

SAMSUNG V. APPLE: THE ILL-FATED INTRODUCTION OF APPORTIONMENT-BY- COMPONENT FOR DESIGNS

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I. INTRODUCTION

In *Samsung v. Apple*,¹ the sprawling, high-stakes dispute² between the two titans of the smartphone industry³ finally reached the Supreme Court. For the first time in over a century, the Court faced a case involving design patents, the lesser-known brother of utility patents that protects ornamental designs rather than functional inventions.⁴ The Court had to decide whether Apple should have been awarded the total profits from infringing Samsung phones and tablets.⁵ If affirmed, these total profits, totaling over \$400 million, would be awarded even though Apple's infringed design patents only protected the phone's front rectangular face, rounded corners, beveled screen, and graphical user interface.

The Supreme Court, in a short decision, awarded a measure of relief for Samsung. The Court arrived on a textual solution that complied with the statutory language of 35 U.S.C. § 289, the special remedy for design patent infringement, but also ignored a clear, judicially recognized congressional intent against apportionment. In doing so, the Court ushered in a new

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1. *Samsung Elecs. Co. v. Apple Inc.*, 137 S. Ct. 429 (2016).

2. See Florian Mueller, *Apple vs. Samsung: List of All 19 Lawsuits Going on in 12 Courts in 9 Countries on 4 Continents*, FOSS PATENTS (Aug. 20, 2011), <http://www.fosspatents.com/2011/08/apple-vs-samsung-list-of-all-19.html> [<https://perma.cc/26RK-EENK>] (listing the nineteen ongoing lawsuits in nine different countries between Samsung and Apple in August 2011).

3. See *Manufacturers' Market Share of Smartphone Subscribers in the United States from 2013 and 2017, by Month*, STATISTA, <https://www.statista.com/statistics/273697/market-share-held-by-the-leading-smartphone-manufacturers-oem-in-the-us> [<https://perma.cc/AH7J-YMTB>] (showing Samsung and Apple holding from fifty-nine to seventy-five percent of the US smartphone market between 2013 and 2017, as measured by number of smartphone subscribers).

4. See Petition for a Writ of Certiorari at 1, *Samsung Elecs. Co. v. Apple Inc.*, 137 S. Ct. 429 (2016), 2015 WL 9184827 [hereinafter Petition for a Writ of Certiorari].

5. *Apple*, 137 S. Ct. at 433.

apportionment-by-component regime to the world of design patents, declaring that the total profits should be derived not necessarily from the final product sold to consumers, but from a component of the product to which the patented design had been applied.⁶

This Note examines the path taken by the Supreme Court in *Samsung v. Apple* and its fallout. It explains why the Court's decision was lacking and how deferring to congressional action could have produced a clearer path forward for design patent remedies. Then, the Note discusses how to best move forward by addressing the new test for identifying the relevant article of manufacture. Part II provides the legal background of design patents and the history of § 289, the additional remedy for design patent infringement. Part III summarizes the ongoing legal struggle, from the Northern District of California up to the Supreme Court and back. Part IV discusses the difficult situation in which the Supreme Court found itself, examines the Court's textual argument for introducing a quasi-apportionment regime, and considers whether rejecting apportionment and prompting congressional action might have been the better solution. Part V analyzes the strengths and weaknesses of a newly developed test for identifying the relevant article of manufacture, which was introduced by the district court on remand. Finally, Part VI provides concluding thoughts.

II. LEGAL BACKGROUND

A. AN INTRODUCTION TO DESIGN PATENTS

Design patents offer property rights over any “new, original, and ornamental design for an article of manufacture.”⁷ Using design patents, designers can protect iconic designs like the Coca-Cola bottle,⁸ the Statue of Liberty,⁹ the Fender electric guitar,¹⁰ and even elements of an iPhone.¹¹ In many ways, a design patent is not much different from its more popular brother, the utility patent. Like utility patents, design patents are granted by the United States Patent and Trademark Office (USPTO), codified under the same title—Title 35—of the United States Code, and subject to many of the same statutory provisions.¹² The primary difference is the protected subject matter:

6. *Id.*

7. 35 U.S.C. § 171 (2012).

8. U.S. Patent No. D48,160.

9. U.S. Patent No. D11,023.

10. U.S. Patent No. D164,227.

11. *See* U.S. Patent No. D618,677; U.S. Patent No. D593,087; U.S. Patent No. D618,677; U.S. Patent No. D604,305.

12. 35 U.S.C. § 171(b) (2012) (stating that “the provisions of this title relating to patents

utility patents protect useful, functional inventions and design patents protect ornamental designs.¹³

To obtain a design patent, the designer must file an application with the USPTO and pass a pre-grant examination where the designer must show that the design is novel and nonobvious.¹⁴ However, design patents usually only receive a cursory pre-grant examination and are granted far more readily than utility patents.¹⁵

Statutory language restricts the design patentable subject matter to *ornamental* designs for an article of manufacture.¹⁶ The ornamentality requirement precludes the protection of primarily functional designs, or designs “dictated by” their function,¹⁷ preventing design patents from claiming rights over a useful invention that should be judged as a utility patent. Thus, a design patent cannot be “essential to the use of the article” and the existence of “several ways to achieve the function of an article of manufacture” leads courts to judge the design as primarily ornamental.¹⁸

A granted design patent consists primarily of a title, one claim, and most importantly, diagrams of the design.¹⁹ The one claim uses standard, form language to indicate that the patent claims the ornamental design depicted in the diagrams.²⁰ The diagrams are drawn with solid and broken lines: solid lines indicating the protected, ornamental elements and broken lines representing unclaimed portions.²¹

Design patents were first introduced in 1842 to respond to a rising wave

for inventions shall apply to patents for designs, except as otherwise provided”).

13. Compare 35 U.S.C. § 101 (2012), with 35 U.S.C. § 171(b) (2012) (contrasting new, useful, inventions with new, original ornamental designs).

14. See *Design Patent Application Guide*, U.S. PATENT & TRADEMARK OFFICE, <https://www.uspto.gov/patents-getting-started/patent-basics/types-patent-applications/design-patent-application-guide#laws> [<https://perma.cc/Z4K9-BCKH>] [hereinafter *PTO Guide*] (describing the utility patent law requirements that also apply to design patents).

15. See Dennis Crouch, *Design Patents: Sailing Through the PTO*, PATENTLY-O, (Apr. 2, 2009), <https://patentlyo.com/patent/2009/04/design-patents-sailing-through-the-pto.html> [<https://perma.cc/6X2S-MRQC>] (contrasting the over 80% of utility patent applications that are initially rejected in prosecution to the 25.6% in design patents based on author’s sample); see also Janice M. Mueller & Daniel Harris Brean, *Overcoming the “Impossible Issue” of Nonobviousness in Design Patents*, 99 KY. L. J. 419, 423–27 (2011) (discussing the USPTO’s inattention to the nonobviousness requirement).

16. See 35 U.S.C. § 171 (2012).

17. *L.A. Gear, Inc. v. Thom McAn Shoe Co.*, 988 F.2d 1117, 1123 (Fed. Cir. 1993).

18. *Id.* at 1123–24.

19. See *PTO Guide*, *supra* note 14.

20. 37 C.F.R. § 1.153 (2012).

21. See *PTO Guide*, *supra* note 14 (in the section discussing “Broken Lines”).

of design piracy that began to affect the American metal and textile industries,²² and to “fill the interstices left by copyright, trademark, and utility patent law.”²³ Thus, design patents, trade dress, and copyright overlap, giving design owners flexibility to choose between the multiple regimes.²⁴ One appealing aspect of design patents over the other protection regimes is the availability of total profits as damages in an infringement case. Unlike copyright and trade dress owners, design patent owners can receive the total profits from a product once some or all of that product has been found to infringe on a patented design. To understand this extraordinary remedy, we must look to 35 U.S.C. § 284, the general provision for damages for patent infringement, and 35 U.S.C. § 289, the special remedy for design patents.

1. *An Introduction to § 284*

35 U.S.C. § 284 rewards a patent owner with 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.”²⁵ The statute provides for two types of damages. The first is the lost profits that the patent owner would have earned had the infringer not infringed. Second, if lost profits cannot be sufficiently proven, the patent owner can recover a reasonable royalty, the amount that would have been set in a hypothetical negotiation between a willing patent owner and a willing licensee before infringement began.²⁶

There is rich jurisprudence behind § 284 and the calculation of lost profits or reasonable royalty, but this Note focuses on the facets related to causation and apportionment principles. In the calculation of lost profits, a patent owner must establish a factual basis for causation—“that but for the infringer’s improper acts, [the patent owner] would have made greater sales, charged higher prices, or incurred lower expenses.”²⁷ Linked to causation is the apportionment requirement, which requires that damages be apportioned to account for only the value of the patented invention and not unpatented elements included in the final product.²⁸

An example of the causation and apportionment requirements lies in the

22. Jason J. Du Mont & Mark D. Janis, *The Origins of American Design Patent Protection*, 88 IND. L.J. 837, 848–55 (2013) (describing growing design piracy in the cast-iron goods industry and in the calico print industry).

23. See Peter Lee & Madhavi Sunder, *Design Patents: Law Without Design*, 17 STAN. TECH. L. REV. 277, 279 (2013).

24. *Id.* at 282–85.

25. 35 U.S.C. § 284 (2012).

26. 7-20 DONALD S. CHISUM, CHISUM ON PATENTS § 20.07 (2017).

27. *Id.* § 20.05.

28. *Id.*

calculation of a reasonable royalty. To calculate a reasonable royalty, a determination of the royalty *base* and a royalty *rate* is made, and the product of the two factors is equal to the reasonable royalty.²⁹ The royalty base refers to some “revenue pool implicated by the infringement,” while the royalty rate is the “percentage of that pool ‘adequate to compensate’ the plaintiff for that infringement.”³⁰ Section 284’s “adequate to compensate” language indicates that damages must be causally linked to the to the actual damage inflicted by the infringement and apportioned to exclude the value of unpatented elements.³¹ In stark contrast, § 289 awards total profit without the need for apportionment or causation.

2. *The “Total Profit” Remedy of § 289*

Although the § 284 remedy is available to utility and design patent owners alike, it is rarely invoked by design patent owners. Instead, they rely on § 289, which provides a powerful remedy available only to design patents owner. 35 U.S.C. § 289 states:

Whoever during the term of a patent for a design, without license of the owner, (1) applies the patented design, or any colorable imitation thereof, to any article of manufacture for the purpose of sale, or (2) sells or exposes for sale any article of manufacture to which such design or colorable imitation has been applied shall be liable to the owner to the extent of his total profit, but not less than \$250, recoverable in any United States district court having jurisdiction of the parties.

This extraordinary remedy awards the *total profit* made from the sale of any *article of manufacture* which has *applied* a patented design. Utility patent holders who must seek a reasonable royalty would drool at the prospect of total profit disgorgement. To see why Congress explicitly created such a powerful remedy specifically for design patents owners, we must look to the inception of § 289.

29. Zelin Yang, *Damaging Royalties: An Overview of Reasonable Royalty Damages*, 29 BERKELEY TECH. L.J. 647, 666–68 (2014) (describing the evolution of the calculation of the royalty base and royalty rate).

30. *Cornell Univ. v. Hewlett-Packard Co.*, 609 F. Supp. 2d 279, 286 (N.D.N.Y. 2009).

31. *See* Yang, *supra* note 29, at 649–57.

3. *The History Behind* § 289

a) The Carpet Cases

A pair of Supreme Court cases, *Dobson v. Hartford*³² and *Dobson v. Dornan*³³ (“the Carpet Cases”), prompted Congress to enact stronger protections for design patents. In these cases, four separate claims of design patent infringement against the Dobson brothers, who ran a carpet manufacturing operation in Philadelphia, were consolidated into two trials.³⁴ The plaintiffs, manufacturing firms from New England, accused the Dobson brothers of rampant, willful infringement of their protected carpet designs, and in each case, the Dobson brothers were quickly found liable.³⁵ Unfortunately for the New England firms, the Dobson brothers claimed to be selling their carpets at a loss, so there was no award of infringers’ profits to collect.³⁶ Instead, the New England firms had to argue that they should be compensated for the profit lost from losing carpet sales to the Dobson brothers.³⁷

In another unfortunate turn for the plaintiffs, Justice Blatchford, a proponent of apportionment for damages in utility patent cases, wrote the opinions in both cases.³⁸ Justice Blatchford stated that the entire profits from the manufacture of a carpet should not be awarded “unless it is shown, by reliable evidence, that the entire profit is due to the figure of the pattern.”³⁹ Justice Blatchford concluded that “to allow the patentee to collect the ‘entire profit’—would be to confound all distinctions between cause and effect.”⁴⁰ Thus, the Court only awarded nominal damages, six cents, after finding that the plaintiffs had not met their burden of proving what portion of the lost profits was attributable to the protected designs versus other aspects of the carpet.⁴¹

32. 114 U.S. 439 (1885).

33. 118 U.S. 10 (1886).

34. *Hartford*, 114 U.S. at 440–41; *Dornan*, 118 U.S. at 12.

35. Jason J. Du Mont & Mark D. Janis, *American Design Patent Law: A Legal History*, Ch. 6—*Design Patent Remedies* 1, 11–14 (Ind. Legal Studies Research Paper No. 343, 2016), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2784746 [https://perma.cc/BC4J-CEC9].

36. *See Hartford*, 114 U.S. at 442–43; *Dornan*, 118 U.S. at 12–13.

37. *See Hartford*, 114 U.S. at 442–43; *Dornan*, 118 U.S. at 12–13.

38. *See* DuMont & Janis, *supra* note 35, at 23 (describing Justice Blatchford as the “architect of the apportionment rule”).

39. *Hartford*, 114 U.S. at 444.

40. *Id.*

41. *See Hartford*, 114 U.S. at 444–47; *Dornan*, 118 U.S. at 16–18.

b) Congress Responds: The Act of 1887

The response to the Carpet Cases was swift.⁴² Lower courts began requiring evidence of apportioned value before rewarding lost profits with little sympathy for the difficulties in producing such evidence.⁴³ Thus, much of the protection offered by design patents was defanged. In response, the textile industry, which had an outsize influence on the design patent regime, lobbied for congressional action.⁴⁴

Before long, the House and Senate introduced two identical bills that looked to overturn the apportionment rule for design patents.⁴⁵ The proposed bills offered minimum statutory damages of \$250, which would provide relief against infringers, like the Dobson brothers, who claimed to be operating at a loss.⁴⁶ In addition, the proposed bill offered recovery of damages “in an amount equal to the total amount of the profit made by” the infringer, offering relief from the evidentiary problems regarding apportionment that plagued the design patent holders following the Carpet Cases.⁴⁷

The Senate and House Reports accompanying the two bills offer a view of the congressional intent. Senators argued that as a result of the Carpet Cases, design patents “provide[d] no remedy for a consummated infringement” and cited the precipitous decline of design patent issuances, which had fallen by half.⁴⁸ In addition, the Senate report reflected the belief that design patent rights were unique and needed exceptional protections “on account of their peculiar character” and also recognized the difficulty of determining the value of designs, which were “as short-lived as the caprice of purchasers.”⁴⁹

Most importantly, the House Report explicitly rejected the use of an apportionment rule, stating that “otherwise none of [the] profit [could] be recovered, for it is not apportionable.”⁵⁰ The report reasoned that the entire profit was mandated as “it is the design that sells the article, and so that makes it possible to realize any profit at all.”⁵¹ At the time, most design patents protected textiles, so Congress considered total profits the appropriate remedy

42. See DuMont & Janis, *supra* note 35, at 30.

43. See *id.* at 27–28.

44. *Id.* at 12. (indicating that between 1870 to 1880, about 45% of granted design patents were related to carpets and rugs).

45. S. 1034, 49th Cong. (1st Sess. 1886); H.R. 5570, 49th Cong. (1st Sess. 1886).

46. DuMont & Janis, *supra* note 35, at 31–32.

47. *Id.*

48. S. REP. NO. 206, at 1 (1886).

49. *Id.* at 2.

50. *Id.*

51. *Id.*

because the designs were the central driver of consumer demand.⁵² After little debate, the bill passed by a 70-10 margin on February 4, 1887.⁵³ The language of the bill remained intact when it was incorporated into the revised patent statute as § 289 in 1952.⁵⁴

4. *Section 289 Jurisprudence*

Courts have had ample time since the passage of the Act of 1887 to interpret the total profits remedy for design patent infringement. Until *Apple v. Samsung*, the courts had followed the congressional intent against apportionment, acknowledging the Carpet Cases, the congressional response to those cases, and awarding the total profits from an article of manufacture that applied an infringing design.⁵⁵

The courts had accepted that “total profit” means the entire profits derived from an infringing article of manufacture.⁵⁶ The relevant article of manufacture under § 289 has almost always been understood to be the final product sold to consumers, even for multi-component products.⁵⁷ Owing to the near unanimity of § 289 jurisprudence, the Supreme Court had not considered any case regarding § 289 before the battle between Samsung and Apple.

III. *APPLE V. SAMSUNG*

A. THE DISTRICT COURT AND FEDERAL CIRCUIT

In April 2011, Apple sued Samsung for utility patent infringement, design patent infringement, and trade dress dilution over the iPhone.⁵⁸ The trial commenced in July 2012 and culminated in three days of jury deliberation. The jury found that Samsung had infringed on Apple’s utility patents, design

52. See *DuMont & Janis*, *supra* note 35, at 36–37.

53. *Id.* at 41.

54. See *Patent Law Codification and Revision: Hearings on H.R. 3760, 82nd Cong., 1st Sess. 109–10* (1951) (statement of P. J. Federico, U.S. Patent Office).

55. See *Nike, Inc. v. Wal-Mart Stores, Inc.*, 138 F.3d 1437, 1441–42 (Fed. Cir. 1998) (detailing the difficulties of apportionment in design cases, and the history of § 289 including the Carpet cases and the resulting Act of 1887 that provided for total disgorgement of infringer’s profits).

56. See, e.g., *Untermeyer v. Freund*, 58 F. 205, 212 (2d Cir. 1893); *Braun Inc. v. Dynamics Corp. of Am.*, 975 F.2d 815, 824–25 (Fed. Cir. 1992); *Nordock, Inc. v. Systems, Inc.*, 803 F.3d 1344, 1354–55 (Fed. Cir. 2015).

57. See, e.g., *Nordock*, 803 F.3d at 1354–55; *Nike*, 138 F.3d at 1441–42. *But see* *Bush & Lane Piano Co. v. Becker Bros.*, 222 F. 902, 902–06 (2d Cir. 1915) (the only case where the court recognized a product not sold to consumers, a piano case, as the relevant article of manufacture; however, the factual situation was unique as piano purchasers could have the piano placed in one of several available piano cases).

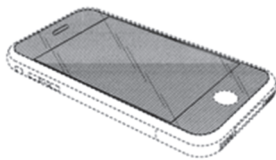
58. *Apple Inc. v. Samsung Elecs. Co.*, 786 F.3d 983, 989 (Fed. Cir. 2015).

patents, and trade dress.⁵⁹ As a result, the jury awarded approximately \$1.049 billion in damages, the largest jury award involving patent infringement in the United States at the time.⁶⁰

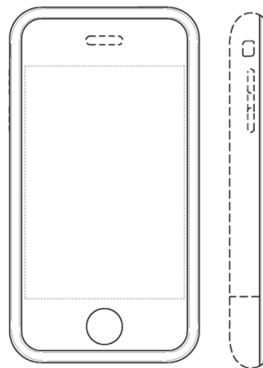
One contentious issue at trial involved the jury instructions for determining design patent infringement.⁶¹ Apple had three design patents that were found to be infringed: the D618,677 patent (the D'677 patent), which covered a black, rectangular face of a phone with rounded corners, the D593,087 patent (the D'087 patent), which covered a rectangular face of a phone with rounded corners and a raised rim, and the D604,305 patent (the D'305 patent), which covered a graphical user interface comprising of colorful square icons on a black screen.⁶²

Figure 1

The D'677 Patent



The D'087 Patent



The D'305 Patent



Since design patents can only protect the *ornamental* aspect of designs, Samsung wanted it made clear that the jury was to distinguish between the protected ornamental designs and the unprotected conceptual or functional features.⁶³ Samsung offered evidence that the rounded corners served to make the phone easier to slip into one's pocket and that the raised rim served to protect the phone from damage from impacts.⁶⁴ However, the district court

59. *Id.*

60. Christopher V. Carani, *Apple v. Samsung: Design Patents Take Center Stage*, 5 LANDSLIDE 25, 25 (2013).

61. *See Apple*, 786 F.3d at 998–1001.

62. *Apple Inc. v. Samsung Electronics Co.*, No. 11-CV-01846-LHK, 2017 WL 3232424, at *17 (N.D. Cal. July 28, 2017).

63. *Apple*, 786 F.3d. at 998.

64. *See* Petition for a Writ of Certiorari, *supra* note 4, at 15 (citing Samsung's un rebutted evidence that rounded corners improved “pocketability” and that the bezel keeps the glass from hitting the ground when dropped).

declined to make such a distinction as infringement is based only on whether the overall appearance of the iPhone and the Samsung counterparts were substantially similar.⁶⁵ Based on overall appearance, the jury found that Samsung had infringed.⁶⁶ After a battle over improper notice dates on a few of Apple's patents, which required a partial retrial for patent damages, the final judgment came to just over \$900 million.⁶⁷

Samsung appealed to the Federal Circuit, which examined Apple's trade dress infringement claims as well as the case for design patent infringement. The Federal Circuit awarded Samsung a victory by vacating the jury verdict as to Apple's trade dress claims.⁶⁸ The Federal Circuit found that Apple's registered and unregistered trade dress were functional and not protectable under Ninth Circuit law.⁶⁹

However, the finding of functionality that invalidated Apple's trade dress claims did not also doom their design patent infringement claims, which requires a higher threshold for finding a design patent functional and thus invalid.⁷⁰ The court held that the district court had been correct in instructing the jury to compare the overall appearance. Even when a design patent included unprotected functional elements, the district court need not "eliminate entire elements from the claim scope."⁷¹ Thus, the Federal Circuit upheld the finding of design patent infringement.⁷²

In the matter of damages, Samsung argued that the district court legally erred in allowing the jury to award Samsung's entire profits from the infringing smartphones as damages.⁷³ Samsung claimed that the damages should have been limited to the profits attributable to the infringement, since consumers chose Samsung based on a host of other factors besides the infringing design.⁷⁴

The Federal Circuit flatly rejected Samsung's apportionment theory, holding that "the clear statutory language [of § 289] prevents us from adopting

65. See *Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665, 678 (Fed. Cir. 2008).

66. See *Petition for a Writ of Certiorari*, *supra* note 4, at 16.

67. See *Apple*, 2017 WL 3232424, at *2.

68. See *Apple*, 786 F.3d. at 995–97.

69. *Id.*

70. See Matthew A. Smith, *Design Patents*, PATENTLY-O (Ed. 0.9 Prelim. Draft for Comment, 2012), https://patentlyo.com/media/docs/2012/12/2012-12-17_design_patents.pdf [<https://perma.cc/5H4Q-LB7R>] (contrasting the looser trade dress standard for functionality with the "dictated by" standard in design patents).

71. See *Apple*, 786 F.3d. at 998–99.

72. *Id.* at 1001–02.

73. *Id.*

74. *Id.*

a ‘causation’ rule as Samsung urges.’⁷⁵ The Federal Circuit would not deviate from its previous § 289 jurisprudence, which recognized that Congress explicitly rejected apportionment for design patents when creating the Act of 1887.

Samsung also offered a new argument for limiting damages, claiming that the profits awarded for design patent infringement should have been limited to the infringing article of manufacture, the “portion of the product as sold that incorporates or embodies the subject matter of the patent,” rather than the entire infringing product.⁷⁶ Apple argued that this was a “novel interpretation” of § 289 that was not supported by any precedent.⁷⁷ The Federal Circuit agreed, stating that “[t]he innards of Samsung’s smartphones were not sold separately from their shells as distinct articles of manufacture to ordinary purchasers.”⁷⁸ The Federal Circuit then remanded the case to determine the remaining damages that were not predicated on Apple’s trade dress claims.

In September 2015, the Northern District of California entered partial final judgment for Apple in the amount of approximately \$548 million for design and utility patent infringement.⁷⁹

B. THE SUPREME COURT

In December 2015, Samsung petitioned for a writ of certiorari to the Supreme Court, asking: “[W]here a design patent is applied to only a component of a product, should an award of infringer’s profits be limited to those profits attributable to the component?”⁸⁰

In March 2016, the United States Supreme Court granted certiorari. In response, dozens of amicus briefs were filed that highlighted the issues at stake. Many technology companies and proponents of apportionment proclaimed the basic unfairness of allowing a patent holder to disgorge the infringer of the total profits for an article even if the infringing design only accounted for 1%

75. *Id.* at 1002.

76. *Apple*, 786 F.3d. at 1003.

77. *Apple Inc. v. Samsung Electronics Co.*, No. 11-CV-01846-LHK, 2017 WL 3232424, at *3 (N.D. Cal. July 28, 2017).

78. *Apple*, 786 F.3d. at 1002.

79. *Apple*, 2017 WL 3232424, at *3.

80. Petition for a Writ of Certiorari, *supra* note 4, at i. Another question was presented regarding the inclusion of functional elements in the infringement analysis, but the Supreme Court refused certiorari on this question. This question addresses another theme running through this case: whether design patents should protect minimalist designs like that of the iPhone which combine form and function, but that is outside the scope of this note.

of the value of the article.⁸¹ They argued that while designs might have motivated customer decisions for carpets, it would be silly to argue that consumers bought iPhones primarily owing to its rounded corners, raised rim, and square graphical user interface.⁸² Many of the briefs also supported Samsung's argument that the article of manufacture in § 289 did not necessarily refer to the final product sold to consumers but could also refer to a component that applied the infringing design.⁸³ In addition, technology companies raised the specter of a new wave of patent trolls looking to capitalize on this imbalance between design patent damages and design value.⁸⁴

On the other hand, many fashion and consumer product companies filed briefs in support of the total profit rule.⁸⁵ They cited the clear congressional record displaying the intent to create a rule rewarding total profit in the face of evidentiary difficulties in apportioning the value of designs.⁸⁶ Given the congressional intent, the briefs argued that the legislative branch was in the rightful position to modify rules for design patent damages and that the Court would be legislating from the bench by returning to an apportionment regime.⁸⁷ Furthermore, these industries cited the importance of design patents in curbing copycat designs and argued that a return to apportionment would severely hamper those efforts.⁸⁸

The United States even weighed in via the Solicitor General's amicus curiae brief for neither party.⁸⁹ This brief had an outsize influence on the case. In the

81. *See, e.g.*, Brief of Public Knowledge and the Electronic Frontier Foundation as Amici Curiae in Support of Petitioners, *Samsung v. Apple*, 134 S. Ct. 429 (2016), 2016 WL 233232 [hereinafter Brief of Public Knowledge]; Brief for the Internet Association et al. as Amici Curiae Supporting Petitioners, *Samsung v. Apple*, 134 S. Ct. 429 (2016), 2016 WL 3194217 [hereinafter Brief of Internet]; Brief Amicus Curiae of the Computer & Communications Industry Association in Support of Petitioner, *Samsung v. Apple*, 134 S. Ct. 429 (2016), 2016 WL 3227039 [hereinafter Brief of CCIA].

82. *See, e.g.*, Brief of Public Knowledge, *supra* note 81, at 4–7.

83. *See, e.g.*, Brief of CCIA, *supra* note 81, at 14–20.

84. *Id.* at 7–10.

85. *See, e.g.*, Brief of Tiffany and Company et al. as Amici Curiae in Support of Respondent, *Samsung v. Apple*, 134 S. Ct. 429 (2016), 2016 WL 4239194 [hereinafter Brief of Tiffany]; Brief for Bison Designs, LLC et al. as Amici Curiae in Support of Respondent, *Samsung v. Apple*, 134 S. Ct. 429 (2016), 2016 WL 4239198 [hereinafter Brief of Bison Designs]; Brief of Amici Curiae 113 Distinguished Industrial Design Professionals and Educators in Support of Respondent, *Samsung v. Apple*, 134 S. Ct. 429 (2016), 2016 WL 4151446.

86. *See, e.g.*, Brief of Bison Designs, *supra* note 85, at 14–23.

87. *See, e.g.*, Brief of Tiffany, *supra* note 85, at 21.

88. *Id.* at 10–18.

89. Brief for the United States as Amicus Curiae Supporting Neither Party, *Samsung v. Apple*, 134 S. Ct. 429 (2016), 2016 WL 3194218 [hereinafter U.S. Amicus Brief].

brief, the Solicitor General maintained that while the language of § 289 does not permit apportionment from the sale of an article of manufacture to which the design has been applied, the article of manufacture to which the design had been applied did not necessarily have to be the final product sold to consumers.⁹⁰ Siding with Samsung, the United States asserted that the article of manufacture could be a component of the final product, as long as it could be “naturally characterized as the ‘article of manufacture’ to which the patented design had been applied.”⁹¹ In addition, the brief presented a four-factor test for identifying the relevant article of manufacture, assuming that the relevant article of manufacture was not always the final product sold to consumers.⁹²

The Supreme Court heard arguments in October 2016 and in December 2016, the Court returned a unanimous verdict for Samsung. In a short opinion, Justice Sotomayor held that “the text resolves the case.”⁹³ Adopting a plain meaning definition of “article of manufacture,” the Court held that the “article of manufacture” for which total profits are awarded under § 289 was not necessarily limited to the product that is sold to consumers but may be a component of that product. This argument was essentially the same as that offered by the Solicitor General’s brief. The Court offered a two-part test for rewarding damages under § 289. First, a court must identify the relevant infringing article of manufacture. Second, a court must determine the total profits derived from that article of manufacture by the infringer.⁹⁴

The Court declined to provide a test for “identifying the relevant article of manufacture at the first step of the § 289 damages inquiry,” although it noted that the United States had supplied a test in its brief.⁹⁵ Instead, the Court remanded to the Federal Circuit to lay out a test.⁹⁶ The Federal Circuit further remanded the case to the Northern District of California to attempt to craft a test for identifying the relevant article of manufacture.⁹⁷

In October 2017, Judge Koh in the Northern District of California declared a new trial to determine damages in light of the Supreme Court’s decision.⁹⁸ She also laid out a test for identifying the relevant article of manufacture, borrowing directly from the Supreme Court amicus brief filed by

90. *Id.* at 17–18.

91. *Id.* at 19.

92. *Id.* at 25–31.

93. *Samsung Elecs. Co. v. Apple Inc.*, 137 S. Ct. 429, 434 (2016).

94. *Id.* at 434.

95. *Id.* at 436.

96. *Id.*

97. *Apple Inc. v. Samsung Elecs. Co.*, No. 11-CV-01846-LHK, 2017 WL 4776443, at *50 (N.D. Cal. Oct. 22, 2017).

98. *Id.* at *110–12.

the United States.⁹⁹ The four-factor test considers: (1) the scope of the design claimed in the design patent; (2) the relative prominence of the design within the product as a whole; (3) whether the design is conceptually distinct from the product as a whole; and (4) the physical relationship between the patented design and the rest of the product. The last factor includes both whether the design pertains to a component that a user or seller can physically separate from the product as a whole, and whether the design is embodied in a component that is manufactured, or can be sold separately from the rest of the product.¹⁰⁰ With the new test in place, a new trial will commence to determine damages.¹⁰¹ And the battle continues.

IV. THE IMPROPER INTRODUCTION OF APPORTIONMENT-BY-COMPONENT

A. TREADING A FINE LINE: ON THE TEXTUAL TIGHTROPE

The Supreme Court was admittedly placed in a difficult position. On the one hand, they were faced with a clear congressional intent against apportionment and a line of cases interpreting § 289 in light of that intent. On the other, they were faced with a result that seemed simply unfair, awarding the total profits from an incredibly functional and complex smartphone merely because it had simple elements like rounded corners and a raised rim. The decision tried to tread the fine line between the two results: ushering in a quasi-apportionment regime that, arguably, squeaks by the textual constraints of the statute while still steering clear of unfairly rewarding the total profits for a multi-component device when only a subset of the components are infringing. Yet, it was not the Court's place to defy congressional intent to avoid a seemingly unfair result and the resulting *apportionment-by-component* regime leaves much to be desired.

The Court maintained adherence to the statutory demands of § 289 by still rewarding "total profits." However, the Court, in contravention of congressional intent, has unquestionably introduced a type of apportionment regime into design patents. While utility patent damages are apportioned by distinguishing the value of the invention from the other unpatented elements in a product, design patents damages will now be apportioned by distinguishing the relevant infringing component from the overall product and calculating the total profits from that component.

In introducing this quasi-apportionment regime, the Supreme Court

99. *Id.*

100. *Id.* at *82–87.

101. *Id.* at *110–12.

offered a disappointingly short decision that primarily recites the dictionary definition of an “article of manufacture” to conclude that the plain meaning is broad enough to encompass a product sold to consumers as well as a component of that product. The Court reasoned that an “article” is just “a particular thing” and that a “manufacture” means “the conversion of raw materials by the hand, or by machinery, into articles suitable for the use of man.”¹⁰² Therefore, “[a]n article of manufacture, then, is simply a thing made by hand or machine.”¹⁰³ Equipped with this broad definition of article of manufacture, the Court concluded that the term article of manufacture could encompass the final product or a component to which the patented design is directly applied.

Unfortunately, although one must admire its simplicity, this textualist strategy is a bit dubious. The strategy breaks a commonly held rule of statutory interpretation: “each part . . . of a statute should be construed in connection with every other part . . . to produce a harmonious whole.”¹⁰⁴ The adoption of a broad interpretation of “article of manufacture” does not synchronize harmoniously with the remaining text of § 289. Specifically, the term “total profit” puts odd constraints on the relevant article of manufacture if an article is broadly understood to be a component of the end product.

Black’s Law Dictionary defines “total” as “whole; not divided” and “profit” as “the excess of revenues over expenditures in a business transaction.”¹⁰⁵ This plain meaning interpretation of “total profit” indicates that the infringing article of manufacture to which the design is applied has a market constraint, needing to actually be sold in a marketplace to determine the revenues and expenditures. Furthermore, this interpretation is also supported by the congressional record from the enactment of the Act of 1887, which stated that total profits should be determined by “the profits actually made from the infringing article . . . that is, what the infringer realized from the infringing articles minus what they cost him.”¹⁰⁶

This plain meaning interpretation of “total profits” clashes with the Court’s broad interpretation of “article of manufacture.” The Court never specifies that the relevant article of manufacture, when it is a component of the final product, has to be one that is for sale. While the Court specifies that

102. *Apple*, 137 S. Ct. at 434–35.

103. *Id.*

104. 2A NORMAN SINGER & SHAMBIE SINGER, SUTHERLAND STATUTORY CONSTRUCTION § 46:5 (7th ed. 2017) (describing the “whole statute” interpretation rule).

105. *Total*, BLACK’S LAW DICTIONARY (10th ed. 2014); *Profit*, BLACK’S LAW DICTIONARY (10th ed. 2014).

106. H. R. REP. NO. 49-1966 (1886).

the relevant article of manufacture does not have to be the final product sold to consumers, it leaves undiscussed whether it still must be sold in a market in some fashion. The Court's articulation of the new § 289 inquiry, which separates the identification of the relevant article of manufacture and the calculation of total profits into two distinct steps, indicates that the Court did not intend for the second step to influence the first. However, it is unclear how courts should determine "total profit" in the second step if the first step of the § 289 inquiry determines that the relevant article of manufacture is not one that is sold in the marketplace.

The United States' influential amicus curiae brief attempted to offer a solution. First, on whether the component must be salable:

Because the award of profits is premised on the "sale" of the "article of manufacture," the relevant "article" must be capable of being sold. But if a particular component is otherwise naturally characterized as the "article of manufacture" to which the patented design has been applied, the sale of the complete product in commerce is properly viewed as a sale of the component as well, since title to the component is transferred as an incident of the larger sale.¹⁰⁷

This argument claims that there is no separate market requirement for a component as long as the end product is salable, as sale of the final product means that the component was sold as well. Even if this were true, the statutory language of § 289 still requires awarding of the "total profit" from the relevant article of manufacture, so the problem remains: how does one calculate the total profits of a component that has never been sold alone.

The United States' brief attempts to address the problem: "To be sure, in cases where the relevant 'article of manufacture' is not sold separately but is instead a component of a larger product, identifying the infringer's profit on that article may require an inquiry that is functionally similar to a traditional causation analysis."¹⁰⁸ In essence, the United States argues that if the relevant article of manufacture is a component that is or can be sold, total profits should be calculated based on the plain meaning definition, by subtracting the costs from the revenue. However, if the component is not sold, we must turn to an inquiry that is "functionally similar to a traditional causation analysis," or the evidentiary methods used for apportionment in utility patents.¹⁰⁹ But, this

107. U.S. Amicus Brief, *supra* note 89, at 18–19.

108. *Id.* at 15.

109. *See id.* (equating the traditional causation analysis with § 284 analysis).

causation analysis is precisely what the Act of 1887 was enacted to prevent. In the Carpet Cases, Justice Blatchford demanded apportionment principles as rewarding total profits would “confound all distinctions between cause and effect,”¹¹⁰ and The Act of 1887 and § 289 were an explicit rejection of those principles. Now, to account for the Supreme Court’s broad, plain meaning interpretation of “article of manufacture,” it seems the United States’ brief is explicitly arguing for a reintroduction of these principles in the realm of design patents.

It is unclear whether courts will require a market constraint on the relevant article of manufacture if it is a component, and if not, how courts will attempt to calculate total profits for a component that cannot be sold. However, if the Solicitor General’s influential suggestions are adopted, as they were by the Supreme Court and Judge Koh, it will mean the introduction of causation principles that were explicitly rejected in the Act of 1887 and § 289, in clear contravention of congressional intent. If not, courts will be in the unenviable position of creating novel jurisprudence to decide how to calculate total profits for a component that cannot be sold separately.

The interpretation of an “article of manufacture” adopted by the Supreme Court, while perhaps providing the fairest result in the immediate case, only adds confusion to the § 289 jurisprudence. It seems unlikely that the Supreme Court’s interpretation can coexist harmoniously with a plain meaning interpretation of “total profit” without the introduction of causation principles that were explicitly rejected by Congress.

B. A LESSON FROM THE CARPET CASES

Given the Supreme Court’s questionable avenue for addressing the case’s tension between congressional intent and fairness, the Court should have taken a lesson from the Carpet Cases. The Supreme Court’s decision to follow the letter of the law in the Carpet Cases was exactly what triggered Congress to enact the design patent damages reforms codified in § 289.

In many ways, allowing Apple to collect total profits in line with congressional intent would have been more proper and led to more clarity around design patents in the long run. First, it appears that the Supreme Court performed some textual jiu-jitsu to circumvent the clear legislative intent against apportionment, which is an improper judicial overreach. Second, the decision itself left many questions unanswered, leaving Samsung and Apple to continue their judicial battle for the foreseeable future and possibly causing more confusion for patent owners trying to estimate possible damages as a

110. *Dobson v. Hartford*, 114 U.S. 439, 444 (1885).

part of litigation strategy. Finally, the newly introduced *apportionment-by-component* regime seems lacking, constrained by outdated language written when carpets accounted for nearly half the design patents granted, and falls short of accurately capturing what design patents damages should be trying to accomplish. Instead of the Court's misguided decision, which promises an arduous process of attempting to cobble together a new apportionment jurisprudence for design patents, the Court could have exercised judicial restraint and placed pressure on Congress to revisit § 289 and revise the special remedy for design patents for the modern era.

It was improper for the Court to introduce any apportionment to design patents in the first place. Although there are competing views on the importance of legislative history in statutory interpretation,¹¹¹ the clear history surrounding the development of the Act of 1887 and § 289, which the Federal Circuit has repeatedly cited, suggests that the Court deviated from congressional intent. It was telling that the Court's short opinion did not attempt to harmonize the multiple cases displaying judicial recognition of the 1887 Act's clear purpose to "declare that the measure of profits recoverable on account of the infringement should be considered to be the total net profits upon the whole article."¹¹²

The decision seems likely to have created a host of new issues, leading to increased litigation costs for Apple and Samsung and a murkier design patent remedies landscape for other design patent owners. The Court failed to create a test for step one of the new § 289 inquiry, identifying the relevant article of manufacture. Although the Supreme Court should not act as a trial court and determine the specific article of manufacture for the iPhone, it could have provided a test for identifying the relevant article of manufacture generally. Failure to do so will mean even further legal costs for Apple and Samsung as they battle over not only how the new § 289 inquiry should be applied but what the actual inquiry should be. Another case has already had to apply the Supreme Court's decision, requiring a two-step § 289 inquiry but having to decide a relevant test for the first step independently.¹¹³ It is possible that § 289 jurisprudence will become fractured as more courts are similarly forced to

111. Compare Alex Kozinski, *Should Reading Legislative History Be an Impeachable Offense?*, 31 SUFFOLK U. L. REV. 807 (1998), with *Train v. Colorado Public Interest Research Group*, 426 U.S. 1, 8–13 (1976) (declaring that the Court of Appeals erred by not referencing legislative history).

112. *Untermeyer v. Freund*, 58 F. 205, 211–12 (2d Cir. 1893).

113. *Columbia Sportswear N. Am., Inc. v. Seirus Innovative Accessories, Inc.*, No. 3:17-cv-01781-HZ, 2017 WL 5494999 (S.D. Cal. Nov. 16, 2017) (luckily, this court has also adopted the four-factor test suggested in the United States' amicus curiae brief).

create independent approaches.

Furthermore, the Court has only added more confusion into the design patent remedies landscape. One issue involves the calculation of total profits, a topic which the Supreme Court declined to engage with altogether. As discussed previously, it is not clear whether the component that is the relevant article of manufacture in step one of the § 289 inquiry needs to actually be salable. A plain meaning interpretation of “total profit” indicates that it should be, but the influential United States’ amicus curiae brief disagrees.¹¹⁴

In addition, that the article of manufacture can be a component of the final product also adds confusion for patent owners who are trying to estimate the amount of protection a design patent offers. Section 289 states: “Nothing in this section shall prevent, lessen, or impeach any other remedy which an owner of an infringed patent has under the provisions of this title, but he shall not twice recover the profit made from the infringement.” This section has normally precluded the recovery of damages for utility patent infringement when total profits from the entire product were awarded for design patents infringement.¹¹⁵ Now, it is unclear how courts will award damages in cases, like this one, where the same product infringes on several design and utility patents. Given the distinct apportionment inquiries for utility patents and design patents, it is unclear how these apportionment regimes will interplay and when an award will be considered “twice recover[ed].”¹¹⁶ This will only lead to more confusion for design patent owners as they try to estimate damages leading up to infringement litigation, and uncertain damages will also hamper efficient settlements. The Supreme Court, in relying on such a shallow analysis, could have unwittingly introduced a new host of issues relating to patent damages.

Finally, the newly introduced quasi-apportionment regime does not accurately capture what design patents are meant to protect. An underlying theme running through this case was that the awarding of total profit seemed unfair because the remedy not only captured the value of the smartphone design but all the other functional elements of the smartphone as well. By introducing the quasi-apportionment regime, the Court sought to avoid this unfair result and somehow separate the value of the design patent from the rest of the product. However, given the constraints of § 289 and the history of the Act of 1887, the Court had to settle on apportioning by choosing a physical component that most accurately reflects the protected design in the final

114. See U.S. Amicus Brief, *supra* note 89, at 15.

115. See *Catalina Lighting, Inc. v. Lamps Plus, Inc.*, 295 F.3d 1277, 1290–91 (Fed. Cir. 2002) (declaring that § 289 damages more than adequately compensated for the § 284 infringement, so § 284 damages could not also be collected).

116. 35 U.S.C. § 289 (2012).

product and calculating total profits, rather than apportioning the value of the design from the final product. This *apportionment-by-component* is a shoddy imitation that fails to account for what should lie at the heart of the design patent damages inquiry: how much a design contributed to the product's profits.

The "value" of the design patent could be determined as it is with utility patents, using the range of evidentiary methods that have been developed for utility patent damage apportionment.¹¹⁷ The "total profit" language of § 289 is what constrains the inquiry to choosing a component that has applied the patented design and calculating revenue minus cost. Sometimes, that could reflect the value of the patented design, but more often, it is likely that it reflects the manufacturing and physical properties of the component, like the material used, how efficiently it was manufactured, or how effectively a manufacturing agreement was negotiated.

For example, imagine that the outer plastic case of a Samsung phone is determined to be the relevant article that has most naturally applied the infringing design. In this example, the total profits inquiry would ask how much it cost Samsung to produce these cases, which would largely depend on the type of material used for the case, the efficiency of industrial processes used to build the case, and even possibly the labor costs that were associated with building the case. Total profits can be calculated only with a proper accounting of costs. Of course, lowering these costs would result in higher total profits; however, none of these considerations are related to the design itself: the *overall appearance* that Samsung infringed and gave the iPhone its simplistic and appealing design.

Given the issues surrounding the Court's decision, it raises the question of whether the Court should have just followed the interpretation of § 289 that had persisted for over a century. An unfair result consistent with legislative intent could have spurred those in the powerful technology industry to lobby Congress for reforms as the textile industry did in the aftermath of the Carpet Cases.

The scope of design patents has unquestionably evolved since the late nineteenth century when most granted designs patents pertained to carpet designs.¹¹⁸ The need to account for the newly granted designs that cover multi-component products could be better served if Congress revamped the

117. J. Gregory Sidak & Jeremy O. Skog, *Using Conjoint Analysis to Apportion Patent Damages*, 25 FED. CIR. B.J. 581, 586–98 (2016) (discussing the possible uses and limitations of survey-based conjoint analysis).

118. Du Mont & Janis, *supra* note 35, at 12.

language of § 289 altogether. Congress would be in a better position to see if evidentiary methods have evolved such that the value of designs could now be accurately apportioned from the final product. Congress could then replace the “total profit” language, if necessary, with “total value” or explicitly endorse a causation requirement. While the Court likely adopted the textual path towards an *apportionment-by-component* regime because it seemed to be the fairest result in the immediate case, allowing Congress to act and revise the outdated language of the § 289 could have led to a clearer future for design patent damages.

V. WHERE TO GO FROM HERE: THE *SAMSUNG* FACTORS

While the Supreme Court’s decision may be lacking, the highest Court has spoken and decreed a new two-step inquiry for § 289: to calculate design patent damages under § 289, one must first identify the relevant article of manufacture that has applied the protected design, then calculate the total profits generated by that article.¹¹⁹

With the new test proposed by Judge Koh in the Northern District of California, we can begin to fill in some questions left by the Supreme Court’s decision. The new test for identifying the relevant article of manufacture adopts the four factors from the influential United States amicus curiae brief: the scope of the patented design, the relative prominence of the patented design within the product, whether the design is conceptually distinct, and the physical relationship between the design and the rest of the product.

Section V.A below analyzes the four factors and determines how they will operate in identifying the relevant article of manufacture. It will also identify some cases where the four-factors would produce the desired results. Section V.B will discuss a possible addition to Judge Koh’s test. The Section argues that the new addition could both more accurately capture Congress’s original intent and provide slightly stronger protection for designs that are the basis of customer demand.

A. ANALYZING THE *SAMSUNG* FACTORS

The first Samsung factor focuses on “the scope of the design claimed in the plaintiff’s patent, including the drawing and written description.”¹²⁰ The first factor thus considers which parts of the design are actually claimed to determine the article of manufacture to which the design was applied. This

119. *Samsung Elecs. Co. v. Apple Inc.*, 137 S. Ct. 429, 436 (2016).

120. *Apple Inc. v. Samsung Elecs. Co.*, No. 11-CV-01846-LHK, 2017 WL 4776443, at *82–83 (N.D. Cal. Oct. 22, 2017) (citing U.S. Amicus Brief, *supra* note 89, at 27).

factor would be used to ensure that the scope of the design is limited to the claimed elements, as indicated by the solid lines in the design patent's diagram. Although the scope of a design should be kept in mind as the other factors are considered, it should not be dispositive.¹²¹ For example, in the case of a dinner plate with a design patent that claims only the decorative rim, it would nonetheless be proper to consider the entire plate as the relevant article of manufacture.¹²²

The next three factors aim to "assess competing contentions" when one party argues that the relevant article of manufacture is the final product and the other argues that the relevant article of manufacture is some component of the product.¹²³ The second factor, "the relative prominence of the design within the product as a whole,"¹²⁴ however, is likely only be helpful in the simple cases. This factor seems to be for the cases where the design is a minor component of the product, like a latch on a refrigerator.¹²⁵ In the harder cases, however, it seems the third and fourth factors would play more critical roles in identifying the relevant article of manufacture.

The third and fourth factors will most likely bear the brunt of the work in determining the relevant article of manufacture. The third factor considers "whether the design is conceptually distinct from the product as a whole."¹²⁶ This factor would consider whether the product "contains other components that embody conceptually distinct innovations."¹²⁷ This factor seems to be particularly powerful for multi-component products. As a design is likely to protect the external appearance an article, it would usually be easy to conceptually distinguish the external, ornamental elements from the other valuable, potentially functional, innards of a product. For example, a design patent on a type of book binding would be easily conceptually distinguishable from the literary work embodied in the book.¹²⁸

The fourth factor considers the "physical relationship between the patented design and the rest of the product."¹²⁹ This factor will take into consideration whether the design pertains to a component that can be separated from the product as a whole, is sold separately from the product as

121. *Id.* at *84.

122. *Id.* at *76–77 (expanding on Justice Sotomayor's example in *Apple*, 137 S. Ct. at 429).

123. *Id.* at *85.

124. *See Apple*, WL 4776443, at *82–83 (citing U.S. Amicus Brief, *supra* note 89, at 28).

125. *See* U.S. Amicus Brief, *supra* note 89, at 28.

126. *Apple*, WL 4776443, at *82–83 (citing U.S. Amicus Brief, *supra* note 89, at 28–29).

127. U.S. Amicus Brief, *supra* note 89, at 28–29.

128. *Id.*

129. *Apple*, WL 4776443, at *82–83 (citing U.S. Amicus Brief, *supra* note 89, at 29).

a whole, or is manufactured separately from the product as a whole.¹³⁰ If a design patent pertains to a component of a product that could be physically separated or sold separately, this factor could be dispositive and lead to an easy result. In harder cases, this factor can act as a constraint on the previous factor, whether the article is conceptually separable. Even if a design is conceptually distinct from the rest of the product, the final product could still be the relevant article of manufacture if the patented design and underlying product form one physically inseparable unit.

Thus, when applying the *Samsung* factors to find the relevant article of manufacture, we begin to imagine some common cases that will arise. Some of these cases will be easy. For example, if the patented design is not conceptually distinct from the overall product, it is likely that the design will also not be physically separable and will be featured prominently within the product as a whole. In that case, the *Samsung* factors point toward the entire product as the relevant article of manufacture. For example, if a design patent protected a simple button with some unique ornamental design, the button would clearly be the relevant article of manufacture as the button itself embodies the entire product.

Another easy case would be if the component with the patented design could be physically separated from the rest of the product or is sold separately. If a design can be physically separated, it is likely that the design would also be conceptually distinct and would not be featured as prominently within the product. For example, in *Bush & Lane Piano Co.*, the piano case could be physically separated from the rest of the piano.¹³¹ In this instance, the piano case was conceptually distinct and was not featured prominently, relative to the innards of the piano that produced the sound. Thus, the *Samsung* factors would point to the piano case as the relevant article of manufacture.

Another relatively easy case involves products where the design is conceptually distinct from the underlying product but the article to which the design is applied is physically inseparable and manufactured as one product unit. For these “single-component products,” the Supreme Court declared that the final product should be the relevant article of manufacture.¹³² For example, in the *Carpet Cases*, the designs on the carpets are conceptually distinct from the carpet itself but the design was woven into the fabric of the carpet and could not reasonably be physically separated or manufactured separately. For

130. *See id.*

131. *Bush & Lane Piano Co. v. Becker Bros.*, 222 F. 902, 904 (2d. Cir. 1915).

132. *Samsung Elecs. Co. v. Apple Inc.*, 137 S. Ct. 429, 434–35 (2016) (“*Apple IP*”) (declaring that in the case of a design for a single-component product, such as a dinner plate, the product is the article of manufacture to which the design has been applied).

the Carpet Cases, the second *Samsung* factor would note the prominence of the design over the entire carpet and the fourth *Samsung* factor would consider that the carpet is not made up of many components but creates one physical, unitary whole with the design. In these single-component products, the considerations of the second and fourth factors should outweigh the third factor, and the *Samsung* factors would determine that the whole product should be the relevant article of manufacture.

The more difficult cases, however, are those where the design is conceptually distinct from the underlying product but the article to which the design is applied is made of multiple components that are not cleanly, physically separable. Unfortunately, the design patents on the iPhone reflect this difficulty. For example, the D'087 patent, claims the rectangular front face, rounded corners, and raised rim of the iPhone.¹³³ The design is conceptually distinct from the innards of the iPhone, which is responsible for all the computing utility of the device. It is also conceptually distinct from the back face of the iPhone, which is not claimed by the design patent. It seems likely that the design embodying the front screen, rounded corners, and raised rim is not physically removable nor sold separately from the rest of the outer case of the phone.

There is a tension in this example between the conceptual design, which we can imagine, and the lack of a physical embodiment of the design that can easily be physically separated from the final product. Here, it is unclear, exactly what the relevant article of manufacture would be and will depend heavily on how the individual pieces that make up the screen, rounded corners, and raised rim were manufactured then combined into the final product.

The improvement offered by the *Samsung* factors in this case is that the factors will correctly exclude the functional innards of the iPhone. However, the iPhone example also displays an inherent limitation; the relevant article of manufacture will have to depend on the physical characteristics of the components and specifics of how the iPhone was manufactured. This again stems from the Supreme Court's misguided decision to squeeze a quasi-apportionment regime into the textual constraints of § 289 and focus on physical components as the method of apportionment. This focus on physical components means that the design patent damages inquiry will be a discussion about physical components and their method of inclusion into the final product rather than what should arguably lie at the heart of the design patent damages inquiry: how much the value of the design contributed to the final product's profits.

133. *Apple*, 137 S. Ct. at 433.

Overall, the *Samsung* factors seem to do some things well. The Court wanted a test that could differentiate between the Carpet Cases, where the entire profits could be awarded from the sale of a carpet, and the iPhone case, where a design patent should not award the total profits from a complex multi-component product. The test seems to choose the entire carpet as the relevant article of manufacture and is likely to choose some component of the iPhone that will exclude the value derived from the functional innards of the iPhone. However, the *Samsung* factors, which must overly focus on the physical and conceptual qualities of the design, fails to capture how the appeal of the design contributed to the final product's profits. The next Section will offer a slight improvement to the *Samsung* factors that can help capture the value of the design in certain cases where the "design sells the article."¹³⁴

B. A FIFTH FACTOR? LESSONS FROM THE ENTIRE MARKET VALUE RULE

The *Samsung* factors focus on the relationship between the physical and conceptual qualities of the design and the rest of the underlying product. The factors, however, do not seem to accurately capture the reason that the authors of the Act of 1887 gave such extraordinary remedies for design patents. In their view, designs were "peculiar creatures" that "sold the article."¹³⁵ This notion is also reflected in the Entire Market Value Rule (EMVR) principle from utility patents, which awards the total market value of a product when the entire value of the product could be attributed to the patented feature.¹³⁶

Unfortunately, the *Samsung* factors do not embody the EMVR concept. To illustrate this deficiency, imagine a design patent on a normal, drip coffee maker that has an especially appealing ornamental design applied on an outer, plastic shell. In fact, the design is so appealing that this coffee maker, which makes the same coffee in the same way as all the others in the market, has achieved total market domination.

For the sake of argument, we can assume that the outer shell is manufactured separately from the innards responsible for making the coffee. Applying the *Samsung* factors, a factfinder is likely to conclude that the scope of the design patent only protects the outer shell of this coffee maker. A factfinder is also likely to conclude that the ornamental shell of this coffee maker is conceptually distinct from the internal elements responsible for making coffee. Finally, a factfinder is likely to conclude that the outer shell is not sold separately, is not removable, and is manufactured separately from the rest of the coffee maker. Thus, the *Samsung* factors would point to the plastic

134. H.R. REP. NO. 49-1966, at 3–4 (1886).

135. *Id.*

136. *See Rite-Hite Corp. v. Kelley Co., Inc.*, 56 F.3d 1538, 1549 (Fed. Cir. 1995).

outer shell as the relevant article of manufacture. However, the calculation of total profits from this outer shell would merely be a calculation of the revenue produced from the shell itself minus the cost to produce it. The total profits from this outer shell wholly fail to capture its relationship with the rest of the coffee maker. This also fails to account for the actual value of the design, which is responsible for selling the entire coffee maker, serving as “the basis for customer demand.”¹³⁷ Instead, the test focuses on the physical properties of the plastic shell and its production.

Given that the current four *Samsung* factors have little connection to the statutory language of § 289 besides the goal of finding the relevant article of manufacture “to which the design is applied,” the addition of one or more factors that would improve this process seems no less statutorily problematic than the Supreme Court’s introduction of a quasi-apportionment regime. Furthermore, the congressional purpose behind § 289 supports the inclusion of the EMVR principle.

Thus, the addition of an additional factor to the *Samsung* factors: “whether the design is the basis for all consumer demand” would be a needed improvement. This, unlike the other *Samsung* factors, would be a primarily economic consideration rather than a physical consideration of the design, and would more align with Congress’s intent in protecting designs that sold the article itself. It would only apply in cases where the other four *Samsung* factors reached a result in which the relevant article of manufacture was not the whole product, but evidence can show that nearly the entire value of the product could be attributed to the design. This would produce results more closely tied to the value of infringed designs, allowing courts to reach the correct result in our hypothetical coffee maker example and other similar cases.

VI. CONCLUSION

Unfortunately for Samsung and Apple, the battle continues as the Supreme Court did not offer much resolution. The Supreme Court chose to write a narrow decision, which introduced a two-step inquiry for § 289 but failed to provide guidance on how to implement either step. This, along with the Supreme Court’s misguided reintroduction of a quasi-apportionment regime that is constrained by the century-old statutory text of § 289, is likely to provide a confusing landscape for design patent damages going forward. Some progress has been made with the *Samsung* factors, but the *Samsung* factors are also constrained by the Supreme Court’s decision. The *Samsung* factors fail to capture what should be at the heart of the design patent damages inquiry: how

137. *Id.*

much value the design actually contributes to the overall profit of the product. Thus, the § 289 jurisprudence that develops in the wake of *Samsung* will likely be misguided. The best solution will be for Congress to step in and update the outdated § 289 language for the modern age.

