

**JOHNSON & JOHNSTON ASSOCIATES, INC. V.
R.E. SERVICE CO.**

By Ashita Doshi

The patent system promotes the progress of science by rewarding inventors with a limited monopoly in exchange for public disclosure of their inventions.¹ Public disclosure stimulates further innovation and enables others to practice an invention once the patent expires.² A controversial doctrine in patent law called the “dedication rule” deems that subject matter disclosed in the specification but falling outside the literal scope of the claims is dedicated to the public.³ Although this doctrine imposes a sometimes harsh burden on patent drafters to claim all disclosed subject matter, the dedication rule ensures that the claims of a patent provide clear and explicit notice of the full scope of the patented invention.

In the recent decision of *Johnson & Johnston Associates, Inc. v. R.E. Service Co.*,⁴ an *en banc* panel of the Federal Circuit overruled its own precedent,⁵ concluding that the dedication rule should be strictly applied. This Note analyzes the impact of this decision on the practice of patent law, and concludes that the benefits of a strict application of the dedication rule outweigh the costs. While the *Johnson* court did not specifically define criteria for determining what “disclosed” subject matter may be, this Note proposes that the dedication rule should extend only to explicitly disclosed subject matter. Otherwise, application of the dedication rule to implicitly disclosed subject matter would nullify the increased clarity gained by *Johnson*’s strict application.

1. U.S. CONST. art. I, § 8, cl. 8.

2. *Aronson v. Quick Point Pencil Co.*, 440 U.S. 257, 262 (1979).

3. *See, e.g.*, 2 DONALD S. CHISUM, CHISUM ON PATENTS § 6.03[3] (1998).

4. 285 F.3d 1046 (Fed. Cir. 2002).

5. *See, e.g.*, *YBM Magnex v. Int’l Trade Comm’n*, 145 F.3d 1317, 1320 (Fed. Cir. 1998) (“The Supreme Court’s guidance . . . does not permit the blanket rule that everything disclosed but not claimed is barred from access to the doctrine of equivalents, whatever the facts, circumstances, and evidence.”).

I. BACKGROUND

A. The Dedication Rule Upholds the Notice Function of the Claims

Under 35 U.S.C. § 112, a patent applicant must “particularly point out and distinctly claim” what she considers to be her invention.⁶ By defining the boundaries of the invention the patentee wishes to protect, the claims notify the U.S. Patent and Trademark Office (“PTO”) of an invention’s desired scope, thus guiding the PTO examiner’s determination of its patentability.⁷ The claims also notify the public of the invention’s scope, so that competitors can avoid infringing activity and legitimately “design around” inventions.⁸

The “dedication rule” is a judicially created doctrine that denies patent protection to subject matter that is disclosed in the patent, but left unclaimed,⁹ forcing such matter into the public domain instead. Like § 112, the dedication rule helps ensure that the claims, rather than the specification, notify the public and the PTO of the full scope of an invention.¹⁰ By barring an applicant from capturing disclosed but unclaimed subject matter as an equivalent, the dedication rule safeguards against a tactic known as “back-door patenting,” where an applicant narrowly claims an invention, in order to avoid examination of broadly disclosed, but unclaimed, subject matter.¹¹

6. 35 U.S.C. § 112 (2000).

7. *See, e.g.*, *Keystone Bridge Co. v. Phoenix Iron Co.*, 95 U.S. 274, 278 (1877) (“[T]he courts have no right to enlarge a patent beyond the scope of its claim as allowed by the Patent Office, or the appellate tribunal to which contested applications are referred.”); *Johnson*, 285 F.3d at 1055 (“By enforcing the *Maxwell* rule, the courts avoid the problem of extending the coverage of an exclusive right to encompass more than that properly examined by the PTO.”).

8. *See, e.g.*, *Merrill v. Yeomans*, 94 U.S. 568, 573-74 (1877) (“It seems to us that nothing can be more just and fair, both to the patentee and to the public, than that the former should understand, and correctly describe, just what he has invented, and for what he claims a patent.”).

9. *See* *Miller v. Bridgeport Brass Co.*, 104 U.S. 350, 352 (1881) (concluding that unclaimed but disclosed subject matter is dedicated to the public).

10. *See* *Mahn v. Harwood*, 112 U.S. 354, 361 (1884) (“[T]he claim actually made operates in law as a disclaimer of what is not claimed; and of all this the law charges the patentee with the fullest notice.”).

11. *See, e.g.*, *Genentech, Inc. v. Wellcome Found. Ltd.*, 29 F.3d 1555, 1564 (Fed. Cir. 1994).

B. Origin of the Dedication Rule Within a Patent Reissue Context

The Supreme Court first articulated the dedication rule within a reissue context over a century ago, in *Miller v. Bridgeport Brass Co.*¹² The *Miller* court held invalid a reissued patent claiming a lamp design that included a chimney element, because the original patent claims did not include a chimney element and the specification described a lamp with the stated advantage of lacking a chimney.¹³ Noting that the originally unclaimed chimney element had been not only disclosed, but also disparaged, in the specification, the Court held that “the claim of a specific device or combination, and an omission to claim other devices or combinations apparent on the face of the patent, are, in law, a dedication to the public of that which is not claimed.”¹⁴

A few years later, the Supreme Court affirmed the “Miller rule,” and invalidated another reissued patent, in *Mahn v. Harwood.*¹⁵ However, unlike the *Miller* court, the *Mahn* court relied on the notice function of the claims, instead of the patentee’s subjective intentions, in deciding to invalidate the patent.¹⁶ The Court provided little guidance on when the rule should be applied, if at all, outside of the reissue context.¹⁷ Since there seemed to be no compelling reason to confine the rationale of the dedication rule to the reissue context,¹⁸ it was only a matter of time before the rule was used to cabin the doctrine of equivalents as well.

C. Application of the Dedication Rule to the Doctrine of Equivalents

An infringer can essentially copy an invention, yet avoid literal infringement of the patent claims through the addition of insubstantial

12. 104 U.S. at 350.

13. *Id.* at 350-51.

14. *Id.* at 352. This rationale suggests that the dedication rule arose as an offshoot of the doctrine of abandonment, which recognizes that an inventor may, through his own actions or inaction, forego his patent rights on an invention. See Mark V. Hurwitz, Note, *YBM Magnex v. International Trade Commission*, 14 BERKELEY TECH. L.J. 191, 194 (1999).

15. 112 U.S. 354 (1884).

16. *Id.* at 355-57. *Mahn* involved an application for a broadening reissue filed four years after the patent originally issued. The Supreme Court held that a delay of more than two years was presumptively unreasonable, unless special circumstances existed, because the public reasonably believed that unclaimed matter was public, and the patentee by her delay had implicitly acquiesced to this belief. *Id.*

17. See Scott R. Boalick, Comment, *The Dedication Rule and the Doctrine of Equivalents: A Proposal for Reconciliation*, 87 GEO. L.J. 2363 (1999).

18. *Id.*

changes, thus obeying the letter but not the spirit of the patent laws.¹⁹ To safeguard against such copying, the judicially created “doctrine of equivalents” extends patent protection beyond the literal scope of the claims, to cover devices that differ insignificantly from the patented invention.²⁰ It thus provides some protection against nonliteral infringement, but at the cost of introducing some uncertainty into the patent system.²¹ In allowing patent protection to extend to devices that are not literally claimed, the doctrine of equivalents conflicts with the requirement of 35 U.S.C § 112.²²

The Federal Circuit has repeatedly emphasized that the doctrine of equivalents should be applied with deference to the principle that the claims notify the public of the full scope of the invention.²³ In *Johnson*, the Federal Circuit’s affirmance of the dedication rule as a bar to the doctrine of equivalents upholds this view. In reaching its decision in *Johnson*, the Federal Circuit received little guidance from the Supreme Court’s prior rulings, which failed to definitively accept or reject the dedication rule as a limitation on the doctrine of equivalents.

In their dissents in *Graver Tank & Manufacturing Co. v. Linde Air Products Co.*,²⁴ Justices Black and Douglas were the first to suggest that the dedication rule should bar application of the doctrine of equivalents.²⁵ The central issue in *Graver Tank* turned on whether a welding blend containing manganese silicate infringed a patent that covered welding blends

19. See, e.g., *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 122 S. Ct. 1831, 1833 (2002) (“If patents were always interpreted by their literal terms, their value would be greatly diminished. Insubstantial substitutes for certain elements could defeat the patent, and its value to inventors could be destroyed by simple acts of copying.”).

20. See, e.g., *Winans v. Denmead*, 56 U.S. 330 (1853).

21. See, e.g., *Festo*, 122 S. Ct. at 1833 (“Each time the Court has considered the doctrine of equivalents, it has acknowledged this uncertainty as the price of ensuring the appropriate incentives for innovation, and it has affirmed the doctrine over dissents that urged a more certain rule.”).

22. 35 U.S.C. § 112 (2002) (requiring that patent claims define the scope of an invention).

23. See, e.g., *Conopco, Inc. v. May Dep’t Stores Co.*, 46 F.3d 1556, 1562 (Fed. Cir. 1994) (“The doctrine of equivalents cannot be used to erase meaningful structural and functional limitations of the claim on which the public is entitled to rely in avoiding infringement.”); *Charles Greiner & Co. v. Mari-Med Mfg., Inc.*, 962 F.2d 1031, 1036 (Fed. Cir. 1992) (“Most important, however, a court must, in applying the doctrine, avoid significant conflict with the fundamental principle that claims define the limits of patent protection.”).

24. 339 U.S. 605 (1950).

25. *Id.* at 614, 618 (Black, J. & Douglas, J., dissenting) (“[T]he function of claims . . . is to exclude from the patent monopoly field all that is not specifically claimed, whatever may appear in the specifications. . . . Manganese silicate . . . was disclosed in the application and then excluded from the claims. It therefore became public property.”).

containing alkaline earth metal silicates.²⁶ The patent's specification disclosed nine metal silicates, including manganese silicate,²⁷ but only claimed blends containing silicates of alkaline earth metals, which are similar to but distinct from manganese silicate. Thus, the allegedly infringing welding blend infringed only if the Court found manganese silicate to be an equivalent of alkaline earth metal silicates.

Under the "particular circumstances" of the case, and in view of prior art teaching the use of manganese in welding blends, the majority in *Graver Tank* found that the accused blend differed insubstantially from the claimed invention, and thus infringed under the doctrine of equivalents.²⁸ The majority emphasized that a finding of equivalence cannot be a "prisoner of formula," and must be determined "against the context of a patent, the prior art, and the particular circumstances of the case."²⁹ Even though manganese silicate was disclosed in the specification, the majority did not apply, or even address, the dedication rule.³⁰ In contrast, Justices Black and Douglas, in separate dissents, argued that the dedication rule barred the patentee from asserting that manganese silicate infringed through equivalence, since it was disclosed but unclaimed.³¹

In *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*,³² the Supreme Court dealt indirectly with the dedication rule as a limitation on the doctrine of equivalents. In *Warner-Jenkinson*, the Court considered a suggestion that equivalents should be limited to those known at the time of patent issuance, or alternatively, to subject matter actually disclosed in the patent.³³ The Court stated that since it had decided to reject the argument that equivalency should be limited to already known equivalents; therefore, it "necessarily reject[ed] the more severe proposition that equivalents must not only be known, but must also be actually disclosed in the patent."³⁴ This language could be interpreted as suggesting that equivalents may, but need not, be disclosed in the specification, which would contradict the dedication rule.

26. *Id.* at 606-12.

27. U.S. Patent No. 2,043,960, col. 3, ll. 62-72 (issued June 9, 1936) [hereinafter "the '960 patent"].

28. *Graver Tank*, 339 U.S. at 610.

29. *See id.* at 609-10.

30. *See id.* at 609-12.

31. *See id.* at 614, 618.

32. 520 U.S. 17 (1997).

33. *Id.* at 21-22.

34. *Id.* at 37.

With little guidance from the Supreme Court, the Federal Circuit has inconsistently applied the dedication rule to disclosed but unclaimed equivalents.³⁵ The decision in *Maxwell v. J. Baker, Inc.*³⁶ represented the high watermark in the Federal Circuit's affirmation of the rule's preclusive effect on the doctrine of equivalents. *Maxwell* involved a patent that disclosed two alternative means for connecting a pair of shoes, the first being a tab stitched into the top seam of the shoe, the second being a tab stitched between the soles.³⁷ The patentee claimed only the second embodiment.³⁸ A jury found that the defendant's use of the disclosed but unclaimed embodiment infringed under the doctrine of equivalents.³⁹ On appeal to the Federal Circuit, the defendant argued that such disclosed but unclaimed subject matter was dedicated to the public.⁴⁰ Agreeing with the defendant, the Federal Circuit reasoned that allowing a patentee to assert disclosed but unclaimed subject matter, as an equivalent of claimed subject matter, would simply encourage a patent applicant to disclose broadly in the specification, and file narrow claims, to avoid examination of broader claims supported by the specification.⁴¹

Only two years after *Maxwell*, the Federal Circuit flatly rejected the dedication rule in *YBM Magnex v. International Trade Commission*.⁴² This case involved an appeal from a finding that magnet alloys having an oxygen content below 6,000 ppm infringed a patent claiming a magnetic alloy with 6,000 to 35,000 ppm oxygen, under the doctrine of equivalents.⁴³ Citing the dedication rule in *Maxwell*, the alleged infringer argued that the disclosure in the specification of unclaimed magnetic alloys having an oxygen content below 6,000 ppm precluded a finding of infringement under the doctrine of equivalents.⁴⁴ Finding infringement through equivalence, the Federal Circuit distinguished *Maxwell* as a case limited to circumstances in which the applicant's unclaimed embodiment was unrelated

35. The court applied the dedication rule to the doctrine of equivalents in *Sage Products, Inc. v. Devon Industries, Inc.*, 126 F.3d 1420 (Fed. Cir. 1997), in the concurring opinion in *International Visual Corp. v. Crown Metal Manufacturing Co.*, 991 F.2d 768 (Fed. Cir. 1993), and in *Unique Concepts v. Brown*, 939 F.2d 1558 (Fed. Cir. 1991)

36. 86 F.3d 1098 (Fed. Cir. 1996).

37. U.S. Patent No. 4,624,060, col. 2, l. 42 (issued Nov. 25, 1986).

38. *Id.*

39. *Maxwell v. J. Baker, Inc.*, 875 F. Supp. 1371 (D. Minn. 1995).

40. *Maxwell*, 86 F.3d at 1106.

41. *Id.*

42. 145 F.3d 1317 (Fed. Cir. 1998).

43. *Id.* at 1318.

44. *Id.*

and “distinct” from the claimed embodiment.⁴⁵ The court reasoned that a broader interpretation of *Maxwell* would be inconsistent with the Supreme Court precedent in *Graver Tank* and *Warner-Jenkinson*.⁴⁶ The court also cited several Federal Circuit cases, predating *Maxwell*, that recognize infringement of disclosed but unclaimed equivalents.⁴⁷ In conclusion, application of the dedication rule remained highly uncertain in view of the Federal Circuit’s conflicting precedent at the time *Johnson* came before the court.

II. CASE SUMMARY

A. Facts And Procedural Posture

Plaintiff Johnson owned U.S. Patent No. 5,153,050 (hereinafter “the ‘050 patent”),⁴⁸ relating to the manufacture of printed circuit boards, which contain thin sheets of copper foil sandwiched between “sheets of a dielectric (nonconductive) resin-impregnated material called ‘preg.’”⁴⁹ The invention involved adhering the fragile copper foil to a stiffer substrate sheet of aluminum, to prevent damage to the copper foil during manual handling, after which the aluminum could be removed.⁵⁰ The patent claims referred only to an aluminum substrate, the specification disclosed that aluminum was preferred, but “other metals, such as stainless steel or nickel alloys” might be used.⁵¹

45. *Id.* at 1320 (noting that the Federal Circuit denied Maxwell protection of the unclaimed embodiment “in view of the distinctness” of the unclaimed and claimed embodiments).

46. *Id.* at 1321. The Federal Circuit noted that the *Graver Tank* court sustained the district court’s finding that the disclosed but unclaimed subject matter constituted an infringing equivalent. The court also cited the *Warner-Jenkinson* court’s statement that “the Court rejected the more severe proposition that equivalents must not only be known, but must be actually disclosed in the patent in order for such equivalents to infringe upon the patent.” *Id.* The *YBM* court concluded that the Court, in recognizing that equivalents are not limited to what is disclosed in the patent, necessarily recognized that equivalents may indeed be disclosed in the patent. *Id.*

47. *Id.* (citing *Miller v. Bridgeport Brass Co.*, 104 U.S. 350, (1881); *Pall Corp. v. Micron Separations, Inc.*, 66 F.3d 1211 (Fed. Cir. 1995); *Miles Labs., Inc. v. Shandon Inc.*, 997 F.2d 870 (Fed. Cir. 1993); *Unique Concepts, Inc. v. Brown*, 939 F.2d 1558 (Fed. Cir. 1991); and *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 939 F.2d 1540 (Fed. Cir. 1991)).

48. U.S. Patent No. 5,153,050 (issued Aug. 4, 1992) [hereinafter “the ‘050 patent”]

49. *Johnson & Johnston Assoc., Inc. v. R.E. Serv. Co.*, 285 F.3d 1046, 1048 (Fed. Cir. 2002).

50. *Id.* at 1049.

51. The ‘050 patent, col. 5, ll. 5-8.

Defendants R.E. Service Co. and Mark Frater (collectively RES) manufactured circuit boards using copper adhered to a steel substrate, as disclosed but unclaimed in the '050 patent. In an earlier litigation, Johnson filed suit alleging infringement against RES. Although a jury found infringement, and the court enforced this judgment against RES in contempt proceedings, both parties decided to settle outside of court instead. Johnson later filed a second suit of infringement against RES, and the district court granted RES's motion requesting that the claim term "aluminum" be construed to refer only to commercial grade aluminum.⁵² Since such a construction automatically precluded a finding of literal infringement, resolution of the case depended on whether RES infringed under the doctrine of equivalents. Citing *Maxwell*, RES argued that disclosed but unclaimed subject matter is dedicated to the public, while Johnson argued against such dedication, citing *YBM Magnex*.⁵³ On cross-motions for summary judgment, the district court ruled in favor of Johnson,⁵⁴ and a jury found willful infringement under the doctrine of equivalents.⁵⁵ RES appealed on the grounds that Johnson did not claim a steel substrate, but instead limited its patent scope to an aluminum substrate, dedicating the unclaimed steel substrate to the public.

B. The Federal Circuit's Analysis

The Federal Circuit, sitting *en banc*, agreed with RES, explicitly overruling *YBM Magnex*. The court held that the use of a steel substrate, disclosed in the specifications of the '050 patent, was dedicated to the public when it was left unclaimed, thus Johnson could not assert the doctrine of equivalents to cover the disclosed but unclaimed steel substrate.⁵⁶

In arriving at its decision, the Federal Circuit looked first to Supreme Court precedent. Although the majority in *Graver Tank* did not adopt the dissent's suggestion to apply the dedication rule, the *Johnson* court did not regard this as a rejection of the dedication rule, and instead distinguished *Graver Tank* on its facts. The *Johnson* court observed that the patent in *Graver Tank* initially issued with broad claims that covered the alleged equivalent, but these claims were later invalidated.⁵⁷ The court cited to

52. *Johnson & Johnston Assocs. v. R.E. Serv. Co.*, No. C97-04382 CRB, 1998 U.S. Dist. Lexis 13142, at *8 (N. D. Cal. Aug. 24, 1998).

53. *Id.* at *9-*10.

54. *Id.* at *10.

55. *Johnson & Johnston Assocs. v. R.E. Serv. Co.*, No. C97-04382 CRB, 1998 U.S. Dist. Lexis 20235, at *4 (N.D. Cal. Dec. 23, 1998).

56. *Id.* at 1054-55.

57. *Id.* at 1053.

language in *Graver Tank* distinguishing that case from *Maxwell*, in which the patentee's failure to claim the alternative embodiment deprived the PTO of the opportunity to assess its patentability.⁵⁸ Thus, the court concluded that the patentee in *Graver Tank* had not dedicated unclaimed subject matter to the public.⁵⁹

The Federal Circuit also felt that the Court's decision in *Warner-Jenkinson* did not reach the dedication rule, since the patentee in that case had neither disclosed nor claimed the allegedly infringing matter, thus failing to provide a "proper instance of dedication" to the public.⁶⁰ The court hence concluded that there was no binding Supreme Court precedent barring a strict application of the dedication rule.

The *Johnson* court upheld the dedication rule on "the fundamental principle that [the] claims,"⁶¹ and not the specification, define the scope of patent protection, thus providing the measure of a patentee's right to exclude. Moreover, the dedication rule is consistent with the law of infringement, which compares the accused product with the claims as construed by the court, rather than with the invention as described by the specification.⁶² Finally, the dedication rule prevents back-door patenting by allowing patent protection only for claimed subject matter that has undergone examination.⁶³

The court concluded by suggesting that a patentee who inadvertently fails to claim disclosed subject matter has an alternative means to later capture that subject matter. First, a patentee can file a reissue application within two years of a patent's issuance under 35 U.S.C. § 251.⁶⁴ During the reissue examination, the patentee can attempt to enlarge the scope of the original claims to include the disclosed but previously unclaimed subject matter. Alternatively, the patentee can file a continuation application under 35 U.S.C. § 120,⁶⁵ before all applications in the chain have issued, as in fact Johnson had done.

58. *Id.* at 1052.

59. *Id.* at 1053.

60. *Johnson*, 285 F.3d at 1054.

61. *See, e.g.*, *Milcor Steel Co. v. George A. Fuller Co.*, 316 U.S. 143, 146 (1942) ("Out of all the possible permutations of elements which can be made from the specifications, he reserves for himself only those contained in the claims.") (quoting *Milcor Steel Co. v. George A. Fuller Co.*, 122 F.2d 292, 294 (2d Cir. 1941)).

62. *SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1118 (Fed. Cir. 1985).

63. *See Keystone Bridge Co. v. Phoenix Iron Co.*, 95 U.S. 274, 278 (1877).

64. 35 U.S.C. § 251 (2000).

65. *Id.* § 120.

C. Concurrences and Dissent

The *en banc* panel in *Johnson* also issued four separate concurrences and a single dissent. Judge Clevenger's concurrence, joined by Judges Lourie, Schall, Gajarsa, and Dyk, emphasized that the *Johnson* holding did not contradict the law of *Graver Tank*.⁶⁶ Judge Dyk's concurrence, joined by Judge Linn, distinguished the facts of *Graver Tank*, emphasizing that the dedication rule is a form of "conscious waiver," and since the patentee had in fact claimed the disclosed subject matter, there was no dedication.⁶⁷ Moreover, because the alleged infringer had probably not "sufficiently raised" the issue of dedication, the *Graver Tank* court most likely did not consider the question of dedication to be "properly before it."⁶⁸

In her dissent, Judge Newman contended that both dissenters in *Graver Tank* had explicitly stated that the dedication rule would bar the patentee from using equivalence to recapture manganese silicate.⁶⁹ In spite of this, the majority in *Graver Tank* had implicitly rejected the dissenters' position by declining to apply the dedication rule, and by emphasizing instead that equivalence should be decided on a case by case basis.⁷⁰ Judge Newman therefore viewed *Graver Tank* as binding precedent against the dedication rule, under the doctrine of *stare decisis*.⁷¹

Judges Rader and Mayer proposed a less strict "foreseeability" standard for the dedication rule, which would prevent a patentee from capturing any subject matter that he could have reasonably foreseen as claimable, under the doctrine of equivalents.⁷² A foreseeability approach would set an objective standard for determining equivalence, generating more consistent results uninfluenced by the chance disclosure by the patent drafter.⁷³ This strategy would better enhance the notice function of the claims, by making them the sole definition of invention scope in all foreseeable circumstances.⁷⁴ This bar, however, would also permit patentees limited protection against insubstantial changes that are unforeseeable.⁷⁵

66. *Johnson & Johnston Assoc., Inc. v. R.E. Serv. Co.*, 285 F.3d 1046, 1056 (Fed. Cir. 2002) (Clevenger, J., concurring) (emphasizing that the court's decision was "not inconsistent" with *Graver Tank*).

67. *Id.* at 1060 (Dyk, J., concurring).

68. *Id.* at 1061.

69. *Id.* at 1065 (Newman, J., dissenting).

70. *Id.*

71. *Id.*

72. *Id.* at 1056 (Rader, J., concurring).

73. *Id.*

74. *Id.* at 1057.

75. *Id.*

Judge Lourie questioned the wisdom of the foreseeability test.⁷⁶ Lourie felt that determination of foreseeability would present complicated issues of fact, and analogized foreseeability to obviousness, reasoning that a foreseeability bar to equivalence would conflict with the established doctrine that obvious variations are usually considered equivalent.⁷⁷ Even if foreseeability was distinct from obviousness, however, foreseeability would at least further complicate an already vague area of the law.⁷⁸

III. DISCUSSION

A. The Benefits of a Strict Application of the Dedication Rule Outweigh the Costs

Johnson's bright-line approach resolves the uncertainty generated by prior conflicting precedent on the dedication rule. By reaffirming the primary importance of the notice function of the claims, *Johnson's* strict application of the dedication rule ensures that the claims, and not the specifications, define the boundaries of an invention. By ensuring that the claims adequately notify the public and the patent examiner of the scope of an invention, the dedication rule prevents both wasteful litigation and back-door patenting.

Johnson's holding also upholds fairness. Consistent with 35 U.S.C. § 112, a patentee should bear the burden of claiming what she believes is her invention,⁷⁹ while the public should not bear the risk of infringing claims of uncertain scope. Furthermore, the patentee should bear the burden of drafting claims of appropriate scope, since patentees are in the position to control claim scope; whereas the public is, for the most part, excluded from the patent examination process.⁸⁰ Finally, an issued patent has a presumption of validity, placing the burden of proving patent invalidity on the alleged infringer. In exchange for this back-end benefit, the patentee should bear the burden of drafting claims in a way that provides clear notice of the scope of patent protection to a potential infringer.

Although *Johnson* takes the even harsher position of strictly applying the dedication rule retroactively to an already issued patent, it remains a

76. *Id.* at 1064 (Lourie, J., concurring).

77. *Id.*

78. *Id.*

79. *See supra* note 22 and accompanying text.

80. *See Sage Prods, Inc. v. Devon Indus., Inc.*, 126 F.3d 1420, 1425 (Fed. Cir. 1997) (“[A]s between the patentee who had a clear opportunity to negotiate broader claims but did not do so, and the public at large, it is the patentee who must bear the cost of its failure to seek protection for this foreseeable alteration of its claimed structure.”).

fundamentally fair decision, as the patent community forewarned of the possibility that courts would strictly apply the dedication rule. The Federal Circuit's conflicting precedent regarding the dedication rule kept the debate about the dedication rule active in the eyes of the patent community. Hence, even after *YBM*, it could hardly be claimed that there were settled expectations against the *Johnson* decision.⁸¹ Thus, the *Johnson* decision cannot be considered unfair, even if it proves costly to patentees who, perhaps unwisely, relied on "unsettled" expectations and assumed the risk of leaving disclosure unclaimed.

Johnson's strict application of the dedication rule is easy for courts to administer, and relatively easy for a patentee to comply with. To see if subject matter falls under the dedication rule, a fact-finder simply needs to check a patent's specification for the inclusion of unclaimed disputed subject matter. Similarly, a patentee can easily ensure that the dedication rule will not apply to embodiments disclosed in the specification by claiming those embodiments. The ease with which a patent drafter can safeguard against dedicating her disclosure to the public justifies a strict application of the dedication rule.

The ease, however, with which *Johnson's* strict application of the dedication rule can be administered, or complied with, partly depends on what constitutes disclosure. Although both *Johnson* and *Miller* hold that the dedication rule applies to unclaimed matter that is found to be disclosed⁸² or "apparent on the face of the patent,"⁸³ neither case provides any guidance to determine what is "disclosed." In fact, the *Johnson* majority considered that the patent in suit in *Graver Tank* disclosed manganese silicate,⁸⁴ but Judge Dyk, in his concurrence, argued that the patent language referring to the possible use of manganese silicate fell short of actual disclosure,⁸⁵ since it failed to meet the § 112 requirement that patents

81. The Supreme Court noted in *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.* that the Federal Circuit's unexpected retroactive enforcement of a "complete bar" to equivalence by prosecution history estoppel disrupted the "settled expectations" of patentees. 122 S. Ct. 1831, 1834 (2002). While there was no warning of *Festo's* complete bar to estoppel, there was clear, and very early, Supreme Court precedent affirming the dedication rule. *Cf.* discussion *infra* Part I.B-C.

82. *Johnson*, 285 F.3d at 1054 ("As stated in *Maxwell*, when a patent drafter discloses but declines to claim subject matter, as in this case, this action dedicates that unclaimed subject matter to the public.").

83. *Miller v. Bridgeport Brass Co.*, 104 U.S. 350, 352 (1881).

84. *Johnson*, 285 F.3d at 1053.

85. *Id.* at 1061. According to Judge Dyk, the specification had referred to the possible use of manganese, but did not clearly disclose that manganese silicate worked for its intended purpose. *Id.* The specification disclosed that the applicants had tested silicates of

teach “the manner and process of making and using [manganese silicate] in such full, clear, concise, and exact terms as to enable any person skilled in the art”⁸⁶ to make and use the invention. Thus, application of the dedication rule to subject matter that is not fully disclosed in an explicit manner would be highly uncertain.

One could consider, as an example, the disclosure of a “circular device.” Under *Johnson*, it is uncertain if such a disclosure comprehends oval devices. Under a broad interpretation of the dedication rule, the term “circular device” can be considered to cover an oval device, but under a narrow interpretation, it might not. If both interpretations were allowed under the dedication rule, it would be difficult to predict whether the dedication rule would preclude an oval device as an equivalent. Such uncertainty would breed wasteful litigation, undermining *Johnson*’s fundamental benefit of increased predictability in applying the dedication rule. The dedication rule, therefore, should not be applied to bar equivalents beyond the literal scope of the explicit language of the specification.

B. *Johnson*’s Strict Application of the Dedication Rule Is Consistent with Supreme Court Precedent

As Judge Newman argues in her dissent, *Johnson*’s strict application of the dedication rule seems to conflict with Supreme Court precedent in *Graver Tank* and *Warner-Jenkinson*. The Supreme Court in *Graver Tank* found that the use of manganese silicate in a welding blend equivalently infringed a patent which disclosed the use of manganese silicate in such blends, but only claimed blends containing similar but chemically distinct alkaline earth metals silicates.⁸⁷ Most importantly, the *Graver Tank* majority failed to address why the dedication rule did not bar a finding of infringement through equivalence.⁸⁸

As the *Johnson* court recognized, the specific facts of *Graver Tank* might explain why the majority’s implicit rejection of the dedication rule need not have created binding precedent precluding the holding of *Johnson*.⁸⁹ In a prior decision involving the same patent as in *Graver Tank*, the Supreme Court held two patent claims that included manganese silicate within their scope to be overly broad.⁹⁰ The subsequent *Graver Tank* deci-

nine different metals, including manganese, and that a number of these were effective, without specifying which. The ‘960 patent, col. 3, ll. 62-72.

86. 35 U.S.C. § 112 (2002).

87. *Graver Tank & Mfg. Co. v. Linde Air Prods.*, 339 U.S. 605, 608-610 (1950).

88. *Id.* at 605.

89. *Johnson*, 285 F.3d at 1053.

90. *Graver Tank*, 336 U.S. at 276-77.

sion related to an infringement action involving the remaining narrowed claims. In view of this history, the *Johnson* court reasoned that the patentee did not dedicate blends containing manganese silicate to the public, since the patent originally issued with broad claims were later invalidated.⁹¹ Thus, a later invalidation of broad claims does not imply that the patentee dedicates the invalidated subject matter within those claims to the public. The original claims provide proper notice that the patentee intended to cover the disclosed matter, and their subsequent invalidation is outside the patentee's control and not easily foreseeable, since claims issue after the PTO's endorsement of their validity.

The *Johnson* majority interpreted *Graver Tank* to suggest that subject matter covered by later-invalidated claims, but excluded from the remaining valid claims, may be immune to the dedication rule and protectable under the doctrine of equivalents.⁹² Generally speaking, however, a patentee should not be allowed to capture any subject matter that she is prohibited from claiming literally, through the doctrine of equivalents. *Johnson*'s interpretation of *Graver Tank* appears to contradict this basic principle. One explanation for this apparent contradiction is that the doctrine of equivalents should be available to subject matter covered by broad claims allowed by the PTO, but later invalidated by the courts, because the patentee, having reasonably relied on the presumption of validity of the originally issued claims, may have lost the opportunity to amend or draft narrower claims covering the disputed subject matter in a continuing or reissue application.

Graver Tank appears to conflict with *Johnson* in a broader aspect as well. Judge Newman reasoned in her *Johnson* dissent that the *Graver Tank* court, in holding that equivalence is not a "prisoner of formula," voiced an implicit mandate against a strict enforcement of the dedication rule.⁹³ In other words, *Graver Tank* requires that availability of the doctrine of equivalents be decided on a case-by-case basis, whereas *Johnson* creates a per se bar against application of the doctrine of equivalents to disclosed but unclaimed subject matter. However, an alternative view of *Graver Tank* is that it merely teaches that equivalence should be determined "against the context of a patent, the prior art, and the particular circum-

91. *Johnson*, 285 F.3d at 1053 ("The Court's holding and the history of *Graver II* show that the patentee had not dedicated unclaimed subject matter to the public. In fact, the patentee had claimed the 'equivalent' subject matter, even if the Court eventually held the relevant claims too broad.").

92. *Id.*

93. *Id.* at 1065.

stances of the case.”⁹⁴ Accordingly, the presence of disclosed but unclaimed subject matter in a patent can be regarded as a “particular circumstance” that bars the application of the doctrine of equivalents. Hence, the *Graver Tank* court’s admonishment to determine equivalents in a case-specific manner need not preclude *Johnson*’s strict application of the dedication rule to all disclosed but unclaimed subject matter.

The apparent conflict between *Johnson* and *Warner-Jenkinson* similarly fails to withstand deeper analysis. The *Warner-Jenkinson* court stated that, by rejecting the argument that equivalency should be limited to already known equivalents, it “reject[ed] the more severe proposition that equivalents must not only be known, but must also be actually disclosed in the patent.”⁹⁵ Judge Newman, in her *Johnson* dissent, interpreted this language as an explicit recognition by the Supreme Court that disclosed but unclaimed equivalents can infringe under the doctrine of equivalents.⁹⁶ However, this language could also be interpreted to mean that the *Warner-Jenkinson* court’s rejection of the first argument precluded the Court from even reaching the merits of the “more severe proposition” at all. Thus, the language in *Warner-Jenkinson* is not irreconcilable with a strict application of the dedication rule.

C. Resolving the Apparent Tension between *Johnson* and *Festo*.

Another concern with the holding in *Johnson* is its apparent tension with the Supreme Court’s holding in *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*,⁹⁷ which issued three months after *Johnson*. In *Festo*, the Court considered the extent to which prosecution history estoppel⁹⁸ bars application of the doctrine of equivalents to amended claim elements.⁹⁹ The Federal Circuit had previously held that a narrowing claim amendment creates prosecution history estoppel, which completely bars equivalents as to the amended claim element.¹⁰⁰ The Supreme Court re-

94. *Graver Tank*, 339 U.S. at 609-10.

95. *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, 520 U.S. 17, 37 (1997).

96. *Johnson*, 285 F.3d at 1065-66 (explicitly recognizing that equivalents that are disclosed in the patent can infringe under the doctrine of equivalents).

97. 122 S. Ct. 1831 (2002).

98. In general, prosecution history estoppel bars a patentee from recapturing subject matter surrendered during prosecution. *See, e.g., id.* at 1839 (“Prosecution history estoppel . . . preclud[es] a patentee from regaining, through litigation, coverage of subject matter relinquished during prosecution of the application for the patent.”) (quoting *Wang Labs., Inc. v. Mitsubishi Elec. Am., Inc.*, 103 F.3d 1571, 1577-1578 (Fed. Cir. 1997)).

99. *Festo*, 122 S. Ct. at 1839.

100. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 234 F.3d 558 (Fed. Cir. 2000) (en banc).

jected the Federal Circuit's "complete bar" approach, holding that the doctrine of equivalents would not be available to an amended claim element if the equivalent in question was foreseeable at the time of filing, but may remain available if the equivalent was unforeseeable at the time of filing.¹⁰¹

The Supreme Court's rejection of the Federal Circuit's "complete bar" approach would imply the preclusion of *Johnson's* strict application of the dedication rule, which mandates a "complete bar" to the doctrine of equivalents whenever subject matter is disclosed but unclaimed. However, the dedication rule is consistent with the Court's "foreseeability" test. The foreseeability test bars equivalents that the patentee should have foreseen and accordingly claimed, whereas the dedication rule only bars equivalents that the patentee actually disclosed, but left unclaimed. If an equivalent is disclosed, and thus actually foreseen, in the specification, then it is presumably foreseeable,¹⁰² and would have been precluded anyway under *Festo*. *Festo's* foreseeability bar is therefore consistent with *Johnson's* "complete bar" against disclosed but unclaimed equivalents.

Furthermore, the *Festo* court rejected the Federal Circuit's "complete bar" based, in part, on the observation that language is inherently imprecise.¹⁰³ The doctrine of equivalents, the court reasoned, should be available to rescue a patentee from the limitations of language, which may prevent a claim from capturing the exact scope of an invention.¹⁰⁴ This potential problem, however, cannot occur in the context in which the dedication rule applies. If a patentee has actually disclosed equivalent subject matter in the specification, then this subject matter falls outside the purview of the doctrine of equivalents.

Moreover, prosecution history estoppel arises when a patent drafter originally claims subject matter, but later relinquishes it. In contrast, the dedication rule applies in a different context, when a patent drafter discloses subject matter, but omits to claim it. Even if the drafter does so inadvertently, this act of omission makes a strong representation that such

101. *Festo*, 122 S. Ct. at 1841.

102. It is difficult, but not entirely impossible, to envision a scenario in which disclosed but unclaimed subject matter is later determined to be an unforeseeable equivalent. For example, a patentee could disclose subject matter without recognizing its equivalence to a particular claim element. Only after subsequent technological developments would its equivalents be recognized. Nonetheless, one could argue that the patentee could not possibly have claimed the subject matter, as neither the specification nor the state of the art would have enabled such a claim.

103. See *Festo*, 122 S. Ct. at 1841.

104. *Id.*

matter is beyond a patent's scope. Also, the drafter's intentional act of disclosure is generally not inadvertent, which strengthens the representation that such matter was already within the public domain.

D. Concerns Raised by the *Johnson* Decision

Johnson's strict application of the dedication rule could discourage disclosure beyond what is minimally necessary to secure a patent. However, any disincentive to disclose matter, created by the dedication rule, should be overridden by other incentives to disclose as broadly as possible. For instance, a patent applicant has an incentive to claim as broadly as possible, in order to maximize the scope of protection. However, the legal requirements for written description and enablement ensure that the patent claims cannot be broader in scope than the disclosure.¹⁰⁵ Thus, the incentive to claim broadly encourages an applicant to disclose just as broadly, in order to ensure that the claims are properly supported by the written description. The dedication rule should therefore have little effect on the breadth of future disclosures.

Moreover, a patentee can capture disclosed subject matter while the patent is still pending before the PTO by filing a continuation application,¹⁰⁶ with new claims which are entitled to the benefit of the parent application's filing date, if they are fully supported by the original specification.¹⁰⁷ Patent law also presumes that among multiple inventors who claim to have invented the same device, the first to file a patent is the earliest inventor, and presumptively the rightful patentee, a presumption that is difficult to rebut.¹⁰⁸ It is important to a patent applicant to disclose any patentable subject matter sooner rather than later. While the dedication rule bars the originally issued claims from recapturing disclosed but unclaimed matter, it does not bar new claims in the continuation application from covering such matter. As a result, a patentee with enough financial resources can circumvent the dedication rule by filing more claims, or by keeping continuation applications derived from an issued patent pending, as a precautionary measure until the issued patent expires, a suggestion noted in *Johnson*.¹⁰⁹

A patentee can also capture disclosed but unclaimed subject matter, within two years of the grant of the original patent, by applying for a

105. See 35 U.S.C. § 112 (2000).

106. See *id.* § 120.

107. See *id.* § 112.

108. See *id.* § 102(g).

109. *Johnson & Johnston Assoc., Inc. v. R.E. Serv. Co.*, 285 F.3d 1046, 1055 (Fed. Cir. 2002).

“broadening reissue.”¹¹⁰ A reissued patent is only granted for the duration of the unexpired part of the term of the original patent.¹¹¹ Moreover, any claims not originally filed with the issued patent only protect against infringement prospectively as of the grant date of the reissue.¹¹²

IV. CONCLUSION

The Federal Circuit’s landmark decision in *Johnson* regarding the dedication rule resolved contradictory precedent.¹¹³ *Johnson*’s strict application of the dedication rule places a burden on the patentee to literally claim all disclosed subject matter, or surrender the right to exclude the public from it. *Johnson* thus ensures that patent claims, and not the specification, give the PTO and the public adequate notice of an invention’s scope. The primary benefits of a strict application of the dedication rule are increased predictability of outcomes and certainty in determining an invention’s scope. Yet in order to realize this benefit, the dedication rule, should apply only to explicitly disclosed subject matter, construed in a literal and narrow manner.

110. See 35 U.S.C. §§ 251-252.

111. Reissues are allowed “[w]henver any patent is, through error without any deceptive intention, deemed wholly or partly inoperative or invalid, . . . by reason of the patentee claiming more or less than he had a right to claim in the patent . . .” *Id.* § 251.

112. See *id.* The Patent Act also provides “mandatory intervening rights” to accused infringers of these new claims, which allow the future use and sale of all items made before the reissue was granted, and also “discretionary intervening rights,” whereby courts can equitably decide to allow continued “infringement” after the reissue grant date, in order to protect investment. *Id.*

113. Surprisingly, there has been no focused commentary by scholars on the merits of *Johnson*’s holding, although it had a significant impact on the dedication rule.