

SHOULD FOREIGN SALES EXHAUST U.S. PATENT RIGHTS POST *QUANTA*?

INTRODUCTION

In 1947, intellectual property made up less than ten percent of U.S. exports, but by the mid-1990's intellectual property grew to account for over fifty percent of all U.S. exports.¹ As the world has become flatter in terms of international trade,² the exportation of intellectual property in the form of foreign sales of articles embodying U.S. patents and international technology licenses has grown substantially. In 2004, royalties and licensing fees accounted for approximately \$52.6 billion worth of payments into the United States from abroad.³ As these international sales and licenses have grown, it is now more important than ever for patent holders to have a clear understanding of how these international sales and licenses affect their patent rights within the United States when products embodying their patent are imported from abroad into the United States.

Under the doctrine of patent exhaustion, if a patent holder sells a product that substantially embodies a patent, the patent holder's right to restrict the use of the good is exhausted.⁴ As stated by the Supreme Court in *Chaffee v. Boston Belting Co.*:

1. FRED WARSHOF SKY, THE PATENT WARS 6 (1994)), available at <http://jtlp.org/vol11/gikkas.html>; Nicolas S. Gikkas, *International Licensing of Intellectual Property: The Promise and the Peril*, 1 J. TECH. L. & POL'Y 6, ¶ 2 (1996) (citing U.S. CENSUS BUREAU, U.S. DEP'T COMMERCE, STATISTICAL ABSTRACT OF THE UNITED STATES 1951 (1952)).

2. See THOMAS L. FRIEDMAN, THE WORLD IS FLAT: A BRIEF HISTORY OF THE TWENTY-FIRST CENTURY 217 (2005) (explaining that in a flattened world companies can do one of three things with an innovation: patent the invention and sell it themselves, patent the invention and license it to someone else to manufacture, or patent the invention and cross-license it with other companies "so that they all have freedom of action to make a product—like a PC—that comes from melding many different patents").

3. DANIEL C.K. CHOW & THOMAS J. SCHOENBAUM, INTERNATIONAL TRADE LAW: PROBLEMS, CASES, AND MATERIALS 17 (2008) (from 1995 through 2004 the receipt of payments into the United States in international trade in the form of royalties and licensing fees has grown from \$30.3 billion per year to \$52.6 billion per year).

4. *United States v. Univis Lens Co.*, 316 U.S. 241, 249 (1942) ("An incident to the purchase of any article, whether patented or unpatented, is the right to use and sell it, and upon familiar principles the authorized sale of an article which is capable of use only in practicing the patent is a relinquishment of the patent monopoly with respect to the article sold.").

By a valid sale and purchase, the patented machine becomes the private individual property of the purchaser, and is no longer protected by the laws of the United States, but by the laws of the state in which it is situated. Hence it is obvious, that if a person legally acquires a title to that which is the subject of letters patent, he may continue to use it until it is worn out, or he may repair it or improve upon it, as he pleases, in the same manner as if dealing with property of any other kind.⁵

In addition to situations where the patent holder sells an article embodying a patent, the doctrine of patent exhaustion also applies when an authorized licensee sells such an article.⁶ In a line of cases following *Jazz Photo Corp. v. International Trade Commission*,⁷ the Court of Appeals for the Federal Circuit has consistently held that foreign sales of products covered by a U.S. patent do not exhaust the patent holder's U.S. patent rights with respect to those products.⁸

In general, the Federal Circuit has been relatively liberal in finding that patent holders could prevent the exhaustion of their patent rights by various means.⁹ In *Quanta Computer, Inc. v. LG Electronics, Inc.*, the United States Supreme Court began a trend of reeling in the expansion of these methods of preventing patent exhaustion.¹⁰ Following this trend, on March 13, 2009, Northern District of California Judge Claudia Wilken ruled that U.S. patent rights were exhausted by foreign sales or licenses in the case of *LG Electronics, Inc. v. Hitachi, Ltd.*¹¹

While the *LG Electronics, Inc.* decision is not binding in other jurisdictions, it does exemplify the trend of restricting the ability of patent holders to prevent the exhaustion of patent rights after selling articles embodying their patents.¹² Still, this decision flies in the face of the precedent

5. 63 U.S. (22 How.) 217, 223 (1859).

6. *Intel Corp. v. ULSI Sys. Tech., Inc.*, 995 F.2d 1566, 1568 (Fed. Cir. 1993) (explaining that the doctrine of patent exhaustion "applies similarly to a sale of a patented product manufactured by a licensee acting within the scope of its license").

7. 264 F.3d 1094, 1105 (Fed. Cir. 2001) ("United States patent rights are not exhausted by products of foreign provenance.").

8. See, e.g., *Fuji Photo Film Co. v. Jazz Photo Corp.*, 394 F.3d 1368, 1376 (Fed. Cir. 2005) ("The patentee's authorization of an international first sale does not affect exhaustion of that patentee's rights in the United States.").

9. See, e.g., *Monsanto Co. v. Scruggs*, 459 F.3d 1328, 1336 (Fed. Cir. 2006) (concluding that when a licensed manufacturer sold patented genetically modified seeds to unauthorized farmers such sales were unauthorized, thus avoiding exhaustion of the patent holder's rights); *Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700, 701 (Fed. Cir. 1992) (concluding that a patent was not exhausted when a "single use only" notice was affixed to the article being sold).

10. 553 U.S. 617, 638 (2008).

11. 655 F. Supp. 2d 1036, 1047 (N.D. Cal. 2009).

12. See *Quanta Computer, Inc.*, 553 U.S. at 621 (holding that the exhaustion doctrine is applicable to method patents and therefore an authorized sale will exhaust the patent); *Static*

previously established by the Federal Circuit.¹³ The court in *LG Electronics, Inc.*, in interpreting the *Quanta* decision, found the Supreme Court was “unequivocal in stating that the ‘authorized sale of an article that substantially embodies a patent exhausts the patent holder’s rights and prevents the patent holder from invoking patent law to control postsale use of the article.’”¹⁴ In noting that “authorized sale” could be interpreted broadly to include “authorized foreign sales,” the *LG Electronics, Inc.* Court found that the authorized foreign sale of articles embodying U.S. patents exhausted the patent holder’s U.S. patent rights on those articles.¹⁵ Such a line of reasoning would therefore imply that the Supreme Court in *Quanta* was in effect overruling the Federal Circuit decisions in the *Jazz Photo* line of cases *sub silentio*.

Still, at least one other district has chosen not to apply *LG Electronics, Inc.*, instead continuing to follow the Federal Circuit’s holding in *Jazz Photo*.¹⁶ These holdings have created a split in how U.S. patent rights are treated when products are sold or licensed abroad. Such district splits create confusion in the law; allowing an issue that should be handled uniformly throughout the U.S. court systems to instead be decided by what district the case is filed in. Therefore, the question of whether foreign sales exhaust U.S. patent rights is ripe for review by the appellate courts. In light of this split between districts, the Federal Circuit or the Supreme Court needs to clarify whether foreign sales or licenses exhaust U.S. patents.

This paper will argue that not only does this district split need to be addressed, but also, that foreign sales and licenses should not be found to exhaust U.S. patent rights. There are valid arguments as to why foreign sales should exhaust a U.S. patent holder’s rights in articles that the patent holder authorized to be sold abroad, but there are even stronger policy reasons as to why such sales should not exhaust U.S. patents.

Part I of this paper will provide a history on the development of the doctrine of patent exhaustion. In Part II, this paper will review the treatment of patent exhaustion for articles sold abroad. Part III will discuss the need for appellate review to clarify this area of law. Finally, in Part IV, this paper will argue that foreign sales and licenses should not exhaust a U.S. patent.

Control Components, Inc. v. Lexmark Int’l, Inc., 615 F. Supp. 2d 575, 582 (E.D. Ky. 2009) (holding that post-sale restrictions based in patent law are not enforceable).

13. See, e.g., *Jazz Photo Corp. v. Int’l Trade Comm’n*, 264 F.3d 1094, 1105 (Fed. Cir. 2001).

14. *LG Elecs., Inc.*, 655 F. Supp. 2d at 1044 (quoting *Quanta Computer, Inc.*, 553 U.S. at 638).

15. *Id.*

16. *Fujifilm Corp. v. Benun*, No. 05-cv-1863 (KSH), 2009 WL 2232523, at *3 (D.N.J. July 24, 2009).

I. THE HISTORY AND DEVELOPMENT OF THE DOCTRINE OF PATENT EXHAUSTION

A. *Development of the doctrine of patent exhaustion*

Under 35 U.S.C. § 271, U.S. patent law provides patent holders the exclusive rights to make, use, or sell any patented invention within the United States.¹⁷ If taken literally this statute would prevent a purchaser from repairing, reselling, or even using an article embodying an invention without permission from the patent holder, even if the article was purchased directly from the patent holder.¹⁸ To prevent such a result, the judiciary developed a doctrine whereby the patent holder's rights in an article are exhausted by the authorized sale of such an article.

The origin of the patent exhaustion doctrine can be traced to *Bloomer v. McQuewan*.¹⁹ In *Bloomer*, the defendants in the patent infringement case obtained a license from the patentee to make and use patented machines for the duration of the patent term.²⁰ At some point after this license was granted, but prior to the patent's expiration, Congress extended the statutory length of patent terms.²¹ The defendant license holder thus sought to continue using the licenses through the extended term, while the patent holder tried to restrict the length of the license to the original patent term.²² The Supreme Court held that when the machines were licensed or sold to a purchaser they were "no longer within the limits of the [patent] monopoly" and were instead "private, individual property" no longer protected by the U.S. patent laws.²³

In *Chaffee v. Boston Belting Co.*, the inventor of an improved process to manufacture rubber assigned the rights to the patent to an assignee.²⁴ The assignee brought a patent infringement lawsuit against defendants who claimed that they had previously received a license from the original patent holder.²⁵ The lower court found for the defendants based on the legal standard that a purchaser of machinery had the right to continue to the use of the machinery in

17. 35 U.S.C. § 271(a) (2006) ("Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefore, infringes the patent.").

18. *See id.*

19. 55 U.S. (14 How.) 539 (1852).

20. *Id.* at 547. Patents only provide the patent holder exclusive use of an invention for a limited term. The current term for a U.S. patent is twenty years from the filing date of an application. 35 U.S.C. § 154(a)(2) (2006).

21. *Bloomer*, 55 U.S. (14 How.) at 547.

22. *Id.* at 548.

23. *Id.* at 549–50.

24. 63 U.S. (22 How.) 217, 219–20 (1859).

25. *Id.* at 220.

conformity with the sale terms.²⁶ The Supreme Court upheld the doctrine that the valid purchase of a patented article made that article the private property of the purchaser and stripped the patent holder of any rights in that article.²⁷ Still, the Court reversed the lower court decision, finding that there had been an improper assumption that the defendants had obtained any license in the first place, as there was no evidence provided to support the contention that the defendant had purchased such rights.²⁸ With this holding the Court added to what is now known as the doctrine of exhaustion by emphasizing that the patented article must have been rightfully passed to the purchaser from “the patentee, or from any other person by him authorized to convey it.”²⁹

Over time the Federal Circuit had allowed the patent holders to use various means to prevent their patents from being exhausted through the sale of articles embodying them. In *Mallinckrodt, Inc. v. Medipart, Inc.*,³⁰ the Federal Circuit found that when medical devices with a “single use only” notice inscribed on them were sold, the patent covering the devices was not exhausted as towards the devices being reusable.³¹ The court found that if a patented product was used in violation of a valid restriction the patent holder could seek a remedy under patent law.³²

In *Monsanto v. Scruggs*, the holder of patents for genetically modified soybean and cotton licensed their patents to seed manufacturing companies.³³ The licensing agreement required that the seeds could only be sold to farmers who had signed licensing agreements of their own, agreeing not to retain seeds from one generation of crops to plant in subsequent crops.³⁴ When a farmer who had not signed an agreement was sued by the patent holder for retaining the seeds from his crops,³⁵ the Federal Circuit found that the patent was not

26. *Id.* at 221.

27. *Id.* at 223.

28. *Id.* at 222–23.

29. *Chaffee*, 63 U.S. (22 How.) at 223.

30. 976 F.2d 700 (Fed. Cir. 1992).

31. *Id.* at 701, 709.

32. *Id.* at 709 (“If the sale . . . was validly conditioned under the applicable law such as the law governing sales and licenses, and if the restriction on reuse was within the scope of the patent grant or otherwise justified, then violation of the restriction may be remedied by action for patent infringement.”). *See also id.* at 703 (“This right to exclude may be waived in whole or in part. The conditions of such waiver are subject to patent, contract, anti-trust, and any other applicable law, as well as equitable considerations such as are reflected in the law of patent misuse. As in other areas of commerce, private parties may contract as they choose, provided that no law is violated thereby.”).

33. 459 F.3d 1328, 1333 (Fed. Cir. 2006).

34. *Id.*

35. *Id.*

exhausted as the seed companies were not authorized to sell seeds to the farmer without obtaining a signed licensing agreement from the farmer.³⁶

B. Quanta Computer Inc. v. LG Electronics Inc.: Pulling Back the Protection From Patent Exhaustion

In *Quanta Computer, Inc. v. LG Electronics, Inc.*, the United States Supreme Court pulled back some of the protections against patent exhaustion.³⁷ In *Quanta*, the owner of patents for various methods of computer processing attempted to prevent their patents from being exhausted when Intel—an authorized licensee—sold computer chips that embodied the patents to third party computer manufacturers.³⁸ Intel's licensing agreement with the patent holder contained a clause explicitly disclaiming the grant of any implied license to Intel's customers who purchased the chips.³⁹ Further, under the terms of its license, Intel was required to inform its customers that the purchase of the computer chips did not create an implied license to combine the chips with other computer components as to practice the patent.⁴⁰

When the patent holder sued the third party computer manufacturers, the defendant computer manufacturers claimed that the patent was exhausted since they had purchased the chips from a licensed manufacturer.⁴¹ The patent holder contended its method patent could not be exhausted with the purchase of the computer chips since the subject of the patent was for a method of performing computing processes rather than the device performing it.⁴² Further, the plaintiff patent holder claimed that its patent could not be exhausted because their licensing agreement with Intel explicitly denied the grant of any implied license to third party purchasers.⁴³

When the patent holder brought the infringement suit, the district court granted summary judgment for the defendants, finding that the license to Intel resulted in patent exhaustion for computer chips legitimately purchased from Intel.⁴⁴ In a subsequent order, the district court limited its summary judgment ruling, finding that patent exhaustion did not apply to process or method claims that describe operations to make or use a product.⁴⁵ Upon appeal, the Federal

36. *Id.* at 1336.

37. 553 U.S. 617 (2008).

38. *Id.* at 623–24.

39. *Id.*

40. *Id.*

41. *Id.* at 624, 628.

42. *Quanta Computer, Inc.*, 553 U.S. at 628.

43. *Id.* at 636.

44. *LG Elecs., Inc. v. Asustek Computer, Inc.*, 65 U.S.P.Q. 2d (BNA) 1588, 1601 (N.D. Cal. 2002), *rev'd*, 453 F.3d 1364 (Fed. Cir. 2006), *rev'd*, 553 U.S. 617 (2008).

45. *LG Elecs., Inc. v. Asustek Computer, Inc.*, 248 F. Supp. 2d 912, 918 (N.D. Cal. 2003), *rev'd*, 453 F.3d 1364 (Fed. Cir. 2006), *rev'd*, 553 U.S. 617 (2008).

Circuit confirmed the district court ruling that the doctrine of patent exhaustion did not apply to method claims and reversed the lower court in finding that the patent holder's patents were not exhausted, as the components were not being used in the manner authorized within the licensing agreement.⁴⁶

The Supreme Court found that a method patent was indeed exhausted by the authorized purchase of an article embodying the patent.⁴⁷ Further, the Court found that the license agreement did not actually impose any conditions on the sale of the chips to the third party computer manufacturers.⁴⁸ The Court pointed out that nothing in the license agreement restricted Intel from selling the computer chips to computer manufacturers intending to practice the patent.⁴⁹ While the license agreement stipulated that purchasers of the computer chips were not receiving an implied license to practice the patent, the Court held that whether these purchasers received an implied license was irrelevant since the third party purchasers' right to practice the patent was based on patent exhaustion rather than an implied license.⁵⁰ As a result, even in the absence of an implied license, the authorized sale of the computer chips embodying the patented method was found to have exhausted the patents.⁵¹

II. PATENT EXHAUSTION AND FOREIGN SALES

A. Prior Rulings on the Effect of Foreign Sales on Patent Exhaustion

The grandfather of patent of cases holding that sales outside of the United States do not exhaust U.S. patents is the 1890 Supreme Court case, *Boesch v. Graff*.⁵² *Boesch* was a patent infringement case where a patent holder sued an importer of infringing gas lamps purchased in Germany.⁵³ The patent holder held a patent in Germany, but the Imperial Patent Law of Germany at the time allowed that if a person was already using or preparing to use an invention at the time the application for the patent was applied for, that person could

46. LG Elecs., Inc. v. Bizcom Elec., Inc., 453 F.3d 1364, 1369–70 (Fed. Cir. 2006).

47. *Quanta Computer, Inc.*, 553 U.S. at 628–29. An article was described as embodying a method patent when there would be no use for the article other than to practice the patented method. *Id.* at 631 (citing *United States v. Unis Lens Co.*, 316 U.S. 241, 249 (1942)).

48. *Id.* at 636–37 (“Nothing in the License Agreement restricts Intel’s right to sell its microprocessors and chipsets to purchasers who intend to combine them with non-Intel parts. It broadly permits Intel to ‘make, use, [or] sell’ products free of LGE’s patent claims. . . . Hence, Intel’s authority to sell its products embodying the LGE Patents was not conditioned . . . on Quanta’s decision to abide by LGE’s directions in that notice.”) (citation omitted).

49. *Id.* at 636.

50. *Id.* at 637.

51. *Id.*

52. 133 U.S. 697, 703 (1890).

53. *Id.* at 698–99.

continue to use the invention without regard to the patent.⁵⁴ As such, a German competitor was authorized to make and sell the otherwise infringing gas lamps, as they had made preparations to manufacture the gas lamps prior to the patent holder's filing of the application.⁵⁵ The importer of the gas lamps contended that since his purchase of the gas lamps was authorized under German law that he was not infringing the patent holder's rights by importing the gas lamps into the United States to resell.⁵⁶

The Court addressed whether an importer could purchase articles subject to a U.S. patent in another country, from a person authorized by law to sell the articles there, and then import them to the United States without the consent of the U.S. patent holder.⁵⁷ The Court found that such an act infringed the U.S. patent, holding that "[t]he sale of articles in the United States under a United States patent cannot be controlled by foreign laws."⁵⁸ Whether this holding was limited to its facts in terms of the original sale being authorized by the foreign country's law, but not the patent holder, was not entirely clear.⁵⁹

The *Jazz Photo* line of cases represents the modern view on whether foreign sales exhaust U.S. patent rights.⁶⁰ The cases revolved around whether it was patent infringement for companies to refurbish in foreign facilities patented single-use, disposable cameras after they had been used by customers and import them into the United States to sell.⁶¹ The companies refurbishing these cameras claimed that the patents on the cameras had been exhausted through their first sale and that they were merely performing permissible repair.⁶² The patent holders claimed that there was impermissible

54. *Id.* at 701.

55. *Id.* at 701–02.

56. *Id.* at 699.

57. *Boesch*, 133 U.S. at 702–03.

58. *Id.* at 703.

59. Prior to being clarified by the Federal Circuit, courts had gone both ways. *See, e.g.*, *Griffin v. Keystone Mushroom Farm, Inc.*, 453 F. Supp. 1283, 1286–87 (E.D. Pa. 1978) (finding that foreign sales failed to exhaust a patent holders U.S. patent rights, even if the sale was made by the patent holder or an authorized licensee of the patent holder). *But see* *Curtiss Aeroplane & Motor Corp. v. United Aircraft Eng'g Corp.*, 266 F. 71, 78 (2d Cir. 1920) (finding that if the patent holder sells a patented article, "that article is freed from the monopoly of any patents which the vendor may possess," regardless of whether the sale was made in the United States or abroad); *Kabushiki Kaisha Hattori Seiko v. Refac Tech. Dev. Corp.*, 690 F. Supp. 1339, 1342 (S.D.N.Y. 1988) (finding no infringement where defendant purchased patented articles outside of the United States from authorized licensee).

60. *See* *Fuji Photo Film Co., v. Benun*, 463 F.3d 1252, 1253–54 (Fed. Cir. 2006); *Jazz Photo Corp. v. United States (Jazz IV)*, 439 F.3d 1344, 1346–47, 1350 (Fed. Cir. 2006); *Fuji Photo Film Co. v. Jazz Photo Corp. (Jazz III)*, 394 F.3d 1368, 1371, 1376–77 (Fed. Cir. 2005); *Fuji Photo Film Co., v. Int'l Trade Comm'n (Jazz II)*, 386 F.3d 1095, 1097–98 (Fed. Cir. 2004); *Jazz Photo Corp. v. Int'l Trade Comm'n (Jazz I)*, 264 F.3d 1094, 1098, 1105 (Fed. Cir. 2001).

61. *See, e.g.*, *Jazz I*, 264 F.3d at 1098.

62. *Id.* at 1101.

reconstruction⁶³ and even if the refurbishment was permissible that there was an implied license that the cameras were for a single use only.⁶⁴

The Federal Circuit found that with respect to cameras originally sold in the United States, the patent was exhausted.⁶⁵ Citing *Boesch*, the court held that under the doctrine of patent exhaustion, the authorized first sale of the good “must have occurred under the United States patent.”⁶⁶ Therefore, for any cameras whose original sale was outside of the United States, the patent holder’s U.S. patent rights were not exhausted and any importation of such a camera was an infringing act.⁶⁷

B. LG Electronics, Inc. v. Hitachi, Ltd.: One Federal District Court’s View of the Effect of Foreign Sales on Patent Exhaustion Post-Quanta

Following the Supreme Courts holding in *Quanta*, multiple district courts have taken the *Quanta* decision as a signal to reel in exceptions to the doctrine of patent exhaustion.⁶⁸ In *LG Electronics, Inc. v. Hitachi, Ltd.*, the United States District Court for the Northern District of California applied the trend of reducing exceptions to the doctrine of patent exhaustion to articles licensed or sold outside of the United States.⁶⁹

LG Electronics, Inc. was essentially a continuation of the litigation described earlier in *Quanta*. *LG Electronics, Inc.*, involved the same plaintiff and essentially the same facts as in *Quanta*.⁷⁰ Although the some of the

63. See *id.* For an example of a case where patent holder argued impermissible reconstruction, see *Aro Manufacturing Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 346 (1961) (“The decisions of this Court require the conclusion that reconstruction of a patented entity, comprised of unpatented elements, is limited to such a true reconstruction of the entity as to ‘in fact make a new article’ Mere replacement of individual unpatented parts, one at a time, whether of the same part repeatedly or different parts successively, is no more than the lawful right of the owner to repair his property.”) (citation omitted).

64. *Jazz I*, 264 F.3d at 1107.

65. *Id.* at 1105.

66. *Id.* (citing *Boesch v. Graff*, 133 U.S. 697, 701–03 (1890)).

67. *Id.*

68. See, e.g., *LG Elecs., Inc. v. Hitachi, Ltd.*, 655 F. Supp. 2d 1036, 1046 (N.D. Cal. 2009) (finding *Quanta* foreclosed the *Fuji Photo* exception that patents were not exhausted by an authorized foreign sale); *Static Control Components, Inc. v. Lexmark Int’l, Inc.*, 615 F. Supp. 2d 575, 586 (E.D. Ky. 2009) (finding that while an earlier Federal Circuit decision found patent infringement when the patent holder had not yet received its full value of the patent, the *Quanta* decision closed this exception; a sale, regardless of whether the patent holder received a full reward for its product, was unconditional and patent exhaustion applied).

69. *LG Elecs., Inc.*, 655 F. Supp. 2d at 1046.

70. See *id.* at 1038–39 (“The same patents were the subject of litigation in this Court between LGE and a number of computer manufacturers. That litigation was eventually appealed to the United States Supreme Court.”).

patents involved were different than those in *Quanta*,⁷¹ once again, the patent holder licensed its patents to Intel under an agreement containing a clause explicitly disclaiming the grant of any implied license to Intel's customers.⁷²

Having already lost in *Quanta*, the plaintiff tried to distinguish the conflict. The plaintiff argued that because the sales by Intel took place abroad, the first sale of the components should not have exhausted the U.S. patent rights on those articles.⁷³ The defendant computer manufacturers contended in return that *Quanta* also applied to foreign sales and that even if *Quanta* did not apply to foreign sales, the relevant sale took place in the United States, as that was where the license was entered into.⁷⁴

In determining whether the U.S. patents were exhausted by the foreign sale of the components, the court acknowledged that *Quanta* did not specifically address whether its holding pertained to foreign sales.⁷⁵ Still, the court found that *Quanta*'s "unequivocal" statement that the "authorized sale of an article that substantially embodies a patent exhausts the patent holder's rights and prevents the patent holder from invoking patent law to control postsale use of the article" applied to foreign sales.⁷⁶ Based on the Supreme Court's rationale of preventing an "end-run" around the patent exhaustion doctrine, Northern District of California Judge Claudia Wilken held that the Supreme Court meant for "authorized sales" to include "authorized foreign sales."⁷⁷ In particular, the court felt that ruling that an authorized foreign sale did not exhaust an article's U.S. patent rights would allow a patent holder to reap the benefit of its patent, yet turn around and sue a downstream purchaser for infringement.⁷⁸

The court believed that the fact that the *Quanta* decision discussed foreign sales in a different context, while failing to separate out foreign sales in its holding that the authorized sale of the computer chips exhausted the patent rights in those chips, was evidence of the Supreme Court's intent that all authorized sales—whether domestic or foreign—exhaust a patent holder's

71. Three of the four patents were the same as in *Quanta*. See *id.* The fourth patent was included in the original district court case and Federal Circuit appeal, but was excluded from the Supreme Court appeal. *Id.* at 1039.

72. *Id.* at 1039–40.

73. *Id.* at 1044. The plaintiff also tried to argue that the articles sold by Intel did not substantially embody the patent. *Id.* at 1041–42. This argument was dismissed by the court and is not relevant to the topic of this paper. See *id.* at 1044.

74. *LG Elecs., Inc.*, 655 F. Supp. 2d at 1042.

75. *Id.* at 1044.

76. *Id.* (quoting *Quanta Computer, Inc. v. LG Elecs., Inc.*, 553 U.S. 617, 638 (2008)) (internal quotation marks omitted).

77. *Id.* at 1038, 1046–47.

78. *Id.* at 1046.

rights.⁷⁹ The court noted that *Boesch* was reconcilable with such a holding in that the sale there was not authorized by the U.S. patent holder.⁸⁰

In addition to holding that the authorized foreign sale of an article could exhaust a U.S. patent, the court also found that the location of the authorized sales was within the United States.⁸¹ The court noted that the licensing agreement with Intel was entered into within the United States and was governed by New York law.⁸² As the patent holder received its reward for the use of the patent when it entered the licensing agreement, the court held that the licensing agreement was the relevant first sale for the purposes of patent exhaustion.⁸³ As the licensing agreement was entered into within the United States, the court found that the relevant sale for patent exhaustion purposes had occurred within the United States.⁸⁴

III. THE FEDERAL CIRCUIT OR THE SUPREME COURT NEEDS TO CLARIFY WHETHER FOREIGN SALES OR LICENSES EXHAUST U.S. PATENTS

While *LG Electronics, Inc. v. Hitachi, Ltd.* was only a district court case lacking the precedential effect of an appellate level opinion, there are serious future implications that arise from the court's finding that authorized foreign sales exhaust a U.S. patent holder's rights. The Northern District of California is a district with a large patent caseload. During the twelve-month period ending September 30, 2008, the Northern District of California ranked fifth among district courts in terms of the highest number of filed patent cases.⁸⁵ In addition, the *LG Electronics, Inc.* ruling on patent exhaustion through foreign sales has already been cited by courts in other districts.⁸⁶ An attempt has even

79. *LG Elecs., Inc.*, 655 F. Supp. 2d at 1045 (“[T]he fact that the Court was aware of foreign sales of the Intel parts, yet declined to limit its holding to sales in the United States, suggests that interpreting *Quanta* so as to impose such a limitation would be incorrect.”). The Supreme Court's acknowledgement of potential foreign sales was limited to a single footnote, discussing whether foreign use would be a substantial non-infringing use as part of the discussion as to whether the article computer chips embodied the method patent. *Id.* (citing *Quanta Computer, Inc.*, 553 U.S. at 632 n.6).

80. *Id.* at 1046–47.

81. *Id.* at 1048.

82. *Id.*

83. *Id.* at 1047–48.

84. *LG Elecs., Inc.*, 655 F. Supp. 2d at 1048.

85. ADMIN. OFFICE OF THE U.S. COURTS, 2008 ANNUAL REPORT OF THE DIRECTOR: JUDICIAL BUSINESS OF THE UNITED STATES COURTS 192–205 (2009), available at <http://www.uscourts.gov/judbus2008/JudicialBusinesspdfversion.pdf>. Only the District Courts for the Eastern District of Texas, the Central District of California, District of New Jersey, and District of Delaware had more cases filed during the twelve-month period ending September 30, 2008. *Id.* at 194, 197, 201.

86. See, e.g., *Static Control Components, Inc. v. Lexmark Int'l, Inc.*, 615 F. Supp. 2d 575, 588 (E.D. Ky. 2009) (stating that *LG Electronics, Inc. v. Hitachi* was an example of an expansive

been made to carry the holding that authorized foreign sales exhaust U.S. intellectual property rights over into copyright law.⁸⁷

So far, at least one other district court has declined to follow the Northern District of California's lead. In *Fujifilm Corp. v. Benun*,⁸⁸ while taking note of the *LG Electronics, Inc.* decision, the District of New Jersey found that because the Supreme Court's *Quanta* decision did not specifically address whether authorized foreign sales could exhaust the patent holder's U.S. patent rights, the controlling law on the subject continued to be that of the *Jazz Photo* line of cases.⁸⁹ As such, the District Court of New Jersey held that the foreign sales of patented articles failed to exhaust the patent holder's U.S. patent rights in those articles.⁹⁰

As it currently stands, there is a split between two of the five most prolific patent jurisdictions.⁹¹ As such, litigants are incentivized to forum shop for district courts favorable to their case.⁹² Such a district split creates the type of confusion and lack of uniformity that led Congress to give the Federal Circuit appellate jurisdiction over patent cases.⁹³ The confusion over whether or not foreign sales exhaust U.S. patent rights will likely grow if even more jurisdictions are asked to consider the issue without further guidance. As such, either the Federal Circuit or the Supreme Court needs to address this question.

interpretation of *Quanta*, although patent exhaustion through authorized foreign sales was not at issue); *Fujifilm Corp. v. Benun*, No. 05-cv-1863 (KSH), 2009 WL 2232523, at *3 (D.N.J. July 24, 2009) (declining to apply *LG Electronics, Inc.* noting that it was not controlling law).

87. Brief for eBay Inc. as Amicus Curiae Supporting Petitioner at 8–9, *Costco Wholesale Corp. v. Omega, S.A.*, 130 S. Ct. 356 (2010) (No. 08-1423), 2009 WL 1759032. Copyright law recognizes the first sale doctrine, whereby the owner of a lawfully made copy of a copyrighted article may sell or otherwise dispose of the article. See 17 U.S.C. § 109(a) (2006). The Supreme Court has held that the importation of a copy of a protected work that was lawfully made within the United States was allowed under the first sale doctrine, but limited the holding to re-importation of copies made in the United States. See *Quality King Distribs. v. L'Anza Research Int'l, Inc.*, 523 U.S. 135, 152 (1998).

88. *Fujifilm Corp.*, 2009 WL 2232523. *Fujifilm Corp.* is yet another entry in the *Jazz Photo* line of cases involving disposable cameras. See *id.* at *1; cf. *supra* notes 62–63 and accompanying text.

89. *Fujifilm Corp.*, 2009 WL 2232523, at *3.

90. *Id.*

91. See ADMIN. OFFICE OF THE U.S. COURTS, *supra* note 85, at 194, 201.

92. Kimberly A. Moore, *Forum Shopping in Patent Cases: Does Geographic Choice Affect Innovation?*, 83 J. PAT. & TRADEMARK OFF. SOC'Y 558, 567 (2001) (explaining that even within patent law, where the federal courts have exclusive jurisdiction, litigants forum shop for district courts that are favorable to their argument).

93. See 28 U.S.C. § 1295(a) (2006). See also H.R. REP. NO. 97-312, at 41 (1981) ("Whatever form such guidelines for particular cases may take, the proposal would continue to provide a consistent jurisprudence and a uniform body of patent law created over time by the Court of Appeals for the Federal Circuit or by its reviewing court, the Supreme Court of the United States.").

IV. POLICY REASONS FOR NOT ALLOWING FOREIGN SALES AND LICENSES TO EXHAUST PATENT RIGHTS

One of the primary policy reasons why foreign sales and licenses should not exhaust U.S. patents is that the U.S. patent system does not provide for extraterritorial effects.⁹⁴ This has two separate effects. First, U.S. patents provide no protection for articles sold outside of the United States.⁹⁵ Second, the inventor must rely on each separate country's own patent system, under which the inventor may not have equivalent rights, if he wants protection outside of the United States.⁹⁶ Additionally, the established status quo is that U.S. patent rights are not exhausted by foreign sales, and to move away from the status quo would disrupt current business practices.

A. *U.S. Patents Provide No Protection for Articles Sold Outside of the United States*

As the court in *LG Electronics, Inc.* stated, the purpose of the doctrine of patent exhaustion is to prevent a patent holder from enforcing its patent rights against downstream purchasers after having already “reap[ed] the benefit of its patent.”⁹⁷ The court made a point within its holding to emphasize that the initial sales of the patented devices were authorized by the U.S. patent holder.⁹⁸ As such, the patent holder had reaped its benefit. Still, whether or not the sale was authorized by the patent holder does not displace the fact that the sale takes place outside of the jurisdiction of U.S. patent law.

The U.S. patent laws provide that anyone who makes, uses, or sells a patented invention “within the United States” or imports a patented invention “into the United States” without the authorization of the patent holder is infringing the invention.⁹⁹ It is also infringement to export components or devices that can only be used to practice a patented invention from the United

94. See *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518, 531 (1972) (confirming that the patent system “makes no claim to extraterritorial effect”), *abrogated in part by* 35 U.S.C. § 271(f) (2006), with respect to components made within the United States for sale abroad that could only be used to practice an invention protected by a U.S. patent; *Rotec Indus., Inc. v. Mitsubishi Corp.*, 215 F.3d 1246, 1251 (Fed. Cir. 2000) (quoting *Dowagiac Mfg. Co. v. Minn. Mowline Plow Co.*, 235 U.S. 641, 650 (1915)) (noting “[t]he right conferred by a patent under our law is confined to the United States and its territories” and that infringement of U.S. patents “cannot be predicated on acts wholly done in a foreign country”).

95. *Deepsouth Packing Co.*, 406 U.S. at 531; *Rotec Indus., Inc.*, 215 F.3d at 1251.

96. See Randy L. Campbell, Note, *Global Patent Law Harmonization: Benefits and Implementation*, 13 IND. INT’L & COMP. L. REV. 605, 619 (“[W]hat constitutes a patentable subject matter varies among nations.”).

97. *LG Elecs., Inc. v. Hitachi, Ltd.*, 655 F. Supp. 2d 1036, 1046 (N.D. Cal. 2009).

98. *Id.* at 1048.

99. 35 U.S.C. § 271(a) (2006).

States.¹⁰⁰ Still, the key to a finding of infringement is that there must have been an act committed within the United States.

There is no protection from acts committed solely outside of the United States.¹⁰¹ As such, an article that is manufactured, sold, and used outside of the United States falls completely outside of the jurisdiction of U.S. patent laws.¹⁰² Therefore, allowing sales outside of the United States to exhaust United States patents would strip patent holders of a protection that they never had in the first place.

B. U.S. Patent Holders May Not Have Equivalent Protection for Their Invention Abroad

The fact that U.S. patent laws do not provide a patent holder protection abroad would not be as much of an issue if foreign jurisdictions always provided U.S. patent holders equivalent protection. As will be discussed, the rights conferred by foreign jurisdictions may differ substantially.¹⁰³ Further, it is possible that the U.S. patent holder will choose not to pursue patent protection—or may not even be eligible for protection—in these foreign jurisdictions.¹⁰⁴ For sales in a country outside of the United States, the inventor must avail himself to that country's applicable patent laws.¹⁰⁵ By virtue of the invention not being protected by U.S. patent laws, the inventor or his assignee may be dealing from a drastically different bargaining position when selling their products outside the United States than they would be dealing from within the United States.¹⁰⁶

100. *Id.* § 271(f).

101. *See* *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518, 527 (1972) (citing 35 U.S.C. § 271 (1970)).

102. *See id.* (citing 35 U.S.C. § 271 (1970) (“The statute makes it clear that it is not an infringement to make or use a patented product outside of the United States.”)); *Brown v. Duchesne*, 60 U.S. (19 How.) 183, 195 (1856) (noting U.S. patent laws “do not, and were not intended to, operate beyond the limits of the United States”).

103. *See infra* notes 160–81 and accompanying text.

104. *See infra* notes 113–59 and accompanying text.

105. *See* *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 455–56 (2007) (holding that AT&T needed to rely on foreign law to prevent foreign infringement). “Foreign conduct is generally the domain of foreign law, and in the area here involved, in particular, foreign law may embody different policy judgments about the relative rights of inventors, competitors, and the public in patented inventions.” *Id.* at 455 (internal quotations and citations removed).

106. *See* Michele L. Vockrodt, *Patent Exhaustion And Foreign First Sales: An Analysis And Application Of the Jazz Photo Decision*, 33 AIPLA Q.J. 189, 202 (2005) (quoting Brian D. Coggio & Adriane M. Antler, *The Utilization of the United States Patents to Prevent the Sale of Gray Goods*, 83 TRADEMARK REP. 481, 494 (1993); citing Hilary A. Kremen, Note, *Caveat Venditor: International Application of the First Sale Doctrine*, 23 SYRACUSE J. INT’L L. & COM. 161, 163 (1997) (explaining that since patent rights have an “independent territorial existence”

There is no such thing as an international patent,¹⁰⁷ but there are international treaties that provide requirements for the individual countries' patent regimes. Most notable are the Paris Convention for the Protection of Industrial Property (Paris Convention),¹⁰⁸ the Agreement on Trade-Related Intellectual Property Rights (TRIPS),¹⁰⁹ and the Patent Cooperation Treaty (PCT).¹¹⁰

The Paris Convention provided that each member state would grant equivalent rights for foreign and domestic inventors, give priority rights to inventors based on the date which they filed a patent application with any other member state, and adhere to common rules upon contracting member nations' patent regimes.¹¹¹ The TRIPS agreement provided general requirements on each member state's patent regime in determining standards to apply in evaluating the patentability of an invention.¹¹² The PCT provided a procedure for filing patent applications by which inventors could pursue patent protection with each member state.¹¹³

While the PCT made it significantly easier to obtain a patent on an invention in multiple countries, each country still grants their own patents subject to their own requirements.¹¹⁴ The PCT allows an applicant to submit a patent application to one of three international search authorities in what is called the international stage.¹¹⁵ The international search authority then performs a search to find prior art that may be relevant to determine whether an invention is novel, involves an inventive step (is non-obvious), and is industrially applicable.¹¹⁶ The international search authority then issues a

the bargained for compensation received for the sale an article is "likely to be tailored to the jurisdiction in which it is sold").

107. There is such a thing as a European Patent, but even this is a misnomer. Even with a European Patent an inventor is required to meet the requirements of the individual nations within the European Union in which they seek patent protection. Campbell, *supra* note 96, at 624–25.

108. Paris Convention for the Protection of Industrial Property, Mar. 20, 1883, 21 U.S.T. 1583, 828 U.N.T.S. 305 (as amended on Sept. 28, 1979) [hereinafter Paris Convention].

109. Agreement on Trade Related Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299 [hereinafter TRIPS].

110. Patent Cooperation Treaty, June 19, 1970, 28 U.S.T. 7645, 1160 U.N.T.S. 231 [hereinafter PCT].

111. See Paris Convention, *supra* note 108, arts. 2, 4.

112. See TRIPS, *supra* note 109.

113. See PCT, *supra* note 110, ch. 1.

114. U.S. PATENT & TRADEMARK OFFICE, U.S. DEP'T OF COMMERCE, MANUAL OF PATENT EXAMINING PROCEDURE § 1801 (8th ed. 2008) [hereinafter MPEP].

115. See *id.* § 1801(I) (describing the procedure for Americans that wish to file an international PCT application). The three international search authorities are the United States Patent and Trademark Office (USPTO), European Patent Office (EPO), and Korean Intellectual Property Office (KIPO). *Id.* §§ 1840–1840.2.

116. PCT, *supra* note 110, art. 15. MPEP, *supra* note 114, § 1801(III).

report on its findings,¹¹⁷ identifying prior art that may prevent the invention from being patentable within the member states.¹¹⁸

Within thirty months of submitting a PCT application, applicants must decide whether they wish to enter the national stage in individual countries.¹¹⁹ In the national stage, the application is sent to the different countries where the applicant wants to obtain a patent for review by each country's own patent office.¹²⁰ Within the national stage the individual countries will weigh the application under their own rules for patentability.¹²¹ The individual countries may rely on the international search report or may perform prior art searches of their own.¹²²

As the application is reviewed in each country separately, it can be extremely costly to seek a patent in multiple countries. Each country will have its own fees to prosecute a patent.¹²³ The applicant may be required to have the application translated into that country's language, as well as conduct the entirety of the prosecution in that country's language.¹²⁴ Further, the applicant will likely have to hire local representation in each country to argue the merits of the application.¹²⁵

Due to these substantial costs, an inventor or an assignee of rights to the invention may be selective in determining in which countries to seek patents. It is not out of the realm of possibility that an inventor would not seek a patent in a country where he would expect only modest sales.¹²⁶ The lack of a patent may lead to competition from other manufacturers or producers using the same

117. PCT, *supra* note 110, art. 18.

118. *Id.* art. 16, ¶ 1.

119. *Id.* art. 22, ¶ 1. Article 22 was amended in 2002 to reflect the thirty-month limit. Revision of the Time Limit for National Stage Commencement in the United States for Patent Cooperation Treaty Applications, 67 Fed. Reg. 520, 520 (Jan. 4, 2002) (to be codified at 37 C.F.R. pt. 1).

120. See PCT, *supra* note 110, art. 27 (detailing the requirements for national patent applications). See also MPEP, *supra* note 114, § 1893 (describing the advantages over PCT national stage versus filing an application for a national patent in the United States).

121. PCT, *supra* note 110, art. 15, ¶ 5(a)–(b), art. 27, ¶ 5.

122. *Id.* art. 15, ¶ 5(a)–(b).

123. Daniel N. Yannuzzi, *Developing a Foreign Filing Strategy*, in GLOBAL PATENT PROSECUTION 111, 117 (Eddie Fournier ed., 2009) (explaining that within each country a part seeking patent protection will be subject to fees such as “filing fees, examination fees, granting fees, and annuities or maintenance fees”).

124. *Id.* (“This means that not only does the initial application need to be translated, but also subsequent correspondence with the patent office may need to be translated such that the company and its U.S. attorneys can participate with local foreign counsel in prosecution activities. These translation fees can be extremely expensive and add dramatically to the cost of seeking and obtaining patent protection in foreign jurisdictions.”).

125. *Id.*

126. *Id.* at 126.

invention in their products.¹²⁷ Such competition would be in stark contrast to the monopoly over the invention given to the patent holder within the United States. By holding a monopoly on an invention, the patent holder may be able to charge higher prices when selling its patented products within the United States; in foreign markets it may be restricted to the price obtainable under perfect competition.¹²⁸ If the foreign sale of an article embodying a U.S. patent is found to exhaust the U.S. patent rights on the article, the door may be open to disrupt the patent holder's granted monopoly within the United States. Foreign resellers and licensees may effectively be able to purchase or contract for the rights to produce articles in foreign markets at competitive—rather than monopolistic—prices and then import them into the United States.

Even if a U.S. patent holder were willing to seek patent protection abroad, it is entirely possible that the invention—patentable within the United States—would not even be eligible for such protection in other countries. The current TRIPS regime requires that member countries make patentability available for inventions “in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application.”¹²⁹ Still, each country's patent system has its own requirements for patentability. The differences between these requirements may seem minor at first, but the devil may very well be in the details.

One of the most significant differences between various countries' requirements for patentability is what inventive subject matters are eligible for patent protection. The areas these differences may be most prevalent in are computing/business methods and biotechnology. In the United States, 35 U.S.C. § 101 provides a statutory patentable subject matter of “any new and useful process, machine, manufacture, or composition of matter.”¹³⁰ The Supreme Court, in *Diamond v. Chakrabarty*, interpreted this “to include

127. *But see id.* (explaining that if a patent protects a product in the American and European markets it may not be worthwhile for a competitor to enter the market at all).

128. *See* Alan Devlin & Neel Sukhatme, *Self-Realizing Inventions and the Utilitarian Foundation of Patent Law*, 51 WM. & MARY L. REV. 897, 917 (2009) (“An inventor awarded a patent, in effect, is granted a monopoly over her invention, with the result that consumers cannot freely avail themselves of its nonrivalrous characteristics. If the technology at issue is sufficiently valuable—such as if the patented invention is highly useful and has few if any substitutes—the monopoly that is granted becomes an economic monopoly. As a result, the inventor will set the price at the point where marginal cost equals marginal revenue and charge a monopoly price, which exceeds what she would charge in a competitive market.”) (footnotes omitted). *See generally* RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 273–78 (6th ed. 2003) (detailing the effects that monopolistic control by a firm has on prices and outputs).

129. TRIPS, *supra* note 109, art. 27, ¶ 1.

130. 35 U.S.C. § 101 (2006) (“Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.”).

anything under the sun that is made by man.”¹³¹ While “laws of nature, physical phenomena, and abstract ideas are not patentable subject matter,”¹³² a wide range of computing and business methods¹³³ and biotechnology¹³⁴ inventions have been granted U.S. patents.

Until recently, business methods and computer software have enjoyed patentability within the United States so long as they produced a “useful, concrete, and tangible result.”¹³⁵ With its ruling in *In re Bilski*,¹³⁶ the Federal Circuit attempted to narrow the patentability of method claims to those implemented with a particular machine or that transform an article from one thing or state to another.¹³⁷ The Supreme Court was critical of this “machine-or-transformation test” as “the sole test for deciding whether an invention is a patent-eligible ‘process.’”¹³⁸ Still, the Court gave significant credence to the test by hailing it as a “useful and important clue” in determining patentability.¹³⁹

131. 447 U.S. 303, 309 (1980) (quoting S. REP. NO. 1979, at 5 (1952); H.R. REP. NO. 1923, at 6 (1952)).

132. *Parker v. Flook*, 437 U.S. 584, 598 (1978) (Stewart, J., dissenting).

133. *See, e.g.*, Computer-Based Comm’n Sys. & Method Using Metadata Defining a Control Structure, U.S. Patent No. 5,862,325 (filed Sept. 27, 1996) (issued Jan. 19, 1999); Method & Sys. for Generating & Auditing a Signature for a Computer Program, U.S. Patent No. 5,559,884 (filed June 30, 1994) (issued Sept. 24, 1996); Sys. & Method for Integrating a Bus. Env’t with a Process Control Env’t, U.S. Patent No. 5,463,555 (filed Sept. 28, 1993) (issued Oct. 31, 1995). *But see In re Bilski*, 545 F.3d 943, 956, 964–66 (Fed. Cir. 2008) (rejecting the patentability of a method for commodity trading and implementing a new standard for patentability of business methods consisting of evaluating whether a method is tied to a machine or physically transforms an article).

134. *See, e.g.*, Cancer Susceptibility Mutations of BRCA2, U.S. Patent No. 6,051,379 (filed Dec. 2, 1997) (issued Apr. 18, 2000); Method for Animal Cell Culture, U.S. Patent No. 5,976,833 (filed Sept. 19, 1996) (issued Nov. 2, 1999); Method of Treating HIV in Humans by Admin. of DDI & Hydroxycarbamide, U.S. Patent No. 5,521,161 (filed Dec. 20, 1993) (issued May 28, 1996).

135. *In re Alappat*, 33 F.3d 1526, 1544 (Fed. Cir. 1994), *abrogated by In re Bilski*, 545 F.3d at 943 (setting the standard by which the Federal Circuit determined whether a mathematical concept was patentable prior to *In re Bilski*). *AT&T Corp. v. Excel Comm’ns, Inc.*, 172 F.3d 1352, 1357–60 (Fed. Cir. 1999), *abrogated by In re Bilski*, 545 F.3d at 943 (applying the standard set by in *In re Alappat* in finding that a mathematical algorithm for use in billing long distance phone calls was patentable). *See also* *State St. Bank & Trust Co. v. Signature Fin. Grp., Inc.*, 149 F.3d 1368, 1373–75 (Fed. Cir. 1998), *abrogated by In re Bilski*, 545 F.3d at 943 (applying the standard set by *In re Alappat* in finding that a mathematical algorithm for use in compiling financial data was patentable).

136. 545 F.3d at 943.

137. *Id.* at 959–60 (concluding that the “useful, concrete and tangible result” test was insufficient and that the “machine-or-transformation test” was the correct test to apply in determining whether business or computational methods were patentable).

138. *Bilski v. Kappos*, 130 S. Ct. 3218, 3227 (2010).

139. *Id.*

Even under the “machine-or-transformation test” for the patentability of business methods and computer software, the patentability of such inventions within the United States is still greater than under the patent systems in some other countries. Much of Europe ties patentability to inventions that actually make a contribution in a technical field.¹⁴⁰ Under such a standard, technology is frequently restricted to that which is a physical object.¹⁴¹ As such, business methods and software are generally not patentable in Europe.¹⁴² Hostility toward the patentability of business methods and software is not restricted to just Europe, as countries like Israel, China, and India also severely restrict such inventions from being patented.¹⁴³

Biotechnology is another area that can differ greatly in its patentability within different patent jurisdictions. While biotechnology is generally accepted as patentable within the United States, developing countries are resistant to recognizing intellectual property rights in biotechnology.¹⁴⁴ Article 27 of TRIPS provides that all member nations must make patent protection available in all fields of technology.¹⁴⁵ Member countries may exclude from patentability inventions that which would (1) harm the “*ordre public* or

140. United Nations Convention on the Grant of European Patents (European Patent Convention), art. 52(1), Oct. 5, 1973, 1065 U.N.T.S. 255, available at <http://www.epo.org/patents/law/legal-texts/epc.html>, as amended by the Act Revising the European Patent Convention, Nov. 29, 2000. See also RAINER OSTERWALDER, EUROPEAN PATENT OFFICE, PATENTS FOR SOFTWARE?: EUROPEAN LAW AND PRACTICE 9–11 (2009) (addressing how the standard for patentability set by the European Patent Convention is applied to software), available at [http://documents.epo.org/projects/babylon/eponet.nsf/0/a0be115260b5ff71c125746d004c51a5/\\$FILE/patents_for_software_en.pdf](http://documents.epo.org/projects/babylon/eponet.nsf/0/a0be115260b5ff71c125746d004c51a5/$FILE/patents_for_software_en.pdf).

141. Kelvin W. Willoughby, *How Much Does Technology Really Matter in Patent Law? A Comparative Analysis of Doctrines of Appropriate Patentable Subject Matter in American and European Patent Law*, 18 FED. CIR. B.J. 63, 95 (2009) (“The EPO’s contribution approach presumes that an artifact is only ‘technical’ (i.e., a technology) if it is a physical machine, or perhaps just simply physical.”).

142. See European Patent Convention, *supra* note 140, art. 52(2)(c) (stating that mathematical methods, methods for performing mental acts or doing business, and computer programs “shall not be regarded as inventions within the meaning of paragraph 1” of Article 52.). See also Willoughby, *supra* note 141, at 97 (“Software inventions are generally not ‘technical’ according to this way of thinking. . . . the EPO’s case law has held that if the software is functionally embedded inside something that will hurt you if you drop it on your foot, then it may be deemed as ‘technical’ and hence patentable.”).

143. Yannuzzi, *supra* note 123, at 133.

144. Jonathan Curci, *The New Challenges to the International Patentability of Biotechnology: Legal Relations Between the WTO Treaty on Trade-Related Aspects of Intellectual Property Rights and the Convention on Biological Diversity*, 2 INT’L L. & MGMT. REV. 1, 2 (2005) (developing countries are resistant to the patentability of biotechnology fearing patentability of biotechnology results in control by the developed world over their access to “food, medicinal technology, and other resources essential to mankind’s health and welfare”).

145. TRIPS, *supra* note 109, art. 27, ¶ 1.

morality;”¹⁴⁶ (2) pertain to “diagnostic, therapeutic and surgical methods for the treatment of humans or animals;”¹⁴⁷ or (3) relate to “plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes.”¹⁴⁸

The requirement that an invention must be novel in order to be eligible for a patent is fairly standard both in the United States and abroad. The individual components of the novelty test within patent laws vary from country to country, creating circumstances where an invention could be considered novel—and thus patentable—within the United States, yet fail the novelty requirement in other countries.

Title 35 U.S.C. § 102 provides a complicated multi-faceted test to determine whether an invention is novel under U.S. patent law.¹⁴⁹ Within the United States, if “the invention was known or used by others in this country” then it is deemed to lack novelty.¹⁵⁰ This can be better understood as a requirement that only the first person to invent something is eligible for a patent on his invention. Notice though, that the resulting first-to-invent patent system has a territorial element in that a prior invention must have been known within the United States to defeat an applicant’s novelty.¹⁵¹ Following this rule, if another inventor were to invent something abroad first, a subsequent U.S. inventor may still be entitled to a U.S. patent so long as there was no knowledge of the invention within the United States. Meanwhile, the majority of other countries have a first-to-file system, awarding patents to the first inventor to file an application for a patent.¹⁵² As such, if a U.S. inventor were the first to invent something they would be eligible for a U.S. patent, but could still lose out to a subsequent inventor in foreign countries by losing the race to file a patent application.

Additionally, if an invention was “patented or described in a printed publication” anywhere in the world or was “publicly used or sold” within the United States more than one year prior to the date of filing an application for a patent, then the invention would fail the novelty test under U.S. patent laws.¹⁵³ As such, if the invention was publicly disclosed in a printed manner by anyone—including the inventor applying for the patent—more than a year before the filing of an application, the invention is not patentable. This creates

146. *Id.* art. 27, ¶ 2.

147. *Id.* art. 27, ¶ 3(a).

148. *Id.* art. 27, ¶ 3(b).

149. 35 U.S.C. § 102 (2006).

150. *Id.* § 102(a).

151. *Id.*

152. Campbell, *supra* note 96, at 619.

153. 35 U.S.C. § 102(b).

a grace period of one year in which an inventor may apply for a patent after having already disclosed the invention.¹⁵⁴

This one-year grace period is generous compared to many of the patent systems found in other countries. The Paris Convention prevents member countries from denying patentability on novelty grounds due to an inventor having disclosed an invention through the act of filing a patent application in another member country within the previous twelve months.¹⁵⁵ While the Paris Convention essentially gives a twelve-month grace period for an inventor who has decided to seek patent protection elsewhere first, this grace period does not apply to any disclosures preceding the filing of a patent application in at least one member country.¹⁵⁶

Individual countries frequently determine their own rules for inventions disclosed outside of a patent application. China allows for a six-month grace period for inventions disclosed at exhibitions sponsored or recognized by the Chinese Government, made public at prescribed academic or technological meetings, or disclosed without the consent of the applicant.¹⁵⁷ European Patent Convention countries¹⁵⁸ have a strict novelty requirement¹⁵⁹ and provide a grace period in such limited situations as to render their grace period virtually

154. Such grace periods are controversial. On one hand, grace periods allow inventors to share discoveries and interact with others in the field in such a way as to promote innovation and growth without risk of losing their patent rights. Renee E. Metzler, Comment, *Not All Grace Periods Are Created Equal: Building a Grace Period From the Ground Up*, 13 MARQ. INTELL. PROP. L. REV. 371, 376–77 (2009). On the other hand, grace periods may allow an inventor to delay their filing of a patent and subsequently increase the duration of time in which they will have exclusive rights in the invention. *See id.* at 403 (explaining that an increased grace period would disrupt the fair balance between an inventor and the public).

155. Paris Convention, *supra* note 108, art. 4(A), (C)(1) (noting a twelve-month grace period is given for inventors to seek utility patents in additional countries after having filed an application in an initial member country; design patents receive only a six-month grace period). *See also* Metzler, *supra* note 154, at 400–01 (noting that the Paris Convention most benefits inventors who disclose their inventions for the first time in the application process).

156. *See* Metzler, *supra* note 154, at 401 & n.128 (noting that any disclosures made prior to the filing of the first patent application could be used against the applicant as prior art).

157. Patent Law of the People's Republic of China (promulgated by the Standing Comm. Nat'l People's Cong., Mar. 12, 1984), *as amended by* Decision on the Amendment of the Patent Law of People's Republic of China (promulgated by the Standing Comm. Nat'l People's Cong., Aug. 25, 2000, effective July 1, 2001) art. 24, *translated in* 1 P.R.C. LAWS & REGS II-03-03-101 (China).

158. There are currently thirty-six member states of the European Patent Organization. *See Member states of the European Patent Organization*, EUROPEAN PATENT ORG., <http://www.epo.org/about-us/organisation/member-states.html> (last visited June 20, 2011), for a list of member countries.

159. European Patent Convention, *supra* note 140, art. 52(1) ("European patents shall be granted for any inventions, in all fields of technology, provided that they are new, involve an inventive step and are susceptible of industrial application.").

non-existent.¹⁶⁰ In fact, the European Patent Convention specifically includes “everything made available to the public by means of a written or oral description, by use, or in any other way” prior to the filing of a European patent application as novelty defeating art.¹⁶¹

As the novelty requirements vary significantly from country to country it is entirely possible that an invention that has been publicly disclosed may still be patentable in the United States due to the twelve-month grace period, yet be unpatentable due to lack of novelty in a significant portion of the world. As such, it is not a given that a U.S. patent holder would have any protection for its intellectual property abroad.

Even if an inventor or his assignee has a patent where the good is sold, the patent may be more difficult to enforce.¹⁶² Therefore, the patent holder may have substantially less bargaining power. In order to enforce these foreign patents, the patent holder would still be required to avail themselves to each separate country’s court system in response to infringing acts within those jurisdictions.¹⁶³ If the patent holder has to sue infringers in these various countries the patent holder will likely need to hire foreign counsel in each jurisdiction to represent them.¹⁶⁴ Further additional cost may be necessary to translate any court documents and transport key witnesses to the trial location.¹⁶⁵ As the difficulty to enforce a patent increases, the value of the patent decreases. It is not unlikely that when facing the possibility that a competitor in a foreign country will infringe a patent, the patent holder may be better off licensing the patent to this potential infringer rather than trying to enforce its rights through a foreign country’s courts. In such a situation the patent holder may be inclined to license the patent at a rate below what the patent holder would desire in the patent holder’s home jurisdiction.

Additionally, some countries have compulsory licenses and local working requirements that may reduce a patent holder’s bargaining power. *Black’s Law Dictionary* defines compulsory license as “a statutorily created license” that permits people to pay a royalty and use an invention without the patentee’s permission.¹⁶⁶ Local working requirements are requirements that a patent holder manufacture or produce a patented article within the granting country’s

160. See Metzler, *supra* note 154, at 397 n.113 (2009) (discussing that many commentators have incorrectly reached the conclusion that the EPC does not provide any grace period).

161. European Patent Convention, *supra* note 140, art. 54(2).

162. Yannuzzi, *supra* note 123, at 127.

163. *Id.* at 127–28.

164. *Id.* at 127 (“It is also desirable to have local U.S. counsel (whether in-house or outside counsel) help manage foreign counsel and issues associated with the enforcement action.”).

165. *Id.*

166. BLACK’S LAW DICTIONARY 1003 (Bryan A. Garner ed., 9th ed. 2009).

territory or otherwise forfeit rights in the patent.¹⁶⁷ Local working requirements and compulsory licenses often work hand-in-hand, as the typical remedy for failing to practice a local working requirement is to grant of a compulsory license to a local producer.¹⁶⁸ While the United States does not formally recognize compulsory licenses or working requirements,¹⁶⁹ other countries—particularly developing countries—do contain compulsory licenses or working requirements within their patent laws.¹⁷⁰

The TRIPS Agreement restricts member nations from granting compulsory licenses, with the exception of specific conditions listed within Article 31.¹⁷¹ Among the conditions listed under Article 31 of the TRIPS agreement are that compulsory licenses must be considered on each occurrence's individual merits, that the proposed grantees of compulsory licenses be required to attempt to negotiate a license first, that the scope and duration of any compulsory licenses are limited to the specific purpose for which they were authorized, that the use of the compulsory licenses are limited to supplying the granting country's domestic market, and that adequate remuneration is

167. See Paul Champ & Amir Attaran, *Patent Rights and Local Working Under the WTO TRIPS Agreement: An Analysis of the U.S.-Brazil Patent Dispute*, 27 YALE J. INT'L L. 365, 366 & n.6 (2002) (describing the meaning of local working requirements); see also *id.* at 370–73 (describing the history of the use of local working requirements in the development of patent laws).

168. *Id.* at 366.

169. BLACK'S LAW DICTIONARY, *supra* note 166, at 1003 ("While some nations currently recognize compulsory licenses, the United States never has."). Commentators have noted that judicial remedies such as those imposed on patent holders to cure antitrust violations and awards of on-going reasonable royalties in lieu of an injunctions as the result of patent infringement certain cases are essentially compulsory licenses. See, e.g., Joshua D. Sarnoff & Christopher M. Holman, *Recent Developments Affecting the Enforcement, Procurement, and Licensing of Research Tool Patents*, 23 BERKELEY TECH. L.J. 1299, 1353–55 (2008) (noting that ongoing royalty damage awards offered in lieu of injunctions may be considered compulsory licenses); Andrew C. Mace, Note, *TRIPS, eBay, and Denials of Injunctive Relief: Is Article 31 Compliance Everything?*, 10 COLUM. SCI. & TECH. L. REV. 232, 249–50 (2009) (stating commentators note that the United States has a long history of granting compulsory licenses in the form of judicial orders to remedy anti-competitive practices). In addition, where the U.S. government is found to have infringed a patent, they are only held to damages and fees, essentially equating to a compulsory license. See 28 U.S.C. § 1498(a) (2006) (providing monetary remedies but no injunction). See also Richard J. McNeely, *Governmental Indirect Patent Infringement: The Need to Hold Uncle Sam Accountable Under 28 U.S.C. § 1498*, 36 CAP. U. L. REV. 1065, 1080 (2008) ("When the government infringes a patent, the government is viewed to have taken control not of the patent itself, but of a compulsory license to practice the patented invention."). The Federal Circuit has tried to distinguish such remedies, stating that, "'compulsory license' implies that anyone who meets certain criteria has congressional authority to use that which is licensed" as compared to judicially imposed remedies only pertaining to the parties in suit." *Paice LLC v. Toyota Motor Corp.*, 504 F.3d 1293, 1313 n.13 (Fed. Cir. 2007).

170. Champ & Attaran, *supra* note 167, at 366 & n.7.

171. TRIPS, *supra* note 109, art. 31.

awarded to patent holders.¹⁷² Article 5A of the Paris Convention offers a few additional restrictions on the use of compulsory licenses.¹⁷³ Article 5A provides that such compulsory licenses cannot be granted prior to four years from the filing date of a patent application or three years from the patent issue date, whichever is later; thus allowing a patentee adequate time to attempt to meet the needs of the market.¹⁷⁴ In addition, Article 5A allows a patent holder to avoid compulsory licenses by showing justification for not meeting the market demand.¹⁷⁵

Local working requirements are generally not accepted within the various international treaties on patent rights. The Paris Convention disallowed the forfeiture of patents by member countries purely on the grounds that patented articles are imported into that country.¹⁷⁶ The TRIPs Agreement allows that “patents shall be available and patent rights enjoyable without discrimination as to . . . whether products are imported or locally produced.”¹⁷⁷ Still, many developing countries have refused to eliminate their local working requirements, arguing that the exceptions within the TRIPs agreement and the Paris Convention for compulsory licenses apply to local working requirements as well.¹⁷⁸

Developing countries are known to use compulsory licenses and local working requirements to force patent holders to bring their patented products to market at terms favorable to the public.¹⁷⁹ Brazil has repeatedly used the threat of compulsory licenses to obtain concessions from major pharmaceutical firms.¹⁸⁰ The U.S. Government went so far as to bring a case before the WTO, challenging Brazil’s patent laws on local working requirements and compulsory licenses.¹⁸¹ Under international pressure, the U.S. Government withdrew the case but reserved the right to renew the complaint.¹⁸² Brazil has since carried through on its threat, granting a compulsory license for the

172. *Id.*

173. Paris Convention, *supra* note 108, art. 5A.

174. *Id.* art. 5A(4).

175. *Id.*

176. *Id.* art. 5A(1).

177. TRIPs, *supra* note 109, art. 27, ¶ 1.

178. Champ & Attaran, *supra* note 167, at 367–68.

179. See Elizabeth Ferrill, *Clearing the Swamp for Intellectual Property Harmonization: Understanding and Appreciating the Barriers to Full TRIPs Compliance for Industrializing and Non-Industrialized Countries*, 15 U. BALT. INTELL. PROP. L.J. 137, 162–63 (2007) (describing threats to use compulsory licenses by South Africa, Brazil, and Nigeria to obtain concessions from pharmaceutical companies).

180. Peter K. Yu, *Access to Medicines, BRICS Alliances, and Collective Action*, 34 AM. J.L. & MED. 345, 349 (2008).

181. Champ & Attaran, *supra* note 167, at 365–66.

182. See *id.* at 366 (noting that the United States stood to lose more by “winning” the litigation than by abandoning it, and that the United States could still file a new complaint).

patented drug *efavirenz* as part of a program to provide free treatment of HIV/AIDS in 2007.¹⁸³ While under TRIPs a compulsory license may only be used domestically,¹⁸⁴ the mere possibility that such licenses could be granted creates incentives for a patent holder to price patented articles for less or accept less favorable terms when negotiating licenses for their technology.

C. Not Allowing Foreign Sales to Exhaust U.S. Patent Rights is the Status Quo

A final policy reason why foreign sales should not exhaust U.S. patents is that such a change would go against the status quo. Allowing the foreign sale of articles subject to U.S. patents to exhaust U.S. patent rights may directly interfere with current business models and puts patent holders that have previously entered into licenses abroad in an unintended position.

One example of a business model which would be affected would be that of the pharmaceutical industry. Within this industry, pharmaceutical companies give away or sell their patented drugs at deeply reduced prices to third world countries.¹⁸⁵ The pharmaceutical companies have the freedom to do this as most of their costs are incurred in the development of the drugs, while the marginal cost of producing an additional amount of the drugs is relatively inexpensive.¹⁸⁶ The pharmaceutical companies recoup their development cost and make their profits though selling their drugs in wealthier nations.¹⁸⁷ Allowing foreign sales of drugs to exhaust the pharmaceutical companies' patents could create a secondary market for drugs earmarked to third world countries to be resold in the United States. The drug companies would be forced to compete in the U.S. market with their own products, driving down profits and ultimately the development of future advances in medicine. Meanwhile, third world populations would be robbed of desperately needed medicine.

Finally, any change from the status quo would harm patent holders who previously entered into licenses with the understanding that the articles produced and sold abroad would not exhaust their U.S. patent rights. Since

183. Yu, *supra* note 180, at 349.

184. TRIPs, *supra* note 109, art. 31(f) (indicating that where a compulsory license is permitted, such use shall be authorized predominately for the domestic market).

185. See Vockrodt, *supra* note 106, at 205 (“[P]harmaceutical firms often engage in the practice of international price discrimination. This allows firms to charge higher prices in lucrative markets, like the United States, to recoup the costs of expensive research and development, while at the same time providing drugs at lower prices to areas such as sub-Saharan Africa, where consumers would not otherwise be able to afford them.”) (footnotes omitted).

186. See *id.* (noting development costs are recouped by charging high prices to citizens of developed countries, enabling companies to charge lower costs to citizens of third-world countries).

187. *Id.*

Jazz Photo I was decided in 2001, patent holders entering into international licensing agreements have likely been very much aware that foreign sales did not exhaust their U.S. patent rights.¹⁸⁸ While in both the *Jazz Photo* and *LG Electronic* line of cases the argument that foreign sales should not exhaust U.S. patents was used as a fall back argument when originally intended methods of preventing patent exhaustion were invalidated,¹⁸⁹ it is foreseeable that some patent holders may have entered into foreign licenses with the specific understanding that such licenses would not affect their market within the United States.

CONCLUSION

As international IP issues are more frequently being litigated due to the globalization of business and competition, there is a need for clarity on the issue of whether the foreign sale of patented goods exhausts the patent holder's U.S. patent rights. While the recent Supreme Court decision in *Quanta* can be interpreted as reigning in attempts by patent holders to retain patent rights on articles after such patent holders have already enjoyed the benefits of their patent through the first sale of such articles, the court did not specifically address whether foreign sales should exhaust U.S. patent rights.¹⁹⁰ With *LG Electronics, Inc. v. Hitachi, Ltd.*, at least one district court has found that *Quanta*'s attempt to reign in the exceptions to the doctrine of patent exhaustion applied to foreign sales.¹⁹¹ Still at least one other district court has found that by failing to address foreign sales, *Quanta* did not overturn the controlling precedent as set by the *Jazz Photo* line of cases.¹⁹²

There are strong policy reasons as to why upon review of the topic, either the Federal Circuit or the Supreme Court should find that foreign sales should not exhaust U.S. patent rights. Even with such a finding, cases like *LG Electronics, Inc. v. Hitachi, Ltd.* may not need to be overturned as there may be further issues as to whether a licensing agreement entered into on U.S. soil,

188. *Jazz Photo Corp. v. Int'l Trade Comm'n*, 264 F.3d 1094, 1105 (Fed. Cir. 2001) (holding U.S. patent rights are not exhausted by foreign sales, provided that the first sale of the patent occurs outside of the United States).

189. *Id.* at 1101–02 (noting that appellants' second argument was that the patent right has been exhausted as to the pertinent articles and that their first argument was that the activity in question constituted permissible repair rather than impermissible reconstruction); *LG Elecs., Inc. v. Hitachi, Ltd.*, 655 F. Supp. 2d 1036, 1042 (N.D. Cal. 2009) (noting LG Electronics' alternative argument was that even if the parts replaced substantially embody the patents, precedent regarding exhaustion applies only when the first authorized sale of patented items occurred in the United States).

190. *LG Elecs., Inc.*, 655 F. Supp. 2d at 1044.

191. *Id.* at 1047.

192. *Fujifilm Corp. v. Benun*, No. 05-cv-1863 (KSH), 2009 WL 2232523, at *3 (D.N.J. July 24, 2009).

controlled by U.S. contract law, and with the benefits reaped within the United States would constitute an authorized sale under U.S. patent laws.¹⁹³

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193. See *LG Elecs., Inc.*, 655 F. Supp. 2d at 1048 (noting that what law applied and in what country the sale took place would have been issues if LG Electronics had not conceded them).

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