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Shifting the Burden: Proving Infringement and Damages in Patent Cases Involving Inconsistent Manufacturing Techniques

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Abstract

The law is clear that it is the plaintiff-patentee's burden to prove both infringement and damages. It is unclear, however, in cases involving inconsistent manufacturing techniques, what level of evidence is required to meet this burden and when, if at all, such burden should pass to the defendant-infringer to provide rebuttal evidence. One consideration in this analysis is when findings of infringement can extend to the entire product line. Another matter considered in this paper is how the court deals with the confusion of goods and the commingling of records. This Article examines the various patent doctrines that may have some bearing on these issues, analyzes the relevant and analogous statutory law and case law, and, ultimately, proposes suggestions as to how to handle cases of this nature.

Shifting the Burden: Proving Infringement and Damages in Patent Cases Involving Inconsistent Manufacturing Techniques

by JULIE E. ZINK*

I. Introduction

The law is clear that it is the plaintiff-patentee's burden to prove both infringement and damages. It is unclear, however, in cases involving inconsistent manufacturing techniques, what level of evidence is required to meet this burden and when such burden should pass to the defendant-infringer to provide rebuttal evidence. For example, imagine that you represent the plaintiff-patentee, Astral Technologies, in a patent infringement lawsuit against Illusion Beverages.¹ Astral owns a patent on a beverage composition. Illusion manufactures and sells beverage products in hundreds of plants across the country. In advance of filing the complaint, Astral collected and tested beverages manufactured in one of Illusion's several hundred manufacturing plants, and determined that the beverages made at that plant were infringing Astral's patent. During discovery, Illusion's CEO explained that Illusion's beverages were not manufactured consistently. Thus, while Illusion admits that some plants may manufacture infringing products, others plants do not.

This situation poses many questions. For example, is Astral's testing of beverages manufactured at one of Illusion's plants sufficient to prove infringement? If so, will those findings extend to Illusion's entire

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1. The named parties in this hypothetical are fictional.

product line? At what point, if any, does the burden shift to Illusion to prove which plants are not manufacturing infringing products? And how does this situation affect the damages determination?

This Article examines the various patent doctrines that may have some bearing on these issues. Section II discusses the plaintiff-patentee's burden to prove infringement and burden-shifting mechanisms—that have been used in certain circumstances over the years. Section III explores the cases that have dealt with the extension of infringement findings to an entire product line. Section IV provides background on the burden of proof as to damages, before moving, in Section V, to the principle of confusion of goods and the commingling of records. Drawing on this information, Section VI provides answers to the questions posed above and provides guidance on how to handle cases involving inconsistent manufacturing techniques.

II. The Burden of Proof as to Infringement

Since at least as early as 1879, the burden of proof as to infringement has been placed on the patentee.² To prove infringement, the patentee must show, by the preponderance of the evidence,³ that all of the elements of the asserted patent claim(s) are present in the accused product or process.⁴ In doing so, the patentee may rely on

2. *Imhaeuser v. Buerk*, 101 U.S. 647, 662 (1879) (“[T]he burden to prove infringement never shifts if the charge is denied in the plea or answer.”). *Accord Jazz Photo Corp. v. Int’l Trade Comm’n.*, 264 F.3d 1094, 1102 (Fed. Cir. 2001) (“The initial burden is upon the complainant to establish its cause of action, here patent infringement; the patentee must present evidence sufficient to establish that one or more patent claims are infringed.”); *Nutrinova Nutrition Specialities & Food Ingredients GmbH v. Int’l Trade Comm’n.*, 224 F.3d 1356, 1359 (Fed. Cir. 2000) (“As a general proposition, the law places the burden of proving infringement on the patentee who alleges it.”).

3. *Centricut, L.L.C. v. Esab Group, Inc.*, 390 F.3d 1361, 1367 (Fed. Cir. 2004) (“The patentee has the burden of proving infringement by a preponderance of the evidence.”); *Rohm & Haas Co. v. Brotech Corp.*, 127 F.3d 1089, 1092 (Fed. Cir. 1997) (“Infringement requires proof by a preponderance of the evidence.”); *SRI Int’l. v. Matsushita Elec. Corp. of Am.*, 775 F.2d 1107, 1123 (Fed. Cir. 1985) (“The patentee bears the burden of proving infringement by a preponderance of the evidence.”). *BLACK’S LAW DICTIONARY* 1182 (6th ed. 1990) (“[P]reponderance of the evidence” is defined as “evidence which is of greater weight or more convincing than the evidence which is offered in opposition to it; that is, evidence which as a whole shows that the fact sought to be proved is more probable than not.”).

4. *Cross Med. Prods., Inc. v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293, 1310 (Fed. Cir. 2005) (“[A]n accused device may be found to infringe if it is reasonably capable of satisfying the claim limitations.”); *CVI/Beta Ventures, Inc. v. Tura L.P.*, 112 F.3d 1146, 1161 (Fed. Cir. 1997) (“In order for there to be infringement, each and every limitation set forth in a patent claim must be found in the accused product, either literally or under the doctrine of equivalents.”); *Laitram Corp. v. Rexnord, Inc.*, 939 F.2d 1533, 1535 (Fed. Cir.

testimonial or other evidence, as well as appropriate inferences and admissions.⁵ Once the patentee has proven infringement the burden shifts to the accused infringer to prove non-infringement.⁶

The law, however, makes exceptions. In certain situations, the burden shifts to the accused infringer before infringement is proven.⁷ In 1988, such burden-shifting was codified in 35 U.S.C. § 295⁸ as to process patents because accused infringers are in a better position to determine the actual processes they use in the manufacture of products.⁹ Under that statute, once the court finds that (1) a substantial likelihood exists that the product was made by the

1991) (“[T]he failure to meet a single limitation is sufficient to negate infringement of the claim”); *Lemelson v. United States*, 752 F.2d 1538, 1551 (Fed. Cir. 1985) (“It is . . . well settled that each element of a claim is material and essential, and that in order for a court to find infringement, the plaintiff must show the presence of every element . . . in the accused device.”).

5. *Liquid Dynamics Corp. v. Vaughan Co.*, 449 F.3d 1209, 1219 (Fed. Cir. 2006) (“[T]he jury could reasonably have inferred from the engineering manual and [witness] testimony that 11 installations infringe even though some structural data is missing from [defendant’s] records.”; “[a] patentee may prove direct infringement or inducement of infringement by either direct or circumstantial evidence.”); *Chiuminatta Concrete Concepts, Inc. v. Cardinal Indus., Inc.*, 1 Fed. App’x. 879, 884 (Fed. Cir. 2001) (“Proof of inducing infringement or direct infringement may be shown by circumstantial evidence.”).

6. *SRI Int’l. v. Matsushita Elec. Corp. of Am.*, 775 F.2d 1107, 1123–24 (Fed. Cir. 1985) (“When a patentee establishes literal infringement, the accused infringer may undertake the burden of going forward to establish the fact of non-infringement”). *See also Ecolab, Inc. v. Amerikem Labs., Inc.*, 98 F. Supp. 2d 569, 583 (D. N.J. 2000) (“Ecolab’s compelling evidence of infringement shifts the burden of production and obliges Envirochem to point to the existence of any genuine issues of material fact.”).

7. For example, “[t]he burden of production of evidence may shift to the accused infringer on some issues, such as experimental purpose and implied license.” 5A Donald S. Chisum, *Chisum on Patents*, § 18.06, p.1 (2009).

8. Omnibus Trade and Competitiveness Act of 1988, 100 P.L. 418, 9005-06, 102 Stat. 1107, 1566–67 (Aug. 23, 1988). 35 U.S.C. § 295 (2006) provides that “[i]n actions alleging infringement of a process patent based on the importation, sale, offer for sale, or use of a product which is made from a process patented in the United States, if the court finds – (1) that a substantial likelihood exists that the product was made by the patented process, and (2) that the plaintiff has made a reasonable effort to determine the process actually used in the production of the product and was unable so to determine, the product shall be presumed to have been so made, and the burden of establishing that the product was not made by the process shall be on the party asserting that it was not so made.”

9. *See Jeffrey I. D. Lewis & Art C. Cody, Unscrambling the Egg: Pre-Suit Infringement Investigations of Process and Method Patents*, 84 J. PAT. & TRADEMARK OFF. SOC’Y (2002) (“The underlying principal here is that the alleged infringer is in a far better position to determine the actual process used in the manufacture of the product than the patentee. Once the patentee has demonstrated that there is some merit to his claim by a substantial likelihood showing, fairness dictates that the defendant, who is the only party with access to the actual manufacturing process used to produce the accused product, reveal that process.”).

patented process, and (2) the patentee made a reasonable, albeit unsuccessful, effort to determine the process used, the burden shifts to the alleged infringer to disprove infringement.¹⁰

A half century earlier, a similar form of burden-shifting was utilized by the Sixth Circuit, in *Automotive Parts Co. v. Wisconsin Axle Co.*,¹¹ with regard to the claimed reconstruction of a patented product.¹² In that case, the Sixth Circuit placed the burden of proof on the alleged infringer to show that its sales were for proper purposes of repair.¹³ The court acknowledged that the burden of proving patent infringement normally rests upon the plaintiff-patentee. The court found that when it is difficult for the patentee to ascertain the necessary facts to prove infringement, and when such facts are in the possession of the alleged infringer that the burden should shift to the alleged infringer.¹⁴ However, the Sixth Circuit made it clear in *Westinghouse Elec. & Mfg. Co. v. Hesser*,¹⁵ that such burden-shifting should not occur in situations where the plaintiff-patentee could easily determine whether the defendant's customers engaged in impermissible reconstruction.¹⁶

10. *Id.* Accord *Nutrinova Nutrition Specialities & Food Ingredients GmbH v. Int'l. Trade Comm'n.*, 224 F.3d 1356, 1359–60 (Fed. Cir. 2000) (“The statute on its face is a burden shifting mechanism. As a general proposition, the law places the burden of proving infringement on the patentee who alleges it. When two conditions are met, the statute shifts that burden and requires the alleged infringer to disprove infringement.”).

11. 81 F.2d 125, 127–28 (6th Cir. 1935).

12. For an explanation of the distinction between permissible repair and impermissible reconstruction, see generally Honorable Arthur J. Gajarsa, Evelyn Mary Aswad & Joseph S. Cianfrani, *How Much Fuel to Add to the Fire of Genius? Some Questions About the Repair/Reconstruction Distinction in Patent Law*, 48 AM. U. L. REV. 1205 (Aug. 1999).

13. *Automotive Parts*, 81 F.2d at 128.

14. *Id.* at 127–28 (“Ordinarily the burden rests upon the plaintiff to show patent infringement, but in circumstances such as are here disclosed, where there is an admission of sales without reservation as to the number sold for a single axle, or the condition of the original parts in any such axle, it would seem only fair that the seller should assume the burden of showing that its acts were not infringements. It would be difficult for the appellee to ascertain the facts necessary to the determination of that question.”); Accord *Timken-Detroit Axle Co. v. Automotive Parts Co.*, 93 F.2d 76 (6th Cir. 1937) (holding that defendant met its burden of showing that its contemplated sales would not be infringement by offering evidence that the parts it contemplated selling would be sold for no other purpose than repairs).

15. *Westinghouse Elec. & Mfg. Co. v. Hesser*, 131 F.2d 406, 409 (6th Cir. 1942).

16. *Id.* (finding that “[t]he principle which permits a court of equity to place the burden of disclosure upon the defendant does not here apply” because the sales were few in number and made to nearby institutions, such that “plaintiff had equal opportunity with the defendant to ascertain whether the parts purchased were used for reconstruction or repair”). The burden has also shifted in cases in which the alleged infringer, rather than

III. Extension of Infringement Findings to the Entire Product Line

Only a handful of cases have discussed the extrapolation of infringement findings to other products in the product line. In the first case, *San Huan New Materials High Tech, Inc. v. U.S. Int'l. Trade Comm'n.*,¹⁷ the patentee proved infringement of a patent claiming magnet alloys with 6,000 to 35,000 parts per million oxygen, 30 percent to 36 percent rare earth element, and 60 percent to 66 percent iron. The Federal Circuit held that, even though the patentee did a complete analysis of only one magnet in the group, the United States International Trade Commission (“ITC”)¹⁸ did not err in finding infringement by another group of magnets.¹⁹ The Federal Circuit ruled that there was no error because tests of the oxygen content of magnets of the same type, size, and grade showed average oxygen content well within the claim limitation.²⁰

The next court to make a similar determination provided slightly more guidance. In *Ecolab, Inc. v. Amerikem Laboratories, Inc.* the United States District Court for the District of New Jersey extended test results to other products in the product line by stating that “[g]eneral arguments that each alleged infringing product must be tested do not suffice to create a genuine issue of material fact.”²¹ In this case there was uncontroverted evidence that extrapolating test results based on formula and production specification would yield reliable, accurate results. The court held that any finding of infringement would extend to the other products in the product line, with the exception of one product in which the court found no

claiming non-infringement, claimed that its use of the patented invention was for an excusable experimental purpose, *Madey v. Duke Univ.*, 307 F.3d 1351, 1361 (Fed. Cir. 2002) (holding that the scope of the experimental use exception is markedly narrow and that a defendant bears the burden of proving its applicability), or was permitted under an implied license, *Intel Corp. v. U.S. Intl. Trade Commn.*, 946 F.2d 821, 828 (Fed. Cir. 1991) (finding that Atmel had not established the existence of an implied license, the court proceeded with validity and infringement analyses).

17. 161 F.3d 1347, 1359–60 (Fed. Cir. 1998).

18. See About the USITC, http://www.usitc.gov/press_room/about_usitc.htm (last visited on Nov. 11, 2009) (“The United States International Trade Commission is an independent, quasijudicial Federal agency with broad investigative responsibilities on matters of trade. The agency investigates the effects of dumped and subsidized imports on domestic industries and conducts global safeguard investigations. The Commission also adjudicates cases involving imports that allegedly infringe intellectual property rights.”).

19. *San Huan*, 161 F.3d 1347, 1359–60 (Fed. Cir. 1998).

20. *Id.*

21. 98 F. Supp. 2d 569, 583 (D.N.J. 2000).

evidence to suggest that the tested products were representative.²² Once the patentee proved infringement of one of the products in the product line, the court shifted the burden to the infringer to refute the extension of those test results to the remainder of the product line.²³

In the final case—*Tate Access Floors, Inc. v. Interface Architectural Resources, Inc.*²⁴—the district court granted summary judgment despite defendant’s argument that, due to quality control problems, not all of defendant’s floor panels were beveled and would, therefore, fall outside of the asserted patent claim. The court made its decision based on two findings: (1) defendant’s infringement was complete with its offer to sell the infringing panels, which it did; and (2) “it is [defendant’s] burden to establish how many of its panels infringed or else it bears the whole risk.”²⁵

A. San Huan New Materials High Tech, Inc. v. U.S. Int’l. Trade Comm’n.

Originally, the *San Huan* defendants—San Huan New Materials High Tech, Ningbo Konit Industries, and Tridus International (hereinafter collectively referred to as “San Huan”)—were three of eight alleged infringers named in YBM Magnex’s complaint filed with

22. *Id.* See also *id.* at 583 n.34 (“Without a specific product formula sheet, there is no permissible basis to extrapolate Dr. Lentsch’s or Dr. Rigney’s findings to this product.”).

23. *Id.* (“Ecolab’s compelling evidence of infringement shifts the burden of production and obliges Envirochem to point to the existence of any genuine issues of material fact.”).

24. 185 F. Supp. 2d 588, 597 n.7 (D. Md. 2002). For purposes of full disclosure, the author represented Plaintiff Tate Access Floors, Inc. in this case.

25. *Id.* (citing *Nickson Industries, Inc. v. Rol Mfg. Co.*, 847 F.2d 795, 799 (Fed. Cir. 1988)). Compare *Avid Identification Sys., Inc. v. Global ID Sys.*, which stands for the proposition that it is inappropriate to shift the burden of proof on the number of infringing products to defendant. No. 00-1573, 2002 U.S. App. LEXIS 1991, at *11 (Fed. Cir. Feb. 6, 2002) (“Although the damages calculation may have been more accurate if GIDS’s business records were not missing, the district court did not find that missing records were the result of bad faith by GIDS. In the absence of such bad faith, it was inappropriate to shift the burden to GIDS to prove that not all 569 Readers were sold in the United States. Because there is a genuine issue of material fact as to the number of infringing Readers sold or used in the United States, it was error for the district court to grant judgment for the plaintiffs on this issue.”)

The case did not indicate that the allegedly infringing products were made using inconsistent manufacturing techniques. The major dilemma seemed to be that some of the products were sold outside of the United States, which would not qualify as infringing acts. *Id.* at *2–3 (Defendant “admits he resold some Readers but he claims those were sold to buyers outside the United States. However, Avid claims that some were sold to a domestic Avid customer.”). Thus, the court found that there was a genuine issue of material fact as to the number of infringing products sold or used in the United States. *Id.* at *11.

the ITC.²⁶ During the ITC's investigation and after the ITC denied San Huan's motion for summary judgment of non-infringement,²⁷ San Huan "unilaterally proposed and voluntarily entered into" a Consent Order.²⁸ In the Consent Order, San Huan agreed not to sell for import, import into the United States, or sell in the United States any "neodymium-iron-boron magnets which infringe any of the claims 1-3 of the '439 Patent."²⁹ Subsequently, the ITC terminated its investigation with regard to San Huan.³⁰ The investigation continued with regard to the remaining five respondents. This investigation concluded with the ITC determining that "magnets with oxygen contents measured between 5,450 ppm and 6,000 ppm infringed the '439 patent,"³¹ and that the remaining respondents violated Section 337 of the Tariff Act through their infringement of the '439 patent.³²

Approximately five months after the Consent Order was entered, YBM filed an enforcement complaint against San Huan for continued importation and sale of infringing magnets in violation of the Order.³³ The administrative law judge ("ALJ") held that San Huan "violated the Consent Order in bad faith by continuing unabated infringement after entering into the Consent Order."³⁴ The ITC adopted the ALJ's recommendation with three exceptions, none of which were related to the extrapolation of test results to other products in the product line or to other product lines.³⁵ San Huan

26. *San Huan*, 161 F.3d at 1348-49.

27. *Id.* at 1349, 1358.

28. *Id.*

29. *Id.* at 1355, 1349. Under the terms of the Consent Order, San Huan was "precluded from . . . challenging or otherwise contesting the validity of the consent order." *Id.* at 1358. "By entering into the Consent Order, San Huan waived its rights to challenge determinations reached in the original investigation, for which litigation was continuing as to the other respondents." *Id.*

30. *Id.* at 1349.

31. *Id.* at 1357.

32. *San Huan*, 161 F.3d at 1349.

33. *Id.*

34. *Id.*

35. *Id.* at 1350. The exceptions were as follows: (1) the decision in *Maxwell v. J. Baker, Inc.*, 86 F.3d 1098 (Fed. Cir. 1996) "precluded access to the doctrine of equivalents"; (2) the ALJ's misconstruction of one of the claim phrases; and (3) the determination of the date on which San Huan was required to cease importation and sales of magnets. *Id.*

appealed the ITC's decision to the Federal Circuit on numerous grounds.³⁶ The Federal Circuit affirmed the ITC's decision.³⁷

With respect to the determinations made by the ITC during the enforcement proceedings, San Huan argued that there was not substantial evidence of infringement.³⁸ Specifically, San Huan asserted that the ITC "improperly assumed that the T25 magnets would have the same chemical composition as magnets of the same size and grade as the T25 magnets," despite the fact that there was "no basis in the record for assuming the magnets from different batches [would] have the same chemical composition."³⁹ The Federal Circuit found the ITC's determination to be reasonable.⁴⁰ This decision rested on the finding that while "oxygen levels could vary between magnets of the same size and grade,"⁴¹ there was "no reason to believe that one sample would be outside the claimed ranges for TRE and iron if the tested samples were comfortably within the claimed ranges."⁴²

As to the E63B, NE1C, E152F, and T41 magnet groups, YBM conducted complete chemical analyses on one magnet from each group, while taking additional measurements from other magnets in the groups.⁴³ San Huan argued that the complete chemical analysis showed that the oxygen content for the tested magnets was outside the claimed ranges and, therefore, not infringing.⁴⁴ The Federal Circuit dismissed this argument, finding "substantial evidence of infringement."⁴⁵ For example, the court stated that "[t]he E63B# 2

36. *Id.* On appeal, San Huan made the following arguments: (1) the ITC had "no authority to impose civil penalties"; (2) San Huan had "a right to a trial *de novo* in district court" relating to YBM's infringement claims, violation of the Consent Order, and the amount of any penalty; (3) the ITC had "no authority to impose civil penalties for violation of a consent order"; (4) "there was not substantial evidence to support the [ITC's] infringement determinations"; and (5) "the penalty imposed [was] constitutionally excessive and without reasoned basis." *Id.*

37. *Id.* at 1348, 1365.

38. *Id.* at 1358.

39. *Id.* at 1360.

40. *Id.*

41. *Id.* San Huan presented chemical analyses for oxygen only. *Id.* While it is not clear from the opinion, one can presume that the ITC relied on the oxygen content provided by San Huan, while relying on YBM's findings for TRE and iron contents.

42. *San Huan*, 161 F.3d at 1360 (Fed. Cir. 1998) (citing *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 1272 (Fed. Cir. 1986) for the proposition that "infringement may be proven by direct or circumstantial evidence").

43. *San Huan*, 161 F.3d at 1360-61 (Fed. Cir. 1998).

44. *Id.*

45. *Id.* at 1361-62.

magnet was shown to contain iron, TRE, and boron within the claimed levels,” and that while “[t]he average oxygen reading for E63B# 2 was not within the claimed range . . . the average oxygen readings for two magnets of the same size, grade, and type, and from the same shipment were within the claimed range.”⁴⁶

The Federal Circuit then looked to the ITC’s determination that “of the number of magnets tested by YBM, a certain percentage were infringing.”⁴⁷ The ITC “used this percentage to approximate the sales value of magnets that actually infringed,” explaining that YBM “made a good faith effort to prove the extent of [San Huan’s] violation of the consent order.”⁴⁸ The ITC further stated that YBM “was not required . . . to test every magnet sold by respondents,” and, in fact, “could not be expected to have test data on a magnet from each lot shipped to the United States or sold to a U.S. customer since . . . the consent order became effective.”⁴⁹ Ultimately, the ITC found that “the record demonstrates that [YBM] tested a substantial and clearly representative share of [San Huan’s] magnets.”⁵⁰ The Federal Circuit agreed that the ITC’s “approach was reasonable, and must be sustained.”⁵¹ The Federal Circuit further noted that, “[c]onsidering all the circumstances, any inaccuracy in the [ITC’s] computations was at least partly attributable to San Huan.”⁵² In support, the court cited *Sensonics, Inc. v. Aerosonic Corp.*,⁵³ for the proposition that “[w]hen calculation of damages is impeded by

46. *Id.* Similarly, the court found that “[t]he iron/TRE/boron readings for NEIC# 3 constitute[d] substantial circumstantial evidence of iron/TRE/boron content for NEIC# 4, whose oxygen level was found to be within the claimed limits.” *Id.*

47. *Id.* at 1362. The ITC’s determination was “based on a summary of YBM’s evidence prepared by San Huan.” *Id.* The ITC “took the total number of magnets with oxygen readings above 5,450 ppm according to YBM’s tests and divided this number by the total number of magnets tested by YBM.” *Id.* at 1364.

48. *Id.* at 1362.

49. *San Huan*, 161 F.3d at 1363 (Fed. Cir. 1998). *See also id.* at 1364 (“The [ITC] states that YBM was not required to test every magnet, and that it would have been impossible for YBM to have done so, since San Huan often shipped magnets directly to customers in the United States without maintaining any samples for testing, despite the existence of the Consent Order.”).

50. *Id.* at 1363.

51. *Id.*

52. *Id.* at 1364 (“The ITC “attribute[d] any inconsistency and inaccuracy to San Huan, because for certain infringing magnets, San Huan provided no records whatsoever of their composition.”).

53. 81 F.3d 1566, 1572 (Fed. Cir. 1996).

incomplete records of the infringer, adverse inferences are appropriately drawn.”⁵⁴

B. Ecolab, Inc. v. Amerikem Laboratories, Inc.

The *Ecolab* case arose out of Ecolab’s assertion that the line of dishwashing products manufactured by Amerikem/Envirochem infringed Claim 1 of Ecolab’s ‘818 patent.⁵⁵ After the court construed the contested claim terms (specifically, the requirement that the detergent be “substantially uniform”), Ecolab moved for summary judgment of literal infringement as to eight of Envirochem’s detergent products.⁵⁶ In support of its summary judgment motion, Ecolab submitted the analyses of the “pertinent Envirochem products” by two Ecolab scientists.⁵⁷ Based on their findings, both scientists concluded that the Envirochem products were “substantially uniform,” and thus infringed that element of claim 1.⁵⁸ Envirochem opposed the motion, contending that its products were nonuniform detergents and, therefore, noninfringing.⁵⁹

Envirochem attacked these findings on several grounds.⁶⁰ Of particular relevance, Envirochem asserted that Ecolab’s expert opinions were “inherently and fatally flawed” because the “Ecolab scientists did not test every alleged infringing product in the Envirochem product line.”⁶¹ Ecolab, on the other hand, argued that

54. *San Huan*, 161 F.3d at 1364; *Sensonics*, 81 F.3d at 1572.

55. 98 F. Supp. 2d 570.

56. *Id.* at 571.

57. *Id.* at 572–73.

58. *Id.* at 573.

59. *Id.*

60. See *Ecolab*, 98 F. Supp. 2d at 575 (Among other things, Envirochem argued that the opinion of Ecolab’s expert was “the result of incompetent, unreliable ‘junk science’ and should be excluded under Fed. R. Evid. 702.”); However, Envirochem submitted no contrary expert testimony or evidence to support its argument. *Id.* at 577. Therefore, because the methodology used by Ecolab’s expert followed Ecolab’s standard practice and was validated by Envirochem’s product literature, the court found that it was reliable. *Id.* at 576–77, 581.

61. *Id.* at 579. *But see id.* at 578 (“Envirochem [] presented no testimony to suggest that it [was] improper to extrapolate the results from representative products.”) and *id.* at 583 (“Envirochem has not put forth any evidence to suggest that such an extrapolation is inappropriate or yields distorted results.”). “Envirochem also question[ed] the testing of only a single sample of any particular product.” *Id.* at 577 n.21. In support of this argument, Envirochem relied on the testimony of another Ecolab scientist regarding “the difficulties with testing a single sample.” *Id.* However, the court did not find this argument to be persuasive because the testimony merely “critique[d] Envirochem’s quality control procedures.” *Id.*

because “each of Envirochem’s products [was] produced in the same way according to nearly identical formulae, Ecolab’s researchers properly extrapolated their findings to the entire product line.”⁶² Ecolab’s experts “agreed that their test results did not reveal whether the tested samples were representative of either the particular product or the other products within the product line.”⁶³ The court nonetheless found that, because each product in the product line “was prepared following a virtually identical formula and in accordance with a standard production method,” the tested samples were representative.⁶⁴ Since the results were representative the court found that “Ecolab’s extrapolated results satisfy[ed] the threshold reliability requirement.”⁶⁵ Thus, the court held that Ecolab met its burden of proving infringement of the “substantially uniform” element of claim 1 of the ‘818 patent.⁶⁶ The district court found that because Envirochem did not point to “any evidence to contradict the finding that the other elements of claim 1 read on the Envirochem products” that “no genuine issues of material fact exist[ed].”⁶⁷ Ecolab was accordingly “entitled to summary judgment of literal infringement on all products in the Envirochem solid cast detergent product line at issue, with the exception of product number E2000XHW.”⁶⁸

On appeal, the Federal Circuit found that the district court erred in construing the claim term “substantially uniform.”⁶⁹ As a result, the Federal Circuit vacated the grant of summary judgment of literal infringement, and remanded the case to the district court for further

62. *Id.* at 577.

63. *Id.*

64. *Id.* at 578.

65. *Id.* See also *id.* at 582–83 (“[T]he entire product line was produced according to a virtually identical formula (with differences only in immaterial components) and according to the same production method. Based upon that information, both Ecolab experts concluded that the untested products would yield identical results evidencing substantial uniformity.”) (internal citations omitted).

66. *Id.* at 585.

67. *Id.* at 586.

68. *Id.* The court did not extend its liability findings to product number E2000XHW because Ecolab did not submit any evidence that the tested products were representative of the E2000XHW product. *Id.* at 583 n.34 (“Without a specific product formula sheet, there is no permissible basis to extrapolate Dr. Lentsch’s or Dr. Rigney’s [Ecolab’s experts] findings to this product. The statement by Ecolab’s counsel that the two products are identical is not evidence, and the E2000X formula sheet describing the product as ‘Enviro 2000 XHW Solid’ does not suffice to show that there are no genuine issues of material fact as to whether E2000XHW infringes.”).

69. *Ecolab, Inc. v. Envirochem, Inc.*, 264 F.3d 1358, 1361 (Fed. Cir. 2001).

proceedings.⁷⁰ However, the Federal Circuit did not make any judgment regarding the district court's approval of the extrapolation of Ecolab's test results to the remainder of Envirochem's product line.

C. **Tate Access Floors, Inc. v. Interface Architectural Resources, Inc.**

After winning a previous infringement battle on the same patent against another rival,⁷¹ Tate sued Interface for infringement of its patent for an elevated floor panel with integral trim, and subsequently obtained a preliminary injunction.⁷² Thereafter, the court granted Tate's motion for summary judgment of infringement.⁷³

Tate's patent covered an access floor panel with "a border along the edges of said panel along which said decorative surface layer is removed to expose said inner body portion and thereby provide an integral contrasting border around said decorative surface layer."⁷⁴ The court found that "[i]n addition to the preferred embodiment likely having a section of its border created by a beveled edge, the specification teaches to scarf or cut away the floor covering, which would be satisfied by beveling."⁷⁵ Although "Interface describe[d] its untrimmed accused panel, sold under the trade name Bevel Edge, as 'beveled,'" it argued that, due to quality control problems, not all of its panels were, in fact, beveled.⁷⁶ As evidence of these "quality control problems," Interface submitted deposition testimony and documentation that "there were no written standards" and "grinding depth was controlled by humans rather than machines."⁷⁷

The court dismissed Interface's arguments, stating that "Interface's infringement was complete with its offer to sell the infringing panels, which they did in their sales materials."⁷⁸ The court further stated that "it is Interface's burden to establish how many of

70. *Id.* Presumably, the litigation settled thereafter, as there were no subsequent decisions in this case.

71. *Tate Access Floors, Inc. v. Maxcess Techs.*, 222 F.3d 958, 972 (Fed. Cir. 2000).

72. *Tate Access Floors, Inc. v. Interface Architectural Res., Inc.*, 132 F. Supp. 2d 365, 367 (D. Md. 2001), *aff'd*, 279 F.3d 1357, 1360 (Fed. Cir. 2002).

73. *Tate Access Floors, Inc. v. Interface Architectural Res., Inc.*, 185 F. Supp. 2d 588, 607 (D. Md. 2002).

74. U.S. Patent No. 4,625,491 col.5 ll.8-11 (filed Jan. 13, 1986).

75. *Tate Access Floors*, 185 F. Supp. at 596.

76. *Id.* at 593, 597 n.7.

77. *Id.*

78. *Id.* at 597 n.7 (citing 35 U.S.C. § 271(a)). "In one brochure, Interface advertises the panel as follows: 'the top of the high pressure laminate is beveled to create a grid pattern without the use of separate edge trim pieces.'" *Id.* at 593.

its panels infringed or else it bears the whole risk.”⁷⁹ Unfortunately, the court’s analysis on this point was limited to one footnote. However, the related concept of damages provides additional insight as to how to handle such issues in litigation.

IV. The Burden of Proof as to Damages

35 U.S.C. § 284 provides for the recovery of compensatory damages as the primary monetary remedy for patent infringement—“Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court.”⁸⁰ “The basic theory of damages is to make the patent owner whole for losses caused by the infringer’s illicit activity. The patent owner is to be restored financially to the position he would have occupied but for the infringement.”⁸¹ The award should not unfairly penalize the infringer.⁸²

Similar to its claim of patent infringement, the patent owner bears the burden of proving its damages by a preponderance of the evidence.⁸³ Such determinations should be based on evidence, not

79. *Id.* at 597 n.7 (citing *Nickson Indus., Inc. v. Rol Mfg. Co.*, 847 F.2d 795, 799 (Fed. Cir. 1988)).

80. 35 U.S.C. § 284 (2006). If Congress passes the Patent Reform Act as currently proposed, Section 284 will be revised in such a manner that “the court shall conduct an analysis to ensure that a reasonable royalty is applied only to the portion of the economic value of the infringing product or process properly attributable to the claimed invention’s specific contribution over the prior art.” S. 1145, 110th Cong. § 284(c)(1)(C) (2008). *Accord* H.R. 1908, 110th Cong. § 284(b)(2) (2007) (“Upon a showing to the satisfaction of the court that a reasonable royalty should be based on a portion of the value of the infringing product or process, the court shall conduct an analysis to ensure that a reasonable royalty under subsection (a) is applied only to that economic value properly attributable to the patent’s specific contribution over the prior art.”).

81. 7 Donald S. Chisum, *Chisum on Patents*, § 20.03, p. 20–66 (2003).

82. *Sheldon v. Metro-Goldwyn Pictures Corp.*, 309 U.S. 390, 408 (1940) (“Equity is concerned with making a fair apportionment so that neither party will have what justly belongs to the other.”).

83. *Transclean Corp. v. Bridgewood Servs., Inc.*, 290 F.3d 1364, 1370 (Fed. Cir. 2002) (“[T]he patent owner bears the burden of proving by a preponderance of the evidence the quantum of damages.”); *Vulcan Eng’g Co. v. Fata Aluminum, Inc.*, 278 F.3d 1366, 1376 (Fed. Cir. 2002) (“The patentee bears the burden of proving its damages by a preponderance of the evidence.”); *Accord Del Mar Avionics, Inc. v. Quinton Instrument Co.*, 836 F.2d 1320, 1326–27 (Fed. Cir. 1987) (“In order to recover lost profits a patentee must show a reasonable probability that, but for the infringement, it would have made the sales that were made by the infringer The patent owner’s burden of proof is not an absolute one, although liability does not extend to speculative profits.”) (internal citations omitted).

conjecture.⁸⁴ However, as discussed in Section IV below, “[w]hen the amount of the damages is not ascertainable with precision, reasonable doubt is appropriately resolved against the infringer.”⁸⁵ This sentiment is echoed in cases of trademark and copyright infringement, as well as unfair competition.⁸⁶ For instance, in *William Wrigley, Jr., Co. v. L. P. Larson, Jr., Co.*,⁸⁷ the court was asked to determine what proportion of the defendant’s profit was due to the use of plaintiff’s trademark. The court found that such proportion could not be ascertained with any reasonable certainty.⁸⁸ Therefore, the court held that

it is more consonant with reason and justice that the owner of the trade-mark should have the whole profit than that he should be deprived of any part of it by the fraudulent act of the defendant. It is the same principle which is applicable to a confusion of goods. *If one wrongfully mixes his own goods with those of another, so that they cannot be distinguished and*

84. *Seymour v. McCormick*, 57 U.S. 480, 490 (1853) (“Actual damages must be actually proved, and cannot be assumed as a legal inference from any facts which amount not to actual proof of the fact The question is not what speculatively [the patentee] may have lost, but what actually he did lose.”); *Georgia-Pacific Corp. v. United States Plywood Corp.*, 243 F. Supp. 500, 512 (S.D.N.Y. 1965) (“[W]hile the damages may not be determined by mere speculation or guess, it will be enough if the evidence shows the extent of the damages as a matter of just and reasonable inference, although the result be only approximate.”).

85. *Del Mar Avionics*, 836 F.2d at 1327.

86. *William Wrigley, Jr., Co. v. L. P. Larson, Jr., Co.*, 5 F.2d 731, 739 (N.D. Ill. 1925) (“The rule governing the rights of parties and the rule as to the measure of recovery, in cases of infringement of patents and cases of unfair competition, are quite similar.”); *Sammons v. Larkin*, 38 F. Supp. 649, 654 (D. Mass. 1940) (finding that, although not all of defendant’s profits were attributable to material copied from the plaintiffs’ copyrighted works, the court held that defendant was liable for his entire net profit because he “made no attempt to show the extent of his contribution so that the profits could be separated”); *Szekely v. Eagle Lion Films, Inc.*, 140 F. Supp. 843, 850 (S.D.N.Y. 1956) (rejecting defendant’s request to reduce damages because “defendant made no effort to establish what part of the gross receipts were attributable to factors other than the [plaintiff’s] manuscript nor to establish any deductions from the gross receipts”); *Gaste v. Kaiserman*, 683 F. Supp. 63, 65 (S.D.N.Y. 1988) (confirming the jury’s findings that the defendant’s song “Feelings” infringed plaintiff’s copyright and that defendant was not entitled to an apportionment of profits because it “deliberately chose not to produce a single document from its books and records to substantiate any alleged expenses”).

87. 5 F.2d 731 (N.D. Ill. 1925).

88. *Id.* at 738–39. *Compare Westinghouse Elec. and Mfg. Co. v. Wagner Elec. and Mfg. Co.*, 225 U.S. 604, 620 (1912) (“The rule, however, is not intended to penalize the infringer, nor to give the patentee profits to which he is clearly not entitled In such cases, except possibly against one who has concealed or destroyed evidence or been guilty of gross wrong, the plaintiff’s recovery cannot exceed the amount thus proved, even though it be impossible otherwise more precisely to apportion the profits.”).

*separated, he shall lose the whole, for the reason that the fault is his; and it is but just that he should suffer the loss, rather than an innocent party, who in no degree contributed to the wrong.*⁸⁹

This wrongful mixing of goods can arise in cases where one commingles infringing and non-infringing parts within one product.⁹⁰ It may also arise in situations where one commingles records such that it is impossible to distinguish infringing and non-infringing products.⁹¹ As such, the confusion of goods doctrine can be instructive in dealing with cases involving inconsistent manufacturing processes. Section V provides a more in-depth exploration of the law in this area.

V. Confusion of Goods and Commingling of Records

The principle of confusion of goods was instituted to ensure that patentees would “not be penalized by the infringer’s failure to keep records necessary to compute damages.”⁹² Therefore, if a party commingles his goods such that they cannot be separated, that party may be liable for all of the goods.⁹³ If it is impossible for the patent

89. *William Wrigley, Jr., Co. v. L. P. Larson, Jr., Co.*, 5 F.2d 731, 739 (N.D. Ill. 1925) (emphasis added) (*quoting* *Hamilton-Brown Shoe Co. v. Wolf Bros. & Co.*, 240 U.S. 251, 261 (1916)).

90. *See, e.g.*, *Westinghouse Electric & Mfg. Co. v. Wagner Electric & Mfg. Co.*, 225 U.S. 604 (1912); *Computing Scale Co. v. Toledo Computing Scale Co.*, 279 F. 648 (7th Cir. 1921); *Carter Prods., Inc. v. Colgate-Palmolive Co.*, 214 F. Supp. 383 (D. Md. 1963).

91. *See, e.g.*, *Nickson Indus., Inc. v. Rol Mfg. Co.*, 847 F.2d 795 (Fed. Cir. 1988); *Hartford Natl. Bank & Trust Co. v. E.F. Drew & Co.*, 188 F. Supp. 353 (D. Del. 1960).

92. 7 Donald S. Chisum, *Chisum on Patents*, § 20.03[3][c][i], pp. 20-246 to 20-247 (2003). *See also* *National Car-Brake Shoe Co. v. Terra Haute Car & Mfg. Co.*, 19 F. 514, 519 (D. Ind. 1884) (stating that the principle of confusion of goods is applicable when “a party who mixes his goods with another man’s, so that they cannot be separated, is liable to lose his own goods with those that he commingles with them”). *See also* *Seeger Refrigerator Co. v. Am. Car & Foundry Co.*, 219 F. 565, 569 (3d Cir. 1915) (*quoting Westinghouse Elec. and Mfg. Co. v. Wagner Elec. and Mfg. Co.*, 225 U.S. at 618 (1912)) (stating that if it is impossible to make a separation of the profits, the doctrine of confusion of goods applies and “the law places the loss on the wrongdoer”).

93. *See, e.g.*, *Sheldon v. Metro-Goldwyn Pictures Corp.*, 309 U.S. 390, 405–06 (1940) (“Where there is a commingling of gains, [the infringer] must abide the consequences, unless he can make a separation of the profits so as to assure to the injured party all that justly belongs to him.”); *The Idaho*, 93 U.S. 575, 585–86 (1876) (“[I]f a man willfully and wrongfully mixes his own goods with those of another owner, so as to render them undistinguishable, he will not be entitled to his proportion, or any part, of the property . . . Such intermixture is a fraud.”); *Sensonics, Inc. v. Aerosonic Corp.*, 81 F.3d 1566, 1572 (Fed. Cir. 1996) (“When the calculation of damages is impeded by incomplete records of the infringer, adverse inferences are appropriately drawn.”); *Stryker Corp. v. Intermedics Orthopedics, Inc.*, 891 F. Supp. 751, 818 (E.D.N.Y. 1995) (“the risk of uncertainty in calculating damages is borne by the wrongdoer instead of the injured

owner to distinguish between infringing and non-infringing uses, then the burden shifts to the infringer to show what percentage of sales were not infringing.⁹⁴

The leading case relating to the principle of confusion of goods is *Westinghouse Electric & Mfg. Co. v. Wagner Electric & Mfg. Co.*⁹⁵ The case involved the infringement of Westinghouse's patent on a means of preventing overheating in electric transformers.⁹⁶ The defendant-infringer, Wagner, sold transformers containing all of the claimed elements, but added an additional feature.⁹⁷ After the lower courts determined that the additional feature was a valuable improvement, they held that Westinghouse, having failed to distinguish the profits generated from the infringing and non-infringing features of Wagner's transformers, was only entitled to nominal damages.⁹⁸

party"), *aff'd*, 96 F.3d 1409 (Fed. Cir. 1996); *Trans-World Mfg. Corp. v. Al Nyman & Sons, Inc.*, 633 F. Supp. 1047, 1056 (D. Del. 1986) ("Where an infringer's failure to keep complete and accurate records prevents a court from determining accurately the number of infringing units involved, any uncertainty must be resolved against the infringer.").

94. *Variable-Parameter Fixture Dev. Corp. v. Morpheus Lights, Inc.*, 1996 U.S. Dist. LEXIS 16753, *21-23 (S.D.N.Y. June 25, 1996) ("In patent infringement actions, the patent owner normally bears the burden of proof as to the amount of damages even after the fact of infringement has been proven. However, where it is impossible for the patent owner to apportion between infringing and non-infringing sales, the burden shifts to the infringer to show what percentage of its sales were not infringing [G]iven the circumstances in this case, it is fair to shift the burden of proof to defendants to establish that any portion of its revenues from the challenged lighting systems are attributable to non-infringing activity.") (internal citations omitted).

95. 225 U.S. 604 (1912). *See also* *Carter Prods., Inc. v. Colgate-Palmolive Co.*, 214 F. Supp. 383, 397 (D. Md. 1963); *Levin Bros. v. Davis Mfg. Co.*, 72 F.2d 163, 164 (8th Cir. 1934). The Court's opinion in the *Westinghouse* case was based under the old law, which allowed recovery of profits as well as damages. 225 U.S. at 614 ("Where the infringer has sold or used a patented article, the plaintiff is entitled to recover all of the profits."). Under the current law, the patentee is only entitled to "damages adequate to compensate for the infringement." 35 U.S.C. § 284.

96. *Westinghouse*, 225 U.S. at 614.

97. *Id.* at 616 ("The plaintiff proved its patent and that it had been infringed by the defendant in the manufacture of several thousand transformers which sold for \$955,000"; defendant then put forth evidence that the spaces added "were noninfringing and valuable improvements which had contributed to the making of the profits.").

98. *Id.* at 614 ("The writ was issued in view of the holding that, though the Master found that the defendant had made a profit of \$132,000 from the sale of infringing transformers, the plaintiff could yet only recover \$1 because it failed to separate profits made by its patent from those made by the defendant's addition.") and 622 (stating that the lower court "found that the defendant's additions were not infringements and had contributed to the profits, and that because of the failure to make a separation of profits the plaintiff was entitled only to nominal damages").

In its reversal and remand of the case, the United States Supreme Court set forth several guidelines for later courts to follow. First, the Court made it clear that

the burden is on the plaintiff patentee to prove profits; having done so, he is entitled to all the profits made from the sale of the infringing articles or devices, unless . . . the defendant infringer assumes the burden of showing that part of the profit is attributable to features other than those covered by the patent.⁹⁹

In other words, once the plaintiff has proven its case, “[t]he defendant ha[s] the right either to disprove the plaintiff’s case or to offer evidence in mitigation, or both.”¹⁰⁰ If defendant presents such evidence, then the burden shifts back to the patentee to either prove the proper apportionment or that “the infringer, by commingling the elements, has rendered it impossible for the patentee to meet the requirement of apportionment.”¹⁰¹ If the patentee is successful, the burden shifts back to the defendant to introduce evidence regarding the proper apportionment.¹⁰² “The rule of law and equity is strict and severe on such occasion All the inconveniences of the confusion is thrown upon the party who produces it, and it is for him to distinguish his own property or lose it.”¹⁰³

Following this instruction, the court, in *Carter Prods., Inc. v. Colgate-Palmolive Co.*, found that Colgate “so commingled the elements” of plaintiffs’ patented invention and trade secret for a pressurized shaving cream that it was “impossible for plaintiffs to

99. *Carter Prods.*, 214 F. Supp. at 397. See *Westinghouse*, 225 U.S. at 616 (“The plaintiff proved its patent and that it had been infringed by the defendant in the manufacture of several thousand transformers,” for which “defendant had netted \$132,000.”).

100. *Westinghouse*, 225 U.S. at 616.

101. *Carter Prods.*, 214 F. Supp. at 397. See also *Westinghouse*, 225 U.S. at 617–18 (stating that, if non-infringing improvements are found, “the burden of apportionment” should logically be placed on the plaintiff because plaintiff is “only entitled to recover such part of the commingled profits as [are] attributable to the use of its invention” and finding that “the act of the defendant had made it not merely difficult but impossible to carry the burden of apportionment”).

102. *Carter Prods.*, 214 F. Supp. at 397 (“[I]f the patentee introduces proper evidence to show such confusion, it then devolves upon the infringer to introduce evidence of a proper apportionment.”).

103. *Westinghouse*, 225 U.S. at 621–22 (citing *Hart v. Ten Eyck*, 2 Johns. Ch. (N.Y.) 62 (N.Y. Ch. 1816)).

make an apportionment.”¹⁰⁴ And, since Colgate could not provide evidence relating to the proper apportionment, the court held that the plaintiffs were entitled to all of Colgate’s profits.¹⁰⁵ In support of this decision, the court stated that “[w]here there is a commingling of gains, [the infringer] must abide the consequences, unless he can make a separation of the profits so as to assure to the injured party all that justly belongs to him.”¹⁰⁶

Similarly, in *Computing Scale Co. v. Toledo Computing Scale Co.*, the Seventh Circuit, citing to *Westinghouse*, stated that

If a manufacturer, *knowing of a patent*, decides to chance an unlicensed use, he should realize that he may be caught by a final decree on the merits and be ordered to respond accordingly; and, so realizing, he should be held to the duty of keeping separate and accurate records of all his infringing acts; and, on his failure to keep such records, the court, in measuring the damages on account of his trespasses, should resolve all doubts against him.¹⁰⁷

The court further stated that

[i]f a defendant satisfactorily states his profits from the infringing device, but contends that only a part thereof is attributable to the invention, he might well be required to allege in his account, taken as a verified pleading, the grounds on which he claims apportionment of profits, and his proofs should be limited to the averments.¹⁰⁸

104. *Carter Prods.*, 214 F. Supp. at 399 (finding that it was “impossible to make such apportionment, not only because Colgate’s books were not kept to show it, but also because, as the Master found, the superfatting ingredients called for by the 12(c) secret became an integral part of a unitary product and added commercial value to the product as a whole”).

105. *Id.* at 400.

106. *Id.* at 399. *Accord Westinghouse*, 225 U.S. at 620 (“On established principles of equity, and on the plainest principles of justice, the guilty trustee cannot take advantage of his own wrong. The fact that he may lose something of his own is a misfortune which he has brought upon himself . . .”); *Hartford Nat’l. Bank & Trust Co. v. E.F. Drew & Co.*, 188 F. Supp. 353, 355 (D. Del. 1960) (“[P]laintiff argued that it was entitled to defendant’s entire gross profits because of commingling the processed product (covered by the patent) with other products sold by defendant and which made it impossible to apportion defendant’s profits from its total sales of all its products.”). In *Hartford*, the court computed the reasonable royalty based on the total sales figure. *Id.* at 360.

107. *Computing Scale*, 279 F. at 673 (emphasis added). The role of the infringer’s intent is explored further below in the discussion regarding *National Car-Brake Shoe Co. v. Terra Haute Car & Mfg. Co.*, 19 F. 514, 519–20 (D. Ind. 1884).

108. *Id.* at 674.

Based on these accounts, the confusion of goods doctrine seems quite beneficial for patentees. However, there is a clear limit to its application—the doctrine does not apply when it is “merely difficult” for the plaintiff-patentee to discover facts that would enable it to separate the commingled devices.¹⁰⁹ For example, in *Nickson Indus., Inc. v. Rol Mfg. Co.*, the plaintiff-appellant asserted that a document produced in litigation (PX-1009) did not provide reasonable estimates of defendant-appellee’s sales of infringing and noninfringing hangers marketed under the same name (TPH-20).¹¹⁰ In this case, despite the plaintiff-appellant’s assertion, the Federal Circuit affirmed the lower court’s determination that only 41percent of defendant-appellee’s hanger sales were infringing.¹¹¹ In making its determination, the Federal Circuit stated that

We agree that where it is “impossible to make a mathematical or approximate apportionment” between infringing and noninfringing items, the infringer must bear the burden and the entire risk. That is not this case, however. PX-1009 contains a mathematical formula, based on the weight difference between the infringing and noninfringing versions of TPH-20, and calculates the number of infringing TPH-20 hangers from the weight of raw material purchased and the total hangers sold. Nickson has identified no flaw that would have precluded the district court from relying on that analysis as a “reasonable approximation,” and in requiring Nickson to show otherwise.¹¹²

Thus, if there is a reasonable method to apportion between infringing and noninfringing products, then the court will do so.

109. *Seeger Refrigerator*, 219 F. at 568–69 (citing *Westinghouse*, 225 U.S. at 622). The Supreme Court, in *Westinghouse*, understood that

[i]t may be argued that . . . this is but another way of saying that the burden of proof is on the defendant. And no doubt such, in the end, will be the practical result in many cases. But such burden is not imposed by law; nor is it so shifted until after the plaintiff has proved the existence of profits attributable to his invention and demonstrated that they are impossible of accurate or approximate apportionment. If then the burden of separation is cast on the defendant it is one which justly should be borne by him, as he wrought the confusion.

225 U.S. at 622.

110. 847 F.2d 795, 799 (Fed. Cir. 1988).

111. *Id.*

112. 847 F.2d at 799 (internal citations omitted).

As *Computing Scale* suggests, intent can also play a role in a court's determination of whether to apply the principle of confusion of goods. For example, in *National Car-Brake Shoe Co. v. Terra Haute Car & Mfg. Co.*, the court provided the following instruction to the jury regarding the confusion of goods doctrine:

If a party shows an unwillingness to let the truth out, and keeps back facts, and the means of getting at facts in his power, then the jury is warranted in drawing the strongest possible inferences which may be drawn from the evidence actually given in favor of the other party. . . . But if they have brought forward their books, and furnished all the evidence in their power, and have been fairly candid in the matter, as much so as men may reasonably be expected to be when their interests are heavily at stake, you would not be justified in drawing any inferences, other than such as may fairly be drawn from the evidence adduced. . . . It is only when a man consciously does wrong, and so does it as to conceal the facts, that he is subject to such criticism and to this harsh rule of evidence.¹¹³

Ultimately, the determination of whether to apply the principle of confusion of goods may come down to the role of the parties in the litigation. As the Supreme Court explained in *Westinghouse*, “[o]ne party or the other must suffer. The inseparable profits must be given to the patentee or infringer. The loss had to fall on the innocent or the guilty. In such an alternative, the law places the loss on the wrongdoer.”¹¹⁴

VI. Conclusion: Proving Infringement and Damages in Cases Involving Inconsistent Manufacturing Processes

Returning to the hypothetical posed above, Astral Technologies and Illusion Beverages are engaged in patent litigation involving beverage products. Alerted that its patented invention might be infringed, Astral collected and tested representative samples of Illusion's products according to standard practices and procedures, and determined that Illusion's products met all of the elements of

113. *National Car-Brake Shoe Co. v. Terra Haute Car & Mfg. Co.*, 19 F. 514, 520 (D. Ind. 1884). Thereafter, the court instructed the jury that the principle of confusion of goods did *not* apply in that case: “If there is any confusion, it is confusion in the book-keeping, and not of the goods. The brakes could not be mixed; one brake is always separable from another; and the burden is upon the plaintiff to show how many articles were made in infringement of its patent; and the plaintiff is entitled to recover for the infringement of only such number as upon the evidence you are satisfied were made by the defendants.”

114. *Westinghouse*, 225 U.S. at 618–19.

Astral's asserted patent claims. Because it would be physically and economically impractical, if not impossible, for Astral to test beverages from every Illusion manufacturing plant, the representative sampling would normally be sufficient to fulfill Astral's burden of proof on the issue of infringement.¹¹⁵

However, during litigation, Illusion asserted that, while some of its plants might manufacture infringing products, other plants clearly do not. Essentially, Illusion's claim was that some of its beverages are manufactured in a different manner, resulting in a mixture of infringing and non-infringing products. What happens next? As is often the case in law, it depends.

As discussed above, once the patentee meets its initial burden, the burden should shift to the accused infringer to refute the patentee's infringement case.¹¹⁶ In order to successfully refute the patentee's case, the accused infringer must present evidence—not just conjecture—that the test results for the representative samples should not be extrapolated to the entire product line or that the accused products should be apportioned in a certain manner.¹¹⁷

In light of these guidelines, Astral's representative sampling should be sufficient to fulfill Astral's initial burden of proof, thereby shifting the burden to Illusion to refute the infringement findings. Whether or not Illusion will be successful in refuting Astral's findings will depend on whether the infringing and non-infringing beverages can be apportioned.

If Illusion, like the defendant-accused infringer in the *Tate* case,¹¹⁸ merely relies on unsupported contentions that “some” of its beverages are not infringing due to, for example, quality control problems, then the court should extrapolate Astral's representative sampling to Illusion's entire product line. The rationale behind such burden-shifting is based on the court's acceptance of circumstantial evidence and adverse

115. See *San Huan New Materials High Tech, Inc. v. U.S. Int'l. Trade Comm'n.*, 161 F.3d 1347, 1363–64 (Fed. Cir. 1998) (stating that the plaintiff-patentee “could not be expected to have test data” on every product from every lot and “was not required to test every [product], and that it would have been impossible for [the plaintiff-patentee] to have done so . . .”).

116. See, e.g., *SRI*, 775 F.2d at 1123–24; *Ecolab*, 98 F. Supp. 2d at 583.

117. See *Ecolab*, 98 F. Supp. 2d at 586 (granting summary judgment on infringement in favor of the plaintiff-patentee because the defendant-accused infringer did not point to “any evidence to contradict the finding that the other elements of [the asserted claim] read on the [accused] products”).

118. *Midland-Ross Corp. v. Yokana*, 185 F. Supp. 594, 597 n.7 (D.N.J. 1960).

inferences to prove infringement by a preponderance of the evidence.¹¹⁹ Equity also plays a large part in the analysis, as fairness requires that if the patentee's inability to apportion between infringing and non-infringing products is caused by the accused infringer, such risk should be borne by the accused infringer, not the patentee.¹²⁰ Such inability may result from, for example, the accused infringer's concealment or destruction of evidence or, simply, its failure to keep complete or accurate records. Therefore, if Astral is unable, without testing every Illusion beverage, to determine which products are and are not infringing, then the court should hold Illusion accountable, and extend Astral's representative sampling to Illusion's entire product line.

If, however, Illusion can point to specific, documented differences in the beverages produced at certain plants (e.g., water hardness; upgraded blenders/mixers) that would cause those products to fall outside Astral's claim scope, then Illusion will have refuted Astral's initial findings and shifted the burden back to Astral where those beverages are concerned. At that point, Astral would have to conduct testing of products in the affected plants.

In this respect, the infringement and damages analyses are essentially the same. If the patentee has taken the steps outlined above and the accused infringer has been unable to refute the patentee's infringement case, then the court should view the entire product line as infringing and award damages accordingly. If, however, the accused infringer submits evidence showing the proper apportionment of infringing and non-infringing products, the court should only award damages for the infringing products. Consequently, when inconsistent manufacturing processes are involved, parties can expect the courts to shift the burden back and forth between the patentee and accused infringer as new evidence is submitted.

119. See, e.g., *Centricut*, 390 F.3d at 1367 (setting preponderance of the evidence standard); *Liquid Dynamics*, 449 F.3d at 1219 (making evidentiary inferences and approving the use circumstantial evidence).

120. See, e.g., *Automotive Parts*, 81 F.2d at 127–28 (discussing rationale for shifting burden in repair/reconstruction case); *Westinghouse*, 131 F.2d 406, 409 (same); *Del Mar Avionics*, 836 F.2d at 1327 (“[W]hen the amount of the damages is not ascertainable with precision, reasonable doubt is appropriately resolved against the infringer.”); *William Wrigley, Jr., Co. v. L. P. Larson, Jr., Co.*, 5 F.2d at 739 (N.D. Ill. 1925) (“[I]f one wrongfully mixes his own goods with those of another, so that they cannot be distinguished and separated, he shall lose the whole, for the reason that the fault is his.”); *Sheldon*, 309 U.S. at 405–06 (“Where there is a commingling of gains, [the infringer] must abide the consequences, unless he can make a separation of the profits so as to assure to the injured party all that justly belongs to him.”).