requirement of active inducement also limits the potential commodity-supplier liability that Life Technologies suggested would be the result of the Federal Circuit's holding.<sup>69</sup> Since intent is required for active inducement, only a showing of knowledge of the patent, and intent to supply components and induce the other to practice the patent abroad, would lead to liability.<sup>70</sup> Promega asserts that such liability is rare, and that the Federal Circuit's decision to recognize such liability two years ago has not led to a flood of patent litigation targeting commodity suppliers.<sup>71</sup> Promega also criticizes Life Technologies' proposed bright-line rule as inviting new loopholes involving multiple suppliers, with each supplying a single component of a patented invention for assembly abroad.<sup>72</sup>

Promega also argued that the active inducement requirement limits the applicability of the presumption against extraterritoriality.<sup>73</sup> Since what is regulated is domestic conduct done with the specific intent to induce foreign practice of a patent, and no liability is imposed on an actor based on that actor's foreign conduct, the presumption does not operate to narrow the statute.<sup>74</sup> Moreover, Life Technologies' proposed rule would not operate to shield manufacturers that make multiple, trivially significant commodity components, at least two of which could be used in a patented invention, from liability, whereas a qualitative reading of "substantial" could avoid unwanted liability in this scenario.<sup>75</sup>

<sup>66.</sup> Id. at 29.

<sup>67.</sup> *Id.* at 30.

<sup>68.</sup> *Id.* at 31–32.

<sup>69.</sup> Id. at 34.

<sup>70.</sup> Id. at 35.

<sup>71.</sup> Id. at 37.

<sup>72.</sup> *Id.* at 40.

<sup>73.</sup> *Id.* at 44–45.

<sup>74.</sup> *Id*.

<sup>75.</sup> Id. at 40.

## V. ANALYSIS

Life Technologies was correct that imposing liability based on the supply of only one component would likely increase costs on American manufacturers who supply components for global markets, contrary to Congress's probable intent. Life Technologies' textual arguments were in better accord with the text and structure of the statute, and the precedential background of the case favored Life Technologies as well. At oral argument, the Justices seemed to favor Life Technologies' construal of the statute; at times, multiple Justices misstated the relevant statutory language as "all or substantially all," Life Technologies' preferred interpretation, rather than the actual phrase "all or a substantial portion." So it is little surprise that Life Technologies prevailed.

Justice Sotomayor's opinion for the Court dispensed with the case purely on non-policy statutory-interpretation grounds. The Court accepted Petitioners' argument that "substantial" is quantitative and "components" is plural in the context of the statute.<sup>77</sup> The Court cited the structure of the statute as evidence that multiple components are required for liability under § 271(f)(1).<sup>78</sup> The Court also referenced the historical context of the enactment of § 271(f), which indicates that it was intended to close the *Deepsouth* loophole.<sup>79</sup> The Court declined, however, to adopt Life Technologies' preferred interpretation of the statute: its narrow holding, that § 271(f)(1) liability could not attach to supply of only a single component, 80 leaves open the possibility of liability for supplying multiple components that do not amount to "a large percentage closely approximating all" of the invention.81 In doing so, the Supreme Court continued its recent pattern of replacing the Federal Circuit's pro-patent, bright-line tests with fuzzy, flexible standards.82

<sup>76.</sup> Transcript of Oral Argument, supra note 11, at 20, 36, 44.

<sup>77.</sup> *Life Techs. Corp.*, No. 14-1538, slip op. at 8.

<sup>78.</sup> Id. at 8–9. Section 271(f)(2) requires extra conditions to attach liability for supplying a single component. Id.

<sup>79.</sup> *Id.* at 10–11. Justices Thomas and Alito did not join this part of the otherwise-unanimous opinion, as in their view the history of the statute was unhelpful for answering the question presented. *Id.* at 1 (Alito, J., concurring).

<sup>80.</sup> Id. at 11.

<sup>81.</sup> See Brief for Petitioners, supra note 9, at 4.

<sup>82.</sup> Although the Supreme Court's holding firmly excludes liability for supply of one component, it is unclear where precisely the line is between one component (no liability) and all of them (clear liability). *Life Techs. Corp.*, slip op. at 1 (Alito, J., concurring). In contrast, the Federal Circuit's proposed case-by-case analysis, while inherently flexible and fact-specific, would likely have resulted in a jury issue on substantiality whenever a defendant produced a necessary

Of late, the Supreme Court has taken an interest in the Federal Circuit's pro-patent jurisprudence and has now reversed in nine of the last eleven cases it has heard on appeal from that court. The Federal Circuit, pursuing its purpose of creating a single body of uniform and predictable patent case law, has often taken a highly formalistic approach to the patent statutes. It has also interpreted these statutes in favor of broad patent validity and strong patent rights. The Supreme Court has rejected some of the Federal Circuit's tests for patentability in recent years (e.g., the machine-or-transformation test in *Bilski*) without replacing them with anything nearly as predictable. It

The Federal Circuit's opinion in this case contained some of these same highly pro-patent and formalistic features. The opinion cited dictionary definitions of "substantial" and "portion," as well as example evidence from the trial transcript to support the jury's reasonable conclusion conclusion that Life Technologies' *Taq* polymerase was an important part of the kits, and gave no consideration to the purpose of the statute. The effect of opening up manufacturers of staple commodities to patent liability for their worldwide sales, as long as they knew their overseas buyers were practicing U.S. patents, was apparently not considered.

Such an imposition of liability would contravene the purpose of patent law, which exists "[t]o promote the Progress of Science and useful Arts," by restricting the free flow of information and goods in and out of the United States in a way that does not efficaciously incentivize innovation. It is generally accepted that the free exchange of goods, services, and information internationally promotes innovation, so any restriction in the form of a patent monopoly must

component of a patented invention. See Promega Corp. v. Life Techs. Corp., 773 F.3d 1338, 1353–54 (Fed. Cir. 2014).

<sup>83.</sup> See John Duffy, Argument preview: Is there a substantial chance the justices will affirm the Federal Circuit's reading of "substantial"?, SCOTUSBLOG (Nov. 29, 2016), http://www.scotusblog.com/2016/11/argument-preview-is-there-a-substantial-chance-the-justices-will-affirm-the-federal-circuits-reading-of-substantial/.

<sup>84.</sup> John R. Thomas, Formalism at the Federal Circuit, 52 Am. U. L. REV. 771, 774 (2003).

<sup>85.</sup> Id. at 772.

<sup>86.</sup> Bilski v. Kappos, 561 U.S. 593, 603–04 (2010); see Jeremy D. Roux, The Supreme Court and § 101 Jurisprudence: Reconciling Subject-Matter Patentability Standards and the Abstract Idea Exception, 2014 U. ILL. L. REV. 629, 631 (2014) (describing this pattern in the Bilski case).

<sup>87.</sup> Promega Corp., 773 F.3d at 1353–54.

<sup>88.</sup> U.S. CONST. art. I, § 8, cl. 8.

<sup>89.</sup> Stephen Ezell, *The Relationship between Trade and Innovation*, BRIDGES (May 15, 2013), http://ostaustria.org/bridges-magazine/volume-37-may-15-2013/item/8106-the-relationship-between-trade-and-innovation.

be justified in terms of its providing an incentive to innovate that would not otherwise have existed. 90 The extra incentive is not present here.

The Federal Circuit's reading of § 271(f)(1) would have imposed excessive costs on manufacturers and international suppliers relative to the benefits to patent holders. Under this reading, every export of a commodity component used overseas in a patented invention could give rise to a jury issue of patent infringement unless the manufacturer has shut its eyes to whether any of its buyers are practicing U.S. patents. Usually, the patent monopoly extends only to the practice of the entire invention within the U.S.; this reflects a set of congressional judgments about the proper reach of U.S. patent law and how much of an incentive is necessary to prompt innovation. Reading § 271(f) as a massive rather than minor expansion of patent rights changes this carefully struck balance between incentives for initial innovation and public access to innovative materials. And it does this without good evidence that this was Congress' intent.

Section 271(f) is already unusual within patent law in providing for secondary infringement liability in the absence of an act of direct infringement. To be sure, persons abroad must practice the patent for liability to attach, but such practice does not qualify as infringement when done outside the borders of the U.S. This provision makes sense if the conduct prohibited is thought tantamount (or nearly so) to the conduct prohibited by the conventional direct- and secondary-infringement provisions in § 271(a)–(c). Congress's purpose in enacting § 271(f) seems to have been to close the *Deepsouth* loophole without opening any other loopholes further down the line, such that conduct that avoids liability under § 271(f) genuinely bears little resemblance to patent infringement. Exporting a commodity component, even with knowledge of a patent and intent that the recipient make a patented invention abroad, is not tantamount to making the whole invention, or most of it, yourself.

<sup>90.</sup> See Golan v. Holder, 565 U.S. 302, 345 (2012) (Breyer, J., dissenting) (stating that copyright laws must incentivize the creation of new works to be constitutional).

<sup>91.</sup> See supra notes 51, 52, 64 and accompanying text.

<sup>92.</sup> See Microsoft Corp. v. AT&T Corp., 550 U.S. 437, 441, 455 (2007) (explaining the role of the presumption against extraterritoriality in patent law).

<sup>93.</sup> See Limelight Networks, Inc. v. Akamai Techs., Inc., 134 S. Ct. 2111, 2117 (2014) ("[L]iability for inducement must be predicated on direct infringement."); 35 U.S.C. § 271(f)(1), (2) (2012) (addressing assembly "in a manner that would infringe the patent if such combination occurred within the United States").

<sup>94.</sup> Id. § 271(a).

Allowing cases involving a single commodity export to go to juries for a case-specific analysis of substantiality could decrease the competitiveness of U.S. manufacturing by increasing the risk of infringement and thus the cost of manufacturing in the U.S. Many U.S. patents employ preexisting commodities as components of the inventions they claim. A U.S. manufacturer seeking to avoid a high settlement-value guaranteed jury trial must remain ignorant of either the business of their buyers or the patent landscape. Both are bad business moves: the former because some patented inventions can be licensed in a way that adds value to many companies, and the latter because ignorance of business partners' business exposes the manufacturer to unforeseen risks. Congress would not have intended to make simple commodity manufacturers eschew these best practices just to avoid patent liability.

Avoiding these pitfalls, the Court adopted the district court's construction of the statute as excluding liability for supply of a single component. This construction allows liability for conduct tantamount to domestic patent infringement without leaving ordinary suppliers unduly exposed. This holding makes good grammatical sense of the statute and correctly interprets § 271(f)(1) in accordance with the constitutionally mandated purpose of patent law.

# **CONCLUSION**

Hard cases make bad law. Hife Technologies was a particularly egregious infringer vis-a-vis the kits it sold in the U.S. To it is understandable that the Federal Circuit, when confronted with a judgment as a matter of law for an actor who had clearly violated Promega's rights, would seek to quickly dispense with minor, problematic issues, such as the scope of the phrase "substantial portion of the components," and let the initial jury verdict stand. But explicitly allowing the sort of liability for foreign shipments that the Federal Circuit allowed here would harm U.S. manufacturing. In this era of relatively easy offshoring and friendly foreign manufacturing destinations, this policy would drive commodity suppliers beyond the reach of U.S. patent law rather than secure their license payments as proper monopoly rents for our next generation of innovators. The

<sup>95.</sup> Even ignorance may not be sufficient if there is evidence that the supplier was willfully blind. *See* Global-Tech Appliances, Inc. v. SEB S.A., 563 U.S. 754, 766 (2011).

<sup>96.</sup> N. Secs. Co. v. United States, 193 U.S. 197, 400 (1904) (Holmes, J., dissenting).

<sup>97.</sup> Brief for Respondent, *supra* note 11, at 7.

Supreme Court thus rightly limited this liability, excluding manufacturers who supply just a single commodity component from the statute's scope.