

DEVELOPMENTS IN INTELLECTUAL PROPERTY LAW: OCTOBER 1, 2015 – SEPTEMBER 30, 2016

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INTRODUCTION

This Article addresses recent developments in intellectual property law. In particular, this Article provides an overview and discussion of seven pivotal intellectual property law cases decided or argued between October 1, 2015 and September 30, 2016. Two of these cases come from the U.S. Supreme Court. The cases are:

- *Halo Electronics, Inc. v. Pulse Electronics, Inc.*;¹
- *Cuozzo Speed Technologies v. Lee*;²
- *Merck & CIE v. Gnosis S.P.A. et al.*;³
- *Shaw Industries Group, Inc. v. Automated Creel Systems, Inc.*;⁴
- *In re TC Heartland LLC*;⁵ and
- *Enfish, LLC v. Microsoft Corp. et al.*⁶ and *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*.⁷

I. ENHANCED DAMAGES: *HALO ELECTRONICS, INC. v. PULSE ELECTRONICS, INC.*

In 2016, the U.S. Supreme Court rejected the Federal Circuit's two-part test for enhanced patent damages based on willful infringement, triggering a possible sea change in the likelihood district courts will grant enhanced patent damages.⁸ That is, courts just might have an easier time granting enhanced damages.⁹

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1. 136 S. Ct. 1923 (2016).

2. 136 S. Ct. 2131 (2016).

3. 808 F.3d 829 (Fed. Cir. 2015), *cert. denied*, 137 S. Ct. 297 (2016).

4. 817 F.3d 1293 (Fed. Cir.), *cert. denied*, 137 S. Ct. 374 (2016).

5. 821 F.3d 1338 (Fed. Cir.), *cert. granted sub nom.* *TC Heartland, LLC v. Kraft Foods Grp. Brands LLC*, 137 S. Ct. 614 (2016).

6. 822 F.3d 1327 (Fed. Cir. 2016).

7. 827 F.3d 1341 (Fed. Cir. 2016).

8. *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923, 1932 (2016).

9. *Id.* at 1929-30. In its first post-*Halo* enhanced damages case, the Federal Circuit affirmed a district court's grant of fifty percent enhanced damages. *See* *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1325, 1343 (Fed. Cir. 2016).

A. Halo Electronics, Inc. v. Pulse Electronics, Inc.

In patent cases, 35 U.S.C. § 284 permits courts, for findings of infringement, to “increase the damages up to three times the amount found or assessed.”¹⁰ Since 2007, courts have applied § 284 using a two-part test from a Federal Circuit case called *In re Seagate Technology, LLC*, which requires a patentee to:

[F]irst show by clear and convincing evidence that the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent. Second, the patentee must demonstrate, again by clear and convincing evidence, that the risk of infringement was either known or so obvious that it should have been known to the accused infringer.¹¹

Before addressing this test, the Supreme Court started by assessing the history of enhanced damages in patent cases, which are, in fact, “as old as U.S. patent law,” dating back to the Patent Act of 1793.¹² Come 1836, Congress enacted a new Patent Act, which made enhanced damages (which could make the sum of damages as much as three times the amount of an infringement judgment) discretionary.¹³ The Supreme Court interpreted this discretion by determining that enhanced damages should not “recompense the plaintiff,” but punish the defendant.¹⁴ The 1952 Patent Act reflected this approach, “providing that ‘punitive or “increased” damages’ could be recovered ‘in a case of willful or bad-faith infringement.’”¹⁵

1. *Procedural History: Reasonable Defenses Won the Day.*—This case consolidated two matters. First, Halo Electronics, Inc. (“Halo”) won a jury verdict of infringement against Pulse Electronics, Inc., and Pulse Electronics Corporation (together, “Pulse”), but the district court refused to award enhanced damages, applying the two-part *Seagate* test described in the next section.¹⁶ The Federal Circuit affirmed that decision because Pulse presented a reasonable defense at trial.¹⁷

Second, Stryker Corporation, Stryker Puerto Rico, Ltd., and Stryker Sales Corporation (collectively, “Stryker”) won a jury verdict of infringement against Zimmer, Inc., and Zimmer Surgical, Inc. (collectively, “Zimmer”), and the district court awarded enhanced damages, applying the two-part *Seagate* test.¹⁸ The

10. 35 U.S.C. § 284 (2012).

11. *Halo*, 136 S. Ct. at 1928 (citing *In re Seagate Tech. LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007)).

12. *Id.*

13. *Id.*

14. *Id.*

15. *Id.* at 1930 (quoting *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 1528, 1543 (1964)).

16. *Id.* at 1931.

17. *Id.*

18. *Id.*

Federal Circuit vacated the enhanced damages award because Zimmer provided a reasonable defense at trial.¹⁹ In short, under the *Seagate* test, reasonable defenses saved the day for two parties found liable for infringement. Halo and Stryker petitioned the U.S. Supreme Court to review the propriety of the Federal Circuit decisions applying the *Seagate* test.²⁰

2. *Decision: Unduly Rigid.*—The Supreme Court noted three key reasons why the *Seagate* test was “unduly rigid”²¹ and might “insulat[e] some of the worst patent infringers from any liability for enhanced damages.”²² First, the *Seagate* test “requires a finding of objective recklessness in every case before district courts may award enhanced damages.”²³ This standard permits someone “who plunders a patent” to “nevertheless escape any comeuppance under § 284 solely on the strength of his attorney’s ingenuity,” given that the test permits accused infringers to “muster a reasonable (even though unsuccessful) defense at the infringement trial” to avoid enhanced damages.²⁴

Second, the test requires clear and convincing evidence for a finding of objective recklessness, while the statutory language of § 284 “imposes no specific evidentiary burden, much less such a high one.”²⁵ Further, elsewhere in the Patent Act, in 35 U.S.C. § 273(b), Congress actually erected a higher standard of proof, which was telling because the Court asserted that when Congress wanted a higher burden, Congress explicitly said so.²⁶ And yet, historical practice was also informative: “As we explained in *Octane Fitness*, ‘patent-infringement litigation has always been governed by a preponderance of the evidence standard.’”²⁷

Third, the Court rejected the multipart standard of review that accompanied the *Seagate* test.²⁸ *Octane Fitness* prescribed the abuse of discretion standard of review to award attorney fees because the Court confirmed district court

19. *Id.*

20. *Id.* at 1928, 1931.

21. *Id.* at 1932. Judge Timothy B. Dyk of the Court of Appeals for the Federal Circuit has commented that, in light of the trend at the Supreme Court, in cases such as *Festo Corp. v. Shoketsu Kinzoku Kabushiki Co., Ltd.*, 535 U.S. 722 (2002), and *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007), to reject Federal Circuit hardline tests, “[i]t would be interesting to consider whether the Supreme Court’s aversion to bright-line rules in the patent area exists as well in other areas of statutory construction.” Timothy B. Dyk, *Thoughts on the Relationship Between the Supreme Court and the Federal Circuit*, 16 CHI.-KENT J. INTELL. PROP. 67, 81 (2016).

22. *Halo*, 136 S. Ct. at 1932.

23. *Id.*

24. *Id.* at 1933.

25. *Id.* at 1934 (quoting *Octane Fitness, LLC v. ICON Health & Fitness Inc.*, 134 S. Ct. 1749, 1758 (2014)).

26. *Id.* at 1927.

27. *Id.* at 1934 (quoting *Octane Fitness, LLC*, 134 S. Ct. at 1758).

28. *Id.* The Court referred to the *Seagate* test as requiring a trifurcated review: “The first step of *Seagate*—objective recklessness—is reviewed *de novo*; the second—subjective knowledge—for substantial evidence; and the ultimate decision—whether to award enhanced damages—for abuse of discretion.” *Id.* at 1930.

discretion to award those fees.²⁹ So too here apparently. The Court acknowledged the Federal Circuit's concern that underpinned the *Seagate* test that "district courts may award enhanced damages too readily, and distort the balance between the protection of patent rights and the interest in technological innovation."³⁰ The Court also noted, however, that lower courts had exhibited "[n]early two centuries of exercising discretion in awarding enhanced damages in patent cases" and such longstanding practice "has given substance to the notion that there are limits to that discretion."³¹

3. *Looking Ahead.*—For future questions of whether to grant enhanced patent damages, the Court held that district courts should rely on principles "developed over nearly two centuries of application and interpretation of the Patent Act."³² Justifiable cases should be those "egregious cases of misconduct beyond typical infringement."³³ We should keep our eyes peeled to observe how district courts exercise their discretion, free from the *Seagate* test.

II. CLAIM CONSTRUCTION IN *INTER PARTES* REVIEW AND THE APPEALABILITY
OF *INTER PARTES* REVIEW INSTITUTION DECISIONS:
CUOZZO SPEED TECHNOLOGIES V. LEE

Last year, our article addressed *In re Cuozzo Speed Technologies, LLC*³⁴ and its significant impact on post-grant proceedings before the Patent Trial and Appeal Board ("PTAB") at the U.S. Patent and Trademark Office ("PTO").³⁵ As we explained in last year's article, sitting en banc, the Court of Appeals for the Federal Circuit ("Federal Circuit"), determined that "broadest reasonable interpretation" is the proper claim construction at the PTO, including in post-grant proceedings before the PTAB.³⁶ The en banc court also held that post-grant proceeding institution decisions are not reviewable by the Federal Circuit.³⁷

In *Cuozzo Speed Technologies*, the Supreme Court weighed in on these important issues.³⁸ The questions framed by the Supreme Court for briefing were:

29. *Id.* at 1934.

30. *Id.*

31. *Id.*

32. *Id.* at 1935. In his concurrence, Justice Breyer argued for "careful application" of enhanced damages "to ensure that they only target cases of egregious misconduct," and called on the Federal Circuit to "take advantage of its own experience and expertise in patent law" to apply a careful review of district courts' efforts, if those lower courts end up abusing their discretion. *Id.* at 1938 (Breyer, J., concurring).

33. *Id.* (majority opinion).

34. *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268 (Fed. Cir. 2015), *aff'd*, 136 S. Ct 2131 (2016).

35. See R. Trevor Carter et al., *Developments in Intellectual Property Law: October 1, 2014-September 30, 2015*, 49 IND. L. REV. 1095, 1099-1101 (2016).

36. *In re Cuozzo Speed Techs., LLC*, 793 F.3d at 1278.

37. *Id.* at 1273.

38. See *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131 (2016).

1. Whether the [Federal Circuit] erred in holding, in IPR proceedings, the PTAB may construe claims to an issued patent according to their broadest reasonable interpretation rather than their plain and ordinary meaning[; and]
2. Whether the [Federal Circuit] erred in holding that, even if the PTAB exceeded its statutory authority in instituting an IPR proceeding, the PTAB's decision whether to institute an IPR proceeding was judicially unreviewable.³⁹

Leading up to the Supreme Court decision, more attention was focused on the “broadest reasonable interpretation” issue. However, after the decision, far more attention is now focused on how to interpret and implement the Court's holding and analysis on appellate review of PTAB institution decisions.

A. The PTAB May Use the Broadest Reasonable Construction Standard

The Supreme Court confirmed that the PTAB may use the broadest reasonable construction standard in post-grant proceedings.⁴⁰ Application of this standard provides a significant advantage to parties seeking to invalidate patents at the PTAB because, in federal district court patent cases, claim construction is decided under the narrower *Phillips v. AWH* claim construction standard: “[W]ords of a claim ‘are generally given their ordinary and customary meaning.’”⁴¹ Indeed, recent cases demonstrate the outcome can hinge on whether the PTAB's broadest reasonable construction standard or a district court's ordinary meaning standard is used.⁴²

To reach this conclusion, the Court agreed with the Federal Circuit that the PTAB has the authority to determine the claim construction standard used for IPR proceedings.⁴³ This statute, according to the Court and the Federal Circuit, “gives the Patent Office the legal authority to issue its broadest reasonable construction regulation.”⁴⁴

Addressing arguments raised by *Cuozzo* regarding the IPR proceeding being a “surrogate for court proceedings,” the Court responded that “inter partes review

39. Carter et al., *supra* note 35, at 1099-1100 (citing *Cuozzo Speed Techs., LLC*, 136 S. Ct. at 2139).

40. *Id.* at 2142.

41. See *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005) (en banc) (quoting *Vitronics Corp. v. Conceptoronic*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)).

42. See, e.g., *PPC Broadband, Inc. v. Corning Optical Commc'ns RF, LLC*, 815 F.3d 734, 741 (Fed. Cir. 2016) (“This case hinges on the claim construction standard applied—a scenario likely to arise with frequency. And in this case, the claim construction standard is outcome determinative.”).

43. See *Cuozzo*, 136 S. Ct. at 2142 (“The statute, however, contains a provision that grants the Patent Office authority to issue ‘regulations . . . establishing and governing inter partes review under this chapter.’ 35 U. S. C. § 316(a)(4).”).

44. *Id.*

[or IPR] is less like a judicial proceeding and more like a specialized agency proceeding.”⁴⁵ For example, the Court explained, “[p]arties that initiate the proceeding need not have a concrete stake in the outcome; indeed, they may lack constitutional standing.”⁴⁶ Further, “the burden of proof in inter partes review is different than in the district courts”—clear and convincing evidence is required to prove unpatentability in district court, whereas preponderance of the evidence is required to prove unpatentability in IPRs.⁴⁷ These differences between IPR and court proceedings, the Court explained, indicate the purpose of IPR “is not quite the same as the purpose of district court litigation.”⁴⁸

The Supreme Court also discussed policy considerations supporting its decision.

“[C]onstruing a patent claim according to its broadest reasonable construction helps to protect the public,” the Court explained.⁴⁹ Specifically,

[b]ecause an examiner’s (or reexaminer’s) use of the broadest reasonable construction standard increases the possibility that the examiner will find the claim too broad (and deny it), use of that standard encourages the applicant to draft narrowly. This helps ensure precision while avoiding overly broad claims, and thereby helps prevent a patent from tying up too much knowledge, while helping members of the public draw useful information from the disclosed invention and better understand the lawful limits of the claim.⁵⁰

B. Subject to a Few Possible Exceptions, the PTAB’s Decision Whether to Institute an IPR Proceeding Is Judicially Unreviewable

The Supreme Court next considered § 314(d) of the America Invents Act, which provides “[t]he determination by the Director [of the Patent Office] whether to institute an inter partes review under this section shall be final and nonappealable.”⁵¹ Specifically, the Court set out to address the following question: “Does this provision bar a court from considering whether the Patent Office wrongly ‘determin[ed] . . . to institute an inter partes review,’ when it did so on grounds not specifically mentioned in a third party’s review request?”⁵²

Cuozzo’s primary argument on this issue was that the “Patent Office improperly instituted inter partes review . . . because the agency found that Garmin had only *implicitly* challenged those two claims on the basis of the [three prior art] patents, while the statute required petitions to set forth the grounds for

45. *Id.* at 2143.

46. *Id.* at 2143-44.

47. *Id.* at 2144.

48. *Id.*

49. *Id.*

50. *Id.* at 2145.

51. *Id.* at 2139.

52. *Id.* at 2136 (quoting 35 U.S.C. § 314(d) (2012)).

challenge ‘with particularity.’”⁵³ This the Court rejected, describing it as a “mine-run claim” in which

a patent holder merely challenges the Patent Office’s ‘determin[ation] that the information presented in the petition . . . shows that there is a reasonable likelihood’ of success ‘with respect to at least 1 of the claims challenged,’ § 314(a), or where a patent holder grounds its claim in a statute closely related to that decision to institute *inter partes* review . . .”⁵⁴

For these types of “mine-run claims” involving the Patent Office’s decision to institute *inter partes* review, the Court held that § 314(d) bars judicial review.⁵⁵

However, the Court left open the possibility that some PTAB institution decisions may be subject to judicial review. Providing some clarification, but also fodder for arguments about the precise bounds of judicial review of institution decisions, the majority opinion provided examples of institution decision issues that might be reviewable. For example, the Court left open the possibility for judicial review of institution decisions “that implicate constitutional questions, that depend on other less closely related statutes, or that present other questions of interpretation that reach, in terms of scope and impact, well beyond ‘this section.’”⁵⁶ The Court also explained that its decision does “not categorically preclude review of a final decision where a petition fails to give ‘sufficient notice’ such that there is a due process problem with the entire proceeding,” the PTAB acting “outside its statutory limits,” and other “shenanigans.”⁵⁷

C. Decisions Post-Cuozzo

The Federal Circuit, sitting en banc, is deciding another case focused on the boundaries of judicial review for institution decisions. In *Wi-Fi One, LLC v. Broadcom Corp.*, a Federal Circuit panel addressed whether it could review a PTAB’s decision on whether an IPR petition is time-barred under § 315(b).⁵⁸ Section 315(b) provides that an IPR may not be instituted if the petition is “filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent.”⁵⁹ An earlier Federal Circuit decision, *Achates Reference Publishing, Inc. v. Apple Inc.*, addressed this question and found that § 314(d) “prohibits this court from reviewing the Board’s determination to initiate IPR proceedings based on

53. *Id.* at 2139 (quoting 35 U.S.C. § 312(a)(3) (2012)).

54. *Id.* at 2136, 2142 (quoting 35 U.S.C. § 314(a) (2012)).

55. *Id.* at 2136.

56. *Id.* at 2141.

57. *Id.* at 2142.

58. *Wi-Fi One, LLC v. Broadcom Corp.*, 837 F.3d 1329 (Fed. Cir. 2016), *vacated by* Nos. 2015-1944, 2015-1945, 2015-1946, 2017 U.S. App. LEXIS 61 (Fed. Cir. Jan. 4, 2017), *clarified by* Nos. 2015-1944, 2015-1945, 2015-1946, 2017 U.S. App. LEXIS 898 (Fed. Cir. Jan. 18, 2017).

59. 35 U.S.C. § 315(b) (2012).

its assessment of the time-bar of § 315(b).⁶⁰

After *Cuozzo*, the Federal Circuit in *Wi-Fi One* was faced with determining whether *Achates* is still good law.⁶¹ The majority panel opinion found that it is.⁶² However, Judge Reyna's concurring opinion expressly stated that *Achates* should be "reconsidered by the *en banc* court."⁶³ In particular, Judge Reyna found that this "time-bar question is not a 'mine-run' claim."⁶⁴ And further, noting that *Cuozzo* "does not 'enable the agency to act outside its statutory limits' and that such 'shenanigans' are properly reviewable."⁶⁵ Judge Reyna set forth that the Federal Circuit is compelled "to review allegations that the Board has ignored, or erred in the application of, the statutory time bar."⁶⁶

The Federal Circuit agreed with Judge Reyna and ordered *en banc* review for the following question:

Should this court overrule *Achates Reference Publishing, Inc. v. Apple Inc.*, 803 F.3d 652 (Fed. Cir. 2015) and hold that judicial review is available for a patent owner to challenge the PTO's determination that the petitioner satisfied the timeliness requirement of 35 U.S.C. § 315(b) governing the filing of petitions for inter partes review?⁶⁷

We look forward to seeing if *Wi-Fi One* provides clarity on the boundaries of judicial review for PTAB initial determinations.

III. DEFERENCE TO PATENT TRIAL AND APPEAL BOARD DECISIONS: *MERCK & CIE V. GNOSIS S.P.A.*

In a two-to-one decision on December 17, 2015, the Federal Circuit decided that the substantial evidence standard applied to factual determinations in an appeal from IPR proceedings before the PTAB.⁶⁸ The substantial evidence standard is more deferential than the clear error standard used for reviewing

60. *Wi-Fi One*, 837 F.3d at 1333 (quoting *Achates Reference Publishing, Inc. v. Apple Inc.*, 803 F.3d 652, 658 (Fed. Cir. 2015)).

61. *Id.*

62. *Id.* at 1340 ("We see nothing in the *Cuozzo* decision that suggests *Achates* has been implicitly overruled. The Supreme Court stated that the prohibition against reviewability applies to 'questions that are closely tied to the application and interpretation of statutes related to the Patent Office's decision to initiate inter partes review.' Section 315 is just such a statute.") *Id.* at 1334.

63. *Id.* at 1340 (Reyna, J., concurring).

64. *Id.* at 1341 (quoting *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2136 (2016)).

65. *Id.* (quoting *Cuozzo*, 136 S. Ct. at 2141-42).

66. *Id.*

67. *Wi-Fi One, LLC v. Broadcom Corp.*, Nos. 2015-1944, 2015-1945, 2015-1946, 2017 U.S. App. LEXIS 61, *2-3 (Fed. Cir. Jan. 4, 2017).

68. *Merck & Cie v. Gnosis S.p.A.*, 808 F.3d 829 (Fed. Cir. 2015), *reh'g denied*, 820 F.3d 432 (Fed. Cir.), *cert. denied*, 137 S. Ct. 297 (2016).

factual determinations in an appeal from a federal district court.⁶⁹ Applying the more deferential substantial evidence standard, the majority affirmed the PTAB's findings leading to obviousness of a patent.⁷⁰

The Federal Circuit denied rehearing this case en banc on April 26, 2016, with a concurring opinion by Judges O'Malley, Wallach, and Stoll and a dissenting opinion by Judge Newman.⁷¹ The concurring opinion expressed concern that applying the substantial evidence standard is "inconsistent with purpose and content of the AIA."⁷² Indeed, as noted by the concurring opinion, the AIA's legislative history set out that it created "*an inexpensive substitute for district court litigation.*"⁷³ "To the extent IPR proceedings were intended to replace district court litigation, it would make sense for this court to review factual findings by the Board *in these new IPR proceedings* under the same standard we employ when reviewing factual findings of district judges—for clear error."⁷⁴ However, the three judges participating in the concurring opinion were compelled to follow precedent and concluded that the substantial evidence standard applies "[u]nless and until Congress or the Supreme Court sees fit to change our standard of review expressly."⁷⁵

Judge Newman's dissenting opinion echoed the same concern about the purpose of AIA proceedings being inconsistent with the substantial evidence standard.⁷⁶ Further, she provided a pragmatic take on how the substantial evidence standard of review will significantly impact appellate review of PTAB decisions.⁷⁷ As background, Judge Newman noted the definition of substantial evidence is "such relevant evidence as a reasonable mind might accept as adequate to support a conclusion."⁷⁸ Discussing the difference between the substantial evidence and clear error standards, Judge Newman stated,

[T]he substantial evidence standard can lead to affirmance of a ruling that is *not in accordance with the weight of the evidence*. It is unlikely that Congress intended to place PTAB decisions in that "rubber-stamp" category—for in PTAB proceedings, with documentary and testimonial evidence presented by both sides, substantial evidence is usually present on both sides.⁷⁹

69. *Id.* at 830.

70. *Id.*

71. *Merck & Cie v. Gnosis S.p.A.*, 820 F.3d 432 (Fed. Cir.), *cert. denied*, 137 S. Ct. 297 (2016).

72. *Id.* at 433 (O'Malley, J., concurring).

73. *Id.* at 434 (citing 157 CONG. REC. S5319 (daily ed. Sept. 6, 2011) (statement of Sen. Kyl)).

74. *Id.* at 434-35.

75. *Id.* at 436.

76. *Id.* (Newman, J., dissenting).

77. *Id.*

78. *Id.* at 437 (quoting *Consol. Edison Co. v. N.L.R.B.*, 305 U.S. 197, 229 (1938)).

79. *Id.* (emphasis added).

If the difference between the standard of reviewing factual issues from district courts and the PTAB is this stark, appellants from PTAB proceedings are facing an uphill battle at the Federal Circuit.

IV. THE SCOPE OF ESTOPPEL UNDER 35 U.S.C. § 315(E)(2):

SHAW INDUSTRIES GROUP, INC. v. AUTOMATED CREEL SYSTEMS., INC.

Shaw Industries Group, Inc. v. Automated Creel Systems., Inc.⁸⁰ appears to be the Federal Circuit's first foray into 35 U.S.C. § 315(e)(2). Section 315(e) is a relatively new provision under the America Invents Act that estops IPR petitioners from asserting in a later proceeding any patent invalidity ground that the petitioner "raised or reasonably could have raised" in that IPR.⁸¹ In full, § 315(e)(2), for example,⁸² states:

The petitioner in an [IPR] of a claim in a patent under this chapter that results in a final written decision under section 318(a), or the real party in interest or privy of the petitioner, may not assert either in a civil action arising in whole or in part under section 1338 of title 28 or in a proceeding before the International Trade Commission under section 337 of the Tariff Act of 1930 that the claim is invalid on any ground that the petitioner raised or reasonably could have raised during that [IPR].⁸³

Somewhat surprisingly, *Shaw* seems to establish that the scope of estoppel under § 315(e)(2) is significantly limited—specifically, *Shaw* suggests that estoppel under § 315(e)(2) does not apply to any non-instituted grounds submitted to the PTAB.⁸⁴ Time will tell whether § 315(e)(2) is as limited as *Shaw* suggests.

A. Background

In February 2012, Automated Creel Systems ("ACS") filed suit against Shaw Industries Group, Inc. ("Shaw") in the Northern District of Georgia for allegedly infringing U.S. Patent No. 7,806,360 (the "360 Patent")—a patent with twenty-one claims that relate to "creels" for supplying yarn and other stranded materials to a manufacturing process.⁸⁵ ACS subsequently voluntarily dismissed the suit

80. 817 F.3d 1293 (Fed. Cir.), *cert. denied*, 137 S. Ct. 374 (2016).

81. *Id.* at 1300.

82. While § 315(e)(2) applies to "civil actions and other proceedings," § 315(e)(1) applies to "proceedings before the [PTO]." Aside from this difference, the language of § 315(e)(1) mirrors § 315(e)(2).

83. 35 U.S.C. § 315(e)(2) (2012) (internal citations omitted).

84. *Id.* at 1305. The Federal Circuit confirmed this narrow interpretation of § 315(e)(2) less than a month after handing down *Shaw*. See *HP Inc. v. MPHJ Tech. Inv., LLC*, 817 F.3d 1339 (Fed. Cir. 2016) (explaining "the estoppel provisions of § 315(e)(1) do not apply" to noninstituted grounds because "noninstituted grounds do not become a part of the IPR").

85. *Shaw*, 817 F.3d at 1295.

without prejudice.⁸⁶

Shortly after being served with ACS' complaint, Shaw filed a petition for IPR with the PTAB, seeking review of all twenty-one claims in the '360 Patent based on fifteen separate grounds of rejection.⁸⁷ Shaw's grounds three, eight, and eleven were all directed to what the court called "the interposing claims," and Shaw's remaining grounds were directed to the so-called "non-interposing claims."⁸⁸ In ground eleven—the relevant ground at issue on appeal—Shaw alleged that the interposing claims were anticipated by U.S. Patent No. 4,515,328 (the "Payne-based ground").⁸⁹ Except for claim 4, the PTAB instituted IPR on all claims of the '360 Patent based on various grounds, but not including the Payne-based ground.⁹⁰ In its institution decision, the PTAB explained that the Payne-based ground was "denied as redundant in light of [its] determination that there [was] a reasonable likelihood that the challenged claims [were] unpatentable based on the grounds of unpatentability on which [it] instituted an [IPR]."⁹¹ The PTAB did not provide any other rationale or explanation for this determination.⁹²

In September 2013, more than one year after ACS served Shaw with the initial complaint alleging infringement of the '360 Patent, Shaw filed a second IPR petition seeking review of claim 4 based on six grounds.⁹³ The PTAB instituted IPR based on two of those grounds.⁹⁴

After combining Shaw's two IPR proceedings related to the '360 Patent, in one final written decision (the "FWD"), the PTAB found some, but not all, of the '360 Patent's claims were unpatentable, including claim 4.⁹⁵ Both Shaw and ACS⁹⁶ appealed aspects of the PTAB's FWD, but only Shaw's appeal addressed § 315(e)(2).⁹⁷

B. Shaw's Appeal

On appeal, Shaw requested that the Federal Circuit review the PTAB's *institution* decision not to consider the Payne-based ground because it was "redundant."⁹⁸ Shaw made this request in two distinct ways.

86. *Id.* at 1296.

87. *Id.*

88. *Id.*

89. *Id.*

90. *Id.* at 1297.

91. *Id.*

92. *Id.*

93. *Id.*

94. *Id.*

95. *Id.*

96. ACS's appeal is unrelated to estoppel and, thus, is beyond the scope of this Article. *See id.* at 1301-02.

97. *Id.* at 1297.

98. *Id.* at 1298. Shaw also requested the Federal Circuit review the PTAB's determination that Shaw had not shown by a preponderance of the evidence that the interposing claims would

First, Shaw attempted to appeal the PTAB's institution decision under 35 U.S.C. § 141(c).⁹⁹ Under § 141(c), "A party to an [IPR] . . . who is dissatisfied with the [FWD] of the [PTAB] . . . may appeal the [PTAB's] decision only to the United States Court of Appeals for the Federal Circuit."¹⁰⁰ However, § 314(d) precludes appeals of IPR institution decisions: "The determination by the Director whether to *institute* an [IPR] under this section shall be final and nonappealable."¹⁰¹ Shaw argued that § 314(d) was inapplicable "because it [was] not seeking review of the [PTAB's] institution decision, but rather . . . the [PTAB's] authority, and correctness in exercising the same, in deeming a subset of asserted grounds redundant of instituted grounds."¹⁰²

Shaw's attempt to argue around § 314(d) missed the mark, according to the Federal Circuit. In particular, the court found that, under § 314(d), it "lack[ed] jurisdiction to review the [PTAB's] decision not to institute IPR on the Payne-based ground, which includes its decision not to consider the Payne-based ground in its [FWD]."¹⁰³ In support of its interpretation of § 314(d), the Federal Circuit recognized that there is some "benefit in the [PTAB] having the ability to institute IPR on only . . . some of the proposed grounds, particularly given the [PTAB's] statutory obligation to complete proceedings in a timely and efficient manner."¹⁰⁴ Interestingly, however, the court admitted it could not "agree with the PTO's handling of Shaw's petition" and it also could not "say that the PTO's decision made the proceeding more efficient."¹⁰⁵ Nonetheless, the Federal Circuit was restricted by the plain language of § 314(d).¹⁰⁶

Second, as a backstop to its first argument, Shaw petitioned the Federal Circuit for a writ of mandamus "instructing the [PTAB] to reevaluate its redundancy decision and to institute IPR based on the Payne-based ground."¹⁰⁷ Shaw argued that a writ was warranted because the facts satisfied each of the three writ of mandamus prongs: (1) Shaw had no other adequate means to attain the desired relief; (2) Shaw had a "clear and indisputable" right to the writ; and (3) the Federal Circuit, in its discretion, should find that a writ was appropriate under the circumstances.¹⁰⁸ The court's analysis focused on the second mandamus prong.

Shaw's argument regarding the second prong was predicated on its concern that § 315(e)(2) would estop Shaw from raising the Payne-based ground in future

have been obvious based on grounds three and eight. *See id.* at 1300–01. However, this is unrelated to estoppel and, thus, is beyond the scope of this Article.

99. *Id.* at 1297.

100. 35 U.S.C. § 141(c) (2012).

101. *Id.* § 314(d).

102. *Shaw*, 817 F.3d at 1298 (internal quotations omitted).

103. *Id.* at 1299.

104. *Id.* at 1298.

105. *Id.* at 1299.

106. *Id.*

107. *Id.*

108. *Id.*

proceedings.¹⁰⁹ Shaw argued that “it has a ‘clear and indisputable right’ to have the PTO consider a reasonable number of grounds and references given the ‘estoppel rules.’”¹¹⁰

The Federal Circuit disagreed. The court explained that because: (i) § 315(e)(2) creates estoppel only for arguments “the petitioner raised or reasonably could have raised *during* that [IPR]”; (ii) IPR does not begin until it is instituted; and (iii) the PTAB did not institute IPR on Shaw’s Payne-based ground, then no estoppel attached to the Payne-based ground.¹¹¹ As a result, the Federal Circuit denied Shaw’s petition for writ of mandamus.¹¹²

C. Separate Opinion

In a special concurrence, Judge Reyna wrote separately to address the PTAB’s “Redundancy Doctrine” and the Federal Circuit’s analysis of estoppel under § 315(e).¹¹³ Judge Reyna took issue with the PTAB’s apparent free reign to determine that certain grounds are redundant “without any reasoned basis *why* or *how* the denied grounds are redundant,” which he described as being “antithetical to the requirements of the [APA], which the PTO and its [PTAB] are subject to.”¹¹⁴ Judge Reyna was particularly concerned that the PTAB’s perfunctory redundancy denials would create ambiguity about whether the PTAB was making substantive determinations and how that would impact the “profound” effects of the estoppel analysis under § 315(e)(2).¹¹⁵ Judge Reyna also opined that the Federal Circuit’s estoppel analysis was dicta, as “the issue [was] not properly before” the court because estoppel “must be determined in the first instance by the district court or the U.S. International Trade Commission.”¹¹⁶

V. VENUE IN PATENT LITIGATION: *IN RE TC HEARTLAND LLC*

In *In re TC Heartland LLC*,¹¹⁷ the Federal Circuit tackled the controversial issue of venue in patent litigation. This issue has grown in prominence in recent years as forum shopping has become ubiquitous in patent litigation under the operative venue framework set forth in the Federal Circuit’s decision in *VE Holdings Corp. v. Johnson Gas Appliance Co.*¹¹⁸ In fact, recent statistics show that nearly half of all patent infringement cases filed nationwide are filed in one

109. *Id.*

110. *Id.*

111. *Id.* at 1300.

112. *Id.*

113. *Id.* at 1302-05 (Reyna, J., concurring).

114. *Id.* at 1302-03.

115. *Id.* at 1305.

116. *Id.*

117. 821 F.3d 1338 (Fed. Cir.), *cert. granted sub nom.* TC Heartland, LLC v. Kraft Foods Grp. Brands LLC, 137 S. Ct. 614 (2016).

118. 917 F.2d 1574 (Fed. Cir. 1990).

venue in particular—the Eastern District of Texas¹¹⁹—which is a venue long-thought to be relatively friendly to patent owners.¹²⁰

Despite these statistics and TC Heartland LLC’s (“Heartland’s”) arguments, the Federal Circuit rejected Heartland’s request for the Federal Circuit to revisit the *VE Holdings* framework.¹²¹ Having granted Heartland’s petition for certiorari on the issue on December 14, 2016, however, the Supreme Court seems poised to do what the Federal Circuit did not—change the way in which the patent venue statute is interpreted.¹²²

A. A Historical Perspective of the Venue Framework in Patent Litigation

Before jumping into the Federal Circuit’s opinion in *In re TC Heartland LLC*, it is important to understand the history of the venue framework in patent litigation.

Venue in patent litigation is governed by 28 U.S.C. § 1400(b) (the “patent venue statute”), which states: “Any civil action for patent infringement may be brought in the judicial district where the defendant resides, or where the defendant has committed acts of infringement and has a regular and established place of business.”¹²³ For purposes of *TC Heartland*, the key language of the patent venue statute is “where the defendant resides” because the patent venue statute does not define the term “resides.”

The general venue statute, however, does. Set forth in 28 U.S.C. § 1391, the general venue statute states that a corporate defendant is “deemed to reside . . . in any judicial district in which [it] is subject to the court’s personal jurisdiction with respect to the civil action in question.”¹²⁴ The question, and the crux of the dispute in *TC Heartland*, is whether the definition of “resides” in § 1391(c)(2) applies to the patent venue statute.¹²⁵

In 1957, the Supreme Court in *Fourco Glass Co. v. Transmirra Products Corp.*, determined that it did not.¹²⁶ Specifically, in *Fourco*, the Court held that “§ 1400 (b) is the sole and exclusive provision controlling venue in patent

119. See Petition for Writ of Certiorari at *5, *TC Heartland, LLC v. Kraft Foods Grp. Brands LLC*, No. 16-341, 2016 WL 4983136 (U.S. Sept. 12, 2016) (“[I]n 2015[,] more than 43% of patent infringement cases were brought in a single district (E.D. Tex.).”).

120. See *id.* at *20 (“[I]n a *N.Y. Times* article describing the economic benefits of patent infringement litigation to local businesses in the Eastern District of Texas, a then-siting federal judge in the district is quoted as asserting that his judicial district ‘is, historically anyway, a plaintiffs-oriented district.’” (quoting Julie Creswell, *So Small a Town, So Many Patent Suits*, *N.Y. TIMES* (Sept. 24, 2006), <http://www.nytimes.com/2006/09/24/business/24ward.html> [<https://perma.cc/R66G-X8KV>])).

121. *In re TC Heartland*, 821 F.3d at 1340.

122. See *TC Heartland LLC v. Kraft Food Brands Grp. LLC*, 137 S. Ct. 614 (2016).

123. 28 U.S.C. § 1400(b) (2012).

124. *Id.* § 1391(c)(2).

125. *In re TC Heartland*, 821 F.3d at 1341-43.

126. 353 U.S. 222 (1957).

infringement actions, and that it is not to be supplemented by the provisions of 28 U.S.C. § 1391 (c).¹²⁷ As a result, the Court found that for purposes of venue under § 1400(b), a corporate defendant resides in “the state of incorporation only.”¹²⁸

In 1988, however, Congress amended § 1391(c) to include, as relevant here, “[f]or purposes of venue under this chapter” as an introductory clause.¹²⁹ Although this amendment was relatively minor, in 1990, the Federal Circuit determined that it effectively changed the meaning of the term “resides” in § 1400(b).¹³⁰ That is, according to the Federal Circuit’s 1990 *VE Holding* decision, venue in patent cases is appropriate in “any judicial district in which [the] defendant is subject to the court’s personal jurisdiction with respect to the civil action in question,”¹³¹ a holding quite at odds with the Supreme Court’s decision in *Fourco*.

B. The Federal Circuit Opinion

1. *Background.*—*In re TC Heartland LLC* involves two parties: Kraft Foods Group Brands LLC (“Kraft”) and Heartland.¹³² Kraft is organized and exists under Delaware law with a principal place of business in Illinois.¹³³ Heartland is “organized and exist[s] under Indiana law and [is] headquartered in Indiana.”¹³⁴

In 2014, Kraft sued Heartland in the District of Delaware “alleging that Heartland’s liquid water enhancer products (‘accused products’) infringe three of Kraft’s patents.”¹³⁵ Heartland “moved to dismiss the complaint . . . for lack of personal jurisdiction.”¹³⁶ Although Heartland admitted to shipping a small amount of orders of the accused products into the State of Delaware, those shipments accounted for only about “2% of Heartland’s total sales of the accused products.”¹³⁷ As a result, Heartland argued that the Delaware district court lacked specific personal jurisdiction over the dispute.¹³⁸ Heartland also moved to “transfer venue to the Southern District of Indiana.”¹³⁹ The district court,

127. *See id.* at 229.

128. *See id.* at 226.

129. *See* Judicial Improvements and Access to Justice Act of 1988, Pub. L. No. 100-702, 102 Stat. 4642, 4669 (1988).

130. *See VE Holding Corp. v. Johnson Gas Appliance Co.*, 917 F.2d 1574, 1575 (Fed. Cir. 1990).

131. *See* 28 U.S.C. § 1391(c)(2) (2012).

132. *In re TC Heartland LLC*, 821 F.3d 1338, 1340 (Fed. Cir.), *cert. granted sub nom.* *TC Heartland, LLC v. Kraft Foods Grp. Brands LLC*, 137 S. Ct. 614 (2016).

133. *Id.*

134. *Id.*

135. *Id.*

136. *Id.*

137. *Id.*

138. *Id.*

139. *Id.*

however, found it had personal jurisdiction over Heartland and that venue was appropriate.¹⁴⁰ As a result, Heartland petitioned the Federal Circuit for a writ of mandamus to direct the district court to either dismiss the suit for lack of personal jurisdiction or transfer the suit to the Southern District of Indiana.¹⁴¹

2. *Heartland's Petition for Writ of Mandamus*.—A writ of mandamus is appropriate when three conditions are satisfied: (1) there are no other adequate means to attain the relief desired; (2) the right to mandamus is “clear and indisputable”; and (3) the issuing court must be satisfied that the writ is appropriate under the circumstances.¹⁴² The parties and the Federal Circuit focused their efforts on the second prong of the mandamus standard—whether Heartland right to mandamus is “clear and indisputable.”¹⁴³

Heartland's primary argument was that the Federal Circuit's decision in *VE Holding* was no longer good law in view of Congress's 2011 amendments to § 1391; thus, being based on *VE Holdings*, the district court's decision was clearly mistaken.¹⁴⁴ Specifically, by the 2011 amendment to § 1391(a), which added that § 1391 was applicable “[e]xcept as otherwise provided by law,” Heartland argued that “Congress intended to include federal common law limited to Supreme Court precedent in the law which could otherwise define corporate residence and thus render the statutory definition of § 1391(c) inapplicable.”¹⁴⁵ In other words, Heartland submitted that the Federal Circuit should “presume that in the 2011 amendments Congress codified the Supreme Court's [1957] decision in [*Fourco*] regarding the patent venue statute that was in effect prior to the 1988 amendments” and the Federal Circuit's 1990 decision in *VE Holding*.¹⁴⁶

The Federal Circuit was confounded with Heartland's argument, describing it as “utterly without merit or logic.”¹⁴⁷ According to the court, “[i]n 1988, the common law definition of corporate residence for patent cases was superseded by a Congressional one” when Congress amended § 1391(c).¹⁴⁸ The court recognized this change in its *VE Holding* decision.¹⁴⁹ Therefore, “in 2011, there was no established governing Supreme Court common law ruling which Congress could even arguably have been codifying in the language ‘except [as] otherwise provided by law.’”¹⁵⁰

To further buttress its conclusion, the Federal Circuit pointed to multiple Congressional reports, which “repeatedly recognized that *VE Holding* is the

140. *Id.*

141. *Id.* This Article is limited to addressing Heartland's arguments with respect to venue.

142. *Id.*

143. *Id.* at 1841.

144. *Id.*

145. *Id.* at 1342.

146. *Id.*

147. *Id.*

148. *Id.*

149. *Id.*

150. *Id.* (internal citation omitted).

prevailing law.”¹⁵¹ Accordingly, “Even if Congress’ 2011 amendments were meant to capture existing federal common law, as Heartland argue[d], regarding the definition of corporate residence for venue in patent suits, *Fourco* was not and is not the prevailing law that would have been captured.”¹⁵² Consequently, the court rejected Heartland’s petition.¹⁵³

C. *TC Heartland’s Petition for a Writ of Certiorari*

Unsatisfied with the Federal Circuit’s ruling, Heartland petitioned the Supreme Court for a writ of certiorari.¹⁵⁴ Heartland framed the issue as being “precisely the same as the issue decided in *Fourco*: Whether 28 U.S.C. § 1400(b) is the sole and exclusive provision governing venue in patent infringement actions and is not to be supplemented by 28 U.S.C. § 1391(c).”¹⁵⁵

Heartland submitted four reasons for the Court to grant certiorari.¹⁵⁶ First, Heartland argued that *VE Holding* did not overrule the Court’s decision in *Fourco* because only the Court can overrule its decisions, not the Federal Circuit.¹⁵⁷ Second, Heartland argued that *VE Holding* is bad from a policy perspective because “the Federal Circuit’s departure from th[e] Court’s holding in *Fourco* has dramatically expanded venue in patent cases, producing a plague of forum shopping.”¹⁵⁸ Third, Heartland averred that the Federal Circuit’s decision below was clearly wrong in view of a proper understanding of the law, which, as relevant here, has not substantively changed since the Court’s *Fourco* decision.¹⁵⁹ Fourth, Heartland contended that this case “provides a good vehicle for deciding the question presented.”¹⁶⁰

On December 14, 2016, the Supreme Court granted Heartland’s petition¹⁶¹ and a decision is expected mid-2017.

VI. CLARIFYING *ALICE*: *ENFISH, LLC v. MICROSOFT CORP. ET AL.* AND *BASCOM GLOBAL INTERNET SERVICES, INC. v. AT&T MOBILITY LLC*

A person can obtain patent protection for “any new and useful process, machine, manufacture, or composition of matter, or any new and useful

151. *Id.* at 1343.

152. *Id.*

153. *Id.*

154. See Petition for Writ of Certiorari, *TC Heartland, LLC v. Kraft Foods Grp. Brands LLC*, No. 16-341, 2016 WL 4983136 (U.S. Sept. 12, 2016).

155. *Id.* at *i.

156. *Id.* at *8-9.

157. *Id.* at *14.

158. *Id.* at *8; see also *id.* at *15-23.

159. *Id.* at *23-30.

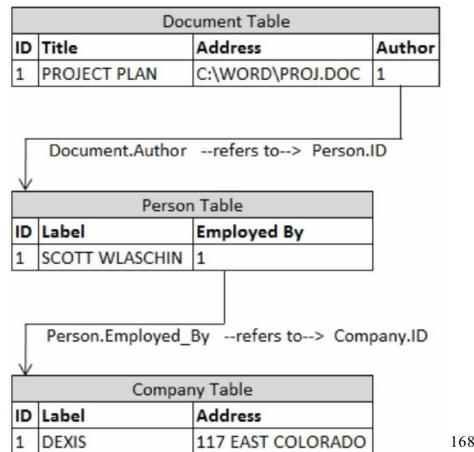
160. *Id.* at *30.

161. See *TC Heartland LLC v. Kraft Food Brands Grp. LLC*, 137 S. Ct. 614 (2016). The Court’s decision will be a topic for next year’s article, as it falls outside of the relevant time period for this Article.

improvement thereof.”¹⁶² These bounds exclude “[l]aws of nature, natural phenomena, and abstract ideas.”¹⁶³ In 2016, we¹⁶⁴ witnessed the Federal Circuit’s continued efforts to define the bounds of what is patent-ineligible under 35 U.S.C. § 101. *Enfish, LLC v. Microsoft Corporation* and *BASCOM Global v. AT&T Mobility LLC* add to the § 101 jurisprudence.

A. *Enfish, LLC v. Microsoft Corp.*¹⁶⁵

1. *Technology: Self-Referential Databases.*—Plaintiff *Enfish*’s patents (U.S. Patent Nos. 6,151,604 and 6,163,775) (the “’604 Patent” and the “’775 Patent”), at a high level, improve on the way a computer lists information.¹⁶⁶ The earlier-developed way, called the “relational” model, relied on separate, related tables to list information.¹⁶⁷ The Federal Circuit provided a pictorial example of this model:



ID #1 relates and connects the information among the three tables. The “Document” is called “Project Plan,” the “Person” or “Author” is “Scott Wlaschin,” and his “Company” is “Dexis.” Three tables provide and connect three sets of information.

162. 35 U.S.C. § 101 (2012).

163. *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013) (internal citations omitted).

164. Attorneys, scholars, and patent law connoisseurs.

165. At least one commentator deemed *Enfish*, which carves out an eligibility pathway in § 101, the biggest patent story of 2016. See Gene Quinn, *The Year in Patents: The Top 10 Patent Stories from 2016*, IPWATCHDOG (Dec. 29, 2016) <http://www.ipwatchdog.com/2016/12/29/top-10-patent-stories-2016/id=76298/>.

166. 822 F.3d 1327, 1330 (Fed. Cir. 2016).

167. *Id.*

168. *Id.* at 1331.

The '604 and '775 Patents, on the other hand, describe a “self-referential” model.¹⁶⁹ Here is an example rendering of a “self-referential” table the Federal Circuit provided, which it based on Fig. 3 of the '604 Patent:

SELF-REFERENTIAL TABLE						
ID	Type	Title	Label	Address	Employed By (#4)	Author
#1	DOCUMENT	PROJECT PLAN		C:\WORD\PROJ.DOC		#2
#2	PERSON		SCOTT WLASCHIN		#3	
#3	COMPANY		DEXIS	117 EAST COLORADO		
#4	FIELD		EMPLOYED BY			

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This table features the same information as the “relational” tables above. The ID #1 Type is a Document, whose Title is Project Plan and whose Address is “C:\Word/Proj.doc.” The ID #2 Type is a Person, whose Label is Scott Wlaschin. You get the idea.

The ID #4 Type, however, lists a “Field,” which, instead of listing information, can “define[] characteristics of a column in that same table.”¹⁷¹ This makes any Field row a “special row.”¹⁷² Because ID #4 also lists “Employed By,” the table also features a corresponding column labeled Employed By, featuring “ID #4.”¹⁷³ This feature, with rows defining columns, makes the table “self-referential.”¹⁷⁴

The patents teach that benefits of this model abound: It permits “faster searching of data than would be possible with the relational model,” “more effective storage of data other than structured text, such as images and unstructured text,” and “more flexibility,” given that “the database could be launched with no or only minimal column definitions.”¹⁷⁵ The court provided an example of such flexibility, adding another row to correspond to an additional column in the previous table:

SELF-REFERENTIAL TABLE							
ID	Type	Title	Label	Address	Employed By (#4)	Author	Email (#5)
#1	DOCUMENT	PROJECT PLAN		C:\WORD\PROJ.DOC		#2	
#2	PERSON		SCOTT WLASCHIN		#3		
#3	COMPANY		DEXIS	117 EAST COLORADO			
#4	FIELD		EMPLOYED BY				
#5	FIELD		EMAIL				

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With the ID #5 listed as Field and the Label listed as “Email,” the column, “Email (#5),” appears in the far-right side of the table.

169. *Id.* at 1330.

170. *Id.* at 1332.

171. *Id.* at 1333.

172. *Id.*

173. *Id.*

174. *Id.*

175. *Id.*

176. *Id.*

2. *Procedural History: All Claims Patent-Ineligible at the District Court.*—The district court addressed five claims, which the Federal Circuit then addressed on appeal: Claims 17, 31, and 32 of the '604 Patent and Claims 31 and 32 of the '775 Patent.¹⁷⁷ The district court held the following on summary judgment, which Enfish appealed:

- All claims ineligible under 35 U.S.C. § 101;
- Microsoft Excel 5.0 anticipated Claims 31 and 32 of both patents; and
- Defendant Microsoft's ADO.NET did not infringe Claim 17.¹⁷⁸

3. *The Mayo/Alice Inquiry: The Claims Do Not Call for an Abstract Idea.*—In the wake of the recent U.S. Supreme Court cases of *Mayo Collaborative Services v. Prometheus Laboratories, Inc.* and *Alice Corp. Pty Ltd. v. CLS Bank International*, to determine whether patent claims are eligible under § 101, courts have applied a two-step analysis.¹⁷⁹ They must “first determine whether the claims at issue are directed to a patent-ineligible concept”—is the concept an abstract idea?¹⁸⁰ If the claims indeed relate to a patent-ineligible, abstract idea, then the courts must “consider the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.”¹⁸¹

At the outset, the Federal Circuit acknowledged the belief among many that “improvements in computer-related technology are inherently abstract,” but it also noted that many improvements, even in software, can make “non-abstract improvements to computer technology just as hardware improvements can.”¹⁸² Searching the patent claims at issue for a specific “improvement to computer functionality,” the court found the claims were not related to “economic or other tasks for which a computer is used in its ordinary capacity.”¹⁸³ Instead, the claims related “to a specific improvement to the way computers operate, embodied in the self-referential table.”¹⁸⁴ In short, the claims were not an abstract idea and the court did not need to address the second step of the § 101 analysis.¹⁸⁵

To reach this conclusion, the court applied an exacting analysis.¹⁸⁶ For example, Claim 17 of the '604 Patent called for a “means for configuring said

177. *Id.*

178. *Id.* at 1334. The Federal Circuit vacated the district court's anticipation holding and affirmed the district court's noninfringement holding. *Id.* at 1346. Instead of focusing on the Federal Circuit's fact specific findings related to anticipation and infringement, this Article focuses on the analysis related to patent-ineligibility under § 101. Microsoft also argued, in the alternative to § 101 ineligibility, that the Federal Circuit hold Claim 17 of the '604 Patent invalid for indefiniteness, but the court did not find invalidity on this alternative ground. *Id.* at 1339-40.

179. *Id.*

180. *Id.* (quoting *Alice Corp. Pty Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2355 (2014)).

181. *Id.* (quoting *Alice*, 134 S. Ct. at 2355).

182. *Id.*

183. *Id.* at 1336.

184. *Id.*

185. *Id.*

186. *Id.* at 1337.

memory according to a logical table,” which, at a high level, the district court interpreted as “the abstract idea of ‘storing, organizing, and retrieving memory in a logical table’ or, more simply, ‘the concept of organizing information using tabular formats.’”¹⁸⁷ Microsoft, likewise, argued that the claims, in general, related only to “the concepts of organizing data into a logical table with identified columns and rows where one or more rows are used to store an index or information defining columns.”¹⁸⁸

Both the district court’s and Microsoft’s interpretations amounted to a “high level of abstraction . . . untethered from the language of the claims.”¹⁸⁹ That is, these interpretations were flat wrong. The Federal Circuit instructed that “the claims are not simply directed to any form of storing tabular data, but instead are specifically directed to a self-referential table for a computer database.”¹⁹⁰ The claims and specification both referred to the fact that the invention related to “a flexible, self-referential table that stores data.”¹⁹¹ The court reasoned that this specificity, combined with the fact that the specification described “that the self-referential table functions differently than conventional database structures,” separated the invention from a mere abstract idea.¹⁹²

Further, according to the Federal Circuit, these claims did not fail for the typical reasons software claims so often do. First, the court distinguished the invention, which improved the functioning of a computer, from those that merely “add[] conventional computer components.”¹⁹³ The invention was not just the “use of an abstract mathematical formula on any general purpose computer.”¹⁹⁴ The claims also did not fail for a lack of a “reference to ‘physical’ components,” because, the court noted, “[m]uch of the advancement made in computer technology consists of improvements to software that, by their very nature, may not be defined by particular physical features but rather by logical structures and

187. *Id.* (quoting *Enfish, LLC v. Microsoft Corp.*, 56 F. Supp. 3d 1167, 1176, 1175-76 (C.D. Cal. 2014)).

188. *Id.*

189. *Id.*

190. *Id.* Will courts rely on this analysis to find additional, data-organizing software patents eligible under § 101? How “specific” must the claims and specification be? Time will tell.

191. *Id.* The Federal Circuit recited the four-step algorithm from the specification that the district court connected to the “means for configuring” language from Claim 17 of the ’604 Patent, where the third step instructed, “[f]or each column, store information about that column in one or more rows, rendering the table self-referential, the appending, to the logical table, of new columns that are available for immediate use being possible through the creation of new column definition records.” *Id.*

192. *Id.* The court listed the advantages of “increased flexibility, faster search times, and smaller memory requirements.” *Id.* The Federal Circuit gives weight to the argument that the claims and specification describe a specific way of organizing data, combined with reasons why that way provides myriad benefits over the prior art. *Id.*

193. *Id.* at 1338.

194. *Id.*

processes.”¹⁹⁵

B. BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC

1. Technology: Internet Content Filtering.—Plaintiff BASCOM’s patent, U.S. Patent No. 5,987,606 (the “’606 Patent”), relates to filtering different types of content on the Internet. As of the mid-1990s, although many Internet users had found much content to be of great use, some businesses realized a need to prevent their employees from accessing distracting sites related to, for example, entertainment.¹⁹⁶ To prevent such distractions, the computer industry devised content filters that prevented inappropriate Internet use, but often, many users could weasel their way around these content blockers, and these one-size-fits-all filters were not compatible with every user.¹⁹⁷

The ’606 Patent purports to “provide individually customizable filtering” at the server of a given Internet Service Provider (“ISP”).¹⁹⁸ Different ISPs “associate an individual user with a specific request to access a website (or other Internet content), and can distinguish that user’s requests from other users’ requests.”¹⁹⁹ For example, an ISP might require a user to complete a login process so the ISP server can then implement a customized filtering tool based on each user’s identity. In short, once the user logs in and tries to access different webpages,

the ISP server receives a request to access a website, associates the request with a particular user, and identifies the requested website. The filtering tool then applies the filtering mechanism associated with the particular user to the requested website to determine whether the user associated with that request is allowed access to the website. The filtering tool returns either the content of the website to the user, or a message to the user indicating that the request was denied.²⁰⁰

The ’606 Patent trumpeted how this was the first instance of “customized filters at a remote server.”²⁰¹

2. Procedural History: All Claims Patent-Ineligible at the District Court.—The district court found all claims of the ’606 Patent ineligible under § 101, the decision of which the Federal Circuit addressed on appeal.²⁰² The district

195. *Id.* at 1339.

196. *BASCOM Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1343 (Fed. Cir. 2016). A need also existed to protect younger Internet users—or prevent, depending on those users’ proclivities—from accessing “sexually explicit or other objectionable information.” *Id.*

197. *Id.* at 1343-44.

198. *Id.* at 1344.

199. *Id.*

200. *Id.* at 1345.

201. *Id.*

202. *Id.* at 1346.

court held that the claims called for an abstract idea, which was a “well-known method of organizing human behavior,” and lacked an inventive concept because it found an “absence of specific structure for the generic computer components.”²⁰³

3. *The Mayo/Alice Inquiry: BASCOM Provided Sufficient Evidence of an Inventive Concept.*—The Federal Circuit applied the two-step, § 101 analysis.²⁰⁴ The court described an added wrinkle to the second step, however, noting that step could further enlighten the court about what might otherwise be considered an abstract idea under step one. Specifically, although some inventions appear, at first blush, to be abstract ideas, “under step two of the *Alice* analysis, it might become clear that the specific improvements in the recited computer technology go beyond ‘well-understood, routine, conventional activities’ and render the invention patent-eligible.”²⁰⁵

This approach guided the Federal Circuit’s analysis. The court found the ’606 Patent claims called for an abstract idea, reasoning “that filtering content is an abstract idea because it is a longstanding, well-known method of organizing human behavior, similar to concepts previously found to be abstract.”²⁰⁶ With this finding, the court also acknowledged that although the court “sometimes incorporate[d] claim limitations into its articulation of the idea to which a claim is directed,” here, it believed step two would instead provide further enlightenment.²⁰⁷

For step two, the Federal Circuit indicated that the district court had found the limitations were no more than routine additional steps involving generic computer components and the Internet, which interact in well-known ways to accomplish the abstract idea of filtering Internet content.²⁰⁸ These generic components included a local client computer, a remote ISP server, an Internet computer network, and controlled access network accounts.²⁰⁹ In a way, the Federal Circuit paralleled this individualized focus on components with a partial obviousness analysis under 35 U.S.C. § 103.²¹⁰ Step two “require[d] more than recognizing that each claim element, by itself, was known in the art,” and allowed that “an inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces.”²¹¹

203. *Id.* at 1346-47.

204. *See supra* Part VI.A.3.

205. *BASCOM*, 827 F.3d at 1348 (quoting *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2359 (2014)).

206. *Id.* The court listed examples such as budgeting, data collection, and information organization as abstract examples from previous cases. *Id.*

207. *Id.* at 1349.

208. *Id.*

209. *Id.*

210. *Id.* at 1350. The district court’s analysis apparently lacked only the motivation to combine element of the typical § 103 approach. *Id.*

211. *Id.* Although the Federal Circuit criticized the district court for stumbling into an obviousness analysis, the Federal Circuit’s focus on the “non-conventional and non-generic

To conclude that the invention created an inventive concept, the court described the particular benefits over the prior art. This inventive concept was a content-filtering system that was “remote from the end-users, with customizable filtering features specific to each end user,” which gives it the “benefits of a filter on a local computer and the benefits of a filter on the ISP server.”²¹² “[B]y associating individual accounts with their own filtering scheme and elements while locating the filtering system on an ISP server,” the claims called for a specific, unconventional method.²¹³ The court differentiated “filtering content along with the requirement to perform it on the Internet, or to perform it on a set of generic computer components,” which would not be inventive, with a “particular arrangement of elements” that improved “over prior art ways of filtering such content” that “were either susceptible to hacking and dependent on local hardware and software, or confined to an inflexible one-size-fits-all scheme.”²¹⁴

arrangement” to find an inventive concept sure raises some (my) eyebrows. An obvious patent “simply *arranges* old elements with each performing the same function it had been known to perform.” *Sakraida v. Ag Pro, Inc.*, 425 U.S. 273, 282 (1976). Does the Federal Circuit’s focus in *BASCOM* on a “non-conventional and non-generic *arrangement*” for § 101 resemble the *Sakraida* Court’s focus on whether *arrangements* of old elements performing known functions for § 103? Methinks so, at least a bit.

212. *Enfish*, 822 F.3d at 1350.

213. *Id.*

214. *Id.* The court followed this analysis of the particular, claimed invention in the ’606 Patent with a compare-and-contrast analysis of the different cases *BASCOM* and Defendant AT&T Mobility cited in each of their respective favors. *Id.* at 1351-52.