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IN THE WAKE OF *LOUGH v. BRUNSWICK CORP.*: WHO DECIDES EXPERIMENTAL PURPOSE IN 35 U.S.C. § 102(b) PUBLIC USE CASES?

Chad P. Webster

Abstract: Pursuant to 35 U.S.C. § 102(b), a defendant can avoid liability for patent infringement if the patented invention was in public use in the United States more than one year prior to the date of patent application. Although “public use” is broadly construed to include most nonsecret uses, a nonsecret use pursued primarily for bona fide experimental purposes is merely an “experimental use.” Experimental use negates the conclusion that an invention was in public use within the meaning of section 102(b). In *Lough v. Brunswick Corp.*, the U.S. Court of Appeals for the Federal Circuit held that the issues of public use and experimental use are questions of law. Accordingly, the Federal Circuit can decide whether a particular invention was in public use or in experimental use without deference to a jury’s conclusion. This Note argues that, even if public use is properly classified as a question of law, experimental use is a question of fact that should be reviewed under a deferential standard. Because experimental use negates public use as a matter of law, a jury’s conclusion that an invention was not in public use should be upheld if substantial evidence supports the conclusion that the disputed prior use was primarily for bona fide experimental purposes.

*Every new tribunal, erected for the decision of facts, without the intervention of a jury . . . is a step towards establishing aristocracy, the most oppressive of absolute governments.*¹

Sir William Blackstone

A valid patent grants the patentee an incorporeal property right² to exclude others from making, using, selling, or importing an invention for a specified term.³ Issuance of a patent by the U.S. Patent and Trademark Office is not, however, conclusive evidence of patent validity.⁴ Under 35 U.S.C. § 102(b), if an invention was in public use more than one year prior to patent application, a patent issued for that invention will be invalidated.⁵ Accordingly, prior public use under section 102(b) is a defense⁶ to patent infringement.⁷

1. J.W. Ehrlich, *Ehrlich's Blackstone* 683 (Nourse 1959).

2. See 35 U.S.C. § 261 (1994).

3. See 35 U.S.C. § 154 (1994).

4. See 35 U.S.C. § 282 (1994).

5. See 35 U.S.C. §§ 102(b), 282(2) (1994).

6. See 35 U.S.C. §§ 102(b), 282(2).

The use of an invention without limitation, restriction, or injunction of secrecy is generally considered “public use.”⁸ In contrast, a use pursued primarily for bona fide experimental purposes is merely an “experimental use.”⁹ Experimental use negates a finding of public use and, therefore, acts as a counter-defense.¹⁰

Where an accused infringer asserts a public use defense in a jury trial, two related procedural issues must be addressed. First, who decides whether the subject invention was in public use prior to the critical date:¹¹ judge or jury? Second, what standard of review applies if the decision on public use is appealed? Procedural questions involving jury participation and deference have become a focal point of patent jurisprudence,¹² particularly because of the dramatic increase in the number of infringement cases tried by juries over the past few decades.¹³

7. Patent infringement falls into two general categories: direct and indirect. Direct infringement is defined as the unauthorized production, use, sale, offer of sale, or importation into the United States of a patented invention during the term of the patent. *See* 35 U.S.C. § 271 (1994). Indirect infringement includes actively inducing infringement or selling a specially-designed component for use in a patented combination or process. *See* 35 U.S.C. § 271 (b)–(c); Donald A. Chisum & Michael A. Jacobs, *Understanding Intellectual Property Law* § 2(E)[2], at 2-215 (1995).

8. *See In re Smith*, 714 F.2d 1127, 1134 (Fed. Cir. 1983) (citing *Egbert v. Lippman*, 104 U.S. 333, 336 (1881)); *see also* James A. Jorgensen, Comment, *Environmentally Dependent Inventions and the “On Sale” and “Public Use” Bars of § 102(b): A Proffered Solution to a Statutory Dichotomy*, 49 U. Miami L. Rev. 185, 199 (1994).

9. *See Smith & Griggs Mfg. Co. v. Sprague*, 123 U.S. 249, 256 (1887) (“The thing implied as excepted out of the prohibition of the statute is a use which may be properly characterized as substantially for purposes of experiment.”). Even if a use is nonsecret, as long as it is primarily for purposes of experimentation, it is considered “experimental.” *See Smith*, 714 F.2d at 1134 (citing *Elizabeth v. Pavement Co.*, 97 U.S. 126, 134 (1877)).

10. *TP Lab., Inc. v. Professional Positioners, Inc.*, 724 F.2d 965, 971 (Fed. Cir. 1984); *see also* William C. Rooklidge & Stephen C. Jensen, *Common Sense, Simplicity and Experimental Use Negation of the Public Use and On Sale Bars to Patentability*, 29 J. Marshall L. Rev. 1 (1995).

11. The date one year prior to patent application is commonly called the “critical date” for section 102(b) purposes. *See* Chisum & Jacobs, *supra* note 7, § 2(C)[5][b], at 2-89.

12. *See generally* Allen N. Littman, *The Jury’s Role in Determining Key Issues in Patent Cases*: Markman, Hilton Davis and Beyond, 37 IDEA 207 (1997); Albert W. Preston, Jr. & Dianne B. Elderkin, *Malta v. Schulmerich: The Federal Circuit at a Crossroads in Its Search to Harmonize Substantive Patent Law with Jury Trial Procedure and Review*, 20 AIPLA Q.J. 49 (1992); Gregory D. Liebold, Comment, *In Juries We Do Not Trust: Appellate Review of Patent Infringement Litigation*, 67 U. Colo. L. Rev. 623 (1996).

13. *See* Littman, *supra* note 12, at 209. Between September 30, 1996 and September 30, 1997, just over half of all patent cases were tried by juries. *See Annual Report of the Director of the Administrative Office of the United States Court*, Table C-4 (visited Sept. 1, 1998) <http://www.uscourts.gov/judicial_business/c04sep97.pdf>.

Recent decisions of the U.S. Court of Appeals for the Federal Circuit¹⁴ that have allocated decisionmaking power between judge and jury have been contentious.¹⁵ These splintered decisions reflect divergent views on a jury's role in deciding key patent issues.¹⁶ *Lough v. Brunswick Corp.*¹⁷ continues the debate.

In *Lough*, a divided three-judge panel of the Federal Circuit reversed a unanimous jury verdict that had found no public use of the patented invention.¹⁸ Although some evidence supported experimental use negation, the majority claimed that the issues of public use and experimental use are questions of law,¹⁹ and that the record lacked a "minimal indicia of experimentation" necessary to uphold the jury's conclusion.²⁰ According to the court, the inventor's lack of supervision

14. With the Federal Courts Improvement Act of 1982, Congress created the U.S. Court of Appeals for the Federal Circuit. Pub. L. No. 97-164, 96 Stat. 37 (codified at 28 U.S.C. § 1295 (1994)). Under the Act, the Federal Circuit was granted exclusive subject matter jurisdiction over all patent appeals. See 28 U.S.C. § 1295(a). Because the U.S. Supreme Court rarely hears patent cases, the Federal Circuit has been described as the court of last resort for patent law. See Thomas K. Landry, *Certainty and Discretion in Patent Law: The On Sale Bar, the Doctrine of Equivalents, and Judicial Power in the Federal Circuit*, 67 S. Cal. L. Rev. 1151, 1153 (1994).

15. See, e.g., *Hilton Davis Chem. Co. v. Warner-Jenkinson Co.*, 62 F.3d 1512 (Fed. Cir. 1996) (en banc), *aff'd*, 520 U.S. 17 (1997); *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996); *In re Lockwood*, 50 F.3d 966, 980-81 (Fed. Cir. 1995) (Nies, J., dissenting) ("No more important nor contentious an issue arises in patent law jurisprudence than the appropriate role of juries in patent litigation.") (footnote omitted).

16. Judge Nies, dissenting in *In re Lockwood*, stated:

That a reasonable jury could have reached the contrary verdict on the record before us and that verdict would have been accepted under the reasonableness standard is of no consequence. I do not agree with this treatment of an issue of law. In my view, an issue of law has only one possible answer on a given record. At a minimum, the decision on the issue must be reviewed to determine if it is "right" or "wrong," not "reasonable."

50 F.3d at 989. Compare her view with that of the court in *Connell v. Sears, Roebuck & Co.*: "Jury verdicts must be treated with great deference . . . The court, though it remains ultimately responsible for upholding the law applicable to the facts found, cannot substitute its view for that of the jury when to do so would be an effective denial of the right to trial by jury." 722 F.2d 1542, 1546 (Fed. Cir. 1983).

17. 86 F.3d 1113 (Fed. Cir. 1996) [*Lough I*], *reh'g denied*, 103 F.3d 1517 (Fed. Cir. 1997) [*Lough II*], *cert. denied*, 118 S. Ct. 43 (1997).

18. *Id.* at 1122-23.

19. *Id.* at 1120.

20. *Id.* at 1122. Prior to *Lough I*, the Federal Circuit had accorded deference to a jury's conclusion on the issue of public use. See, e.g., *Allied Colloids Inc. v. American Cyanamid Co.*, 64 F.3d 1570, 1576 (Fed. Cir. 1995) (reversing directed verdict where reasonable jury could have found that invention was not in public use); *Beachcombers Int'l, Inc. v. Wildewood Creative Prods., Inc.*, 31 F.3d 1154, 1159 (Fed. Cir. 1994) (holding that jury's conclusion on public use was subject to substantial evidence review); *Strouss v. Kraft, Inc.*, Nos. 88-1190, -1191, 1988 WL 115585 (Fed.

and control over the alleged testing compelled the conclusion that the inventor was not experimenting.²¹

This Note argues that the majority in *Lough* mischaracterized the issue of experimental use and applied the wrong standard of appellate review in overturning the jury's verdict. Contrary to the court's holding, experimental use is a question of fact appropriately decided by a jury and subject to substantial evidence review on appeal. Consequently, where a jury decides that an invention was not in public use because of experimental use negation, the proper issue on appeal is whether a reasonable jury could have concluded from the evidence that any pre-critical date use was primarily for experimental purposes. An affirmative answer requires that the appellate court uphold the jury's decision, regardless of whether the issue of public use is a question of law or a question of fact.

Part I of this Note reviews the public use statutory bar and the experimental use doctrine. Part II provides an overview of the standards of appellate review and the law-fact dichotomy. Part III discusses the Federal Circuit's decision in *Lough*. Part IV scrutinizes the court's classification of public use and criticizes the court's treatment of experimental use negation. Finally, Part V proposes a bifurcated approach to reviewing public use/experimental use jury cases and applies this approach to the facts of *Lough*.

I. THE PUBLIC USE STATUTORY BAR UNDER 35 U.S.C. § 102(b)

A. *Conditions of Patentability and Section 102(b)*

The Constitution gives Congress authority “[t]o promote the Progress of . . . useful Arts, by securing for limited Times to . . . Inventors the exclusive Right to their respective . . . Discoveries.”²² Pursuant to this language, Congress has consistently imposed conditions for the

Cir. Nov. 2, 1988) (refusing to overturn denial of judgment notwithstanding verdict where jury could have reasonably concluded from evidence that invention was in public use); *Orthokinetics, Inc. v. Safety Trial Chairs, Inc.*, 806 F.2d 1565, 1572–73 (Fed. Cir. 1986) (holding that directed verdict granting invalidity as matter of law under public use bar was reversible error where substantial evidence supported jury's conclusion that invention was not in public use).

21. *Lough I*, 86 F.3d at 1122.

22. U.S. Const. art I, § 8, cl. 8.

patentability of an invention.²³ Under the current Patent Act, the conditions for patentability include utility,²⁴ novelty,²⁵ and nonobviousness.²⁶ Section 102, which determines the novelty of an invention, contains a bar to patentability if an invention was in prior public use.²⁷ Subsection (b) states that a person is entitled to a patent unless “the invention was . . . in public use . . . in this country, more than one year prior to the date of the application for patent in the United States.”²⁸ While Congress has provided little guidance as to the meaning of this provision,²⁹ an examination of the statute’s historical development and caselaw interpreting its terms provides insight.

B. *Historical Overview*

Under section 1 of the Patent Act of 1793, an inventor seeking a patent was required to allege that his invention had not been “known or used before application.”³⁰ In *Pennock & Sellers v. Dialogue*, the U.S. Supreme Court interpreted this statute to mean that the invention must not have been known or used “by the public” before application.³¹ The Court held that if an inventor allowed his newly discovered invention to go into public use or to be publicly sold for use before applying for a patent, such acquiescence constituted an abandonment³² of the inventor’s

23. For example, the first Patent Act required that an invention be sufficiently useful and important and not previously known or used. See Chisum & Jacobs, *supra* note 7, § 2(b)[1], at 2-9.

24. See 35 U.S.C. § 101 (1994).

25. See 35 U.S.C. § 102 (1994).

26. See 35 U.S.C. § 103 (1994).

27. Accordingly, some commentators view prior public use as relating to the novelty of an invention. See Gerald T. Welch, *Patent Law’s Ephemeral Experimental Use Doctrine: Judicial Lip Service to a Judicial Misnomer or the Experimental Stage Doctrine*, 11 U. Tol. L. Rev. 865, 867 (1980) (“A finding of public use prior to the critical date contravenes the novelty of an invention . . .”). But see Chisum & Jacobs, *supra* note 7, § 2(b)[1], at 2-10 (characterizing prior public use as forfeiture of patent right rather than establishing lack of novelty).

28. 35 U.S.C. § 102(b).

29. See William C. Rooklidge & W. Gerard von Hoffmann III, *Reduction to Practice, Experimental Use, and the “On Sale” and “Public Use” Bars to Patentability*, 63 St. John’s L. Rev. 1, 7 (1988) (noting that Congress has never defined what constitutes placing invention in public use).

30. Act of Feb. 21, 1793, ch.11, § 1, 1 Stat. 318, 318–21.

31. 27 U.S. 1, 19 (1829).

32. Although prior public use was initially considered an abandonment of the right to a patent, later cases distinguished between public use as abandonment and public use as a forfeiture of an inventor’s patent rights. See, e.g., *Metallizing Eng’g Co. v. Kenyon Bearing & Auto Parts Co.*, 153 F.2d 516, 520 (2d Cir. 1946); *Pitt v. Hall*, 19 F. Cas. 754 (C.C.D.N.Y. 1851). As Judge Learned

right to a patent and a bar to any claim for infringement.³³ The Court reasoned that the absence of a public use bar would “materially retard the progress of science and the useful arts” because inventors would be able to extend their commercial exclusivity in the invention while delaying public disclosure of their discovery.³⁴

The Patent Act of 1836 codified the holding of *Pennock* by providing a defense to infringement based on prior public use or sale.³⁵ Three years later, Congress added a grace period to the public use bar, whereby a patent would not be held invalid by reason of public use except if the use was more than two years prior to patent application.³⁶ In 1939, Congress shortened this grace period to a single year.³⁷ No significant changes have been made to the public use bar since the 1939 Patent Act.³⁸

C. *Public Use and Experimental Use Negation*

Courts have broadly construed the term “public use.” In the seminal case of *Egbert v. Lippman*, the U.S. Supreme Court held that even a single hidden use by a person other than the inventor could constitute public use for purposes of determining patent validity.³⁹ In *Egbert*, the inventor allowed a friend to use his patented corset-springs nearly eleven years prior to patent application.⁴⁰ Although the friend’s prior use was

Hand explained in *Metallizing*, a use prior to the critical date results in forfeiture, but “such a forfeiture has nothing to do with abandonment, which presupposes a deliberate, though not necessarily an express, surrender of any right to a patent.” 153 F.2d at 520. Notwithstanding this distinction, many courts, including the U.S. Supreme Court, characterized prior public use as a form of abandonment throughout the nineteenth century. *See, e.g.*, *International Tooth-Crown Co. v. Gaylord*, 140 U.S. 55 (1891) (holding that extensive prior public use constituted abandonment of invention); *Elizabeth v. Pavement Co.*, 97 U.S. 126, 132 (1877) (stating that public use or sale prior to critical date is conclusive evidence of abandonment). The current Patent Act addresses the issues of abandonment and public use separately. *See* 35 U.S.C. § 102(c) (1994).

33. *Pennock*, 27 U.S. at 23–24.

34. *Id.* at 19. This concern is unique to the first-to-invent system utilized in the United States. A first-to-invent system grants patent rights to the first inventor without regard to priority in filing. Thus, in the absence of a statutory bar, a first inventor has significantly less incentive to file a patent application promptly and thereby make public disclosure of his or her discovery. *See* Jorgensen, *supra* note 8, at 193 n.40.

35. Act of July 4, 1836, ch. 357, § 15, 5 Stat. 123.

36. Act of Mar. 3, 1839, ch. 88, § 7, 5 Stat. 354.

37. Act of Aug. 5, 1939, ch. 450, § 1, 53 Stat. 1212.

38. *See* *Rooklidge & von Hoffmann*, *supra* note 29, at 6.

39. 104 U.S. 333, 336–38 (1881).

40. *Id.* at 337.

hidden from public view, the Court still considered the use an abandonment under the public use defense.⁴¹ The Court opined:

If an inventor, having made his device, gives or sells it to another, to be used by the donee or vendee, without limitation or restriction, or injunction of secrecy, and it is so used, such use is public, even though the use and knowledge of the use may be confined to one person.⁴²

Despite the broad construction of public use, experimental use has never posed a barrier to the patentability of an invention.⁴³ For example, in *Morris v. Huntington*, the Second Circuit Court of New York considered whether the literal language “not known or used” of the Patent Act of 1793 barred an inventor from obtaining a patent if the use was for the purpose of improving the invention.⁴⁴ The court instructed the jury that an inventor should not be prejudiced for allowing an invention to go into public use “with the view of improving it and thereby rendering it a greater benefit to the public.”⁴⁵ Later, in *Pennock*, Justice Story also intimated that an experimental use would not invalidate a patent, stating “[i]f it were necessary, as it well might be, to employ others to assist in the original structure . . . it can scarcely be supposed, that the legislature had within its contemplation such knowledge or use.”⁴⁶

The U.S. Supreme Court squarely held that experimental use precluded a finding of public use in *Elizabeth v. Pavement Co.*⁴⁷ In *Elizabeth*, the patentee permitted the public to use his invention, a wooden pavement, more than six years prior to patent application.⁴⁸ Although the users were not bound to secrecy, use of the invention was not per se public use.⁴⁹ Rather, the Court held that a use for the purposes

41. *Id.* at 337–38; see also *Hall v. MacNeale*, 107 U.S. 90 (1883) (holding that pre-critical date sale of burglar safes that contained patented conical bolts constituted prior public use and sale of invention even though bolts were hidden from public view).

42. *Egbert*, 104 U.S. at 336.

43. See *Rooklidge & Jensen*, *supra* note 10, at 8–14.

44. 17 F. Cas. 818, 819 (C.C.D.N.Y. 1824).

45. *Id.* The U.S. Supreme Court subsequently acknowledged *Morris* in *Shaw v. Cooper*, 32 U.S. 292, 317 (1833).

46. *Pennock & Sellers v. Dialogue*, 27 U.S. 1, 19 (1829).

47. 97 U.S. 126 (1881).

48. *Id.* at 136.

49. *Id.*; see also *TP Lab., Inc. v. Professional Positioners, Inc.*, 724 F.2d 965, 972 (Fed. Cir. 1984).

of enabling an inventor to ascertain whether an invention will meet its intended purpose is merely an “experimental use” and not a public use within the statute’s meaning.⁵⁰ Observing that sustained use was necessary to test the invention’s durability, the Court rejected the accused infringer’s public use defense.⁵¹

D. *The Modern Approach to Resolving a Public Use Defense*

In *TP Laboratories, Inc. v. Professional Positioners*, the Federal Circuit set forth the modern framework for resolving an allegation of public use in an infringement suit.⁵² Under *TP Labs’* framework, a party asserting a public use defense under section 102(b) must first establish a prima facie case.⁵³ Once a prima facie case of public use is established, the patentee has the burden of coming forward with convincing evidence to counter the showing.⁵⁴ A decision based on the “totality of the circumstances” is then made as to whether public use has been proven.⁵⁵

The Federal Circuit has identified several factors that are particularly relevant to resolving a public use defense.⁵⁶ Contained in the “totality of the circumstances test,” these factors highlight circumstantial evidence

50. *Elizabeth*, 97 U.S. at 135. Ten years later, the U.S. Supreme Court narrowed *Elizabeth* by holding that a use pursued with a mere *incidental* purpose of testing and perfecting the invention would not avoid the public use bar. See *Smith & Griggs Mfg. Co. v. Sprague*, 123 U.S. 249, 266 (1887).

51. *Elizabeth*, 97 U.S. at 136–37.

52. 724 F.2d 965 (Fed. Cir. 1984).

53. *Id.* at 971. Evidence of public use must be clear and convincing. See *Tone Bros., Inc. v. Sysco Corp.*, 28 F.3d 1192, 1197 n.4 (Fed. Cir. 1994).

54. *TP Lab.*, 724 F.2d at 971. A patentee can counter the showing by introducing evidence of “negating” experimental use. See *Rooklidge & Jensen*, *supra* note 10, at 43.

55. Under the current framework, the dual issues of public use and experimental use have, in some sense, merged into the single issue of public use. See *TP Lab.*, 724 F.2d at 971 (“It is incorrect to ask: ‘was it public use?’ and then, ‘was it experimental?’ Rather, the court is faced with a single issue: ‘was it public use under § 102(b)?’”). Notwithstanding the “merger” of public use and experimental use, each issue remains analytically distinct for the purposes of determining scope of appellate review. As *Rooklidge & Jensen* recognized prior to the decision in *Lough*:

If . . . there are not two separate issues . . . the experimental use issue may have been merged into the legal conclusion of public use or on sale bar. On the other hand, the issue of whether the intent of the activity was primarily experimental is a distinct issue, one that partakes of the kind of historical determination that is usually labeled a finding of fact.

Rooklidge & Jensen, *supra* note 10, at 48–49 (footnote omitted).

56. See *Allied Colloids Inc. v. American Cyanamid Co.*, 64 F.3d 1570, 1574 (Fed. Cir. 1995) (citations omitted).

relating to *both* public use and experimental use.⁵⁷ On the public use side, these factors include: whether there was any confidentiality obligation imposed on persons who observed the use, the nature of the activity that occurred in public, whether the public had access to and knowledge of the use, and whether persons other than the inventor or those acting for the inventor conducted the experiments.⁵⁸ On the experimental use side, the test incorporates objective indicia suggesting experimental purpose⁵⁹ such as: whether progress records were kept; the length of the test period; whether payment was made for the device; and the overall number of tests conducted.⁶⁰

The Federal Circuit also advocates a policy-based approach to public use analysis.⁶¹ Under this approach, the totality of the circumstances is weighed in light of several policies underlying the public use bar.⁶² These policies include: (1) discouraging the removal from the public domain of inventions the public reasonably has come to believe are freely available, (2) favoring the prompt and widespread disclosure of inventions, (3) prohibiting the inventor from commercially exploiting the invention for a period greater than the statutorily prescribed term, and (4) allowing the inventor a reasonable amount of time to determine the potential

57. See *Tone Bros.*, 28 F.3d at 1198 (“Evidence of experimentation is *part* of the totality of the circumstances considered in a public use inquiry.”) (emphasis added); see also Edward G. Poplawski & Paul D. Tripodi II, *The Impact of Federal Circuit Precedent on the “On-Sale” and “Public-Use” Bars to Patentability*, 44 Am. U. L. Rev. 2351, 2383 (1995) (noting that some factors relating to public use *overlap* with factors relating to experimental use negation); Rooklidge & Jensen, *supra* note 10, at 44 (noting that experimental use issue appears to have been swallowed up into totality of circumstances test).

58. See *Allied Colloids*, 64 F.3d at 1574.

59. See *Sinskey v. Pharmacia*, 982 F.2d 494, 498 (Fed. Cir. 1986) (characterizing factors as objective evidence of experimental purpose); *In re Smith*, 714 F.2d 1127, 1135 (Fed. Cir. 1983) (same).

60. See *Sinskey*, 982 F.2d at 498.

61. See *TP Lab., Inc. v. Professional Positioners, Inc.*, 724 F.2d 965, 968 (Fed. Cir. 1984); William C. Rooklidge, *The On Sale and Public Use Bars to Patentability: The Policies Reexamined*, 1 Fed. Circuit B.J., Winter 1991, at 7, 7–13.

62. See *Tone Bros.*, 28 F.3d at 1198 (citing *Manville Sales Corp. v. Paramount Sys.*, 917 F.2d 544 (Fed. Cir. 1990)).

economic value of a patent.⁶³ According to the Federal Circuit, these policies, in effect, “define” the public use bar.⁶⁴

II. SCOPE OF APPELLATE REVIEW

With the recent rise in the number of patent infringement cases tried by juries,⁶⁵ the scope of appellate review applicable to a jury’s conclusion on certain key issues has become increasingly important. Because the scope of appellate review generally varies with how an issue falls within the law-fact dichotomy, whether an issue is a question of law or fact can be pivotal to the outcome of a case. While the law-fact distinction is availing for many issues, for certain “mixed” issues classification as a question of law or as a question of fact has turned on a balance of public policy considerations.

A. *Deferential and Plenary Review of Jury Decisions*

The intensity with which an appellate court evaluates an assigned error constitutes the scope of appellate review.⁶⁶ Typically, the scope of appellate review depends on the “legal” or “factual” nature of the issue decided⁶⁷ and whether a judge or jury was the trial-level decisionmaker.⁶⁸

A jury’s conclusion on a question of fact is generally reviewed for “substantial evidence.”⁶⁹ Under this deferential standard, the jury’s

63. *Id.* (citing *King Instrument Corp. v. Otari Corp.*, 767 F.2d 853, 860 (Fed. Cir. 1985)); see also *General Elec. Co. v. United States*, 654 F.2d 55 (Ct. Cl. 1981). The policies were originally identified in a student Note published in 1972. See Patrick J. Barrett, Note, *New Guidelines for Applying the On Sale Bar to Patentability*, 24 *Stan. L. Rev.* 730 (1972).

64. See *TP Lab.*, 724 F.2d at 976.

65. See *supra* note 13 and accompanying text.

66. See Martin B. Louis, *Allocating Adjudicative Decision Making Authority Between the Trial and Appellate Levels: A Unified View of the Scope of Review, the Judge/Jury Question, and Procedural Discretion*, 64 *N.C. L. Rev.* 993 (1986).

67. See Robert L. Stern, *Review of Findings of Administrators, Judges and Juries: A Comparative Analysis*, 58 *Harv. L. Rev.* 70, 72 (1958).

68. See Louis, *supra* note 66, at 994.

69. See Stern, *supra* note 67, at 73; see also *Galloway v. United States*, 319 U.S. 372 (1943) (rejecting scintilla of evidence standard); *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 719 (Fed. Cir. 1984). A factual finding made by a federal judge is reviewed under the “clearly erroneous” standard. See *Fed. R. Civ. P.* 52. Under this standard, the finding will be set aside if, after reviewing all evidence, “the reviewing court is left with the definite and firm conviction that a mistake has been committed.” *In re Graves*, 69 F.3d 1147, 1151 (Fed. Cir. 1995) (quoting *United States v. United States Gypsum Co.*, 333 U.S. 364, 395 (1948)).

decision will be upheld provided the record taken as a whole contains such relevant evidence “as might be accepted by a reasonable mind as adequate to support the finding under review.”⁷⁰ By contrast, if the issue is a question of law based on underlying facts, the jury’s legal conclusion based on its factual findings must be legally “correct.”⁷¹ In other words, the facts properly found must support the verdict in law.⁷² Because an appellate court is free to substitute its own view as to the correctness of a jury’s legal conclusion,⁷³ appellate review of a legal conclusion is not limited by the reasonableness standard applicable to factual findings.⁷⁴

B. *Distinguishing Questions of Law from Questions of Fact*

Despite the significance of an issue’s classification within the law-fact dichotomy, the process by which courts distinguish questions of law from questions of fact remains “elusive.”⁷⁵ Consequently, whether an issue is “legal” or “factual” has been described as merely a synonym for whether a judge or jury makes the ultimate decision.⁷⁶ Nevertheless, aside from the identity of the decisionmaker, two patterns have emerged. First, issues pertaining to whether a particular event occurred are generally regarded as questions of fact.⁷⁷ Second, issues that relate to the nature of a general rule or standard applicable to many cases are usually classified as questions of law.⁷⁸

70. *Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 893 (Fed. Cir. 1984) (citations omitted).

71. *Jurgens v. McKasy*, 927 F.2d 1552, 1557 (Fed. Cir. 1991).

72. *Perkin-Elmer*, 732 F.2d at 893; *Railroad Dynamics, Inc. v. A. Stucki Co.*, 727 F.2d 1506, 1513 (Fed. Cir. 1984).

73. *Railroad Dynamics*, 727 F.2d at 1513.

74. See *Preston & Elderkin*, *supra* note 12, at 52–54.

75. *Miller v. Fenton*, 474 U.S. 104, 113 (1985) (citations omitted). The ambiguity stems in part from a refusal of many courts to provide reasoned analysis when classifying an issue. *Id.* (“[T]he decision to label an issue a ‘question of law,’ a ‘question of fact,’ or a ‘mixed question of law and fact’ is sometimes as much a matter of allocation as it is of analysis.”) (citations omitted); see also *Lough v. Brunswick Corp.*, 103 F.3d 1517, 1525 (Fed. Cir. 1997), *cert. denied*, 118 S. Ct. 43 (1997) (Plager, J., dissenting) (“What is needed is functional analysis rather than *a priori* labeling as ‘legal issue’ or ‘factual issue.’”); Stephan A. Weiner, *The Civil Jury Trial and the Law-Fact Distinction*, 54 Cal. L. Rev. 1867, 1868 (1966).

76. See *Weiner*, *supra* note 75, at 1868.

77. See *Stern*, *supra* note 67, at 93.

78. *Id.* at 94.

Issues that require the *application* of a general rule to historical facts are difficult to classify.⁷⁹ These “mixed” issues involve elements of both law and fact and therefore “do not fit nicely” into the law-fact dichotomy.⁸⁰ In cases where precedent is unclear, several factors appear to be relevant in deciding whether a borderline issue should be classified as a question of law or a question of fact. These factors include the Seventh Amendment’s⁸¹ underlying preference for jury participation in the legal process,⁸² the relative position and ability of each judicial actor to decide the issue,⁸³ and the impact of stare decisis on predictability and uniformity in the law.⁸⁴

79. Whether a particular defendant committed the tort of negligence provides a useful example of law application. See Edward H. Cooper, *Civil Rule 50(A): Rationing and Rationalizing the Resources of Appellate Review*, 63 Notre Dame L. Rev. 645, 657–58 (1988). Resolution of the issue requires that the decisionmaker *apply* the standard of reasonable care under the circumstances to the historical facts found.

80. See Louis, *supra* note 66, at 994; see also Cooper, *supra* note 79, at 660 (noting that classification of issues involving law application for purposes of identifying standard of appellate review does not depend on actual status of issue).

81. The Seventh Amendment provides:

In Suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury shall otherwise be re-examined in any court of the United States, than according to the rules of the common law.

U.S. Const. amend. VII.

82. See Weiner, *supra* note 75, at 1919. If an issue must be decided by a jury to preserve the substance of the common law right of trial by jury as it existed in 1791, the Seventh Amendment appears to *require* that the issue be deemed a question of fact. See *id.* at 1889–93 (discussing *Burcham v. J.P. Stevens & Co.*, 209 F.2d 35 (4th Cir. 1954)).

83. See *Miller v. Fenton*, 474 U.S. 104, 114 (1985) (“[T]he fact/law distinction at times has turned on a determination that, as a matter of sound administration of justice, one judicial actor is better positioned than another to decide the issue in question”); see also *Bose Corp. v. Consumers Union*, 466 U.S. 485, 501 n.17 (1984) (suggesting that, in cases where decision on issue requires decisionmaker to go beyond application of principles of logic and common experience, reviewing court may have to exercise its own independent judgment); *Commissioner v. Duberstein*, 363 U.S. 278, 289–90 (1960) (reasoning that nontechnical nature of statutory standard and close relationship of standard to practical human experience supports factual classification of issue).

84. See *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 390–91 (1996); Weiner, *supra* note 75, at 1924. In contrast to a case holding, a jury verdict has no precedential value. Consequently, classifying an issue as a question of fact can reduce predictability and uniformity in the law. *Id.*

III. *LOUGH v. BRUNSWICK CORP.*

A. *Background Facts and Procedural History*

While working as a boat technician, Steven Lough invented an improved upper seal assembly for a marine stern drive.⁸⁵ Lough made six usable prototypes on a metal lathe in the spring of 1986.⁸⁶ He installed one of the prototypes in his boat⁸⁷ and three months later installed a prototype in each of two boats he regularly maintained.⁸⁸ Lough gave the remaining prototypes to his friends.⁸⁹ Without Lough's knowledge, one of the distributed prototypes was installed on a boat later sold to strangers.⁹⁰ On June 6, 1988, Lough applied for a patent.⁹¹ On July 18, 1989, the U.S. Patent and Trademark office approved the application and issued a patent for Lough's invention.⁹²

Sometime in 1990, Lough sent a letter to a representative of Brunswick, a major producer of marine stern drives, advising the company of his patent.⁹³ Brunswick showed interest in Lough's invention and negotiated with Lough for the purchase of the patent rights, but the parties did not reach an agreement.⁹⁴ Brunswick then proceeded to design and sell a similar upper seal assembly,⁹⁵ eventually forcing Lough out of the market.⁹⁶

85. See *Lough v. Brunswick Corp.*, 86 F.3d 1113, 1115–16 (Fed. Cir. 1996) [*Lough I*], *reh'g denied*, 103 F.3d 1517 (Fed. Cir. 1997) [*Lough II*], *cert. denied*, 118 S. Ct. 43 (1997). A stern drive is a marine propulsion device for boats in which the engine is located inside the boat and is coupled to an outdrive containing a propeller. *Id.* at 1114. An upper seal assembly prevents sea water and exhaust from corroding the gear shift cable and user controls located on the stern drive. *Id.* at 1115.

86. *Lough II*, 103 F.3d at 1528. Lough was a backyard hobbyist with a high school education. *Id.* at 1123 (Plager, J., dissenting). Lough made the prototypes on his grandfather's lathe after trial and error. *Id.*

87. *Lough I*, 86 F.3d at 1116.

88. *Lough II*, 103 F.3d at 1528–29. One of the boats was owned by a customer of the marina at which Lough worked, the other by the marina owner. *Id.* at 1529.

89. *Id.* Lough neither asked for nor received any compensation for use of these prototypes, nor did he attempt to sell his invention during the time preceding his patent application. *Lough I*, 86 F.3d at 1117.

90. *Id.* at 1121.

91. *Id.* at 1116.

92. *Id.*

93. Brief of Appellee at 10, *Lough I* (Nos. 95-1266, -1302, -1314).

94. *Id.* at 10–11.

95. *Lough I*, 86 F.3d at 1117–18.

96. Brief of Appellee at 10–11, *Lough I* (Nos. 95-1266, -1302, -1314).

Lough subsequently sued for patent infringement.⁹⁷ Alleging that Lough's invention was in public use prior to the critical date, Brunswick counterclaimed for a declaratory judgment of patent invalidity.⁹⁸ Lough responded that any pre-critical date use was experimental and therefore not public use under the statute.⁹⁹ After a seventeen-day trial, a unanimous jury concluded that Brunswick failed to prove prior public use, Brunswick infringed Lough's patent, and Lough was entitled to damages in the amount of \$1.5 million.¹⁰⁰ Brunswick moved for a judgment as a matter of law (JMOL) on the issue of prior public use.¹⁰¹ The trial court denied the motion and entered judgment in favor of Lough.¹⁰² Brunswick appealed.¹⁰³

B. The Majority's Analysis in Lough I

Reviewing the trial court's denial of JMOL, the Federal Circuit held that the issues of public use and experimental use are questions of law.¹⁰⁴ Although finding no error in the legal standard applied by the jury,¹⁰⁵ the Federal Circuit reversed the trial court's denial of JMOL, stating that "the jury's determination that Lough's use of the invention was experimental so as to defeat the assertion of public use was incorrect as a matter of law."¹⁰⁶ The court focused on evidence that Lough did not ask for any comments regarding the operability of the prototypes and that a prototype was sold without Lough's knowledge.¹⁰⁷

97. *Lough I*, 86 F.3d at 1118.

98. *Id.*

99. *Id.* at 1119.

100. *Id.* at 1118.

101. *Id.*

102. *Id.*

103. *Id.*

104. *Id.* at 1120.

105. *Id.* at 1123 (Plager, J., dissenting).

106. *Id.* at 1122.

107. *Id.* at 1121. Although the original reported opinion suggested that Lough did not receive feedback on the performance of the prototypes, that opinion was later amended. See Erratum in *Lough v. Brunswick Corp.* (visited Sept. 1, 1998) <<http://www.law.emory.edu/fedcircuit/june96/95-1266r.html>>.

C. Lough II

Following the three-judge panel's disposition of the case, Lough filed a combined petition for rehearing and suggestion for rehearing en banc.¹⁰⁸ The Federal Circuit denied Lough's petition with several judges filing separate opinions.¹⁰⁹ Concurring in the order denying rehearing, Judge Lourie¹¹⁰ defended the characterization of public use and experimental use as questions of law.¹¹¹ Emphasizing that "public use" is a statutory term, Judge Lourie reasoned that the ultimate determination on the issue of public use requires more than simply ascertaining historical fact.¹¹² Rather, a determination requires the facts be weighed in light of the statute's underlying policies.¹¹³ Judge Michel also argued in favor of classifying public use as a question of law, asserting that plenary review would promote predictability and thereby discourage litigation.¹¹⁴ With respect to experimental use, Judge Lourie claimed that a judge should decide the issue without deference to a jury because the term "experimental use" is judge-made.¹¹⁵ Furthermore, because experimental use is on the "same conceptual level as public use," it requires consideration of the underlying policies of section 102(b) and is appropriately decided by a judge.¹¹⁶

IV. ALTHOUGH PUBLIC USE MAY BE A QUESTION OF LAW, EXPERIMENTAL USE IS A QUESTION OF FACT

The outcome of *Lough* turned on the majority's classification of both public use and experimental use as questions of law.¹¹⁷ A close inspection of precedent and the factors surrounding classification of an

108. *Lough v. Brunswick Corp.*, 103 F.3d 1517 (Fed. Cir. 1997) [*Lough II*], cert. denied, 118 S. Ct. 43 (1997).

109. *Id.* Four judges filed dissenting opinions.

110. Judge Lourie wrote the majority opinion in *Lough I*.

111. *Lough II*, 103 F.3d at 1518–19 (Lourie, J., concurring).

112. *Id.* at 1518.

113. *Id.*

114. *Id.* at 1526–27 (Michel, J., dissenting).

115. *Id.* at 1518 (Lourie, J., concurring).

116. *Id.*

117. *Id.* at 1529 (Rader, J., dissenting) ("The outcome of *Lough* turns on the standard of review applied by this court.").

issue within the law-fact dichotomy undermines the majority's conclusion.

A. *The Classification of Public Use as a Question of Law Is Debatable*

United States Supreme Court precedent is unclear as to whether the issue of prior public use is a question of law or a question of fact. On one hand, several older cases suggest that the ultimate decision is factual and should be made by a jury.¹¹⁸ For example, in *Pennock & Sellers v. Dialogue*, Justice Story stated that whether an inventor's acts provide satisfactory proof of public use is usually a question of fact rather than law.¹¹⁹ In a later case involving the issue of public use, the Court opined:

The real interest of an inventor with respect to an assertion or surrender of his rights under the Constitution and laws of the United States . . . is an inquiry or conclusion of fact, and peculiarly within the province of the jury, guided by the legal evidence submitted to them at the trial.¹²⁰

On the other hand, U.S. Supreme Court cases also suggest that public use is ultimately a question of law.¹²¹ For example, Justice Story concluded in *Pennock* that "when all the facts are given, there does not seem any reason why the court may not state the legal conclusion deducible from them."¹²² Furthermore, in the more recent case of *Graham v. John Deere Co.*, the Court held that the ultimate conclusion on patent validity is a question of law.¹²³ Because patent validity turns, in part, on whether the invention was in public use, the ultimate conclusion on public use may be a subsidiary question of law under *Graham*.¹²⁴

118. See, e.g., *Kendall v. Winsor*, 62 U.S. 322, 331 (1858); *Gayler v. Wilder*, 51 U.S. 477, 484 (1850); *Pennock & Sellers v. Dialogue*, 27 U.S. 1, 16 (1829).

119. See *Pennock*, 27 U.S. at 16.

120. *Kendall*, 62 U.S. at 330 (emphasis added). Similarly, in *Gayler*, the U.S. Supreme Court approved a jury charge that stated that the inventor's patent should be found valid unless "the plaintiff or those under whom he claimed, had abandoned said improvement to the public, and suffered the same to go into public use before the application for said patent, of which facts the jurors were the judges." *Gayler*, 51 U.S. at 484.

121. See, e.g., *Graham v. John Deere Co.*, 383 U.S. 1 (1966); *Pennock*, 27 U.S. at 16.

122. *Pennock*, 27 U.S. at 16.

123. 383 U.S. 1, 17 (1966) (citing *Great Atl. & Pac. Tea Co. v. Supermarket Equip. Corp.*, 340 U.S. 147, 155 (1950)).

124. At least one Federal Circuit decision appears to have adopted this reasoning. See *Paragon Podiatry Lab., Inc. v. KLM Lab., Inc.*, 984 F.2d 1182, 1186 (1993) (citing *Graham* as basis for

In the absence of clear precedent, consideration of the factors discussed in Part II.B is necessary to determine the proper classification of public use.¹²⁵ A comparison of the relative abilities of each judicial actor tends to favor classifying public use as a question of law. The Federal Circuit has repeatedly emphasized that the underlying policies of section 102(b) define “public use” and has steadfastly refused to adopt rigid standards.¹²⁶ In light of this policy-based approach, judges may have a comparative advantage over juries in ultimately deciding whether a particular invention was in public use.¹²⁷

Aside from the comparative abilities of judge and jury, however, the remaining factors support designating public use as a question of fact. First, because juries decide factual issues, the Seventh Amendment’s underlying policy of jury participation in the legal process clearly favors classifying public use as a question of fact.¹²⁸ Second, the multitude of circumstances that can arise in public use cases¹²⁹ makes it unlikely that the application of stare decisis will result in any more certainty than if the issue of public use were left to a jury.¹³⁰ The classification of public

classifying related section 102(b) bar as question of law). The scope of *Graham*, however, is unclear. For instance, the issue of anticipation, which also affects patent validity, remains a question of fact notwithstanding *Graham*. See 35 U.S.C. § 102(a) (1994); *In re Graves*, 69 F.3d 1147, 1151 (Fed. Cir. 1995); *Hoover Group, Inc. v. Custom Metalcraft, Inc.*, 66 F.3d 299 (Fed. Cir. 1995).

125. These factors include: (1) the Seventh Amendment’s preference for jury participation and deference, (2) the comparative position and ability of each judicial actor to decide the issue, and (3) the impact of stare decisis on uniformity and predictability in the law. See *supra* notes 82–84 and accompanying text.

126. *Western Marine Elecs., Inc. v. Furuno Elec. Co.*, 764 F.2d 840, 844 (1985) (noting that section 102(b) analysis is wholly unsuited to mechanically-applied, technical rules especially given policy-based approach to adjudication). At least one commentator is critical of the Federal Circuit’s refusal to articulate defined rules for 102(b) cases. See Landry, *supra* note 14, at 1169.

127. On the other hand, there is little evidence that judges are actively making policy judgments when deciding public use cases. In fact, commentators have criticized the Federal Circuit for failing to provide a policy-based analysis when deciding public use cases. See, e.g., Jorgensen, *supra* note 8, at 225 (“The court, in practice, tends to recite the stated policies and then determine, in a rather conclusory fashion, that the policies have been violated by a given sale or use without providing further policy-based analyses.”) (footnote omitted); Rooklidge & Jensen, *supra* note 10, at 6 (“While others have analyzed these policies at length, the Federal Circuit has never paid them more than mere lip service.”).

128. Whether the Seventh Amendment *requires* that juries decide the issue of public use is beyond the scope of this Note. Surprisingly, the Federal Circuit does not mention the Seventh Amendment in either *Lough I* or *Lough II*.

129. See *Western Marine*, 764 F.2d at 844 (noting that section 102(b) analysis encompasses infinite variety of factual situations).

130. See Weiner, *supra* note 75, at 1926. Professor Weiner states:

use as a question of law is, therefore, unlikely to improve predictability or reduce litigation. In fact, because errors of law are subject to a more searching review, classifying public use as a question of law may actually encourage appeal and thereby increase litigation.¹³¹

B. *Experimental Use Is a Question of Fact*

Regardless of whether public use is properly classified as a question of law, the legal or factual classification of experimental use remains integral to appellate review of a public use defense. Because experimental use negates public use as a matter of law,¹³² a court must necessarily decide that an invention was not in experimental use to decide that the invention was in public use.¹³³ In other words, a court's reversal of a jury's conclusion that an invention was not in public use will necessarily overturn a jury's decision that the patentee's invention was in experimental use. The propriety of overturning a jury's conclusion on experimental use depends on the amount of deference that should be accorded to the jury's decision on that issue. The amount of deference on experimental use, in turn, depends on the classification of experimental use within the law-fact dichotomy.¹³⁴

While the U.S. Supreme Court has not addressed the issue, precedent supports the factual classification of experimental use. Prior to the creation of the Federal Circuit, most U.S. Circuit Courts of Appeals

[I]n the resolution of the inevitable conflict between the desire for uniformity and predictability and the policy favoring trial by jury, the first controlling factor should be the likelihood of recurrence of the historical fact pattern to which the law is being applied in a given case. . . . [I]f it is recognized that the outcome of a particular example of law application turns upon events which will probably never recur in precisely the same way, there will be little sacrifice in certainty and predictability by permitting the jury rather than the judge to make the application.

Id.; see also Robert D. Fram & Sarah Elizabeth Mitchell, *Federal Circuit Sees Fit to Streamline Litigation* (visited Sept. 1, 1998) <<http://www.hewm.com/search/art.shtml?id=213&parea=BA>> (questioning whether Federal Circuit's recent classification of certain patent issues as questions of law will lead to improved predictability given that various panels of Federal Circuit are equally as unpredictable as juries).

131. See Weiner, *supra* note 75, at 1922; see also *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1475 (Fed. Cir. 1998) (Rader, J., dissenting) (observing that plenary review of patent claim construction has led to high reversal rate thereby diminishing likelihood of out-of-court settlements).

132. *Lough v. Brunswick Corp.*, 86 F.3d 1113, 1120 (Fed. Cir. 1996) [*Lough I*], *reh'g denied*, 103 F.3d 1517 (Fed. Cir. 1997) [*Lough II*], *cert. denied*, 118 S. Ct. 43 (1997).

133. Apparently, this is what Judge Lourie meant when he stated that experimental use is on the same "conceptual level" as public use. See *supra* text accompanying note 116.

134. See *supra* Part II.A.

expressly or implicitly concluded that experimental use is a question of fact.¹³⁵ Likewise, the Federal Circuit has treated experimental use as a factual issue that a jury should decide, despite its classification of public use as a question of law.¹³⁶ Furthermore, because experimental use turns on an inventor's intent,¹³⁷ and issues that turn on intent are typically classified as questions of fact,¹³⁸ the classification of experimental use as an issue of law is anomalous.

135. For example, in *Del Mar Engineering Laboratories v. Physio-Tronics, Inc.*, the court held:

Whether a public use is for the purpose of exploiting an invention or whether it is a bona fide experimental use turns largely on the intent or motivation of the inventor. As such it is a question of fact to be determined by the trial court and we will reverse the trial judge's determination only if it is clearly erroneous.

642 F.2d 1167, 1169 (9th Cir. 1981) (citations omitted); *see also* *Paeco, Inc. v. Applied Moldings, Inc.*, 562 F.2d 870, 874 (3d Cir. 1977) (reviewing district court's conclusion on experimental use issue under clearly erroneous standard); *In re Yarn*, 498 F.2d 271, 285 (5th Cir. 1974) ("It must be stressed, however, that the experimental use issue is a question not of legal relations but of fact, depending as it does, on the inventor's state of mind.") (citations omitted); *Dunlop Co. v. Kelsey-Hayes Co.*, 484 F.2d 407, 414 (6th Cir. 1973) (reviewing district court's conclusion on experimental use issue under clearly erroneous standard); *Cloud v. Standard Packaging Corp.*, 376 F.2d 384, 390 (7th Cir. 1967) (same); *McCullough Tool Co. v. Will Surveys, Inc.*, 343 F.2d 381, 394 (10th Cir. 1965) ("The issue of whether a use of the device is experimental or public is one of fact."); *Ezee Stone Cutter Mfg. v. Southwest Indus. Prods.*, 262 F.2d 183, 186 (8th Cir. 1958) (characterizing trial court's finding on issue of experimental use as finding of fact); *General Elec. Co. v. Minneapolis-Honeywell Regulator Co.*, 118 F.2d 278, 279 (2d Cir. 1941) ("But whether the uses were public or experimental was question of fact."). Although the Federal Circuit is not bound by these decisions, the nearly uniform treatment of experimental use as a question of fact is at least persuasive authority.

136. *See, e.g.*, *Strouss v. Kraft, Inc.*, Nos. 88-1190, -1191, 1988 WL 115585, at *1 (Fed. Cir. Nov. 2, 1988) ("The evidence of the length of testing period and extensiveness of the testing could well have been considered by the jury as beyond reasonable experimentation."); *Baker Oil Tools, Inc. v. Geo Vann, Inc.*, 828 F.2d 1558, 1565 (Fed. Cir. 1987) ("The disputed factual issue of experimental purpose was material to the decision.") (citations omitted); *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1573 (Fed. Cir. 1986) ("We note that Orthokinetics did come forward with evidence of an experimental purpose sufficient to have convinced the jury that even the possibility of a public use bar had been 'negated.'").

137. *See Lough II*, 103 F.3d at 1513 (Rader J., dissenting) (citing *Elizabeth v. Pavement Co.*, 97 U.S. 126, 135 (1877)); *Rooklidge & Jensen, supra* note 10, at 33 ("Given that the primary inquiry regarding experimental use negation is the *purpose* of the activity, intent is not only material, it is controlling.") (emphasis in original); Henry R. Veenstra, *The Availability of the Experimental Use Exception as a Stay of the On Sale or Public Use Bar in 102(b) Depends on the Intent of the Inventor: In re Yarn Processing Patent Validity Litigation*, 24 Drake L. Rev. 718, 721 (1975) ("Whether the use of an invention is for experimental purposes depends upon the good faith intent of the inventor.") (footnote omitted). *But see* *Paragon Podiatry Lab., Inc. v. KLM Lab., Inc.*, 984 F.2d 1182, 1186 (Fed Cir. 1993) (suggesting inventor's intent is not determinative of experimental use).

138. *See, e.g.*, *Pullman-Standard v. United Steel Workers*, 456 U.S. 273, 288 (1982) (intent to discriminate); *Commissioner v. Duberstein*, 363 U.S. 278 (1960) (donative intent); *United States v. Yellow Cab Co.*, 338 U.S. 338 (1949) (intent to restrain trade). *But see* *Bose Corp. v. Consumers Union*, 466 U.S. 485 (1984) (malice in First Amendment case). As Professor Weiner notes:

The factors discussed in Part II.B also support the classification of experimental use as a question of fact.¹³⁹ Perhaps the most compelling support is found in a comparison of the relative abilities of each judicial actor to decide the issue. Whether a particular use of an invention was pursued primarily for bona fide experimental purposes is entirely fact-driven. Thus, unlike the issue of public use, the resolution of experimental use does not require an ad hoc balancing of the underlying policies of section 102(b).¹⁴⁰ Moreover, because experimental purpose is nontechnical and decided with reference to practical human experience, experimental use is well-suited to adjudication by a jury.¹⁴¹

As the trier of fact, a jury is also better positioned than an appellate court to evaluate evidence of experimental use.¹⁴² For example, when an inventor testifies that the primary intent of a pre-critical date use was to experiment, the inventor's demeanor becomes germane to the probative value of the testimony. Because appellate court judges do not have access to demeanor evidence, they are substantially limited in their ability to evaluate direct evidence of experimental use.¹⁴³ Accordingly,

What a person intended, knew or believed is a question of fact. Since only the person himself is in a position to give direct evidence of his subjective thought processes at a given moment, and since his testimony may be accorded only limited weight, the jury may have to draw inferences from what he said and did. *There is agreement that such inference drawing constitutes fact-finding.*

Weiner, *supra* note 75, at 1870 (footnote omitted) (emphasis added). That a question of intent is encompassed within a patent case does not alter its factual classification. *See, e.g.,* Kangaroos U.S.A., Inc. v. Caldor, Inc., 778 F.2d 1571, 1573 (Fed. Cir. 1985) (holding that good faith and intent to deceive are questions of fact in patent cases involving inequitable conduct).

139. These factors include: (1) the Seventh Amendment's preference for jury participation and deference, (2) the comparative position and ability of each judicial actor to decide the issue, and (3) the impact of stare decisis on uniformity and predictability in law. *See supra* notes 82-84 and accompanying text.

140. *See* Rooklidge & Jensen, *supra* note 10, at 24 ("Whether an activity is experimental has nothing whatsoever to do with whether the activity violates any of the other policies underlying the bars.").

141. *Cf. Duberstein*, 363 U.S. at 289 (reasoning that nontechnical nature of statutory standard and close relationship of standard to practical human experience supports factual classification of issue).

142. *See Lough II*, 103 F.3d at 1534 n.9 (Rader, J., dissenting).

143. Possibly for this reason, the Federal Circuit has downplayed the significance of an inventor's testimony on the issue of experimental use. For example, in *Lough I*, the court states that "the expression by an inventor of his subjective intent to experiment, particularly after institution of litigation, is generally of minimal value." *Lough v. Brunswick Corp.*, 86 F.3d 1113, 1122 (Fed. Cir. 1996) [*Lough I*] (citing *TP Lab., Inc. v. Professional Positioners, Inc.*, 724 F.2d 965, 972 (Fed. Cir. 1984)), *reh'g denied*, 103 F.3d 1517 (Fed. Cir. 1997) [*Lough II*], *cert. denied*, 118 S. Ct. 43 (1997). Compare this language with that stated in *Robbins Co. v. Lawrence Manufacturing*, "An inventor's testimony of his subjective intent has no probative force against overwhelming evidence to the

their ability to decide experimental use on appeal is materially diminished.¹⁴⁴

Both of Judge Lourie's arguments for classifying experimental use as a question of law are unpersuasive.¹⁴⁵ First, the fact that experimental use negates public use does not convert experimental use into a legal issue.¹⁴⁶ The relationship between public use and experimental use simply does not alter the entirely historical nature of the experimental use inquiry. Second, Judge Lourie's emphasis on the fact that "experimental use" is a judge-made term¹⁴⁷ is misplaced. Whether a term was coined by a judge or legislator has little to do with the legal or factual nature of the underlying issue.

V. PROPOSED APPROACH FOR REVIEWING SECTION 102(b) PUBLIC USE CASES INVOLVING THE EXPERIMENTAL USE COUNTER-DEFENSE

Although only marginally supported,¹⁴⁸ the Federal Circuit's classification of public use as a "legal conclusion" appears to be firmly entrenched.¹⁴⁹ The crucial question, therefore, is how to accommodate the factual treatment of experimental use within the Federal Circuit's current paradigm.¹⁵⁰

contrary." 482 F.2d 426, 431 (9th Cir. 1973) (emphasis added). Interestingly, *Robbins* is the original source for the *Lough I* citation. See *In re Smith*, 714 F.2d 1127, 1134 (Fed. Cir. 1983) (citing *Robbins*); *TP Lab.*, 724 F.2d at 972 (citing *Smith*). Notwithstanding the view expressed in *Lough I*, an inventor's testimony can be crucial to determining whether an invention was in experimental use. See *Moxness Prods., Inc. v. Xomed, Inc.*, 891 F.2d 890 (Fed. Cir. 1989) (holding that district court erred in granting JNOV on issue of public use where court failed to attribute weight to co-inventor's testimony regarding experimental purpose).

144. Cf. *Miller v. Fenton*, 474 U.S. 104, 114 (1985) ("When . . . the issue involves the credibility of witnesses and therefore turns largely on an evaluation of demeanor, there are compelling and familiar justifications for leaving the process of applying law to fact to the trial court and according its determinations presumptive weight.").

145. See *supra* notes 115–16 and accompanying text.

146. See *Lough I*, 86 F.3d at 1518 (Lourie, J., concurring).

147. *Id.*

148. See *supra* Part IV.A.

149. See, e.g., *Petrolite Corp. v. Baker Hughes Inc.*, 96 F.3d 1423, 1425 (Fed. Cir. 1996); *Baxter Int'l, Inc. v. Cobe Lab. Inc.*, 88 F.3d 1054, 1058 (Fed. Cir. 1996); *Manville Sales Corp. v. Paramount Sys., Inc.*, 917 F.2d 544, 549 (Fed. Cir. 1990).

150. For a recent discussion of the importance of distinguishing the "legal" and "factual" elements of an issue, and applying a deferential standard of review to the latter, see *Cybor Corp. v. FAS Technologies, Inc.*, 138 F.3d 1448, 1463–66 (Fed. Cir. 1998) (Mayer and Newman, JJ., concurring in judgment).

A. *Separating Public Use and Experimental Use*

To preserve the “legal” treatment of public use while ensuring that the proper amount of deference is accorded to the jury on the “factual” issue of experimental use, courts should apply a two-pronged analysis. First, the court should independently determine whether the evidence presented at trial established a prima facie case of public use in light of the underlying policies of section 102(b). This determination should be made without regard to evidence of experimental purpose. Second, the court should determine whether substantial evidence supports the jury’s conclusion on the issue of experimental use.¹⁵¹ In cases where substantial evidence supports a finding of experimentation, a jury verdict finding no public use is legally “correct”¹⁵² and should be upheld accordingly. Had the *Lough* court applied this analysis, the trial court’s denial of Brunswick’s motion for JMOL would have been sustained.

B. *The Facts of Lough Revisited*

Applying the proposed approach to *Lough*, the dispositive issue on appeal was whether a reasonable jury could have found from the evidence that Lough’s pre-critical date use was substantially for purposes of experimentation.¹⁵³ Because the evidence presented met this threshold, the decision to overturn the jury’s conclusion constituted an unwarranted intrusion into the jury’s fact-finding province.¹⁵⁴

A reasonable jury could have found that Lough’s pre-critical date use was experimental given the following evidence. First, Lough neither received, nor requested, payment for the use of his invention.¹⁵⁵ Second, several witnesses testified that they were aware that the prototypes were being evaluated.¹⁵⁶ Third, an owner of one of the boats containing a

151. Trial courts can facilitate this review by requiring that juries execute special interrogatories documenting their conclusion on experimental use. *See* Fed. R. Civ. P. 49(b).

152. *See supra* note 72 and accompanying text.

153. Lough essentially admitted that his pre-critical date, nonsecret use was prima facie public use. *See* *Lough v. Brunswick Corp.*, 86 F.3d 1113, 1520 (Fed. Cir. 1996).

154. While the jury in *Lough* did not expressly find that Lough’s pre-critical date use was experimental, on appeal, the Federal Circuit must presume the existence of findings necessary to support the jury’s verdict. *See* *Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 893 (Fed. Cir. 1984).

155. *See supra* note 89 and accompanying text.

156. *Lough v. Brunswick Corp.*, 103 F.3d 1517, 1522 (Fed. Cir. 1997) [*Lough II*] (Newman, J., dissenting), *cert. denied*, 118 S. Ct. 43 (1997).

prototype testified that he and Lough regularly checked the seal on his boat for performance and durability.¹⁵⁷ Fourth, Lough only distributed prototypes to persons who had the ability to test the invention.¹⁵⁸ Fifth, Lough testified, under oath, that he distributed the prototypes for the purpose of evaluating performance and durability in varied conditions.¹⁵⁹ Finally, Lough's lack of testing facilities and relatively small number of prototypes makes informal experimentation with minimal oversight plausible.

Notwithstanding the evidence described above, the *Lough* majority implies that a finding of experimental use could not be supported by substantial evidence because Lough did not directly supervise the pre-critical date use.¹⁶⁰ Contrary to the majority's view, however, direct inventor supervision is not always required for a finding of experimentation. For example, in *Grain Processing Corp. v. American Maize-Products Co.*, the patentee shipped several samples of the invention to clients prior to the critical date.¹⁶¹ Noting that it was industry custom to ship samples to clients to ensure product utility, the Federal Circuit held that the *client's* subsequent use of the invention was experimental.¹⁶² The court found nothing inconsistent with experimentation, even in the apparent absence of direct inventor supervision.¹⁶³

The *Lough* majority also suggests that a finding of experimental use was incorrect because Lough did not ask for feedback regarding the performance of his prototypes.¹⁶⁴ But the fact that Lough did not ask for

157. *Id.* at 1523.

158. Lough's seal assembly was designed for use with MerCruiser stern drives. *See* Brief of Appellee at 36, *Lough v. Brunswick Corp.*, 86 F.3d 1113 (Fed. Cir. 1996) (Nos. 95-1266, -1302, -1314). Three of the five recipients owned boats with that particular brand of stern drive. *Id.* at 5. The other two, Lough's longtime friends, worked at a Florida marina. *Id.* Lough gave them the prototypes with the understanding that "they would install them in boats with the troublesome seal problem in order to test them and determine if they worked." *Id.*

159. *See Lough II*, 103 F.3d at 1521.

160. *Lough v. Brunswick Corp.*, 86 F.3d 1113, 1120 (Fed. Cir. 1996) [*Lough I*] ("Accepting the jury found these facts . . . it cannot reasonably be disputed that Lough's use of the invention was not 'experimental' so as to negate a conclusion of public use."), *reh'g denied*, 103 F.3d 1515 (Fed. Cir. 1997), *cert. denied*, 118 S. Ct. 43 (1997).

161. 840 F.2d 902 (Fed. Cir. 1988).

162. *Id.* at 906.

163. *Id.*; *see also* *Armco, Inc. v. Cyclops Corp.*, 791 F.2d 147 (Fed. Cir. 1986) (holding that pre-critical date, unsupervised use of invention by noninventors did not preclude finding of experimental use).

164. *Lough I*, 86 F.3d at 1121

feedback from some users does not preclude a reasonable jury from finding experimental purpose. As discussed in Lough's appellate brief, users understood that they were to notify Lough if a prototype failed.¹⁶⁵ This arrangement, which is consistent with informal experimentation, eliminated the need for Lough to contact each and every user as to the operability of the prototypes.

Finally, Lough's alleged lack of control over the pre-critical date use should not be determinative of whether his invention was in public or experimental use.¹⁶⁶ Even though a prototype was installed on a boat later sold to strangers, the subsequent use and disposal of that single prototype is hardly "public use" given the minimal risk posed to the underlying policies of section 102(b).¹⁶⁷ Moreover, imposing a requirement of absolute control over the pre-critical date use of a prototype would unfairly prejudice less sophisticated inventors who typically lack both testing facilities¹⁶⁸ and knowledge of the public use bar.¹⁶⁹

165. See Brief of Appellee at 40, *Lough I* (Nos. 95-1266, -1302, -1314).

166. Whether Lough had control over the use of the prototypes is unclear in light of several Federal Circuit decisions. See, e.g., *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 1266 (Fed. Cir. 1986) (holding that use by noninventor was under control of inventor by virtue of personal relationship and other surrounding circumstances); *TP Lab., Inc. v. Professional Positioners, Inc.*, 724 F.2d 965, 972 (Fed. Cir. 1984) (holding that control was established inherently by professional relationship between inventor and party in possession of invention). But see *Beachcombers Int'l, Inc. v. Wildewood Creative Prods., Inc.*, 31 F.3d 1154, 1160 (Fed. Cir. 1994) (upholding jury determination that inventor did not sufficiently control pre-critical date use despite personal relationship between inventor and users).

167. The only policy even remotely jeopardized by the post-sale use is the policy discouraging the removal from the public domain of inventions the public reasonably has come to believe are freely available. However, given that Lough's invention was hidden from public view while in use, it is extremely unlikely that the public had come to rely on the free use of Lough's invention. See Brief of Appellee at 37, *Lough I* (Nos. 95-1266, -1302, -1314); cf. *Manville Sales Corp. v. Paramount Sys., Inc.*, 917 F.2d 544, 550 (Fed. Cir. 1990) (downplaying need to advise public of experimental nature of pre-critical date use where public unlikely to have access to such use). In fact, Brunswick did not even learn of the invention until several years after the alleged public use occurred. See Brief of Appellee at 10, *Lough I* (Nos. 95-1266, -1302, -1314). Furthermore, courts faced with similar facts have held such use to be experimental. See, e.g., *Watson v. Allen*, 254 F.2d 342 (D.C. Cir. 1958) (holding that shim installed in inventor's automobile later sold to stranger was in experimental use although inventor made no attempt to contact new owner to check performance); *Goodwin v. Borg-Warner Corp.*, 157 F.2d 267 (6th Cir. 1946) (holding that clutch plate installed in automobile of third party was in experimental use despite fact that automobile was later sold to stranger without knowledge of inventor). But see *In re Blaisdell*, 242 F.2d 779 (C.C.P.A. 1957) (invalidating patent under public use bar on virtually identical facts as those in *Watson*).

168. Cf. *Cali v. Eastern Airlines*, 442 F.2d 65, 69 (2d Cir. 1971) ("[T]he absence of any control by [the inventor], or any attempt to impose control, should not be elevated to the status of a per se test under the circumstances disclosed here . . . [The inventor] lacked the means to develop his idea on his own resources."); see also Note, *The Public Use Bar to Patentability: Two New Approaches to*

VI. CONCLUSION

Lough illustrates the Federal Circuit's willingness to nullify jury decisions on important patent issues by manipulating the law-fact distinction to circumvent deferential standards of review. The Federal Circuit's supporting rationale, at least insofar as it relates to the issue of experimental use, is untenable. First, persuasive authority supports the factual classification of experimental use in that most appellate courts classified experimental use as a question of fact prior to the creation of the Federal Circuit. Second, the Federal Circuit has itself treated experimental use as a question of fact prior to *Lough*. Third, issues like experimental use that turn on intent are almost uniformly classified as issues of fact. Fourth, the nontechnical nature of experimental use makes the issue well-suited to adjudication by a jury as the trier of fact. Finally, the Federal Circuit's inability to evaluate demeanor evidence undermines the court's capacity to decide experimental use on appeal.

Had the Federal Circuit correctly recognized the factual nature of experimental use and applied a deferential standard of review, the jury's conclusion on experimental use would have been upheld. More importantly, because experimental use negates public use as a matter of law, the Federal Circuit would have been compelled to uphold the jury's conclusion on the issue of public use as well. The Federal Circuit's decision to avoid this result by classifying experimental use as a question of law gratuitously erodes the jury's fact-finding role in the adjudication of patent infringement suits.

the Experimental Use Exception, 52 Minn. L. Rev. 851, 855–56 (1968) (noting that stringent control requirement penalizes those inventors who lack testing facilities).

169. The dissenting opinion in *Lough I* states:

This is not a contest between . . . the two big competitors in this field, to see who can market a better engine. If it were, we could expect the combination of engineering and legal staffs on each side to be punctilious about observing the niceties of our prior opinions on how to conduct experiments so as to avoid any possible running afoul of the public use bar.

86 F.3d at 1123 (Plager, J., dissenting); see also Eyal H. Barash, Comment, *Experimental Uses, Patents, and Scientific Progress*, 91 Nw. U. L. Rev. 667, 669 (1997) (“[The public use] bar can be devastating to university researchers who routinely . . . discuss their research results without even knowing such a bar exists until its too late.”).

