

DESIGN PATENT LAW'S IDENTITY CRISIS

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ABSTRACT

Since its emergence during the Industrial Revolution nearly two centuries ago, U.S. design patent law has suffered from a profound identity crisis. U.S. copyright law did not yet extend to the shape or ornamentation of three-dimensional works. The drafters of the first U.S. design protection regime modeled the law on the British *copyright* regime for surface ornamentation and sculptural features of three-dimensional articles but confusingly labeled the regime “design patent.” Courts and the Patent Office struggled to interpret protection for “useful” designs against the backdrop of a utility patent regime focused on technological inventions. Further complicating design patent’s role, manufacturers used design patents as a nascent form of trademark protection until federal trademark protection emerged. And in 1870, Congress expanded copyright law to protect sculptural works. In 1902, after a persistent split in the courts and the Patent Office over design patent eligibility for functional designs, Congress clarified that design patents were limited to “ornamental” attributes of articles of manufacture and did not extend to functional attributes. Regional federal circuit courts faithfully limited the design patent regime’s reach, but the tests that they enunciated were cautious and incomplete.

In 1982, appellate jurisdiction over design patents shifted to the newly established U.S. Court of Appeals for the Federal Circuit. Later that decade, the Federal Circuit expanded the scope of design patent protection, paving the way for design patent law protection for minimalist and functional features of articles of manufacture. This shift helped to fuel the “smartphone wars” of the past decade. Apple’s design patent claims to rounded rectangles proved to be the most valuable (and profitable) weapon in its seven-year battle with Samsung.

This Article traces the origins of the ornamentality/non-functionality doctrine and shows how several early cases using the “dictated solely by utilitarian considerations” phrasing to deny design patent protection were misinterpreted to be *the* standard for determining whether a design was eligible for design patent protection. These decisions merely explained that designs “dictated solely by utilitarian considerations” were clearly outside of design patent eligibility. They did not mean that designs that only partially affected functionality qualified for design patents. Unfortunately, inattentive and protectionist judicial opinions caused the standard to drift far from these holdings and into direct conflict with the clear language and intent of the 1902 design patent amendments and fundamental, overarching intellectual property law principles reflected in the Supreme Court’s seminal *Baker v. Selden* decision.

This Article aims to correct this fundamental misinterpretation of intellectual property law. Part II tells the remarkable story of how the effort to transplant England’s design copyright regime to the United States spawned a confusingly labeled “design patent” regime and examines the confusion wrought by this mislabeled law during the mid to late 19th century. It also reveals a period in which design patent law served as a proto-federal trademark

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registration system before Congress established federal trademark protection in the late 19th century. Remnants of that dalliance still confusingly resonate in the design patent system today. Part III explores the 1902 amendments, which unequivocally limited design patents to the ornamental features of articles of manufacture and made clear that they did not extend design patent protection to functional elements. Part IV traces the emergence and distortion of the ornamentality/non-functionality doctrine. The early decisions clearly grasped the need to exclude functionality from design patents. Unfortunately, later cases misapplied some of the language of those cases, resulting in standards that contradict the 1902 (and 1952) Acts as well as the logic reflected in *Baker v. Selden* and other Supreme Court cases dealing with the structure of the intellectual property system. Part V traces the Federal Circuit's tilting of the ornamentality/non-functionality doctrine toward overbroad protection of functionality within the design patent regime. Part VI explores the forces that have led the design patent regime astray. Part VII proposes ways of rectifying design patent law's wayward drift to restore fidelity to the statutory language and the overarching logic of the intellectual property system.

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I. INTRODUCTION

In one of the most significant and astounding intellectual property decisions of the early 21st century, the Federal Circuit upheld rulings that Apple's design patents for the rounded rectangular faces for a mobile phone and an electronic tablet were valid because those elements are "ornamental" and not functional.¹ The products at issue—Apple's iPhone and iPad—are notable for their *lack* of surface or shape ornamentation. The surfaces are smooth and black. Rounded corners provide shock resistance should the user drop the device on a corner. The size and proportions of the iPhone easily fit in the user's hand and pocket. The iPad size and shape mimic a standard sheet of paper.

The Federal Circuit's decisions upholding the validity of Apple's design patents for the minimalist shape and appearance of the iPhone and iPad illustrate how far the design patent regime has strayed from the fundamental logic and structure of the intellectual property system. Those decisions, in conjunction with Apple's recovery of more than half a billion dollars from Samsung for infringing Apple's design patents, have fueled a surge in design patent applications.²

Soon after his departure from the helm of the U.S. Patent and Trademark Office where he oversaw examination (and granting) of Apple's design patents, David Kappos explained:

The ever increasing functionality of the man-made devices in our lives—from our automobiles to our mobile phones to our clocks—has brought with it increasing complexity. . . .

Enter design. The discipline of design—the "form" that makes "function" accessible—has never been more in demand. Design enables us to simply, intuitively, use all these wonderful product capabilities that otherwise might as well not exist for the vast majority of us.

That is the story of design—innovators blurring the lines of the traditional intellectual property realms of patents, trademarks and copyrights to deliver not just new products, but entirely new markets by matching form with function and making "complicated"

1. *See* Apple, Inc. v. Samsung Elecs. Co., Ltd., 786 F.3d 983, 998–99 (Fed. Cir. 2015); Apple, Inc. v. Samsung Elecs. Co., Ltd., 678 F.3d 1314, 1323–27 (Fed. Cir. 2012).

2. *See* Pat. Tech. Monitoring Team, *U.S. Patent Statistics Chart: Calendar Years 1963–2019*, U.S. PAT. & TRADEMARK OFF., https://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm (last visited Nov. 19, 2020) (reflecting a 55% increase in design patent applications between 2010 and 2018—from 29,059 to 45,083). By contrast, utility patent applications increased only 22% during this period. *See id.*

“simple.” For these innovators, the new frontier for IP now and tomorrow is in the increasing convergence of IP embodied in design. . . .

But for the breakthrough innovators of the 21st century, design has moved onto a much larger stage. *It is where high function meets high style.* And the traditional disciplines of IP—patents, trademarks and copyrights—are no longer ends unto themselves but are now viewed as component parts of a larger whole. . . .

This is not to say that the traditional disciplines are becoming unimportant. They will remain critical as the building blocks of design in the large. But innovative 21st century companies understand that design is larger than these individual components—much larger. Consider the ecosystem that Apple Inc., the standard bearer of design in the large, has created around mobile devices. The magic of the iPhone and iPad is not just in the content that can be accessed on the devices, or in their format, or the software that makes them work. The magic is the overall design—Apple’s ability to manage the convergence of the brand, the inventions and the content to revolutionize a market. And this focus on design as a nexus for IP, with all of its constituent parts, will only continue to grow. . . .³

But this explanation contradicts the fundamental structure of the intellectual property system. The system requires that functional advances meet the higher thresholds of the utility patent system.⁴ Affording protection for functional advances short of applying the *utility* patent law’s more exacting novelty, non-obviousness, and disclosure requirements would be, as the Supreme Court observed in denying copyright protection for a system of accounting (and the associated lined forms), “a surprise and a fraud upon the public”⁵ and undermine free competition.

As this Article shows, the validation of Apple’s iPhone and iPad design patents resulted from the Federal Circuit’s misreading of the design patent regime and the larger structure of intellectual property law. Through a series of decisions beginning in 1988, the Federal Circuit turned the ornamentality/non-functionality doctrine, which is intended to prevent design patent protection from encroaching on the utility patent regime, on its head. According to the Federal Circuit, a design is ornamental and not functional so long as it is not “dictated solely” by functional considerations or alternative designs could not achieve the article of manufacture’s function. How this

3. David J. Kappos, *Design: The New Frontier of Intellectual Property*, NAT’L L.J. (Apr. 22, 2013, 12:00 AM) (emphasis added).

4. See *Baker v. Selden*, 101 U.S. 99, 102 (1879).

5. See *id.*

standard could be consistent with the overall intellectual property landscape—reserving to the utility patent system exclusive authority over functional advances—boggles the mind.

This Article traces the origins of the ornamentality/non-functionality doctrine and shows how several early cases using the “dictated solely by utilitarian considerations” phrasing to deny design patent protection in easy cases were later misinterpreted by the Federal Circuit to be *the* standard for determining whether a design was eligible for design patent protection. These decisions merely explained that designs “dictated solely by utilitarian considerations” were clearly outside of design patent eligibility. They did not mean that designs that only partially affected functionality or where alternative designs were available qualified for design patents. Unfortunately, inattentive or protectionist judicial decision-making caused the standard to drift far from the holdings of those early cases into direct conflict with the clear language and intent of the 1902 design patent amendments⁶ and fundamental, overarching intellectual property law principles reflected in the Supreme Court’s seminal *Baker v. Selden*⁷ decision.

Part II tells the remarkable story of how the effort to transplant England’s design *copyright* regime to the United States spawned a confusingly labeled “design patent” regime and examines the confusion wrought by this mislabeled law during the mid to late 19th century. It also reveals a period in which design patent law served as a proto-federal trademark registration system before Congress established federal trademark protection in the late 19th century. Remnants of that dalliance still confusingly resonate in the design patent system today. Part III explores the 1902 amendments, which unequivocally limited design patents to the ornamental features of articles of manufacture and made clear that design patent protection did not extend to functional elements. Part IV traces the emergence and distortion of the ornamentality/non-functionality doctrine. The early decisions clearly grasped the need to exclude functionality from design patent. Unfortunately, later cases misapplied some of the language of those cases, resulting in standards that contradict the 1902 (and 1952) Acts as well as the logic reflected in *Baker v. Selden* and other Supreme Court cases dealing with the structure of the intellectual property system. Part V traces the Federal Circuit’s tilting of the ornamentality/non-functionality doctrine toward overbroad protection of functionality within the design patent regime. It also explores the nearly decade-long *Apple v. Samsung* decision, which play a significant role in the evolution of design patent law. Part VI explores the forces that have led the design patent regime astray. Part

6. See *infra* Parts IV, V.

7. 101 U.S. 99 (1879).

VII proposes ways of rectifying design patent law's wayward drift to restore fidelity to the statutory language and the overarching logic of the intellectual property system.

II. ORIGINS OF THE DESIGN PATENT LAW'S IDENTITY CRISIS

The emergence and evolution of U.S. design patent law is shrouded in a mist of industrial history, bureaucratic opportunism and amnesia, and political economy distortions. The result is an oxymoronic modern regime that confusingly and inefficiently overlaps with utility patent, copyright, and trade dress protection. This Section traces the roots of the design patent law's identity crisis.

A. SWITCHED AT BIRTH: DESIGN PATENT'S MISBEGOTTEN COPYRIGHT ORIGIN

As the Industrial Revolution unfolded in the early 19th century, advances in iron casting processes paved the way for mass producing decorative stoves, radiators, and other cast-iron consumer goods.⁸ These advances shifted competition toward the decorative elements of cast-iron goods. Such ornamentation of useful articles did not, however, fit easily within utility patent or copyright protection. Although advances in the production processes and casting machinery were eligible for utility patents, the particular *designs* resulting from such processes and machinery did not qualify for utility patent protection. And copyright protection extended only to books, maps, charts, and prints, not to three-dimensional works.⁹

Relatedly, the growth of the textile industries during the Industrial Revolution spawned piracy of popular and attractive rug designs, clothing, and other imprinted goods.¹⁰ England's more developed manufacturing economy

8. See Jason J. Du Mont & Mark D. Janis, *The Origins of American Design Patent Protection*, 88 IND. L.J. 837, 849–51 (2013) [hereinafter *The Origins of Design Patent Protection*]; 2 J. LEANDER BISHOP, A HISTORY OF AMERICAN MANUFACTURES FROM 1608 TO 1860, at 576–77 (3d ed. 1868).

9. Act of Apr. 29, 1802, ch. 36, sec. 2, 2 Stat. 171 (extending copyright protection to “who[mever] shall invent and design, engrave, etch or work, or from his own works and inventions, shall cause to be designed and engraved, etched or worked, any historical or other print or prints”).

10. See *The Origins of American Design Patent Protection*, *supra* note 8, at 854; PAUL E. RIVARD, A NEW ORDER OF THINGS: HOW THE TEXTILE INDUSTRY TRANSFORMED NEW ENGLAND 68–69 (2002).

had already confronted these issues through the enactment of copyright-based design protection regimes.¹¹

Drawing on England's precedent, Jordan L. Mott, a successful American stove manufacturer, along with other industrialists and designers, petitioned Congress to enact design protection.¹² Senator John Ruggles of Maine, former chair of the Senate's Committee on Patents and the Patent Office,¹³ presented Mott's petition. The bill proposed a "sole and exclusive *copy-right*"¹⁴ for the proprietor of any "new and original design" for specified articles of manufacture, including iron products and textiles.¹⁵ The copyright protection was for one year for articles other than metals and three years for metal designs.

Senator Ruggles's bill passed the Senate Committee but was not enacted during that legislative session. Following Ruggles' failed reelection bid, the design protection mantle was taken up by Patent Commissioner Henry Ellsworth, which resulted in an unfortunate drafting twist. In his 1841 Commissioner's Report to Congress, referred to the Senate Committee on Patents and the Patent Office on March 8, 1842, Commissioner Ellsworth called upon Congress to establish a design protection regime under his authority at the Patent Office:

The justice and expediency of securing the exclusive benefit of new and original designs for articles of manufacture, both in the fine and useful arts, to the authors and proprietors thereof, for a limited time are . . . presented for consideration.

11. See An Act to Secure to Proprietors of Designs for Articles of Manufacture the Copyright of Such Designs for a Limited Time 1839, 2 Vict., c. 17 (Eng.); An Act for the Encouragement of the Arts of Designing and Printing Linens, Cottons, Callicoes, and Muslins, by Vesting the Properties Thereof in the Designers, Printers, and Proprietors, for a Limited Time 1787, 27 Geo. 3, c. 38, § 1 (Eng.) (providing protection for "any new and original pattern . . . for printing linens, cottons, callicoes, or muslins"); see generally BRAD SHERMAN & LIONEL BENTLY, *THE MAKING OF MODERN INTELLECTUAL PROPERTY LAW: THE BRITISH EXPERIENCE, 1760–1911*, at 63–76 (1999).

12. See *The Origins of American Design Patent Protection*, *supra* note 8, at 854–59.

13. Senator Ruggles had led the effort to pass the significant Patent Act of 1836 re-instituting patent examination. See S. DOC. NO. 24-338 (1836); S. REP. ACCOMPANYING S. 239, 24TH CONG. (1836). His brother Draper Ruggles was a partner in Ruggles, Nourse & Mason, the largest cast-iron plow and agricultural implement company in the United States. See CHARLES G. WASHBURN, *INDUSTRIAL WORCESTER* 132–33 (1917); see generally *The Origins of American Design Patent Protection*, *supra* note 8, at 858 n.139 (discussing other connections between Draper Ruggles and patent law).

14. See Ruggles Design Bill, S. 269, 26th Cong. § 1 (1841) (emphasis added).

15. See *id.*

Other nations have granted this privilege, and it has afforded mutual satisfaction alike to the public and to individual applicants. Many who visit the Patent Office learn with astonishment that no protection is given in this country to this class of persons. Competition among manufacturers for the latest patterns prompts to the highest effort to secure improvements, and calls out the inventive genius of our citizens. Such patterns are immediately pirated, at home and abroad. A pattern introduced at Lowell, for instance, with however great labor or cost, may be taken to England in 12 or 14 days, and copied and returned in 20 days more. If protection is given to designers, better patterns will, it is believed, be obtained, since the impossibility of concealment at present forbids all expense that can be avoided. It may well be asked if authors can so readily find protection in their labors, and inventors of the mechanical arts so easily secure a patent to reward their efforts, why should not discoverers of designs, the labor and expenditure of which may be far greater, have equal privileges afforded them?

The law, if extended, should embrace alike the protection of new and original designs for a manufacture of metal or other material, or any new and useful design for the printing of woollens, silk, cotton, or other fabric, or for a bust, statue, or bas-relief, or composition in alto or basso-relievo. All this could be effected by simply authorizing the Commissioner to issue patents for these objects, under the same limitations and on the same conditions as govern present action in other cases. The duration of the patent might be seven years, and the fee might be one-half of the present fee charged to citizens and foreigners, respectively.¹⁶

Although largely tracking Senator Ruggles's *copyright* bill, Commissioner Ellsworth's proposal shifted to a patent rubric while retaining copyright language lifted from British copyright law.¹⁷ He proposed a *design patent* term of seven years, half of the fourteen-year term for utility patents, and charging half of the application fee for utility patents. Shifting this new regime to the Patent Office expanded Commissioner Ellsworth's portfolio and, importantly, increased funding for the Patent Office, which was struggling to cover a large

16. Thomas B. Hudson, *A Brief History of the Development of Design Patent Protection in the United States*, 30 J. PAT. & TRADEMARK OFF. SOC'Y 380, 380–81 (1948) (quoting COMM'R OF PATS. HENRY LEAVITT ELLSWORTH, 27TH CONG., REP. FROM THE COMM'R OF PATENTS SHOWING THE OPERATION OF THE PATENT OFFICE (1841)).

17. See An Act for Encouraging the Art of Making New Models and Casts of Busts 1798, 38 Geo. 3, c. 71, § 1 (Eng.) (protecting any “new Model, Copy, or Cast, or any such new Model, Copy or Cast in Alto or Basso Relievo” of human or animal figures).

cost overrun in the construction of its new building following a devastating fire in 1836.¹⁸

Congress heeded this recommendation and passed design patent legislation covering

any new and original design for a manufacture, whether of metal or other materials, or any new and original design for the printing of woolen, silk, cotton, or other fabrics, or any new and original design for a bust, statute, bas-relief, composition in alto or basso-relievo, or any new and original impression or ornament to be placed on any article of manufacture, the same being formed in marble or other material, or any new and useful pattern, print, or picture to be either worked into or worked on, or printed, painted, cast or otherwise fixed on any article of manufacture, or any new and original shape or configuration of any article of manufacture not known or used by others before his invention or production thereof, and prior to the time of his application¹⁹

There is no statutory text or legislative history to suggest that Congress intended any more than copyright protection for the ornamental aspects of useful articles.²⁰ While the text refers to “new and *useful* pattern, print, or picture,”²¹ there is no reason to believe that Congress meant to extend protection to functional features. A pattern, print, or picture can be “useful” in an informative and decorative sense and yet not be technologically functional. Congress clearly limited this new regime to the decorative elements of various manufactures. Nor is there any question that Congress intended to exclude protection for functional features, which could only be obtained by satisfying the standards for utility patents. In 1861, Congress replaced the Design Patent Act’s fixed seven-year term with a choice of a term of three and

18. See *The Origins of American Design Patent Protection*, *supra* note 8, at 866–67; William I. Wyman, *Homes of the Patent Office*, 18 J. PAT. OFF. SOC’Y 123, 130 (1936); see also *1836 U.S. Patent Office Fire*, WIKIPEDIA, https://en.wikipedia.org/wiki/1836_U.S._Patent_Office_fire (last visited Nov. 19, 2020).

19. Act of Aug. 29, 1842, ch. 263, sec. 3, 5 Stat. 543, 543–44.

20. See *The Origins of American Design Patent Protection*, *supra* note 8, at 856 (concluding that the 1842 design patent Act “likely sprang from considerations of bureaucratic self-interest, not from any perceived distinction between the relative merits of copyright and patent protection for designs”); *id.* at 868 (“[T]he proposals that ultimately resulted in the first American design patent statute veered from a quasi-copyright proposal to a patent proposal for extrinsic reasons. Our research uncovered no evidence of any debate over the wisdom of the core idea that substantive utility patent law rules should govern a new design protection regime and no indication that drafters of the design patent statute were sufficiently prescient to foresee that copyright and utility patent jurisprudence would evolve along divergent paths in the decades to come.”).

21. 5 Stat. at 543–44 (emphasis added).

a half, seven, or fourteen years (and the ability to extend the term under specified circumstances).²² The 1861 Act referred to five classes of works:

[1] any new and original design, or a manufacture, whether of metal or other material or materials, [2] original design for a bust, statue, or bas relief, or composition in alto or basso relievo, [3] any new and original impression or ornament, or to be placed on any article of manufacture, the same being formed in marble or other material, [4] any new and useful pattern, or print, or picture, to be either worked into or worked on, or printed, or painted, or cast, or otherwise fixed on, any article of manufacture, [and 5] any new and original shape or configuration of any article of manufacture.²³

The 1861 Act omitted the specific protection for designs for woolen, silk, cotton, or other fabrics from eligibility for design patents, retaining a broad language of any “material.”²⁴

B. DESIGN PATENTS AS PROTO-FEDERAL TRADEMARKS

Beyond affording copyright-type protection for ornamental features of useful articles, design patents also became a form of protection for graphic trademarks. By the mid-19th century, commerce was rapidly expanding in the United States and Congress had not yet enacted federal trademark protection. Enterprising businesses began to use design patents as a means to obtain exclusive rights for distinctive labels for their products. Figure 1 illustrates a “Design Patent for a Trade Mark” issued in 1859.²⁵

22. Act of Mar. 2, 1861, ch. 88, sec. 11, 12 Stat. 246, 248; *see also* Jason J. Du Mont, *A Non-Obvious Design: Reexamining the Origins of the Design Patent Standard*, 45 GONZ. L. REV. 531, 546–48 (2009).

23. Act of Mar. 2, 1861, sec. 11.

24. *See id.*

25. U.S. Design Patent No. 1163 (issued Nov. 1, 1859).

Figure 1: Design Patent No. 1163 (Nov. 1, 1959)



The design patent states:

Be it known, that We Thos & Sam Hardgrove, . . . have invented or produced a new and useful Design of Picture to be affixed to our wares and manufactures

Our invention or protection consists in the ornamental design for a trade mark as shown by the accompanying representations.

What we claim and desire to secure by Letters Patent is the within described design of picture to affixes to our wares and manufactures and to be designated as the Peach brand.²⁶

26. *See id.* at 2.

Between 1842 and 1870, the Patent Office granted more than 200 graphic trademark design patents.²⁷ In 1865, the Patent Office issued the following guidelines for procuring design patents for the graphic elements of trademarks:

§ 76. Names, titles, bill-heads, and other matters intended for use as circulars or trade-marks, if printed in the ordinary movable types, are not held to be patentable as designs.

§ 77. When any such matter is the special work of an artist for a specified purpose, as when engraved, it may be patented as a design. Hence when a patent is desired for a design to be used as a trademark, it is recommended that the same be engraved.²⁸

The following year, the share of design patents granted for graphic “Trade-Marks” reached eleven percent of all design patents.²⁹ That number of trademark-type design patents rapidly declined with the passage of federal trademark protection in 1870.³⁰

C. DESIGN/UTILITY PATENT CONFUSION

The 1842 Act extended protection to “any citizen . . . who by his, her, or their own industry, genius, efforts, and expense, may have invented or produced . . . any new and *useful* pattern, or print, or picture, to be either worked into or worked on, or printed or painted or cast or otherwise fixed on, any article of manufacture . . .”³¹ The 1842 Act also authorized the granting of design patents for “any new and original *shape or configuration* of any article of manufacture . . .”³²

The inclusion of the term “useful” and recognition of protection for “shape or configuration” of an article of manufacture led to confusion as to whether the 1842 Act protected functional elements of useful articles. The Patent Office initially took a parsimonious approach, recognizing that the design statute covered artistic designs as distinguished from functional elements.³³

27. See Jason Du Mont & Mark D. Janis, *U.S. Design Patent Law: A Historical Look at the Design Patent/Copyright Interface*, in *THE COPYRIGHT/DESIGN INTERFACE: PAST, PRESENT AND FUTURE* 358 (Estelle Derclaye ed., 2018).

28. See U.S. PAT. OFF., RULES & DIRECTIONS FOR PROCEEDINGS IN THE PATENT OFFICE 23 (1865).

29. See Du Mont & Janis, *supra* note 27, at 358.

30. See *id.*

31. Act of Aug. 29, 1842, ch. 263, sec. 3, 5 Stat. 543, 543–44 (emphasis added).

32. *Id.* (emphasis added).

33. See *Ex parte Crane*, 1869 Dec. Comm’r Pat. 7, reprinted in WILLIAM EDGAR SIMONDS, *THE LAW OF DESIGN PATENTS* 59–61 (Baker, Voorhis & Co. 1874).

The first judicial construction of the 1842 Act, rejecting the Patent Office's interpretation narrow interpretation, illustrates the confusion.³⁴ Jason Crane, the patentee, sought patent protection for a paper box with compartments arranged for holding a set of ladies' furs. After the Patent Office rejected Crane's *utility* patent application, he sought a *design* patent on the same subject matter. The Patent Office rejected his design patent on the ground that

[t]he construction which has been given to that [design patent] act by the office, ever since its passage in 1842, is that it relates to designs for ornament merely; something of an *artistic* character as contradistinguished to those of convenience or utility. It was upon this view of the statute that the application was rejected by the examiner in charge, and, on appeal, by the board of examiners in chief. No judicial construction has as yet been given to this part of the act.³⁵

On appeal to the Patent Commissioner, Commissioner Elisha Foote took a more expansive view of the scope of design patent eligibility:

Considerable reflection upon the subject has satisfied me that the objects and intent of the statute extend beyond the limit assigned to it by the office.

. . . It does not say "ornamental" design, or "artistic" shape or configuration, and I am unable to perceive any good reasons why designs for utility are not fairly and properly embraced within the statute as well as those relating to ornamentation merely.

The line of distinction between what is useful and what is merely ornamental is, in some cases, very indefinite. By some it is said that any form or design that is most useful, is also most pleasing. It would be impossible, in the view of such persons, to make any improvement in utility that did not at the same time add to the ornamental and artistic.

I can perceive no necessity for the distinction. There is a large class of improvements in manufactured articles that are not regarded as new inventions, or as coming within the scope of general patent laws. They add to the market value and salability of such articles, and often result from the exercise of much labor, genius, and expense. They promote the best interests of the country, as well as the creations of inventive talent. It seems to me to have been the intent of Congress to extend to all such cases a limited protection and encouragement.

34. *See id.*

35. *Id.* at 60 (emphasis in original).

Whenever there shall be produced by the exercise of industry, genius, effort and expense, any new and original design, form, configuration or arrangement of a manufactured article, it comes within the provisions and objects of the act creating design patents, whatever be its nature, and whether made for ornament merely, or intended to promote convenience and utility.

The construction given to the statute by the board of appeals seems to me to be erroneous, and I accordingly over rule their decision.³⁶

Notably, Commissioner Foote did not assess the circumstances surrounding the passage of the design patent statute nor the ramifications of its interpretation for the efficacy of the utility patent regime.

In *Ex parte Solomon*³⁷ decided later that year, Acting Commissioner Hodges expanded on *Crane*'s recognition that design patents could extend to functional features of articles of manufacture:

The patent under consideration covers, under this rule, not only the beauty of the inkstand in point of form, but also all those advantages in point of utility and convenience, which result from its configuration, by which, in this connection, must be intended its construction. Some of these are old, it is true, but the combination of the whole is new.³⁸

Whereas *Crane* recognized that an article of manufacture could have functional qualities, *Solomon* expressly extended the design patent's scope to functional features.³⁹

Following this line of reasoning, Commissioner Samuel Fisher adopted a broad reading of *Crane* in *Ex parte Bartholomew*.⁴⁰ The Commissioner first noted that the 1861 Act covered five separate subject matter classes for designs,⁴¹ and

[t]he first three of these classes [—“(1) any new and original design, or a manufacture, . . . (2) an] original design for a bust, statue, or

36. *Id.* at 60–61; *see also* WILLIAM D. SHOEMAKER, PATENTS FOR DESIGNS 133–34 (1929).

37. *See Ex parte Solomon*, 1869 Dec. Comm'r Pat. 49, *reprinted in* HECTOR T. FENTON, THE LAW OF PATENTS FOR DESIGNS 227–29 (William J. Campbell 1889).

38. *Id.* at 228.

39. *See Du Mont*, *supra* note 22, at 555–56 (“Although *Crane* properly taught that the article could have (*i.e.*, *de facto*) functionality, it did not explicitly extend the design patent's scope of protection to those functional features. Rather, Hodge's decision in *Solomon* was the first opinion to indicate this natural progression.”)

40. *See Ex parte Bartholomew*, 1869 Dec. Comm'r Pat. 103, *reprinted in* FENTON, *supra* note 37, at 229–37.

41. *Id.* at 230–31.

bas relief, . . . [(3)] any new and original impression or ornament, or to be placed on any article of manufacture” —] seem[ed] to refer to ornament only; the fourth [—“any new and useful pattern, or print, or picture, to be either worked into or worked on, or printed, or painted, or cast, or otherwise fixed on, any article of manufacture” —], to ornament combined with utility, as in the case of trade-marks; and the fifth [—“any new and original shape or configuration of any article of manufacture” —], to new shapes or forms of manufactured articles, which, for some reasons, were preferable to those previously adopted.⁴²

The language of the 1861 Act—similar to the language of the 1842 Act—included the word “useful” only with regard to the class of “pattern, print, or picture.”⁴³

As in *Crane* and *Solomon*, the Board of Examiners-in-Chief rejected the applicant’s design application (for a rubber eraser) because “[t]he general understanding has always been that the Acts of 1842 and 1861 were intended to cover articles making pretensions to artistic excellence, exclusively.”⁴⁴ Commissioner Fisher rejected this reasoning: “In thus denying that a new ‘shape or configuration’ of an article, whereby utility or convenience is promoted, is the proper subject of a patent . . . the office would seem to have involved itself in the absurdity that if a design is useless it may be patented, whereas if it be useful it is entitled to no protection.”⁴⁵ Further, Commissioner Fisher commented that “[a]rticles have been, and are being constantly, patented as designs which possess no element of the artistic or ornamental, but are valuable solely because, by a new shape or configuration, they possess more utility than the prior forms of like articles.”⁴⁶ Finally, Commissioner Fisher expressed the

42. *Id.* at 231 (bracketed quotations from sec. 11 of the 1861 Act).

43. *See* Act of Mar. 2, 1861, ch. 88, sec. 11, 12 Stat. 246, 248; Act of Aug. 29, 1842, ch. 263, sec. 3, 5 Stat. 543, 543–44. The 1861 Act did not use the term “useful” with regard to the “shape or configuration” class. The 1870 Act added “useful” to that class as well. Act of July 8, 1870.

44. *See Ex parte Bartholomew*, 1869 Dec. Comm’r Pat. 103, *reprinted in* FENTON, *supra* note 37, at 234.

45. *Id.*

46. Of this character are designs for axe-heads, for reflectors, for lamp shades, for the soles of boots and shoes, which have been heretofore patented as designs; and to this class might be added with great propriety that class of so-called “mechanical” patents granted for mere changes of form, such as plowshares, fan blowers, propeller blades, and others of like character. When, therefore, my learned predecessor in *Crane’s* case added to this number a box so designed as to hold, with convenience, a set of furs, he

opinion that the class of cases named in the act arising from “new shape or configuration,” includes within it all those new changes of form which involve increase of utility.

. . . .

. . . [W]here the sole utility of the new device arises from its new shape or configuration, I think it may fairly be included among the subjects which the act of 1842 was designed to protect.⁴⁷

Thus, after initially questioning the availability of design patent protection for functional features of articles of manufacture, the Patent Office reversed course. By 1869, the Patent Office extended design patent protection to functional features of articles of manufacture.

Congress revised the intellectual property statutes in 1870. The 1870 Act’s most relevant design patent amendment deleted the word “useful” from the class of “pattern, print, or picture” and added it to the class of “shape or configuration” of an article.⁴⁸ The result was that a law aimed at protecting appearance and not function now confusingly conjoined “utility” with “shape or configuration.”

The Patent Office continued to struggle with the interplay of design and utility patent protection. In *Ex Parte Fenno*,⁴⁹ an applicant sought a design patent for a damper of stove-pipes after his utility patent application was rejected in light of prior art.⁵⁰ The examiner rejected the design patent application based on lack of ornamentality:

[The] mere shape is but a fractional part of the end desired to be covered by the case . . . [and] the claim for a patent is inadmissible, inasmuch as the device is to perform its function inside a stove-pipe,

did but confirm, and not alter, the practice of the office, so far as it can be gleaned from the patented cases.

Id. at 235; *see also* SHOEMAKER, *supra* note 36, at 134 (noting that, in *Ex parte Bartholomew*, Commissioner Fisher questioned whether the office had a practice of granting patents based solely on ornamentality).

47. *See Ex parte Bartholomew*, 1869 Dec. Comm’r Pat. 103, *reprinted in* FENTON, *supra* note 37, at 235–36.

48. *See* Act of July 8, 1870, ch. 230, secs. 71–76, 16 Stat. 198, 209–10 (“[A]ny new, *useful*, and original shape or configuration of any article of manufacture” (emphasis added)). Du Mont suggests that it is likely that the term “useful” was purposely added to the “shape or configuration” class based on the reasoning in *Bartholomew*, while omitted from the other class by mistake. *See* Du Mont, *supra* note 22, at 565, 565 n.203.

49. *Ex parte Fenno*, 1871 Dec. Comm’r Pat. 52, *reprinted in* FENTON, *supra* note 37, at 250–53.

50. *Id.* at 250–51.

where, from the nature of things, mere beauty of form or ornamental configuration can play no part.⁵¹

While acknowledging that the “applicant is now endeavoring to obtain covertly what he failed to accomplish by direct method upon the former application,” Acting Commissioner Duncan remanded the case to the examiner for reconsideration with the following instructions:

There is [under the 1870 Act] . . . no suggestion that mere beauty of form or ornamental configuration are the ends sought. In fact, the language quoted [from the 1870 Act] expressly implies that utility may be the sole object had in view, in the invention or selection of the particular form to be impressed upon the manufacture; and I am of the opinion that under the present statute, if a new, and at the same time useful shape be devised for a particular article of manufacture, even though no ornamental effect be produced thereby, the inventor of the same is entitled to protection for it under the design section of the patent law.⁵²

Referencing the new language of the 1870 Act, Acting Commissioner Duncan required the design to positively exhibit utility.⁵³

With the appointment of Commissioner Mortimer Leggett in 1871, the Patent Office shifted its position back to limiting design patents to ornamentality and away from backdoor protection for functional features.⁵⁴ In

51. *Id.* at 251.

52. *Id.* at 251–53.

53. *See id.* at 252 (“[I]t would still be incumbent upon him to show that some useful result is produced.”); *see also* SHOEMAKER, *supra* note 36, at 134–35 (noting that the Commissioner in *Ex parte* Fenno required utility to be shown for a design patent).

54. In his 1872 Report, Commissioner Leggett expressed deep skepticism of design patents, characterizing many as little more than anticipated inventions that defraud the public:

This class of patents has been to some extent subversive of the fundamental object of the patent law. Very many design patents which cannot, under the law, be denied, are a fraud upon the public. A man applies for a patent on a cultivator, or hammer, or any other useful tool or device, and finding himself fully anticipated in every principle and useful feature of his application, at once applies for a design patent for the same thing. This application he bases upon some peculiarities of form or color, having nothing whatever to do with the merits or demerits of the article itself, and not being anticipated in these respects, a patent is granted for the new design. The patent gives him no protection whatever, except as to the form or color upon which it is based. He, however, obtains from the Office the right to stamp the word “Patented” upon the article he is manufacturing and thereby deceives the public, wrongs inventors, and brings patented articles into disrepute.

Ex parte Parkinson, Commissioner Leggett criticized the Patent Office's previous approach to granting design patents as "not only liberal but lax."⁵⁵ He forthrightly explained the need to limit design patents to their original purpose and safeguard the utility patent system as the exclusive means of protecting technological advances:

The Legislature never intended by this section (Act of July 8, 1870, Sect. 2) to let down the standard for patents. It was never contemplated to grant a design patent for every possible change of form that might be given to a machine or article of manufacture. By "article of manufacture," as used in this section, the legislature evidently meant only ornamental articles, articles used simply for decoration.

....

The idea of stretching the section in question to cover slight changes in the form of crow-bars, spades, plows, scrapers, &c., is simply ridiculous, and tends to bring the whole system into disrepute.

....

... [T]he man who comes to the office with a machine or article of manufacture and seeks a design patent simply for some slight and unimportant change of form or color, requiring neither inventive nor creative genius, and producing no new or esthetic effect, deserves but little favor or consideration. In general, such men are impostors, and desire a design patent merely to obtain the right to put the word "patented" upon their manufacture, and thereby deceive the public and wrong real inventors

The interests of real inventors, and a proper regard for the public good, demand that design patents be limited exclusively to the field

C. C. Reif, *Mortimer D. Leggett*, 2 J. PAT. OFF. SOC'Y 534, 540 (1920). Commissioner Leggett's suggestion that design patents "deceive the public" anticipates the Supreme Court's similar statement regarding a copyright on bookkeeping methods seven years later:

To give to the author of the book an exclusive property in the art described therein, when no examination of its novelty has ever been officially made, would be a surprise and a fraud upon the public. That is the province of letters-patent, not of copyright. The claim to an invention or discovery of an art or manufacture must be subjected to the examination of the Patent Office before an exclusive right therein can be obtained; and it can only be secured by a patent from the government.

Baker v. Selden, 101 U.S. 99, 102 (1879). This further supports the inference that design patents are analogous to copyrights and not to utility patents in the channeling of intellectual property protection.

55. *Ex parte Parkinson*, 1871 Dec. Comm'r Pat 251, reprinted in FENTON, *supra* note 37, at 259.

herein suggested, and it is clear to my mind that a proper construction of the law fully warrants such limitation.⁵⁶

Accordingly, Commissioner Leggett clarified the new interpretation for the term “useful” in the context of a design patent:

The term ‘useful,’ in connection with machine patents, relates to the office the thing patented fills in producing a desired effect . . . [or] to its adaptation to serve some practical purpose in supplying some physical or tangible want. But the law authorizing design patents was intended to provide for an entirely different class of inventions, inventions in the field of esthetics, taste, beauty, ornament. The question an examiner asks himself while investigating a device for a design patent is not ‘What will it do?’ but ‘How does it look?’ ‘What new effect does it produce upon the eye?’ The term ‘useful’ in relation to designs means adaptation to producing pleasant emotions.⁵⁷

Essentially, Commissioner Leggett set a requirement that the design only be ornamental.⁵⁸

D. SUPREME COURT CONFUSION

Courts and Patent Commissioners continued to shift on the appropriate subject matter and scope of design patents.⁵⁹ The Supreme Court entered the

56. *Id.* at 258–59.

57. *Id.* at 258; *see also* Du Mont, *supra* note 22, at 571–72.

58. *See* Du Mont, *supra* note 22, at 572, 572 n. 244; *see also* FENTON, *supra* note 37, at 8 (“Much difference of opinion has existed as to whether or not design patents were confined to ornamentation only, as defined in the Acts of 1842 and 1861, and as these statutes were construed by the Supreme Court in *Gorham Co. v. White*; since, in the subsequent Act of July, 1870, and the Revised Statutes, the word *useful* appears for the first time in conjunction with the words *new and original* in including form or configuration of an article as patentable subject-matter under the design section. Diametrically opposite opinions on this point are to be found in the earlier decisions of the Patent Office, but better opinion at this time seems to be that *useful*, in the statute, means ornamental utility, and not functional utility. Since the Act of 1870, the Circuit Court for the District of New Jersey, in a well-considered case [*Theberath v. Rubber & Celluloid Harness Trimming Co.*, 15 F. 246] decided in 1883, held that design patents differ from patents for inventions or discoveries in that they have reference to appearance rather than utility; that their object is to encourage the arts of decoration rather than the invention of useful products; and that a picture or design which merely pleases the eye is a proper subject for such a patent, without regard to the question of utility.” (emphasis in original)).

59. *See* Du Mont, *supra* note 22, at 572, 572 n. 245; *see also* *Ex parte* Schulze-Berge, 42 O.G. 293 (1888), *reprinted in* FENTON, *supra* note 37, at 327–28 (“[T]he decisions . . . have given too great importance to the word ‘useful,’ employed in this connection. I cannot avoid the conclusion, from an examination of later authorities, that the subject of design patents was intended by Congress to relate to matters of decoration, of esthetic art, which reach the senses

fray in a series of opinions but failed to resolve the ornamentality/non-functionality controversy.

In *Gorham Co. v. White*,⁶⁰ the Supreme Court stated:

The acts of Congress which authorize the grant of patents for designs were plainly intended to give encouragement to the decorative arts. They contemplate not so much utility as appearance, and that, not an abstract impression, or picture, but an aspect given to those objects mentioned in the acts . . . And the thing invented or produced, for which a patent is given, is that which gives a peculiar or distinctive appearance to the manufacture, or article to which it may be applied, or to which it gives form . . . It is the appearance itself, therefore, no matter by what agency caused, that constitutes mainly, if not entirely, the contribution to the public which the law deems worthy of recompense. The appearance may be the result of peculiarity of configuration, or of ornament alone, or of both conjointly, but, in whatever way produced, it is the new thing, or product, which the patent law regards.⁶¹

Gorham, therefore, held that design patents cover ornamentality, not functionality.⁶²

A decade later in *Lehnbeuter v. Holthaus*,⁶³ however, the Supreme Court downplayed considerations of aesthetics and ornamentality and instead emphasized utility. In assessing the validity of the design patent at issue, the Court concluded:

through the eye. There can be no doubt that an invention to be the subject of a mechanical patent must possess utility or usefulness; but it is a usefulness which relates to mechanics, the modification or control of physical forces. On the other hand, the subject of a design patent may also be useful in an entirely different sense or direction, and I think the word 'useful' in the statute . . . is employed in a different sense. The subject of invention, so far as form, or shape, or configuration is concerned, must be useful in the sense that it tends to promote pleasure, refinement, comfort, depending upon the sense of the beautiful; it must be useful in the sense that it must not be mischievous, obscene, or tending to produce evil or wicked reflections. . . . Congress, by its legislation upon the subject of mechanical and design patents, had clearly marked out two separate and distinct fields of invention, which were purposely made separate and distinct from each other . . ."; SHOEMAKER, *supra* note 36, at 132 ("Some courts have declared that the word 'useful' in the patent law, is in contradistinction to 'mischievous.' The invention should be of some benefit. A design, if not 'mischievous' is useful if it attracts persons to it or to articles made like it. It may not be of great artistic excellence, but if it be attractive it is useful."); WILLIAM SYMONS, *THE LAW OF PATENTS FOR DESIGNS* 18–19, 19 n.1, 20–21 (1914).

60. 81 U.S. 511 (1871).

61. *Id.* at 524–25.

62. *Gorham*, although decided in 1871, applied the 1842 and 1861 Acts and did not refer to the 1870 Act. *See id.*

63. 105 U.S. 94 (1882).

The design patented by the complainants differs essentially from any other which has been called to our attention . . . Whether it is more graceful or beautiful than older designs is not for us to decide. It is sufficient if it is new and useful. The patent is prima facie evidence of both novelty and utility.⁶⁴

Similarly, in *Smith v. Whitman Saddle*,⁶⁵ the Supreme Court reiterated that utility could be a consideration in design patentability. The Court explained that “[t]he first three of [the 1870 Act] classes [eligible for design patent protection] plainly refer to ornament, or to ornament and utility, and the last to new shapes or forms of manufactured articles”⁶⁶ While noting *Gorham*'s observation that Congress authorized the granting of patents for designs for the purpose of enhancing the appearances of articles, rather than their utility or the manner they were produced,⁶⁷ the Court nonetheless explained:

This language [cited from *Gorham*] was used in reference to ornamentation merely, and moreover the word ‘useful,’ which is in section 4929, was not contained in the act of 1842, under which the patent in *Gorham Co. v. White*, was granted; so that now where a new and original shape or configuration of an article of manufacture is claimed, its utility may be also an element for consideration.⁶⁸

The Court further confused the issue by quoting *Northrup v. Adam*,⁶⁹ which held that

the law applicable to design patents ‘does not materially differ from that in cases of mechanical patents . . . To entitle a party to the benefit of the act, in either case, there must be originality, and the exercise of the inventive faculty. In the one, there must be novelty and *utility*, in the other, originality and *beauty* . . .’⁷⁰

64. *Id.* at 96.

65. 148 U.S. 674 (1893).

66. *Id.* at 678.

67. *Id.*

68. *Id.* (citing *Lehnbeuter v. Holthaus*, 105 U.S. 94). It is also worth noting that the Court's statement that the term “useful” was not included in the 1842 Act was not entirely correct. As noted above, the term “useful” can be found in the 1842 and 1861 Acts, but in another class of protection.

69. 18 F. Cas. 374 (1877).

70. 148 U.S. at 679 (quoting *Northrup v. Adam*, 18 F. Cas. 374) (emphases added).

III. THE 1902 DESIGN PATENT ACT: LEGISLATIVE RECOGNITION OF INTELLECTUAL PROPERTY LAW'S FUNCTIONALITY CHANNELING PRINCIPLE

Lacking clear resolution of the scope of design patent protection, the Patent Office eventually pushed Congress to restore design patent law to its original limited purpose of protecting ornamental features of articles of manufacture. In a letter to the Senate Committee on Patents commenting on draft design patent legislation, PTO Commissioner Frederick Allen advocated reform:

In the proposed section the word 'useful' has been eliminated, and the word 'artistic'⁷¹ has been inserted as qualifying the designs covered by the statute. The reason for this change is, that at the present time the construction given to this statute by the courts has reached this position. After the insertion of the word 'useful' by the act of July 8, 1870,⁷² the Supreme Court of the United States passed upon this question in *Lehnbeuter v. Holtbaus* (105 U. S., 94), and said, speaking of the design in this case: 'It is sufficient if it is new and useful. The patent is prima facie evidence of both novelty and utility.' It is perfectly apparent that any other ruling would have been to remove by construction the word 'useful' from the statute, which was beyond the province of judicial construction.

In *Smith v. Whitman Saddle Co.*, decided at the October term, 1892 (148 U. S., 674), Chief Justice Fuller said: '... the word 'useful,' which is in section 4929, was not contained in the act of 1842, under which the patent in *Gorham Co. v. White* was granted. So that now where a new and original shape or configuration of an article of manufacture is claimed, its utility may be also an element for consideration.' (Citing *Lehnbeuter v. Holtbaus*, 105 U. S., 94.)

Although the Supreme Court has thus indicated, in effect, this, that since the word 'useful' is in the statute it must be an element for consideration, it has never been stated what the consideration is which can be given to utility in respect to a design, and the same court stated with approval in the same opinion the language used by Mr. Justice Brown when district judge for the eastern district of Michigan (148 U. S., p. 679): 'To entitle a party to the benefit of the

71. The draft bill proposed the word "artistic" as a replacement for the work "useful." See S. REP. NO. 57-1139, at 1 (1902) ("The committee approve the bill, but suggest and recommend that it be amended by striking out the word 'artistic' . . . and inserting the word 'ornamental' in lieu thereof."); see also Du Mont, *supra* note 22, at 588–89; Jason J. Du Mont & Mark D. Janis, *Functionality in Design Protection Systems*, 19 J. INTELL. PROP. L. 261, 264–65 n. 13 (2012) [hereinafter *Functionality in Design Protection Systems*].

72. It is unclear why Commissioner Allen wrote that the word "useful" was inserted only in 1870, when it was included in the original 1842 Act and the 1861 Act albeit in a different class of eligible subject matter.

act in either case (mechanical inventions or designs) there must be originality and the exercise of the inventive faculty. In the one there must be novelty and utility; in the other, originality and beauty.'

The court of appeals of the District of Columbia, *in re Tournier* (94 O. G., 2166), speaking of these two Supreme Court decisions, said: 'We do not, however, understand the court as intending to go further than this, and to hold that functional utility is to be regarded as a controlling or even an essential element in a patent for a design. For if so, the design patents would virtually be placed upon the same footing and with the same requirements of patents for mechanical inventions.'

The trouble of late years under this statute has been that inventors who have been unable to show any novel function arising from change of form in their mechanical cases, have sought to obtain design patents for the very same subject-matter that had failed to show any mechanical utility. Things had passed finally to this point, that design patents were asked for to cover a lot of things for which it was perfectly evident that the design-patent act was never intended at the time of its passage.

Recently the United States circuit court of appeals for the second circuit, in the case of *Rowe v. Blodgett* (112 Fed. Rep., 61), affirming the decision of the circuit court, quoted and adopted the language which had been used in the court below, as follows: 'I decide this case upon the broader ground that patents for designs are intended to apply to matters of ornament, in which the utility depends upon the pleasing effect imparted to the eye, and not upon any new function . . . Design patents refer to appearance, not utility. Their object is to encourage works of art and decoration, which appeal to the eye, to the aesthetic emotions, to the beautiful. A horseshoe calk is a mere bit of iron or steel, not intended for display, but for an obscure use, and adapted to be applied to the show of a horse for use in snow, ice, and mud. The question an examiner asks himself while investigating a device for a design patent is not 'What will it do?' but 'How does it look?' 'What new effect does it produce upon the eye?' The term 'useful' in relation to designs means adaptation to producing pleasant emotions. 'There must be originality and beauty. Mere mechanical skill is not sufficient.'

The present situation, then, is this: We have the word 'useful' in the statute. The Supreme Court says consideration must be given to it, and now the court says as to the nature of the consideration to be given to it that the term 'useful' is 'adaptation to producing pleasant emotions.' This is something very different from mechanical utility. This is best set forth in the statute if we erase the word 'useful' and insert the word 'artistic,' which is done in the proposed statute.

It is thought that if the present bill shall become a law the subject of design patents will occupy its proper philosophical position in the field of intellectual production, having upon the one side of it the statute providing protection to mechanical constructions possessing utility of mechanical function, and upon the other side the copyright law, whereby objects of art are protected, reserving to itself the position of protecting objects of new and artistic quality pertaining, however, to commerce, but not justifying their existence upon functional utility. If the design patent does not occupy this position there is no other well-defined position for it to take. It has been treated of late years as an annex to the statute covering mechanical cases, since the introduction of the word 'useful' into it. It is thought that this practice should no longer continue.⁷³

Against this backdrop of confusion and disarray,⁷⁴ Congress passed legislation deleting the word “useful” from the design patent statute and replacing it with “ornamental.”⁷⁵ Congress also consolidated the several classes of eligible works into a design for an “article of manufacture.”⁷⁶ Under the new Act, “[a]ny person who has invented any new, original, and ornamental design for an article of manufacture” could apply for a design patent.⁷⁷ These and additional changes in the Act⁷⁸ aimed to shift the focus of design patents to appearances and ornamentality.⁷⁹ The bill passed both the Senate and the

73. S. REP. NO. 57-1139, at 2–3 (1902).

74. See Du Mont, *supra* note 22, at 588–89.

75. See Hudson, *supra* note 16, at 389–90; Kelsey Martin Mott, *The Standard of Ornamentality in the United States Design Patent Law*, 48 A.B.A.J. 548, 550 (1962); Du Mont, *supra* note 22, at 588–89; *Functionality in Design Protection Systems*, *supra* note 71; SYMONS, *supra* note 59, at 13–14, 18–19.

76. The consolidating term “article of manufacture” for the several alternative classes of protection was adopted based on an amendment from 1887 to Section 289 of the act in relation to infringement remedies. See Hudson, *supra* note 16, at 389; Sarah Burstein, *The Article of Manufacture in 1887*, 32 BERKELEY TECH. L.J. 1, 3 (2017).

77. Act of May 9, 1902, ch. 783, sec. 4929, 32 Stat. 193.

78. See Du Mont, *supra* note 22, at 589–90.

79. See 1902 ANN. REP. COMM’R PATS., at viii (stating the 1902 Act’s intent was to clarify that design patents did not protect unimportant mechanical devices unaccompanied by the development of new mechanical functions and that design patents were restricted to manufactured articles’ ornamental characteristics that were originally intended to be protected); see also Du Mont, *supra* note 22, at 590 (“Perhaps illustrative of how design patents were granted at a lower patentability threshold, or on account of their functional attributes, from 1901 to 1902 the Patent Office had its largest drop in design patent grants . . .”).

House unanimously without substantive discussion or input from the professional community.⁸⁰ The 1902 Act's essential language still holds today.⁸¹

The Senate Report explains the rationale for the reforms—to delineate a clear boundary between design and utility patents and to defuse the confusion caused by the word “useful”:

The object sought by the proposed amendment is to conform the existing law to the manifest requirements of design patent law as distinguished from the law governing the subject of mechanical patents. Under existing law the courts have been compelled to strain the meaning of the word ‘useful’ to its utmost limit in order not to do injustice to design patentees, and in some instances the purpose of Congress in enacting design patent legislation has been conspicuously evaded and aborted because of the inappropriate language found in the Revised Statutes bearing on the subject of design patents.⁸²

The Senate Report reproduced PTO Commissioner Allen's letter supporting the reforms and explaining the underlying rationale.⁸³ Along similar lines, the House Report explained:

Under the existing statute the United States Supreme Court has said that consideration may be given to the word ‘useful’ in the granting

80. See Harold Binney, *Present Status of the Law Relating to Designs*, 25 ANN. REP. A.B.A. 662, 662 (1902); see also Du Mont, *supra* note 22, at 590 n.350 (“The chairman of the House Committee had asked for the Patent Law Association's input on the bill. However, the local patent bars never had an opportunity to submit their findings to Congress because the bill was inadvertently allowed to move forward. Indeed, the bill was passed unanimously in the Senate and House without any substantive discussion at all. After the Patent Law Association contacted the House Committee chairman, he apologized for the oversight and contacted the Secretary of the Interior. A brief was submitted by the members of the House Committee and the Patent Law Association to the Secretary of the Interior prior the bill's signature by the President. As one might guess, over 90% of the Patent Law Association's members were opposed to the bill because of the perceived subject matter change. The day after the brief was submitted to the Assistant Attorney General—to whom the matter was referred by the Secretary of the Interior—the bill was signed by the President.” (internal citations omitted)).

81. Compare 35 U.S.C. § 171(a) (“Whoever invents any new, original and ornamental design for an article of manufacture may obtain a patent therefor, subject to the conditions and requirements of this title.”), with Act of May 9, 1902, ch. 783, sec. 4929, 32 Stat. 193 (“Any person who has invented any new, original, and ornamental design for an article of manufacture . . . may . . . obtain a patent therefor.”). It should be noted, however, that during those years between 1842 to 1902, the Act went through several amendments, and while the requirement that a design be “useful” remained in the act throughout, in the 1870 amendment it changed its location from one class of protection to another. See *infra* note 138 and related discussion.

82. S. REP. NO. 57-1139, at 1 (1902).

83. *Id.* at 1–3.

of a patent. Other courts in attempting to define what consideration shall be given to the word ‘useful,’ define it as ‘adaptation to producing pleasant emotions.’ This has nothing whatever to do with mechanical utility. This state of affairs has brought into the Patent Office much contention and some confusion. *To avoid these difficulties and to make plain the distinction between mechanical patents, where ‘utility’ is an essential element, and design patents, where ‘utility’ has nothing to do with it, but where ornamentation is the proper element of consideration, the amendment offered by this bill is proposed.*⁸⁴

A contemporary practitioner and commentator viewed the 1902 Act as significantly narrowing the scope of design patent protections as regards to minimalist designs:

It would seem then that certainly wherever the aesthetic sense is involved in a design either in respect to ornament, or in respect to the beauty that flows from the *mere neatness and fitness of shapes*, the statute before amendment certainly afforded protection; whereas, now the requirement ‘ornamental’ would seem incapable of so broad a meaning. There is certainly a class of designs wherein neatness or fitness of shape is evolved solely for the purpose of improved appearance or attractiveness, and yet where ornamentation is neither sought for nor present. This field of effort the amended statute leaves unprotected. Secondly, while it is debatable whether merely useful shapes where utility and not appearance is the sole object, were or were not protected under the statute, it is quite certain now that neither the saddle of the *Whitman* case nor the showcase of *Lehnbeuter vs. Holtbaus* would be protected under the amended statute.⁸⁵

IV. JUDICIAL INTERPRETATION OF THE 1902 ACT’S CHANNELING PRINCIPLE: WAYWARD DRIFT BACK INTO CONFUSION

The 1902 legislation clarified Congress’s intent to reinforce the *channeling principle* as between design and utility patents by replacing the word “useful” with “ornamental.”⁸⁶ This change sought to limit design patents to original

84. H.R. REP. NO. 57-1661 (1902) (emphasis added).

85. Binney, *supra* note 80, at 669 (emphasis added).

86. See *Functionality in Design Protection Systems*, *supra* note 71, at 265 (“Commissioner Allen seemed to view the ornamentality criterion as an important channeling device, ensuring that design patent law would occupy ‘its proper philosophical position in the field of intellectual production’” (citing S. REP. NO. 57-1139, at 3 (1902)); *In re Sherman*, 35 App. D.C. 100, 101 (1910) (“The right to a design patent . . . depends upon whether the person applying ‘has invented any new, original, and ornamental design for an article of manufacture, not known or used by others in this country before his invention thereof,’ etc. Prior to May 9th, 1902,

ornamental features and channel functional advances to the utility patent regime.⁸⁷ The 1952 Patent Act retained the 1902 Act approach.⁸⁸ Yet, as reflected in the *Apple v. Samsung* controversy⁸⁹ and countless other cases,⁹⁰ modern courts allow design patent protection to cover functional features of articles of manufacture.

In modern jurisprudence, a design is ornamental and not functional so long as it is not “dictated solely” or “primarily” by functional considerations, thereby affording design patent protection for functional features that meet this ambiguous bar.⁹¹ Such standards directly contradict the unmistakable intent of Congress.

when said section was amended, the invention must have comprised a ‘new, useful, and original shape or configuration of any article of manufacture.’ . . . It will be observed that in the statute as amended the word ‘useful’ is omitted and the word ‘ornamental’ is inserted. It would seem that the purpose of this change was to more carefully differentiate design patents from mechanical patents.”).

87. But it seems that in the early years after 1902 there was some ambiguity as to whether cases decided prior to the 1902 Act, which allowed utility considerations in questions of design patentability, continued to apply after the 1902 amendment. *See, e.g., In re Sherman*, 35 App. D.C. 100, 101 (1910) (“It would seem that the purpose of this change was to more carefully differentiate design patents from mechanical patents. *While in a close case utility may be given some consideration*, the real question is whether there is such originality shown as to call for the exercise of the inventive faculty.” (emphasis added)); *SHOEMAKER*, *supra* note 36, at 130 (“The consensus of legal opinion, however, is that while utility may be considered, it is not an important factor in the determination of design patentability, but is reserved for consideration in a close case.”); *SYMONS*, *supra* note 59, at 21–22.

88. *See* 35 U.S.C. § 171 (“Patents for designs. (a) In General.—Whoever invents any new, original and ornamental design for an article of manufacture may obtain a patent therefor, subject to the conditions and requirements of this title.”).

89. *See infra* Section V(D).

90. *See infra* Sections V(B), V(C), V(E).

91. *L.A. Gear, Inc. v. Thom McAn Shoe Co.*, 988 F.2d 1117, 1123 (Fed. Cir. 1993) (“[T]he design of a useful article is deemed to be functional when the appearance of the claimed design is ‘dictated by’ the use or purpose of the article. . . . [P]atented design must be *primarily ornamental* . . .” (internal citations omitted) (emphases added)); *Best Lock Corp. v. Ilco Unican Corp.*, 94 F.3d 1563, 1566 (Fed. Cir. 1996) (“[I]f the design claimed in a design patent is *dictated solely* by the function of the article of manufacture, the patent is invalid because the design is not ornamental.” (emphases added)); *Richardson v. Stanley Works, Inc.*, 597 F.3d 1288, 1293–94 (Fed. Cir. 2010) (“[A] design patent, unlike a utility patent, limits protection to the ornamental design of the article. If the patented design is *primarily functional* rather than ornamental, the patent is invalid However, when the design *also* contains ornamental *aspects*, it is entitled to a design patent whose scope is limited to those aspects alone and does not extend to any functional elements of the claimed article.” (internal citations omitted) (emphasis added)); *Auto Body Parts Ass’n v. Ford Glob. Techs., LLC*, No. 2018-1613, 2019 U.S. App. LEXIS 21883, at *5 (Fed. Cir. July 11, 2019) (“[E]stablished law bars design patents on *primarily functional* designs for lack of ornamentality Our precedent gives weight to . . .

How did courts veer so badly off course? This Section explains the inadvertent and inattentive drift that underlies the problem. Rather than referring back to the 1902 legislation, courts gradually lost their compass and, through a flawed common law evolution, developed standards that not only diverged from Congress's clear intent but also contradicted the Supreme Court's seminal intellectual property channeling principle enunciated in *Baker v. Selden*.⁹²

In the first few decades following the 1902 Act, courts sought to evaluate the question of ornamentality directly, focusing on either the manifestation of artistic beauty and aesthetic appeal⁹³ or by addressing the question of visibility,

[the] language [of Section 171 of Title 35], holding that a design patent must claim an 'ornamental' design, *not one 'dictated by function' . . .*" (emphasis added) (internal quotation marks omitted)).

92. 101 U.S. 99 (1879).

93. See J.H. Carnes, *Rules 79 to 84*, 2 J. PAT. OFF. SOC'Y 204, 205 (1919) ("The word ornamental as used in connection with articles of manufacture indicates an article which produces a pleasing appearance on the eye of the observer. It is sometimes stated that if the article of manufacture is beautiful it is also ornamental within the meaning of the statute. The appearance may be grotesque, bizarre, or even ludicrous, and yet be ornamental within the meaning of the statute. Such effects have to the beautiful a relation similar to what in music discords have to concords. They both form part of a larger whole that may be properly comprehended under the terms beauty or harmony, respectively. The pleasing effect produced on the eye must involve invention in order to be patentable."); SYMONS, *supra* note 59, at 14 ("If the object produced is beautiful, it is 'ornamental' within the meaning of the statute. A thing may also be beautiful and therefore ornamental in the sense here used if it is grotesque, bizarre, or ludicrous. The design is 'ornamental' if it appeals to the esthetic emotions. But although it must be 'a thing of beauty' it is not necessary that it show any high degree of esthetic excellence."); see *Functionality in Design Protection Systems*, *supra* note 71, at 264. Later cases shifted away from this approach and focused on conventional aesthetic beauty. See, e.g., *In re Stimpson*, 24 F.2d 1012, 1012 (C.A.D.C. 1928) (invalidating a design patent because it was "lacking in symmetry, wanting in grace, and destitute of any appeal to the senses or emotions"); *In re Koehring*, 37 F.2d 421, 422 (C.C.P.A. 1930) ("[T]he beauty and ornamentation requisite in design patents is not confined to such as may be found in the 'aesthetic or fine arts.'"); *Blisscraft of Hollywood v. United Plastics Co.*, 294 F.2d 694, 696 (C.A.N.Y. 1961) (denying a design patent for a plastic pitcher for lacking a "dominant artistic motif" and for failing to be "the product of aesthetic skill and artistic conception"); see also Perry J. Saidman & John M. Hintz, *The Doctrine of Functionality in Design Patent Cases*, 19 U. BALT. L. REV. 352, 352–53 (1989); William T. Fryer III, *Industrial Design Protection in the United States of America—Present Situation and Plans for Revision*, 70 J. PAT. & TRADEMARK OFF. SOC'Y 820, 831–33 (1988).

namely, the “matter of concern” test.⁹⁴ This approach, however, put judges in the uncomfortable role of an art critic.⁹⁵

As an alternative, courts shifted their focus to the question of functionality—which became the prevalent test.⁹⁶ Early cases correctly invalidated design patents that were solely dictated by functionality, but unfortunately, later decisions misinterpreted these decisions to hold that design patents are available *so long as* articles of manufacture are not “solely” or “primarily” dictated by functionality. Some later courts lost the compass that Congress provided and set upon a treacherous course that undermined the coherence of the intellectual property system. As Part V explains, the Federal Circuit ultimately went down this mistaken path.

94. See *Functionality in Design Protection Systems*, *supra* note 71, at 269. This test is still referenced today. See Sarah Burstein, *Is Design Patent Examination Too Lax?*, 33 BERKELEY TECH. L.J. 607, 621–24 (2018); U.S. PAT. & TRADEMARK OFF., MANUAL OF PATENT EXAMINING PROCEDURE § 1504.01(c)(III) (2018).

95. See *H.C. White Co. v. Morton E. Converse & Sons Co.*, 20 F.2d 311, 312 (2d Cir. 1927) (Hand, J.) (invalidating a design patent on a tricycle on the grounds that the design “has neither proportion, ornament, nor style, which could in our judgment make remotest appeal to the eye,” despite recognizing that “in aesthetics there are no standards” and “that the design need not please such sensibilities as we may personally chance to possess”); E.S. Allen, *Design Patentability*, 9 J. PAT. OFF. SOC'Y 298, 299, 302 (1927) (lamenting that “[i]n no branch of the Patent Office service is there more opportunity for arbitrary judgment on the part of administrative officials, and in no branch is there a more hazy and indefinite line of decisions from which to endeavor to extract principles and rules which should lead to the establishing of definite standards of what is, and what is not, patentable in the way of a design,” while observing that “[t]he thought of the comparison of the very thin watch and a very thin clock model is illustrative of the fact that what might be inventive for one class of articles would not be invention for another”); *cf.* *Bleistein v. Donaldson Lithographing Co.*, 188 U.S. 239, 251 (1903) (Holmes, J.) (warning in a copyright case that “[i]t would be a dangerous undertaking for persons trained only to the law to constitute themselves final judges of the worth of pictorial illustrations, outside of the narrowest and most obvious limits”).

96. See *Functionality in Design Protection Systems*, *supra* note 71, at 271; SHOEMAKER, *supra* note 36, at ch. VII; see also *Best Lock Corp. v. Ilco Unican Corp.*, 94 F.3d 1563, 1567 (Fed. Cir. 1996) (Newman, J., dissenting) (“Recognizing that ornamentation is in the eye of the beholder, the courts have sought a more objective standard in the general rule that a design is ‘ornamental’ for purposes of 35 U.S.C. 171 when it is not primarily functional.”); Christopher J. Gaspar, *The Federal Circuit Locks Down the Ornamentality Requirement: Best Lock v. Ilco Unican*, 23 J. CORP. L. 179, 182 (1997) (“According to the most recent pronouncements by the Federal Circuit, ‘ornamental’ means ‘not primarily functional.’ The court now defines the ornamentality of a claimed design solely in terms of its functionality or lack thereof. To put it another way, the Federal Circuit views functionality and ornamentality as mutually exclusive characteristics.”).

A. THE ORNAMENTALITY STANDARD

Early cases indeed contradistinguished the two design qualities—ornamental and useful.⁹⁷ In *Ex parte Hartshorn*, Commissioner Allen rejected an application for a design of a wooden-shaped roller, observing:

[T]here does not appear to be in this case anything present created by invention and placed upon this article of manufacture for the purpose of ornamentation. The subject-matter of a design patent is wholly wanting from this case. The construction shown is created for the accomplishment of a mechanical result, and while it would have been possible to place upon this article some ornamental design for its embellishment the construction presented here seems void of any such design. . . .⁹⁸

In *Rowe v. Blodgett & Clapp Co.*,⁹⁹ an earlier case cited in the legislative history of the 1902 Act,¹⁰⁰ the court denied a design patent for a horseshoe calk¹⁰¹ on similar grounds:

I decide this case upon the broader ground that patents for designs are intended to apply to matters of ornament, in which the utility depends upon the pleasing effect imparted to the eye, and not upon any new function . . . It is significant, in this connection, that the patentee first applied for this essential feature . . . as a mechanical invention, which application was rejected, and that he then attempted to cover the same feature by a design patent. Design patents refer to appearance, not utility. Their object is to encourage works of art and decoration which appeal to the eye, to the aesthetic emotions, to the beautiful. A horseshoe calk is a mere bit of iron or steel, not intended for display, but for an obscure use, and adapted to be applied to the shoe of a horse for use in snow, ice, and mud.¹⁰²

97. Such interpretation seems a return to the Act's origins. *See, e.g., Ex parte Crane*, 1869 Dec. Comm'r Pat 7 ("The construction which has been given to that act by the office, ever since its passage in 1842, is that it relates to designs for ornament merely; something of an *artistic* character as contradistinguished to those of convenience or utility.").

98. 104 O.G. 1395 (1903), *reprinted in* DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS IN PATENT AND TRADE-MARK AND LABEL CASES 138 (1904).

99. 112 F. 61 (2d Cir. 1901).

100. *See* S. REP NO. 57-1139, at 2–3 (1902).

101. A horseshoe calk (or caulkin) is a blunt projection on a horseshoe that is often forged, welded, or brazed onto the shoe to improve a horse's balance and grip over uneven surfaces. *See Caulkin*, WIKIPEDIA, <https://en.wikipedia.org/wiki/Caulkin> (last visited Nov. 20, 2020).

102. *Rowe*, 112 F. at 62. For similar decisions, see *Marvel Co. v. Pearl*, 114 F. 946 (C.C.S.D.N.Y. 1902); *Eaton v. Lewis*, 115 F. 635 (C.C.S.D.N.Y. 1902); *Bradley v. Eccles*, 126 F. 945 (2d Cir. 1903); *Williams Calk Co. v. Neverslip Mfg. Co.*, 136 F. 210, 215 (C.C.M.D. Pa. 1905); and *Williams Calk Co. v. Kemmerer*, 145 F. 928 (C.C.M.D. Pa. 1906); *see also* SYMONS, *supra* note 59, at 15–16 (collecting cases).

In *Weisgerber v. Clowney*,¹⁰³ two patents relating to a rolling chair, a utility patent and a design patent, were asserted in an infringement action. The court noted that “the attempt to patent a mechanical function, under cover of a design, is a perversion of the privilege given by the statute.”¹⁰⁴ In overturning the validity of the design patent, the court explained that among other reasons: “The extension of the back and sides of the chair, by which screens for the wheels are formed, is functional rather than ornamental. . . .”¹⁰⁵

Other early cases explicitly pronounced the supremacy of utility patents and recognized that functionality is a channeling principle for distinguishing between utility and design patents. In *Royal Metal Manufacturing Co. v. Art Metal Works*,¹⁰⁶ for example, when discussing an infringement claim relating to the design of a belt, the court found:

The principal things [of the design in question] are the downward dip in front, which appears to have been old, and the shape of the triangular front pieces to produce it by the angular attachments to the bands. *This effect is mechanical. Design patents cover appearances only. A monopoly of operating devices can be secured only by a mechanical patent.*¹⁰⁷

Similarly, the Patent Commissioner in *Ex parte Nickel and Crane*¹⁰⁸ noted:

Since the differences from the prior devices do not add to the beauty of the device, but merely adapt it to perform new functions, *they do not patentably distinguish them as designs. If they involve novelty and the exercise*

103. 131 F. 477 (1904).

104. *Id.* at 480. For similar language, see *Marvel*, 114 F. at 946 (“The design patent sued on in this cause is another instance of a perversion of the statute. Patents for designs are intended to apply to matters of ornament, in which the utility depends upon the pleasing effect imparted to the eye, and not upon any new function. Syringes . . . are not bought because of their artistic beauty, but because they are mechanically useful.” (internal citations omitted)); *Neverslip*, 136 F. at 215 (citing *Weisgerber*); and *Star Bucket Pump Co. v. Butler Mfg. Co.*, 198 F. 857, 863 (W.D. Mo. 1912) (citing *Weisgerber*).

105. *Weisgerber*, 131 F. at 480–81; see also SHOEMAKER, *supra* note 36, at 136–37 (“Any peculiarity of appearance due to configuration designed and employed for the performance of the mechanical result must be eliminated from consideration in determining design patentability” (citing *Ex parte Kern*, 105 O.G. 2061 (1903))).

106. 121 F. 128, 129 (C.C.S.D.N.Y. 1903).

107. *Id.* (emphasis added); see also *Roberts v. Bennett*, 136 F. 193, 194–95 (2d Cir. 1905) (finding that the design patent for a basket with handles was almost identical in shape to the claimant’s prior utility patent; noting that “[f]unctional utility entitled the patentee to the mechanical patent already discussed, but mere functional utility did not entitle him to a design patent for the same article” and “[t]he term ‘useful’ in relation to designs means adaptation to producing pleasant emotions” (citing *Rowe v. Blodgett & Clapp Co.* 103 Fed. 873, 874 (2d Cir. 1901) (some citations omitted))).

108. 109 O.G. 2441 (1903), reprinted in DECISIONS OF THE COMMISSIONER OF PATENTS IN PATENT AND TRADE-MARK AND LABEL CASES, H.R. DOC. NO. 426, at 137 (1905).

*of the inventive faculty, they must be placed in the class of mechanical inventions, which must be protected under section 4886 of the Revised Statutes, and not in the class of designs.*¹⁰⁹

Around the same time, the district court in *Rose Mfg. Co. v. E. A. Whitehouse Mfg. Co.*¹¹⁰ recognized the potential for abuse of the design patent regime to protect mechanical inventions resulting from the advent of photography. In invalidating a design patent for a lamp bracket that was the subject of a utility patent, the court derisively explained that

[a] valid design patent does not necessarily result from photographing a manufactured article and filing a reproduction of such photograph properly certified in the patent office. . . . Indeed, every feature of these patents is mechanical and functional, and not ornamental. Even ordinary rivet heads are made to appear as beautiful circles in this scheme of ornamentation. If, moreover, the braces or supports of patent No. 41,389 were intended for ornamentation, they apparently failed in their mission, but, if otherwise, then every piece of mechanism can, with the aid of photography and the machinery of the Patent Office, be readily crystallized into a design patent.¹¹¹

In 1920, the Second Circuit in *Baker v. Hughes-Evans Co.*¹¹² also confronted the interplay of the utility and design patent regimes and offered a succinct and insightful resolution. The patentee sought to enforce both a utility and a design patent for an inset soap dish wall receptacle with a protruding lip that could be used as a handle.¹¹³

109. *Id.* (emphasis added); see *Ex parte Knothe*, 102 O.G., 1294 (1903) (“Forms modeled only to develop function may receive protection under section 4886, Revised Statutes, if they are functionally distinguishable from other existing forms, and when they cannot stand this test they are not worthy of the protection of the patent law, but are mere changed forms changed for no useful purpose Changed forms which do not produce ornamental effects and which develop no new functions do not promote the progress of the useful arts and are outside of the constitutional power of congress to afford protection to them.”), cited in W.L. POLLARD, DIGEST OF DECISIONS OF LAW AND PRACTICE IN THE PATENT OFFICE AND THE UNITED STATES AND STATES COURTS IN PATENTS, TRADE-MARKS, COPYRIGHTS AND LABELS 1897–1912, at 103 (1912).

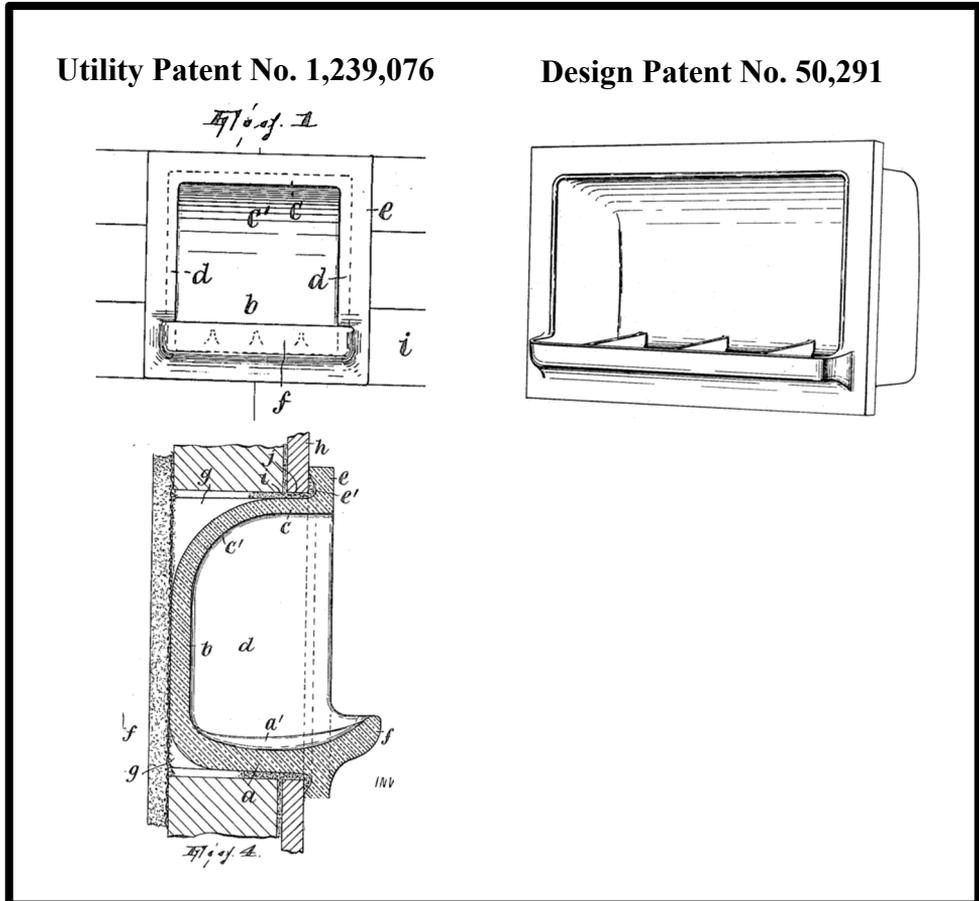
110. 201 F. 926 (D.N.J. 1913).

111. *Id.* at 929–30.

112. 270 F. 97 (2d Cir. 1920).

113. See U.S. Patent No. 1,239,076 (issued Sept. 4, 1917); U.S. Design Patent No. 50,291 (issued Feb. 13, 1917).

Figure 2: Baker Soap Receptacle Patents



In ruling that the design was ineligible for a design patent, the court explained that

the lip receptacle is open to the criticism that its desirable features are functional rather than ornamental. *Weisgerber v. Clowney* (C.C.) 131 Fed. 477. It is true, as pointed out in *Bayley, etc., Co. v. Standart, etc., Co.*, 249 Fed. 478, 161 C.C.A. 436, that the same device or article may exhibit patentable mechanical invention and a patentable design; but it is not true that the design can ever be used to appropriate (per se) the mechanical function. The two inventions must be separable; otherwise, it would be a contradiction in terms to grant two patents for them.¹¹⁴

114. *Baker*, 270 F. at 99 (emphasis added) (citation omitted); see also *Work of the Education Committee*, 3 J. PAT. OFF. SOC'Y 396, 403 (1921) ("If the feature in which the novel esthetic

The court's recognition that a design patent can *never* be used to appropriate a mechanical function aligns with the Supreme Court's fundamental insight in *Baker v. Selden*¹¹⁵ that it would be a "surprise and fraud upon the public" to grant the author of a book "an exclusive property in the art described."¹¹⁶ Such is the exclusive province of the utility patent regime. Furthermore, the Second Circuit's recognition in *Baker v. Hughes-Evans Co.* that the functional and ornamental features must be *separable* parallels the separability limitation on the scope of copyright protection for useful articles.¹¹⁷

Some cases ruled that various categories of articles of manufacture were categorically excluded from design patent protection. The First Circuit reasoned in *Theodore W. Foster & Bro. Co. v. Tilden-Thurber Co.*¹¹⁸ that the 1902 Act did not bar design patents "if the ornamental character consists merely in a new and original shape or configuration given to the article."¹¹⁹ However, the court nonetheless noted that "design patents refer to appearance, not utility"¹²⁰ and that

effect resides is the identical feature which produces the novel function, so that a structure embodying the mechanical invention would, of necessity, embody the design, and vice versa, it is questionable whether two separate patents, one for a design, the other for a mechanical patent, should issue; for neither patent could be practised without infringing the other. In such a situation one patent would necessarily afford complete protection against all infringers" (citing *Bayley & Sons, Inc. v. Standart Art Glass Co.*, 249 F. 478 (2d Cir. 1918)).

115. 101 U.S. 99 (1879).

116. *Id.* at 102 ("To give to the author of the book an exclusive property in the art described therein, when no examination of its novelty has ever been officially made, would be a surprise and a fraud upon the public. That is the province of letters-patent, not of copyright. The claim to an invention or discovery of an art or manufacture must be subjected to the examination of the Patent Office before an exclusive right therein can be obtained; and it can only be secured by a patent from the government."). "Letters-patent" refers to the utility patent regime.

117. *See* 17 U.S.C. § 101 (limiting protection of "[p]ictorial, graphic, and sculptural works" to "artistic craftsmanship insofar as their form but not their mechanical or utilitarian aspects are concerned; the design of a useful article . . . shall be considered a pictorial, graphic, or sculptural work only if, and only to the extent that, such design incorporates pictorial, graphic, or sculptural features that can be identified *separately* from, and are capable of existing independently of, the utilitarian aspects of the article." (emphasis added)). We explore this doctrine in Section VII(A)(1).

118. 200 F. 54 (1st Cir. 1912).

119. *Id.* at 56.

120. *Id.* (quoting *Rowe v. Blodgett*, 103 Fed. 873 (C.C.D. Conn. 1901)); *see also* *Pashek v. Dunlop Tire & Rubber Co.*, 8 F.2d 640, 640–41 (N.D. Ohio 1925) ("[A]n automobile tire tread is not a proper subject for a design patent. . . . The tread surface is broken up and given certain characteristics for reasons of function and utility. . . . Ornamentation and decoration have little if any relation thereto In use the tire tread is not intended to be ornamental or decorative. It is intended for hard wear upon rough surfaces and under all conditions of mud and weather.").

among articles of manufacture there are some incapable of being the subjects of design patents, for want of reason to suppose that their appearance can ever really matter to anybody. Examples of this class are, besides horseshoe calks, syringes, plates joining the ends of machine belts, and thill couplings; also ribbon spools for typewriting machines, and insulating plugs. The shape or configuration of such articles can have value only in so far as it may make them more useful.¹²¹

The court allowed that a “design for an article of manufacture not belonging to this class” was eligible for a design patent if it was novel, original, and ornamental.¹²² Somewhat confusingly, however, the court commented that such a design patent could “give the manufactured article . . . greater utility than any previously used.”¹²³ Importantly, the court then qualified that statement by noting that “[s]uch a patent, indeed, would cover the new shape or configuration only in its ornamental and not in its merely useful aspect, nor would it be infringed by an article securing the same merely useful result through shape or configuration, unless so nearly the same in appearance as to come within *Gorham Co. v. White*.”¹²⁴ This significant caveat presaged Judge Learned Hand’s seminal copyright decision in *Nichols v. Universal Studios*,¹²⁵ which emphasized the need to filter out unprotectable features of copyrighted works in conducting infringement analysis.¹²⁶

Other early cases considered whether the commercial success of an article of manufacture could be attributed to ornamentality or utility.¹²⁷ In *Ex parte Marsh*,¹²⁸ for example, the Patent Commissioner held that the commercial success of a device used in the kitchen to extract grease from waste water was

121. *Theodore W. Foster & Bro. Co.*, 200 F. at 56 (citations omitted) (citing *Rowe v. Blodgett & Clapp Co.*, 112 F. 61 (2d Cir. 1901)); *Williams Calk Co. v. Neverslip Mfg. Co.*, 136 F. 210 (C.C.M.D. Pa. 1905); *Williams Calk Co. v. Kemmerer*, 145 F. 928 (3d Cir. 1906); *Wagner Typewriter Co. v. F. S. Webster Co.*, 144 F. 405 (C.C.S.D.N.Y. 1906); *Williams v. Syracuse & S. R. Co.*, 161 F. 571 (C.C.N.D.N.Y. 1908)); *see also* *Bradley v. Eccles*, 126 F. 945 (2d Cir. 1903) (discussing the inherent lack of design patentability of a design for a washer for thill-couplers).

122. *Theodore W. Foster & Bro. Co.*, 200 F. at 56.

123. *Id.*

124. *Id.* (citations omitted).

125. 45 F.2d 119 (2d Cir. 1930).

126. *See id.* at 121. The Second Circuit generalized Judge Hand’s abstraction-filtration-comparison framework in *Computer Associates International v. Altai, Inc.*, 982 F.2d 693 (2d Cir. 1992), a case which has been influential in addressing the proper scope of copyright protection in computer software cases. *See* Peter S. Menell, *Rise of the API Copyright Dead?: An Updated Epitaph for Copyright Protection of Network and Functional Features of Computer Software*, 31 HARV. J.L. & TECH. 303, 329–30, 334–36 (2018). We explore the relevance of copyright’s limiting doctrines to design patent law in Part VI.

127. *See* SHOEMAKER, *supra* note 36, at 112–13.

128. 322 O.G. 501 (1924).

not sufficient evidence that its value lies in its appearance, as such success depends more upon its functional characteristics.¹²⁹ Similarly, in *Follen v. Lambert Tire & Rubber Co.*,¹³⁰ where the design patent claimed a tire tread surface, the district court concluded that prospective purchasers were motivated principally by the tire's mechanical advantages, rejecting the assertion that the tire appearance accounted for fifty percent of the sales.¹³¹

In other contexts, however, courts found that the ornamental features drove the sales of useful articles and accorded design patent protection. In *General Gaslight Co. v. Matchless Manufacturing Co.*, the court determined that “[t]he evidence establishes beyond doubt that the lamp under consideration met with immediate favor from the public on account of its artistic construction. . . . [The design’s] ornate appearance and novel shape quickly achieved popularity.”¹³² Similarly, the Eighth Circuit in *Boyle v. Rousso* concluded that “[t]he evidence . . . successfully established that [the article of manufacture] proved pleasing and attractive to the eyes of the purchasers of the towel cabinet it described, for they were many and its manufacture and sale was a remarkable commercial success.”¹³³

The design patent regime applied with relative ease to surface ornamentation of articles of manufacture or decorative items.¹³⁴ The application of the ornamentality doctrine to the shape of useful articles

129. *Id.*; see also *Bradley v. Eccles*, 126 F. 945, 949 (2d Cir. 1903) (“The washer, like the horseshoe calk, is not intended for display, but for an obscure use. There is no evidence that its form appeals in any way to the eye, or serves to commend it to purchasers and users as a thing of beauty. There is not a scintilla of evidence that the sale of a single washer was ever induced by reason of any attractiveness in its appearance.”); *Bayley & Sons, Inc. v. Standart Art Glass Co.*, 249 F. 478, 480 (2d Cir. 1918) (“[T]he evidence wholly fails to show whether success is due to the mechanical excellence of the whole article, or the pleasing shape of [it]”); *Circle S Prods. Co. v. Powell Prods.*, 174 F.2d 562, 564 (7th Cir. 1949) (addressing defendants’ reliance “upon commercial success and cases which have held or intimated that in the case of design patents it is ‘a test of patentability.’ The commercial success which they claim for their product we think is of little, if any, benefit in the instant matter. . . . [T]here is nothing in the record to show what portion of the asserted success was due to the mechanical or utility features of the device and what, if any, was attributable to the design.” (internal citations omitted)).

130. *Follen v. Lambert Tire & Rubber Co.*, 8 F.2d 303, 303–04 (N.D. Ohio 1925); SHOEMAKER, *supra* note 36, at 112–13.

131. *Follen*, 8 F.2d at 303–04.

132. 129 F. 137, 139 (C.C.S.D.N.Y. 1904).

133. 16 F.2d 666, 668 (8th Cir. 1926).

134. See SHOEMAKER, *supra* note 36, at 126 (“Where articles are designed for the sole purpose of ornamentation, no question can arise concerning their mechanical function. A badge would fall under this class, also a chain, a necklace, a comb for the hair, a picture frame, etc.”); SYMONS, *supra* note 59, at 14–15 (“There are many articles which all agree are ornamental objects clearly entitled to protection under the design law, such as watch cases, spoons, medals, vases, various kinds of glassware, and many other articles.”).

presented greater difficulty, but even here there was relatively wide agreement that industrial tools and mechanical articles were outside of design patent subject matter.¹³⁵ Nonetheless, it was “well-established” by the mid-1920s that a design patent on an article could not be denied simply because that article had a mechanical or functionality utility.¹³⁶

B. ORIGINS OF THE “DICTATED BY” “UTILITARIAN,” “MECHANICAL,” OR “FUNCTIONAL CONSIDERATIONS” PHRASEOLOGY

The standard for assessing whether a design is within the scope of design patent subject matter evolved over the course of the mid-20th century. As this Section traces, the Second Circuit observed in a relatively straightforward case invalidating a design patent that the design “does not seem to us to have been dictated by other than utilitarian considerations.”¹³⁷ The Seventh Circuit used this formulation in two other straightforward cases. Other courts picked up on this language as well. None of these cases, however, state or even imply that a design that is partially based on functional considerations or in which ornamental elements are inextricably intertwined with functional features are

135. See SHOEMAKER, *supra* note 36, at 126–27 (“There are many structures which are so purely and entirely utilitarian that their ornamentation is a matter of such inconsiderable importance that design patents cannot properly be granted for them. Possibly a frame for a combination lathe, drilling and milling machine is such a device. The United States courts in a number of instances have found design patents invalid because they were based substantially entirely upon a functional feature of a structure.” (citations omitted)); SYMONS, *supra* note 59, at 14–15 (“There are other articles in regard to which there may be strong doubt whether they are proper subject for protection.”).

136. See SHOEMAKER, *supra* note 36, at 128 (citations omitted); *N. British Rubber Co. v. Racine Rubber Tire Co.*, 271 F. 936, 938 (2d Cir. 1921) (“[I]t is not necessarily a fatal objection to a patent of this class that the design itself is exhibited upon a mechanical product devoted to utilitarian purposes, provided that the design per se is (inter alia) the result of invention. But the invention must relate to the design and be distinguishable from that which contrived the mechanical product for commercial purposes.” (citation omitted)); *R. E. Dietz Co. v. Burr & Starkweather Co.*, 243 F. 592, 594 (2d Cir. 1917) (“While design patents are not intended to protect a mechanical function, or to secure to the patentee monopoly in any given mechanism or manufacture as such, it is immaterial that the subject of the design may embody a mechanical function, provided that the design per se is pleasing, attractive, novel, useful and the result of invention. But it is the design that is patented, not the mechanism dressed in the design.” (citation omitted)); *Ashley v. Weeks-Numan Co.*, 220 F. 899, 901 (2d Cir. 1915) (“[T]he subject-matter of a patent is not rendered unfit as a design patent by the mere fact that it is possible somewhere in its construction to discover a mechanical function. . . . The design law was intended to encourage the decorative arts, and therefore deals with the appearance, rather than the structure, uses, or functions, of the article. In a design patent the appearance is the subject-matter of the patent, and the appearance is none the less patentable because a mechanical function is involved. The patentability of a design is determined by its appeal to the eyes, and not by the presence or absence of a mechanical function.” (quotations omitted)).

137. See *Strause Gas Iron Co. v. William M. Crane Co.*, 235 F. 126, 131 (2d Cir. 1916).

eligible for protection. As Section C explains, the U.S. Court of Customs and Patent Appeals (CCPA) deployed the “dictated solely” formulation in the 1960s in two cases that created ambiguity as to the standard for design patent eligibility. These decisions and lax pronouncements from some other courts laid the groundwork for the Federal Circuit to eviscerate the intent behind the 1902 and 1952 Acts,¹³⁸ as will be explored in Part V.

The Second Circuit first used the “dictated by” terminology in the 1916 decision in *Strause Gas Iron Co. v. William M. Crane Co.*¹³⁹ In this litigation, Strause Gas Iron Co. (“Strause”) asserted both a utility patent and a design patent against its competitor. The utility patent claimed a “sad iron,” a clothes iron constructed of solid heavy iron,¹⁴⁰ having mechanical means for supplying air and gas for heating the iron efficiently and without the smell of unconsumed gas.¹⁴¹ The design patent application, filed two years after utility patent application, claimed the outer shape of a sad iron.¹⁴²

138. Congress carried over the text and intent of the 1902 Act in the 1952 Act. *Compare* Act of May 9, 1902, ch. 783, sec. 4929, 32 Stat. 193 (1902), *with* 35 U.S.C. § 171 (1952); *see also* H.R. REP. NO. 7794, at 24.

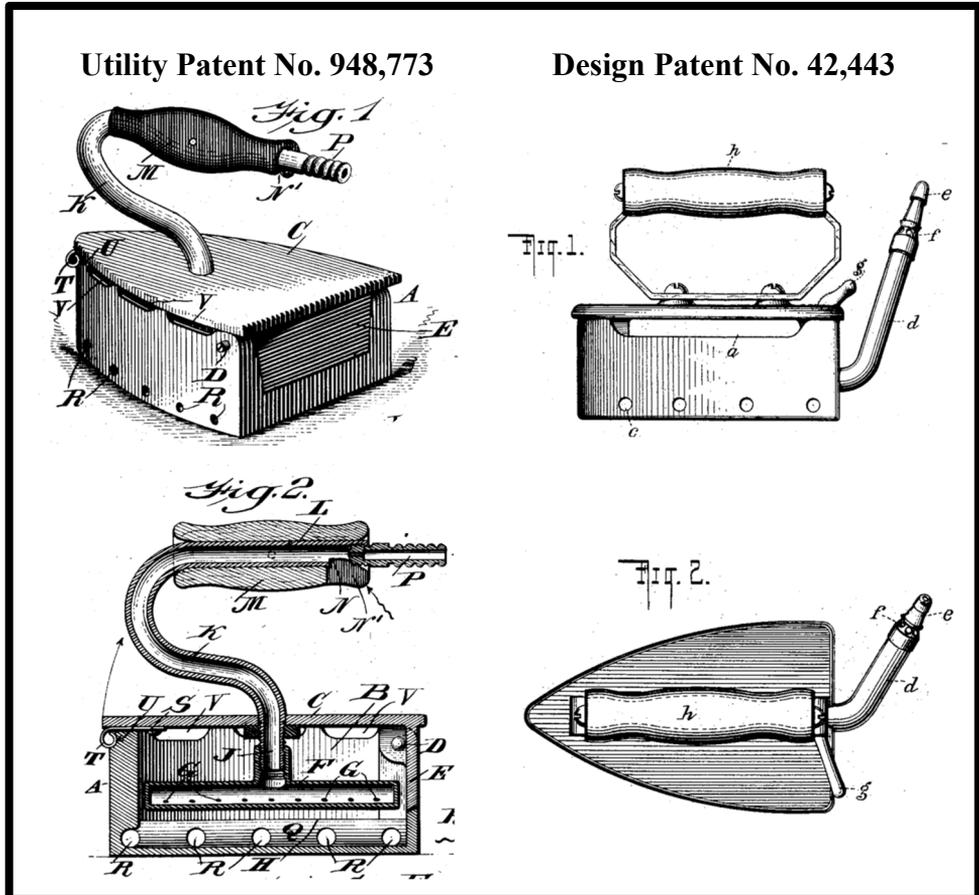
139. 235 F. 126, 131 (2d Cir. 1916). The opinion was written by then-District Judge Learned Hand, sitting with the appellate court.

140. *See History of Ironing*, OLD & INTERESTING, <https://www.oldandinteresting.com/antique-irons-smoothers-mangles.aspx> (last visited Nov. 19, 2020).

141. *See* U.S. Patent No. 948,773 (issued Feb. 8, 1910).

142. *See* U.S. Design Patent No. 42,443 (issued Apr. 30, 1912).

Figure 3: Strause Gas Iron Co. Patents



In affirming invalidation of the design patent, Judge Learned Hand explained:

If there be any room at all in the subject-matter for a design patent, the patentees have not found it. [The court described several similar prior art design patents.] *The modification of these forms into the design patent does not seem to us to have been dictated by other than utilitarian considerations.* To suppose that any inventive effort was necessarily addressed towards pleasing even a most rudimentary aesthetic susceptibility appears to us far-fetched. . . . We believe that any one starting to design sad irons with the art before him, and *governed only by considerations of proportion and plan*, would have had no difficulty in making the plaintiff's iron.¹⁴³

143. 235 F. at 130–31 (emphasis added).

Other courts also found the “dictated by” functionality principle useful as a way of resolving design patent cases. In *Applied Arts Corp. v. Grand Rapids Metalcraft Corp.*,¹⁴⁴ the Sixth Circuit overturned a ruling that a design patent on a combination of ash receiver and electric lighter for use in an automobile¹⁴⁵ was infringed. Although sidestepping the patent validity issue because of an assignor estoppel bar,¹⁴⁶ the court nonetheless used the functional nature of the design in narrowing the infringement determination.

The patented design is comparatively simple, and without ornamentation. In the main its configuration *is made imperative* by the elements which it combines and by the utilitarian purpose of the device. It was certainly not the intent of the law to grant monopoly to purely conventional design which is in itself *little more than a necessary response* to the purpose of the article designed. The scope of a design patent, as well as its originality, must depend on something more than this.¹⁴⁷

Thus, the court engaged in the sort of abstraction-filtration-comparison analysis reflected in Judge Learned Hand’s *Nichols* decision.¹⁴⁸

The Seventh Circuit in *Circle S Products Co. v. Powell Products, Inc.*¹⁴⁹ used the “dictated by” formulation to invalidate a minimalist rectangular design for a photographic lamp holder.

144. 67 F.2d 428 (6th Cir. 1933).

145. U.S. Design Patent No. 84,811 (issued Aug. 11, 1931).

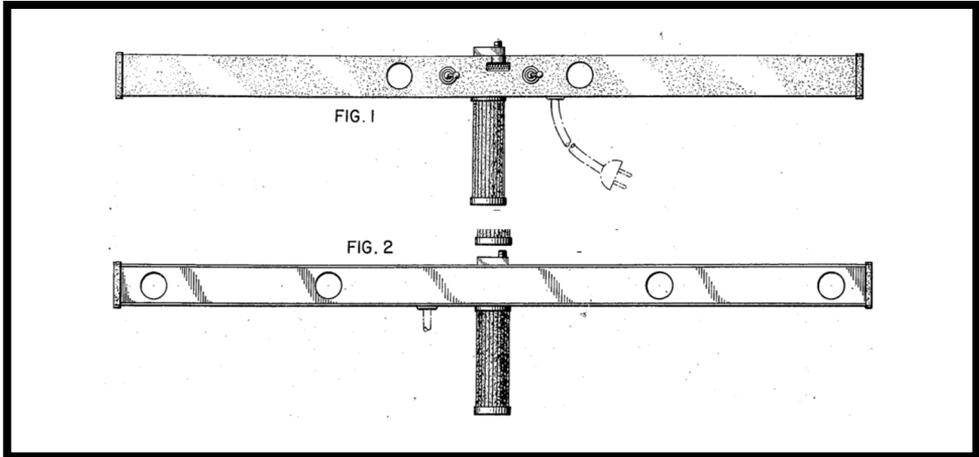
146. See 67 F.2d at 429 (discussing Westinghouse Elec. & Mfg. Co. v. Formica Insulation Co., 266 U.S. 342 (1924)).

147. 67 F.2d at 430 (emphasis added).

148. See *supra* text accompanying note 126 (discussing copyright law’s abstraction-filtration-comparison framework).

149. 174 F.2d 562 (7th Cir. 1949).

Figure 4: Des. 148,806 (Feb. 24, 1948)



The district court invalidated the design patent on the ground that

[t]he photographic lamp holder . . . is a mechanical device for providing illumination for photography and *its shape and configuration are dictated by mechanical and functional requirements rather than those of design.*¹⁵⁰

The Seventh Circuit affirmed, explaining that

[t]his finding, if accepted, as we think it must be, negatives any basis for a patentable invention. It has been held that the design patent cannot properly be obtained on the shape of a device which *necessarily results* from its mechanical parts. In the instant case, the [patentee's] device consists of a number of mechanical parts for operating light bulbs. The shape of the device is that resulting from the assembly of those component mechanical parts. A statement pertinent to the instant situation was made in *Applied Arts Corporation v. Grand Rapids Metalcraft Corporation*, 6 Cir., 67 F.2d 428, at page 430, wherein the court in discussing the design before it stated:

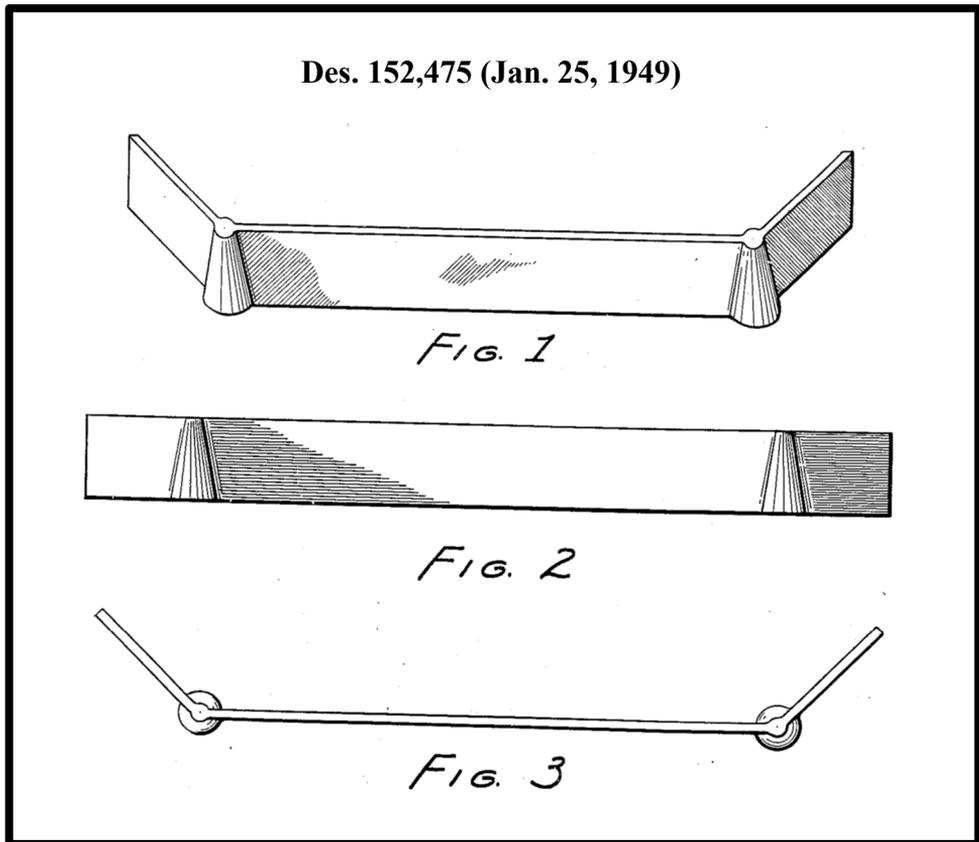
'In the main its configuration is made imperative by the elements which it combines and by the utilitarian purpose of the device. It was certainly not the intent of the law to grant monopoly to purely conventional design which is in itself little more than a necessary response to the purpose of the article designed.'

150. *Id.* at 564 (quoting the district court decision).

Nor do we find any reason to disagree with the lower court in its view that the design is not ornamental, as that term is used in the patent law. . . It has no unusual shape or configuration. It is without decoration and its shape *results from* its mechanical construction.¹⁵¹

Less than a year later in *Hueter v. Compco Corp.*, the Seventh Circuit invalidated yet another minimalist design patent, Hueter's incredibly simple "Article Holding Guard or the Like."¹⁵²

Figure 5: Hueter Article Holding Guard



The Seventh Circuit noted:

The drawing of the patented design was a straight, plain and unadorned front bar, the length of which is approximately seven times its width, with straight wings of the same width at each end which were a little less than one-fourth the length of the front bar at

151. *Id.* (emphasis added).

152. 179 F.2d 416, 417 (7th Cir. 1950).

an angle of about 45 degrees. No ornamentation of any kind is shown on either the front bar or on the wings. The only possible claim for the design being considered as ornamental must be found in the proportion of the length and width of the front bar and wings and in the angle at which the wings extend backward from the front bar.¹⁵³

The district court found that

the shape and configuration of the structure shown in the patent drawing are not ornamental but are *dictated by functional requirements* rather than by those of design. Such shape and configuration fail to exhibit creative artistry and show nothing suggesting the exercise of invention in the creation of a design.¹⁵⁴

The Seventh Circuit had no difficulty affirming the invalidation of this rudimentary minimalist design, reiterating

that the shape and configuration of the structure of the plaintiff's design were not ornamental but were *dictated by functional requirements* rather than by those of design; and that such shape and configuration failed to exhibit creative artistry and show nothing suggesting the exercise of invention. Consideration of the use for which plaintiff's device was designed dictated a front bar for the holder in order to keep articles from falling off the front side of the dashboard, and the wings were likewise necessary to prevent the articles from sliding sidewise and falling to the floor. The purpose and available space for placing the device *necessarily dictated* the approximate length and width of the front bar and of the wings. It would seem that even a child, building a fence on a dashboard to contain articles, would have arrived at approximately the same result.¹⁵⁵

Drawing on these Seventh Circuit cases, the District Court in *Tupper Corp. v. Tilton & Cook Co.*¹⁵⁶ addressed the validity of a design patent on a combined cigarette and match case.¹⁵⁷

153. *Id.* at 417.

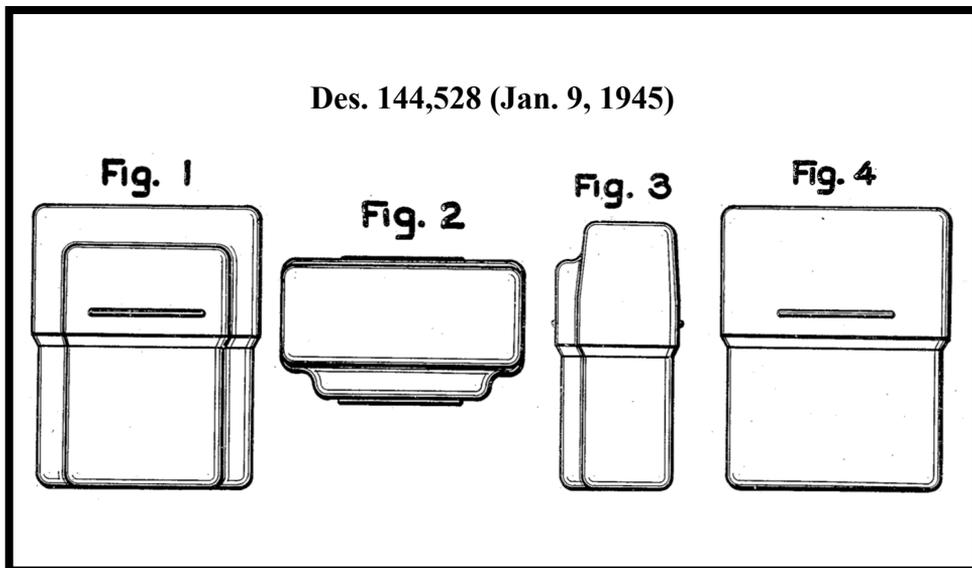
154. *Id.* (emphasis added) (quoting the district court).

155. *Id.* at 417–18 (emphasis added). The court noted that although “in a close case evidence of the commercial success may tip the scales in determining whether an improvement amounts to an invention, . . . it cannot be used to create a doubt where there is lack of invention.” *Id.* at 418. The court was using “invention” here to reference ornamental creativity, not technological advance and concluded that “even if the evidence had shown that the patented design of plaintiff, instead of the utility of the device, had a strong public appeal, and had met with commercial success, such evidence could not have made plaintiff's patent valid.” *Id.*

156. 113 F. Supp. 805 (D. Mass. 1953).

157. U.S. Design Patent No. 144,528 (issued Apr. 23, 1945).

Figure 6: Tupper Design Patent—Des. 144,528 (Jan. 9, 1945)



As the court explained, the design was

composed of two parts, a lower member into which can be placed a package of cigarettes and a book of matches, and a cover member which telescopes over the lower member. In general configuration the lower member is a hollow rectangular container of a size to fit a regular size package of cigarettes with the front wall bulging or protruding sufficiently to form a substantially rectangular compartment for the book of matches. The cover is of the same general shape, being slightly larger so that it will slide down outside the wall of the lower part. . . .¹⁵⁸

Tupper Corp. executed a minimalist design that was contoured to a standard-sized cigarette box and a standard-sized matchbook.

Tupper defended the validity of the design patent on the ground that the design “produces a new and pleasing impression on the aesthetic sense; namely, a symmetrical twin-formed case”¹⁵⁹

The court framed the case as follows:

The essential question is whether the particular combination of elements used by Tupper produced a new and ornamental design which showed invention over the prior art, *S. Dresner & Son, Inc. v.*

158. *Tupper*, 113 F. Supp. at 805.

159. *Id.* at 806 (quoting plaintiff’s proposed findings of fact).

Doppelt, 7 Cir., 120 F.2d 50, 51, and also one which was *primarily ornamental*, rather than a *design dictated by the functional and mechanical requirements* of the subject matter. *Hueter v. Compco Corp.*, 7 Cir., 179 F.2d 416, 417.¹⁶⁰

Therefore, either ground—anticipation or ineligible subject matter—would have invalidated Tupper's design patent.

In invalidating Tupper's design patent, the court noted that the “idea of a case with a telescoping cover is not new” and had “long been made . . . to hold cigars and cigarettes as well as many other products.”¹⁶¹ The court cited two utility patents—one for a cigarette case holding a matchbook and another holding a toothbrush and dentifrice—reflecting similar designs involving functional elements.¹⁶² After explaining these bases for invalidating Tupper's design patent, the court then observed:

The general shape and configuration of the Tupper case is *clearly one dictated by functional requirements*. Given the problem of designing a container for a pack of cigarettes and a book of matches, the obvious and natural result would be a case following the general configuration of the cigarette package with a bulge on one side of the size and shape necessary to allow the book of matches to be placed therein. . . . Thus the essential features on which plaintiff relies as producing the new and pleasing aesthetic impression *are merely the natural results of the functional elements* of the Tupper case. . . .

The conclusion must be that the Tupper design patent in suit is invalid because it fails to show invention over the prior art and because the essential features of the design disclosed are *dictated by the functional requirements* of the object designed rather than by ornamental or decorative inventiveness.¹⁶³

Thus, the discussion of eligibility is largely if not entirely dicta. The court was gilding the lily and not setting forth a definitive test for design patent eligibility. It was merely pointing out that Tupper's minimalist design claim was untenable. The First Circuit affirmed the district court in a per curiam opinion.¹⁶⁴

Five years later, the District of Rhode Island in *Jones v. Progress Industries, Inc.*¹⁶⁵ confronted the familiar pattern of an inventor asserting utility and design patents covering the same functional, unadorned, minimalist article of

160. *Id.* (emphasis added).

161. *Id.*

162. *See id.*

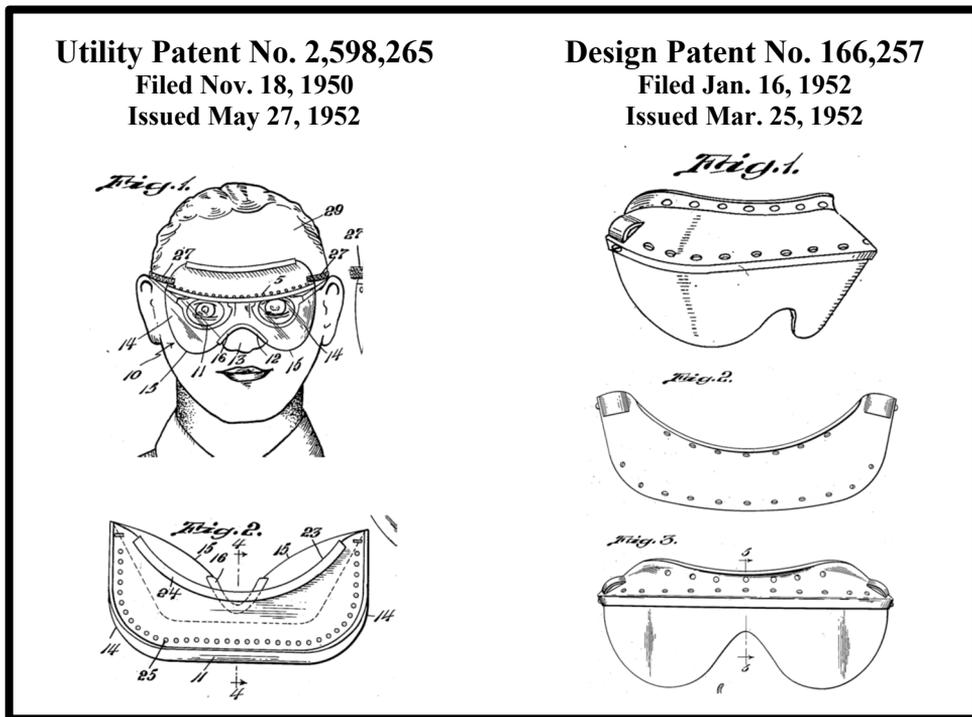
163. *Id.* at 806–07 (emphasis added).

164. 209 F.2d 954 (1st Cir. 1954).

165. 163 F. Supp. 824 (D.R.I. 1958).

manufacture. Jones filed his application for industrial goggles, “which will be sufficiently strong and durable to be suitable for industrial protection of the eyes,” on November 18, 1950.¹⁶⁶ Fourteen months later, he filed a design patent application on “Goggle Front.”¹⁶⁷ As an indication of the Patent Office’s lax examination, the design patent issued on March 25, 1952, two months after filing and two months before issuance of the utility patent.

Figure 7: Jones Goggle Patents



Jones sued Progress Industries for infringement of both patents. As regards to the design patent claim, the court quoted from the statement from *Tupper* that designs must be “primarily ornamental, rather than a design dictated by functional and mechanical requirements of the subject matter” to obtain design patent protection.¹⁶⁸ The court easily concluded that

[t]he general shape and configuration of the plaintiff’s design is *obviously one dictated by functional requirements*. Considering all of the evidence, I am satisfied that the shape, size, and contour of the visor

166. U.S. Patent No. 2,598,265 (issued May 27, 1952).

167. U.S. Design Patent No. 166,257 (issued Mar. 25, 1962).

168. *See Jones*, 163 F. Supp. at 826 (quoting *Tupper Corp. v. Tilton & Cook Co.*, 113 F. Supp. 805, 806 (D. Mass. 1953) (citing *Hueter v. Compco Corp.*, 179 F.2d 416, 417 (7th Cir. 1950))).

and lens section, the recess for the nose, the curved lens, the ventilation ports and holes, the molded lip overhanging the lens at the front of the visor, the loops for receiving the head strap, the acute angle between the head and visor section, the heads of the detachable bolts and all of the essential features of plaintiff's design are functional rather than ornamental. Moreover, having in mind the prior art, much evidence of which was presented by the defendant *and not cited by the examiner*, I am of the opinion that plaintiff's design exhibited no more creative artistic ability than that of which a routine designer in this field would be capable and did not amount to invention. Accordingly I find that said design patent No. 166,257 is invalid because its essential features are *dictated by functional requirements* rather than by ornamental or decorative inventiveness and because it fails to show invention over the prior art.¹⁶⁹

Drawing in part on the language from *Hueter*, the Southern District of New York in *Blisscraft of Hollywood v. United Plastic Co.*¹⁷⁰ invalidated a design patent for a pitcher on the dual grounds that the design lacked invention over the prior art and that it was “dictated solely by functional and mechanical requirements.”¹⁷¹ As Figure 8 illustrates, the design patent at issue in *Blisscraft*,¹⁷² unlike the patents discussed above, possessed decorative elements, such as the scalloped rim surrounding the lid.¹⁷³

169. *Id.* (emphasis added).

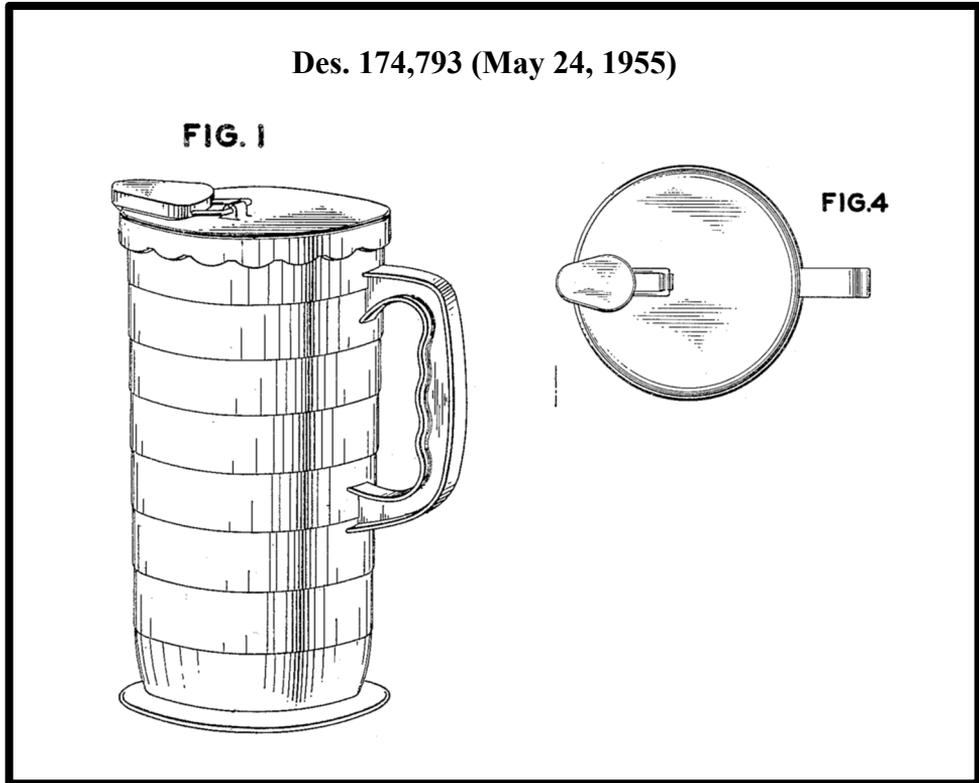
170. 189 F. Supp. 333 (S.D.N.Y. 1960), *aff'd in part, rev'd in part*, 294 F.2d 694 (2d Cir. 1961) (affirming design patent ruling and reversing the trademark ruling).

171. *See id.* at 337 (citing *Gorham Mfg. Co. v. White*, 81 U.S. 511 (1871), *Hueter v. Compco Corp.*, 179 F.2d 416, 417 (7th Cir. 1950), and *Jones v. Progress Indus., Inc.*, 163 F. Supp. 824, 826 (D.R.I. 1958)). This is the first case that uses “dictated *solely* by functional and mechanical requirements.” *Id.* (emphasis added).

172. U.S. Design Patent No. 174,793 (issued May 24, 1955).

173. The finger indentations on the handle are clearly functional. The circular ridges provide a gauge for measuring the amount of liquid in the pitcher.

Figure 8: Bliss Design Patent



The court's analysis focused first on the lack of creative advance over the prior art, noting that "plaintiff's design exhibited no more creative artistic ability than that of a routine designer in the field and does not amount to invention."¹⁷⁴

As regards functionality, the court stated:

The patent is also invalid on the ground that the novelty, if any, is functional rather than ornamental. The spout cover serves to close the spout opening; the handle and the tapered body make for ease in molding. The finger indentations on the 'pistol grip' prevent the pitcher from slipping out of one's hand. The horizontal lines around the body permit measuring and also strengthen the body. The scalloped lower edge of the lid serves to keep the lid on more tightly and to prevent leakage; and the flange or base prevents tipping. Each of these features is basically functional.

The new and pleasing aesthetic impression required to sustain a design patent cannot be merely the natural result of a combination

174. *Blisscraft*, 189 F. Supp. at 337.

of functional arrangements. Here, the design is clearly *dictated by functional or mechanical requirements*, and the so-called pleasing effect is merely a by-product. It is therefore invalid.¹⁷⁵

In view of the court's determination on creativity, the court's analysis of functionality is dicta. On appeal, the Second Circuit affirmed the invalidation of the design patent based on the lack of creativity in combining prior art elements and lack of ornamentation, making it "unnecessary" for the court to determine "whether the utilitarian or mechanical features of the pitcher were so dominant in the design conception as to prevent patentability."¹⁷⁶

None of these cases in which the "dictated by functional considerations" or "functional requirements" language was used to state or even imply that a design that is partially based on functional considerations or in which ornamental elements are inextricably intertwined with functional features are eligible for protection. These were all easy cases in which the courts resolved the controversy by observing that design patents cannot be granted where a design is dictated by functional considerations. In some cases, the observation that the design is "dictated by functional considerations" was secondary as the court had an independent ground (anticipation or obviousness) for its decision.

C. THE CCPA'S ADOPTION OF A "DICTATED SOLELY BY" STANDARD

The Court of Customs and Patent Appeals (CCPA), which had exclusive jurisdiction over appeals from the Patent Office applications, placed its imprint on design patent eligibility with two decisions in the 1960s.¹⁷⁷ Although these decisions affirming rejections of design patents did not reach erroneous results *per se*, they introduced ambiguity as to the proper standard for assessing design patent eligibility.

In *In re Garbo*, the CCPA reviewed an appeal from the decision of the Board of Appeals of the Patent Office which rejected an application for a design patent on obviousness grounds. The CCPA noted that

175. *Id.* (emphasis added).

176. *Blisscraft of Hollywood v. United Plastics Co.*, 294 F.2d 694, 697 (2d Cir. 1961). Shortly thereafter, another Second Circuit panel picked up on the *Blisscraft* District Court's use of the phrase "dictated *solely* by functional and mechanical requirements" (emphasis added) in invalidating a design patent on a soap dish. *See Hygienic Specialties Co. v. H. G. Salzman, Inc.*, 302 F.2d 614, 618 (2d Cir. 1962). Several later decisions referenced the "dictated solely by mechanical or functional requirements" language. *See John Thomas Batts, Inc. v. Hanger, Inc.*, 1972 WL 17705, at *12 (E.D.N.Y. June 14, 1972).

177. *See In re Garbo*, 287 F.2d 192 (C.C.P.A. 1961); *In re Carletti*, 328 F.2d 1020 (C.C.P.A. 1964).

a design may embody functional features and still be patentable, but in order to attain this legal status under these circumstances, the design must have an *unobvious appearance* distinct from that dictated *solely* by functional considerations. We do not find this situation here.¹⁷⁸

The CCPA's terse statement left room for doubt as to the scope of design patent eligibility. What did it mean to say that a design patent "may embody functional features"? Did the CCPA imply that a design patent could extend to functional features so long as they were not "dictated solely by functional considerations"? Could a design that inextricably intertwined aesthetic and functional elements be eligible for a design patent? The regional appellate courts' decisions were far more circumspect in communicating that design patents could not monopolize functional elements.¹⁷⁹

Judge Giles Rich, whose protectionist predilection defined his long career,¹⁸⁰ wrote the CCPA's opinion in *In re Carletti*. The decision affirmed the Patent Office's determination that a design for a gasket for the threaded bung hole of a fifty-five-gallon drum made in compliance with a regulatory specification was not eligible for a design patent.¹⁸¹ The CCPA reiterated its terse statement regarding design patent eligibility from *In re Garbo* and further explained:

It is clear that appellants never invented an 'ornamental design.' The appearance of appellants' gasket seems as much dictated by functional considerations as is the appearance of a piece of rope, which, too, has ribs and grooves nicely arranged. The fact that it is attractive or pleasant to behold is not enough. Many well-constructed articles of manufacture whose configurations are dictated *solely* by function are pleasing to look upon. . . . But it has long been settled that when a configuration is the result of functional considerations *only*, the resulting design is not patentable as an

178. *In re Garbo*, 287 F.2d at 193–194 (emphases added).

179. *See, e.g., Strause Gas Iron Co.*, 235 F. at 130–31; *Applied Arts Corp. v. Grand Rapids Metalcraft Corp.*, 67 F.2d 428, 430 (6th Cir. 1933) (expressing concern about monopolizing conventional designs through design patent protection); *Circle S Prods. Co. v. Powell Prods.*, 174 F.2d 562, 564 (7th Cir. 1949).

180. *See* John F. Witherspoon, *A Tribute to Judge Giles S. Rich*, 100 J. PAT. & TRADEMARK OFF. SOC'Y 4 (2018). Toward the end of his career, he authored the Federal Circuit's opinion in *State Street Bank & Trust Company v. Signature Financial Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998), which opened the way for patenting of business methods. The Federal Circuit and the Supreme Court eventually cast doubt on this decision. *See In re Bilski*, 545 F.3d 943, 959 (Fed. Cir. 2008), *aff'd but criticized by*, *Bilski v. Kappos*, 561 U.S. 593 (2010); *Alice Corp. Pty. Ltd. v. CLS Bank Intern.*, 573 U.S. 208 (2014). Judge Rich was advocating for broad protection for industrial designs at the time that he was sitting on the *In re Garbo* and *Carletti* cases. *See Hearings Before the Subcomm. on Patents, Trademarks, and Copyrights of the S. Comm. on the Judiciary on S. 1888*, 87th Cong. 27–36, 83–86 (1961) (testimony of Judge Rich).

181. *See In re Carletti*, 328 F.2d at 1020–22.

ornamental design for the simple reason that it is not ‘ornamental’—was not created for the purpose of ornamenting.¹⁸²

As in *In re Garbo*, the CCPA failed to clarify whether an article of manufacture that inextricably intermingled ornamental and functional considerations could garner design patent protection as a whole, namely, including the functional elements. Unlike some of the early ornamentality cases,¹⁸³ the CCPA did not address whether separability of ornamental and functional features would be necessary.

Thus, these two cases can be read broadly or narrowly. If read broadly, any design for an article of manufacture that is not “solely” dictated by functional considerations is eligible for design patent protection.¹⁸⁴ Under this interpretation, designs that are somewhat dictated by functional considerations could garner design patent protection. If read more narrowly, these cases address only the ineligibility of designs that are clearly dictated solely by functional considerations and which do not include even an iota of ornamentality. Notably, neither decision explores the 1902 Act, the legislative history, or the late 19th century controversy that led to the 1902 reforms.

The scope of design patent eligibility would continue to reverberate across the regional circuits until the establishment of the Court of Appeals for the Federal Circuit in 1982. As explored in Part V, the Federal Circuit would ultimately interpret the doctrine in favor of broad design patent subject matter. Although it was heavily influenced by the CCPA’s jurisprudence, the Federal Circuit also considered other formulations percolating around the country, which we will explore next.

D. OTHER FORMULATIONS

The standard for design patent eligibility continued to mutate as other circuit courts of appeals improvised new language and approaches in defining the line between ornamental and functional. None of these decisions went

182. *Id.* at 1022 (emphasis added) (citing WALKER ON PATENTS, Deller ed., Sec. 138, p. 434); *Conn. Paper Prods. v. N.Y. Paper Co.*, 127 F.2d 423 (4th Cir. 1942); *Hueter v. Compco Corp.*, 179 F.2d 416 (7th Cir. 1950); *Applied Arts Corp.*, 67 F.2d at 428; *In re Garbo*, 287 F.2d at 193.

183. *See Baker v. Hughes-Evans Co.*, 270 F. 97, 99 (2d Cir. 1920) (requiring that the ornamental features be “separable” from the functional features); *Theodore W. Foster & Bro. Co. v. Tilden-Thurber Co.*, 200 F. 54, 56 (1st Cir. 1912) (qualifying that a design patent “would cover the new shape or configuration only in its ornamental and not in its merely useful aspect, nor would it be infringed by an article securing the same merely useful result through shape or configuration, unless so nearly the same in appearance as to come within *Gorham Co. v. White*”).

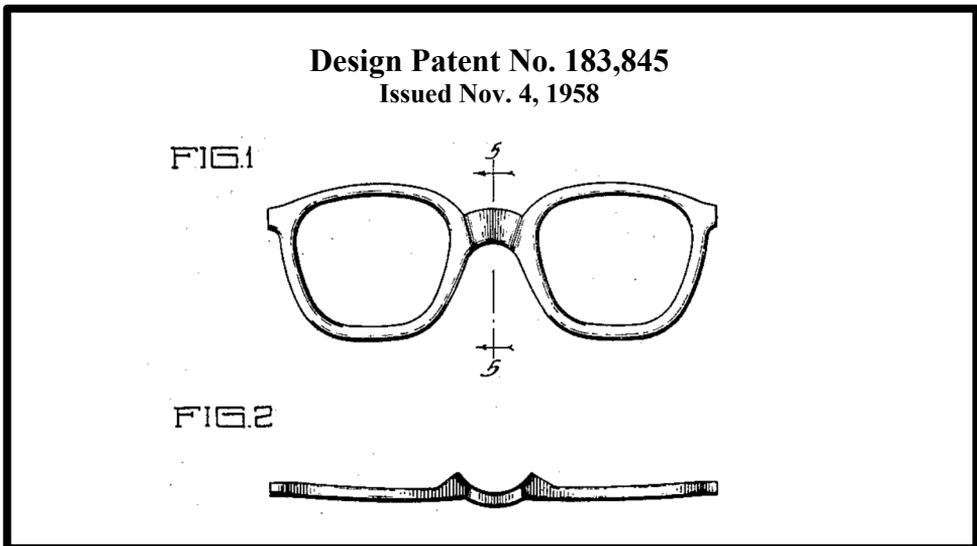
184. *See Saidman & Hintz, supra* note 93, at 355–56.

back to the critical source material: the 1902 Act, the Act’s legislative history, or the Supreme Court’s seminal *Baker v. Selden* logic. Courts increasingly focused on whether a design is “primarily ornamental” or “primarily functional.” We also see the District of Minnesota taking the doctrine in a radical ungrounded direction: assessing whether there are “alternative available designs” as a measure not of functionality but of market preemption. While several of these decisions reached the correct conclusion—invalidating design patents on minimalist and highly functional designs—they unfortunately left in their wake misleading dicta as to the proper standard. As this dicta and variations on this language expanded, the standard drifted ever further from the logic and intent of the 1902 (and 1952) Act.

1. “Primarily Ornamental”

We see the use of the “primarily” language take off in the 1962 *Fendall Co. v. Welsh Manufacturing Co.*¹⁸⁵ decision where Judge Day confronted a minimalist design for an “Eye Protective Industrial Spectacle Frame.”¹⁸⁶

Figure 9: Fendall Patent



The defendant contended that the design patent was invalid because the design is “primarily functional.”¹⁸⁷ In assessing this defense, the court highlighted the patentee’s emphasis on the functional advantages of its design in its marketing brochure: accommodating a wide range of users; reducing the size and cost of

185. 203 F. Supp. 45 (D.R.I. 1962).

186. U.S. Design Patent No. 183,345 (issued Nov. 4, 1958).

187. *Fendall*, 203 F. Supp. at 45.

goggle inventory; lessening fitting time; affording greater comfort; and providing high strength.¹⁸⁸

Drawing on his decision in *Jones*,¹⁸⁹ which built on the decision in *Tupper*,¹⁹⁰ Judge Day proclaimed that “[i]t is well settled that for a design to be patentable it must be *primarily ornamental*; a design dictated by functional or mechanical requirements is not patentable.”¹⁹¹ The court concluded without further elaboration that “the shape and configuration of the plaintiff’s design is obviously one dictated by functional requirements of the object designed rather than by ornamental or decorative inventiveness.”¹⁹²

2. “Primarily Functional”

Beginning with its 1963 decision in *Bliss v. Gotham Industries, Inc.*,¹⁹³ a case involving the same design patent on a pitcher invalidated in *Blisscraft of Hollywood v. United Plastic Co.*,¹⁹⁴ the Ninth Circuit adopted a “primarily functional” standard, holding that a design patent must not be “dictated primarily by functional or mechanical requirements and any ornamental or so-called pleasing effect was merely a byproduct thereof.”¹⁹⁵ Three years later, another Ninth Circuit panel followed this standard in *Bentley v. Sunset House Distributing Corp.*,¹⁹⁶ a case invalidating both a utility patent¹⁹⁷ and a design patent¹⁹⁸ covering the same minimalist, functional scissor-shaped meatball mold.¹⁹⁹

188. *See id.* at 46–47.

189. 163 F. Supp. 824 (D.R.I. 1958).

190. 113 F. Supp. 805 (D. Mass. 1953).

191. *Fendall*, 203 F. Supp. at 47 (emphasis added). *Fendall* was not the first design patent case to use the “primarily ornamental” terminology. The District of Massachusetts referred to “primarily ornamental” in *Tupper*, 113 F. Supp. at 806 (stating that design patents must be “primarily ornamental, rather than a design dictated by the functional and mechanical requirements of the subject matter”). Judge Day used that same language in *Jones*, 163 F. Supp. at 826.

192. *Fendall*, 203 F. Supp. at 47; *see also* *A & H Mfg. Co. v. Contempo Card Co.*, 576 F. Supp. 894, 898 (D.R.I. 1983) (“To be patentable, a design must be *primarily ornamental*; designs dictated by functional considerations are not primarily ornamental and, therefore, are not patentable.” (emphasis added)).

193. 316 F.2d 848 (9th Cir. 1963).

194. 189 F. Supp. 333 (S.D.N.Y. 1960), *affirming invalidation of design patent*, 294 F.2d 694 (2d Cir. 1961); *see supra* text accompanying notes 170–176.

195. *Bliss v. Gotham Indus, Inc.*, 316 F.2d 848, 851 (9th Cir. 1963).

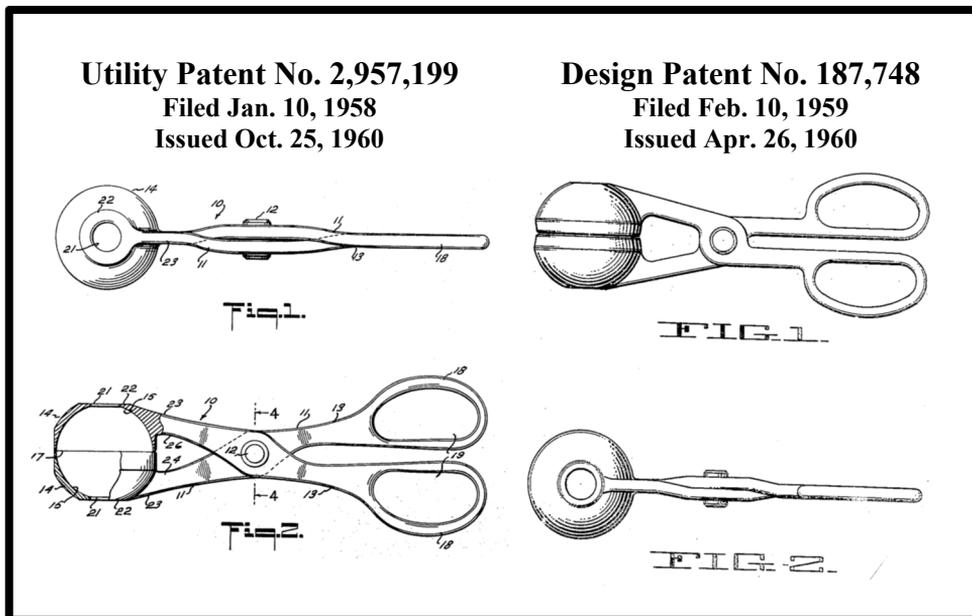
196. 359 F.2d 140, 145 (9th Cir. 1966).

197. U.S. Patent No. No. 2,957,199 (issued Oct. 25, 1960).

198. U.S. Design Patent No. 187,748 (issued Apr. 26, 1960).

199. The Ninth Circuit affirmed the lower court’s judgment notwithstanding the verdict invalidating the utility patent on obviousness grounds. *See Bentley*, 359 F.2d at 143–45.

Figure 10: Bentley Food Ball Mold Patents



The Ninth Circuit based its invalidation of the design patent on the following standard: “Where the ‘design’ of a design patent is dictated primarily by functional or mechanical requirements and any pleasing aesthetic effect is only an inadvertent by-product, the design patent is invalid.”²⁰⁰ The court reasoned that

the device itself ‘is not ornamental and does not appeal to the eye as a thing of beauty; does not relate more to appearance and to matters of ornament than to utility and does not appeal to the aesthetic emotion.’ The law does not require that the device be attractive to us; judges are part of the laity insofar as artistic judgment is concerned. But we must be able to find the design to be the result of invention, not modification, and to be ornamental, ‘the product of aesthetic skill and artistic conception.’ Here we find only modification; two molds in the prior art had finger-loop scissor handles, three had spherical molds, and at least five had a rather circular thickening of the handles where they were joined together. Almost all had horizontal lines, when closed and lying flat, of the degree of straightness which Bentley says is attractive. The ‘balance’ between handle and mold or tongs on many is roughly the same as that of the Bentley mold. Alone, then, or in the aggregate, the features of this tool show no invention. Nor do they show

200. *Bentley*, 359 F.2d at 145 (citing *Bliss*, 316 F.2d at 850–51).

ornamentation; as indicated above, each feature was designed to be and is unabashedly and purely functional.²⁰¹

Other Ninth Circuit cases followed the primarily functional standard, also in cases invalidating design patents.²⁰²

Similarly, the Third Circuit applied a primarily functional standard to invalidate a design patent claiming a minimalist functional design for an electrical conductor.²⁰³ The plaintiff, Methode Electronics, brought a declaratory judgment action seeking to invalidate Elco Corporation's utility patent²⁰⁴ and design patent²⁰⁵ relating to quick detachable electrical connectors. The Third Circuit based its decision invalidating the design patent on the Ninth Circuit's "dictated primarily by functional[ity]" standard: "If the design of the patent is dictated primarily by functional needs the patent is invalid."²⁰⁶

201. *Id.* at 146–47 (citations omitted). The court further noted that the commercial success of the product and copying by the defendant could save the design patent from invalidation. *See id.* at 147.

202. *See Payne Metal Enters., Ltd. v. McPhee*, 382 F.2d 541, 546 (9th Cir. 1967) (liquor pouring spout; "[A] patentable design must . . . be ornamental. This requires that the design be the product of aesthetic skill and artistic conception. This does not mean that a design is not patentable if it also embodies a functional or utilitarian purpose. But the rule is otherwise if the *primary purpose* of the design was functional." (emphasis added) (citations omitted)); *Barofsky v. Gen. Elec. Corp.*, 396 F.2d 340, 342–45 (9th Cir. 1968) (rectangular television cabinet).

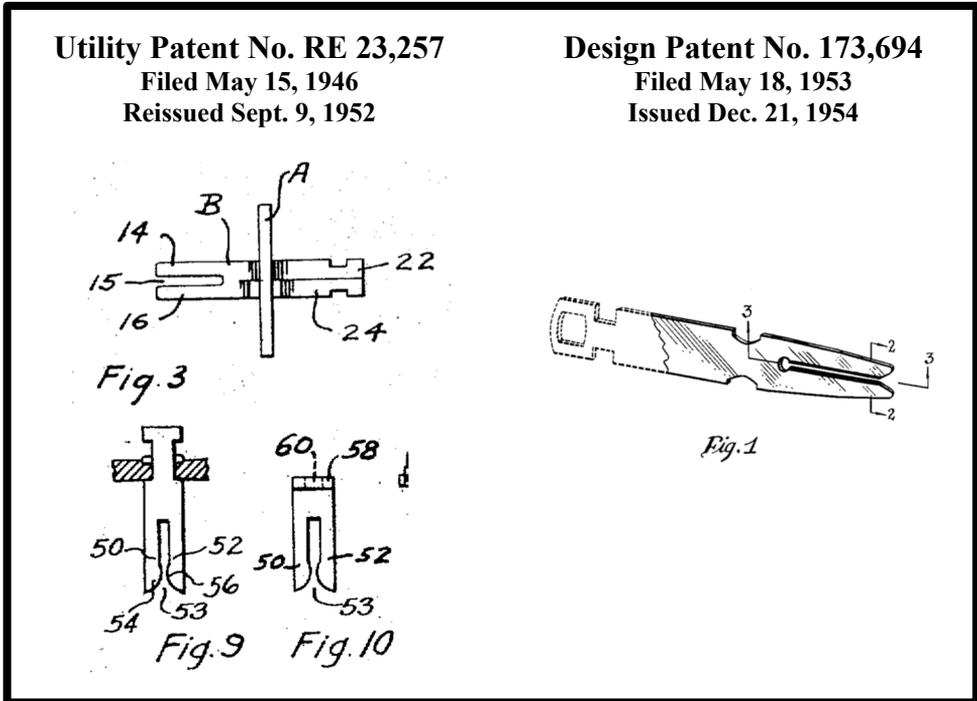
203. *Methode Elecs., Inc. v. Elco Corp.*, 385 F.2d 138, 141 (3d Cir. 1967).

204. U.S. Patent No. RE 23,257 (reissued Sept. 9, 1952).

205. U.S. Design Patent No. 173,694 (issued Dec. 21, 1954).

206. *Methode Elecs.*, 385 F.2d at 141 (citing *Bentley*, 359 F.2d at 145).

Figure 11: Fox Detachable Connector Patents



Thus, the regional circuit courts developed and applied a relatively strict functionality test and generally invalidated design patents that reflected functional design elements. In rare cases, however, courts twisted the standard to uphold the validity of design patents that involved utilitarian features. Two district court decisions that did not receive appellate scrutiny stand out—*L. F. Strassheim Co. v. Gold Medal Folding Furniture Co.*²⁰⁷ and *Bergstrom v. Sears, Roebuck & Co.*²⁰⁸ The second case would later make its way into Federal Circuit jurisprudence.²⁰⁹

In *L. F. Strassheim Co. v. Gold Medal Folding Furniture Co.*,²¹⁰ the Eastern District of Wisconsin rejected the argument that a highly functional design for an arm-rest assembly for a classic Director's chair is primarily functional rather than primarily ornamental.

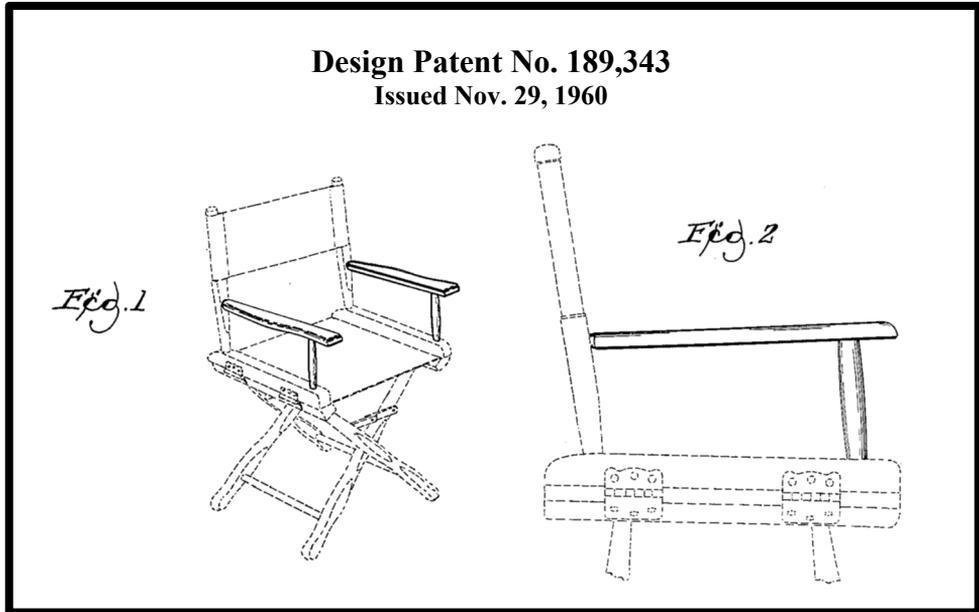
207. 294 F. Supp. 708 (E.D. Wis. 1968).

208. 496 F. Supp. 476 (D. Minn. 1980).

209. See *infra* Section V(B).

210. 294 F. Supp. 708 (E.D. Wis. 1968).

Figure 12: Collapsible Chair



Although the basic contours of the Director's chair traces back to the 15th century,²¹¹ the patentee contended that the design “eliminated the square, boxy appearance found in prior art chairs, and resulted in a definite and salutary distinctiveness and freshness of appearance.”²¹² In upholding the validity of the design patent, the court noted that “the patented feature need not be primarily ornamental, as the plaintiff suggests; it suffices that the patented configuration does not involve its utility alone.”²¹³ It is difficult to see how the standard minimalist arm assembly is not inextricably intertwined with function. Note that the design patent claims only the solid lines: a flat, modestly contoured piece of wood and standard dowel connecting the arm to the seat section of the chair.²¹⁴

211. See *Director's Chair*, WIKIPEDIA, https://en.wikipedia.org/wiki/Director%27s_chair (last visited Nov. 20, 2020); Parts of the Past, *The History of Director's Chair*, YOUTUBE (June 26, 2017), <https://www.youtube.com/watch?v=RTENg4t7AKM>.

212. *L. F. Strassheim Co.*, 294 F. Supp. at 714.

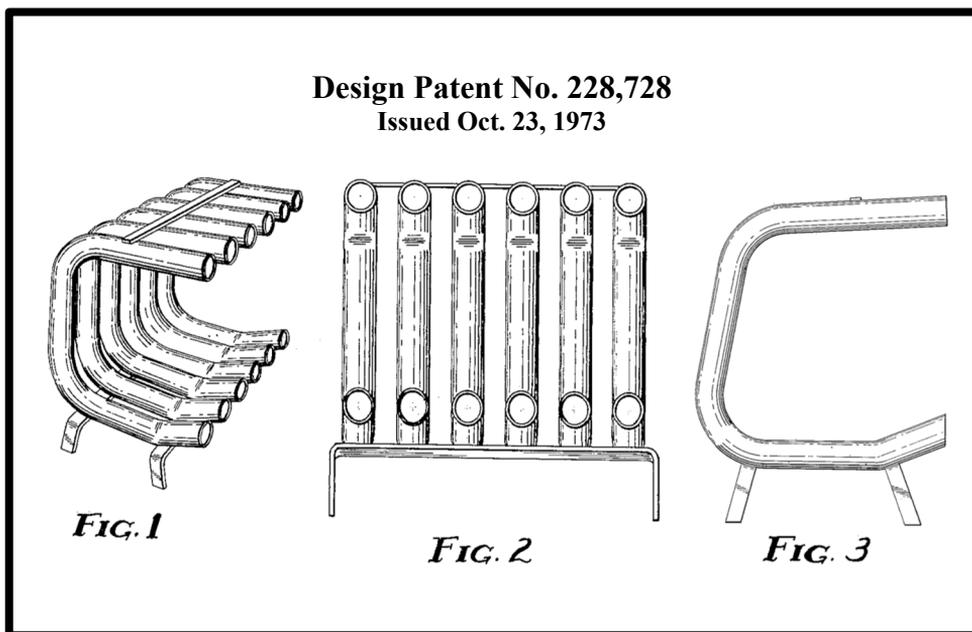
213. *Id.* (citing *Spaulding v. Guardian Light Co.*, 267 F.2d 111 (7th Cir. 1959)).

214. Design patent applicants limit the scope of their design patent drawings through the use of broken or phantom lines to illustrate the environment, but not claimed aspects, of the design. See U.S. PAT. & TRADEMARK OFF., *supra* note 94, § 1504.04 (2018). Only the solid lines constitute the claimed design. See *id.* at 1500–49.

3. “Availability of Alternative Designs”

In 1980, the District of Minnesota in *Bergstrom v. Sears, Roebuck & Co.*²¹⁵ applied a lax new test of design patent eligibility: whether “there are numerous possible design solutions” for the article of manufacture.²¹⁶ The design patent at issue claimed a series of side-by-side C-shaped tubes that function as both a fireplace grate and a heater.²¹⁷ The design heats the ambient air by drawing cool air from the room into the tubes, which is then heated by the fire and then propelling the warm air from the top of the tubes.

Figure 13: Fireplace Grate



Based on the legal standard applied in *Barofsky v. General Electric Corp.*²¹⁸ and *Method Electronics*, the defendants argued that the design was “solely or primarily dictated by functional considerations.”²¹⁹ They contended that the diameter and circular nature of the tubes, the use and size of the legs, the spacing between the tubes, the positioning of the top strap, the angle of incline with respect to the back tube which parallels the slanting back wall of the fireplace, and the upturned lower portion of the air intake tubes were dictated

215. 496 F. Supp. 476 (D. Minn. 1980).

216. *Id.* at 489.

217. U.S. Design Patent No. 228,728 (issued Oct. 23, 1973).

218. 396 F.2d 340, 342–45 (9th Cir. 1968).

219. *See Bergstrom*, 496 F. Supp. at 488.

by the performance of the grate and the capability of the grate to fit into a fireplace.²²⁰ While acknowledging that functional considerations might well dictate the “C” shape of the tubes, the court sidestepped directly addressing the functional considerations by finding that “there are numerous possible design solutions for tubular fireplace grates which operate on convective heat principles” based on prior art patents.²²¹

* * *

Thus by 1980, the standard for assessing design patent eligibility of functional shapes was badly splintered. The use of the “dictated by functional considerations” as a judicial shortcut for disposing of easy cases involving clearly functional designs had opened the door to more lax and subjective standards. The “primarily ornamental” and “primarily functional” standards introduced significant subjectivity and caused the standards to drift farther from the 1902 Act’s text and underlying rationale. As Judge Ely noted in his dissent from the Ninth Circuit’s ruling in *Barofsky*,²²² the “primarily functional” standard is a factual question that arguably should have been tried to a jury.²²³ The *Gold Medal Folding Furniture Co.* decision went even further, allowing design patents on a functional feature so long as the feature “does not involve its utility alone.”²²⁴ The *Bergstrom* decision provided a way of sidestepping the critical separability inquiry by merely asking whether the function could be accomplished through alternative designs. If the design patentee claimed the optimal design, so be it. Note that there were arguably multiple alternative designs for many, if not all, of the designs held to be “dictated by functional considerations” and “primarily functional”—from the sad iron to the protective goggles and scissor food baller. The District of Minnesota’s *Bergstrom* standard threatened to undermine fundamental design patent eligibility restrictions.

None of these decisions referred back to the clear purpose of the 1902 Act to exclude functional features from design patent protection. Inventors and designers increasingly sought to use design patents to protect minimal functional features. The advent of plastics industries and shifts in the industrial design field from surface ornamentation to the merger of form and function revived the tensions that led to the 1902 Act. The soon to be established Court

220. *See id.* at 488–89.

221. *See id.* at 489.

222. *Barofsky v. Gen. Elec. Corp.*, 396 F.2d 340, 345 (9th Cir. 1968).

223. As explored in Part VII below, we believe that the ornamentality/functional question is more properly resolved through a strict separability standard that in most cases would avoid subjectivity.

224. *L. F. Strassheim Co. v. Gold Medal Folding Furniture Co.*, 294 F. Supp. 708, 714 (E.D. Wis. 1968) (citing *Spaulding v. Guardian Light Co.*, 267 F.2d 111 (7th Cir. 1959)).

of Appeals for the Federal Circuit would determine the future of design patent eligibility.

V. THE FEDERAL CIRCUIT'S FUNCTIONALITY JURISPRUDENCE: EXPANDING DESIGN PATENT ELIGIBILITY

With the passage of the Federal Courts Improvement Act of 1981,²²⁵ Congress transferred exclusive appellate jurisdiction over utility and design patent cases to the U.S. Court of Appeals for the Federal Circuit. Congress's principal motivation for establishing the Federal Circuit was to improve the functioning of the federal appellate system by eliminating regional forum shopping that had become severe in the utility patent field.²²⁶ A national patent appellate court would unify patent law interpretation. Advocates of the legislation also believed that the consolidation of patent appeals in a specialized tribunal would strengthen patent law.²²⁷ Policy analysts, legal scholars, and jurists worried that the Federal Circuit would be more prone to political influences and tunnel vision than general jurisdiction appellate courts.²²⁸ More recent studies suggest these concerns have come to pass.²²⁹

225. Pub. L. No. 97-164, 96 Stat. 25 (1982).

226. See H.R. REP. NO. 97-312, at 31 (1981).

227. See *Hearing on S. 21 and S. 537 Before the Subcomm. on Courts of the S. Comm. on the Judiciary*, 97th Cong. at 76 (1981).

228. See *id.* at 211 (“The quality of decision-making would suffer as specialized judges become subject to ‘tunnel vision’ seeing the cases in a narrow perspective without the insights stemming from broad exposure to legal problems in a variety of fields.”); H.R. REP. NO. 97-312, at 31 (1981) (“Several witnesses . . . expressed fears that the Court of Appeals for the Federal Circuit would be unduly specialized or would soon be captured by specialized interests.”); see also Lawrence Baum, *Judicial Specialization, Litigant Influence, and Substantive Policy: The Court of Customs and Patent Appeals*, 11 L. & SOC’Y REV. 823, 845–46 (1977) (arguing that court specialization enhances the likelihood of litigant interest groups affecting substantive policy); LAWRENCE BAUM, *SPECIALIZING THE COURTS* 181, 204 (2011) (noting that corporate support played a key role in creation of the Federal Circuit); Paul R. Gugliuzza, *Rethinking Federal Circuit Jurisdiction*, 100 GEO. L.J. 1437, 1458 (2012) (discussing strong industrial support for creating the U.S. Court of Appeals for the Federal Circuit); F.M. Scherer, *The Political Economy of Patent Policy Reform in the United States*, 7 J. TELECOMM. & HIGH TECH. L. 167, 190 (2009) (noting the strong support from corporate patent counsel); Simon Rifkind, *A Special Court for Patent Litigation?, The Danger of a Specialized Judiciary*, 35 A.B.A.J. 425, 425 (1951) (“Once you segregate the patent law from the natural environment in which it now has its being, you contract the area of its exposure to the self-correcting forces of the law.”).

229. See Laura G. Pedraza-Fariña, *Understanding the Federal Circuit: An Expert Community Approach*, 30 BERKELEY TECH. L.J. 89, 145–49 (2015); WILLIAM M. LANDES & RICHARD A. POSNER, *THE POLITICAL ECONOMY OF INTELLECTUAL PROPERTY LAW* 26–27 (2004) (arguing that “a specialized court is more likely to have a ‘mission’ orientation than a generalist court” and noting that the Federal Circuit “has defined its mission as promoting technological

Congress initially filled the Federal Circuit judgeships by merging the Court of Claims and CCPA judges into a single Article III appellate court.²³⁰ Thus, the CCPA judges, who had already resolved patent appeals from the Patent Office, would continue on in an expanded role. In essence, the Federal Circuit inherited the CCPA's jurisprudence and personnel.

The Federal Circuit took charge of the nation's appellate patent docket in 1982. From the beginning, appeals of utility and design patent cases from the Patent Office and district courts took up a substantial part of its caseload. In one of its first decisions, the Federal Circuit adopted the decisions of the CCPA as binding precedent.²³¹ As a result, the CCPA's jurisprudence in cases such as *In re Garbo* and *In re Carletti* remained especially authoritative because the judges who participated on those decisions would lead the Federal Circuit.

Design patents did not, however, play a substantial role in the Federal Circuit's early caseload. Its first design patent cases involving functional features reflected a cautious approach, using various formulations of the "primarily ornamental"/"primarily functional" test. In a series of cases beginning in the late 1980s, the Federal Circuit increasingly embraced the "alternative design" test as a way of addressing the ornamentality/non-

progress by enlarging patent rights"); William M. Landes & Richard A. Posner, *An Empirical Analysis of the Patent Court*, 71 U. CHI. L. REV. 111, 111–12 (2003) (positing that a specialized patent court is more likely than a generalist court to take a strong stance on its subject matter because "interest groups that had a stake in patent policy would be bound to play a larger role in the appointment of the judges of such a court than they would in the case of the generalist federal courts"); Rochelle Cooper Dreyfuss, *Percolation, Uniformity, and Coherent Adjudication*, 66 S.M.U.L. REV. 505, 530 (2013) ("The core frustration [with the Federal Circuit] is with rigid rules that are not adaptable to new technologies or to new business models and do not take account of the public's interest in access."); Peter S. Menell, *API Copyrightability Bleak House: Unraveling and Repairing the Oracle v. Google Jurisdictional Mess*, 31 BERKELEY TECH. L.J. 1515, 1580, 1587–90 (discussing specialization bias at the Federal Circuit and the how it is has produced protectionist interpretations of copyright law); Hon. Diane P. Wood, Keynote Address, *Is It Time to Abolish the Federal Circuit's Exclusive Jurisdiction in Patent Cases?*, 13 CHI.-KENT J. INTEL. PROP. 1 (2014); Craig Allen Nard & John F. Duffy, *Rethinking Patent Law's Uniformity Principle*, 101 NW. U.L. REV. 1619 (2007) (questioning the insularity of the Federal Circuit); *but see* George C. Beighley, Jr., *The Court of Appeals for the Federal Circuit: Has It Fulfilled Congressional Expectations?*, FORDHAM INTEL. PROP. MEDIA & ENT. L.J. 671 (2011) (defending the Federal Circuit experiment).

230. See Menell, *supra* note 229, at 1518.

231. See *South Corp. v. United States*, 690 F.2d 1368, 1370–71 (Fed. Cir. 1982) (en banc) ("As a foundation for decision in this and subsequent cases in this court, we deem it fitting, necessary, and proper to adopt an established body of law as precedent. That body of law represented by the holdings of the Court of Claims and the Court of Customs and Patent Appeals announced before the close of business on September 30, 1982 is most applicable to the areas of law within the substantive jurisdiction of this new court. It is also most familiar to members of the bar. Accordingly, that body of law is herewith adopted by this court sitting in banc.").

functionality inquiry. This shift, in conjunction with an emphasis on viewing designs as a whole, greatly expanded eligibility of designs with functional attributes. In the late 1990s, the Federal Circuit tempered its broad eligibility standard by discounting or filtering out functional elements in conducting its infringement inquiry. This partial rebalancing, however, conflicted with its emphasis on viewing design patents as a whole. As a result, the court pulled back, resulting in a wayward, incoherent framework that validated Apple's iPhone and iPad design patents and other functional and minimalist designs.

What stands out in the nearly four decades during which the Federal Circuit has developed the modern design patent eligibility landscape is that the court has never once examined the text or legislative history of the 1902 Act that established the design patent ornamentality/non-functionality regime. The Federal Circuit has yet to recognize the copyright origins of the design patent system and the applicability of the channeling principle reflected in *Baker v. Selden* and design patent legislation. We turn to those sources in Part VII in an effort to rectify the design patent ornamentality/non-functionality morass.

A. A CAUTIOUS BEGINNING

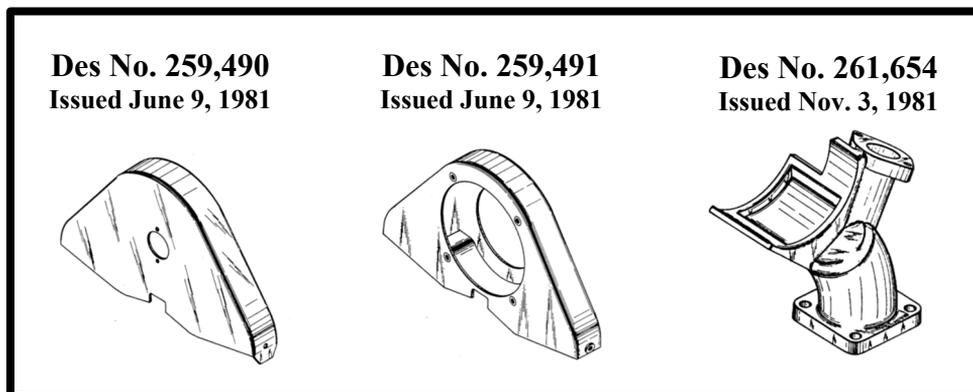
The Federal Circuit first confronted the ornamentality/non-functionality question in *Feuling v. Wood*,²³² a case involving two fan housing designs for an air-cooled engine²³³ and a design for a mounting stand for attaching an accessory to an engine²³⁴ for modifying Volkswagen engines. None of the designs featured surface ornamentation or decorative three-dimensional elements.

232. 758 F.2d 666 (Fed. Cir. 1984) (unpublished/non-precedential; text can be found at 1984 U.S. App. LEXIS 15512). The Federal Circuit first discussed the distinction between utility and design patents in *Carman Indus. v. Wahl*, 724 F.2d 932 (Fed. Cir. 1983), noting that “[u]tility patents afford protection for the mechanical structure and function of an invention whereas design patent protection concerns the ornamental or aesthetic features of a design.” *Id.* at 939 n.13. In applying the double patenting doctrine, the case tangentially touched on ornamentality/non-functionality in holding that design patent on the exterior of a storage bin flow promoter did not render obvious the internal mechanical features of a utility patent. *See id.* at 941.

233. U.S. Design Patent No. 259,490 (issued June 9, 1981); U.S. Design Patent No. 259,491 (issued June 9, 1981).

234. U.S. Design Patent No. 261,654 (issued Nov. 3, 1981).

Figure 14: Feuling Design Patents



The patentee contended that the designs were ornamental because they “are symmetrical when mounted in the engine, and because they are bright and shiny.”²³⁵ Relying on *In re Carletti*'s statement that “[a] design resulting only from functional considerations is not patentable as an ornamental design,” the Federal Circuit had little difficulty finding these designs ineligible.²³⁶ Much like *Carletti* and prior regional court decisions, the Federal Circuit applied the “dictated by functional considerations” standard as a shortcut for rejecting minimal, clearly functional designs.

Later that year, the Federal Circuit sidestepped the ornamentality/non-functionality issue in *Petersen Manufacturing Co. v. Central Purchasing, Inc.*,²³⁷ a case involving a design patent on a needle-nosed wrench.²³⁸ Central Purchasing moved for summary judgment on the grounds that the patent was invalid because the design was not ornamental, being dictated by functional considerations; and obvious in view of Petersen's own earlier tool design and another prior art tool. The district court found that the design patent was invalid and unenforceable.²³⁹ The Federal Circuit affirmed, holding that “the jaws structure—even assuming it embodies some details which are not dictated solely by function—does not create a non-obvious modification of the appearance of prior art tools.”²⁴⁰ In so doing, however, the court implied that the standard for assessing ornamentality is whether the design is “not dictated solely by function.”

235. 758 F.2d at *5.

236. *Id.*

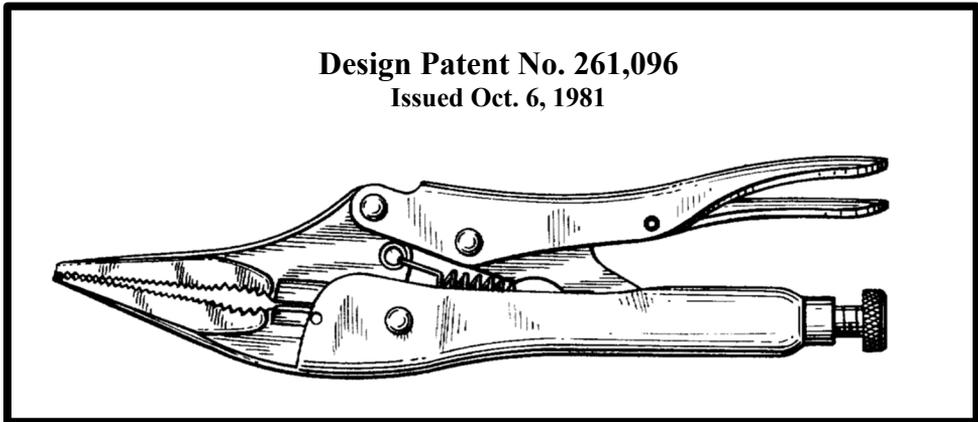
237. *See* 740 F.2d 1541, 1547 (Fed. Cir. 1984).

238. U.S. Design Patent No. 261,096 (issued Oct. 6, 1981).

239. 740 F.2d at 1545.

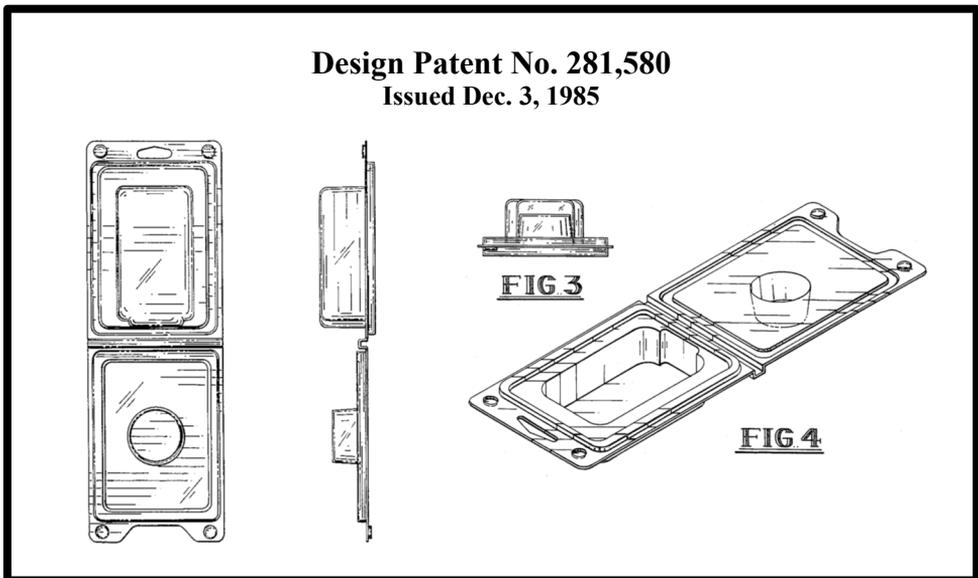
240. *Id.* at 1549.

Figure 15: Hand Tool



In its first precedential decision squarely addressing the ornamentality/non-functionality doctrine, the Federal Circuit in *Power Controls Corp. v. Hybrinetics, Inc.*²⁴¹ overturned a preliminary injunction on the ground that a rectangular packaging container for electrical switches²⁴² was invalid.

Figure 16: Packaging Container for Electrical Switches



241. 806 F.2d 234 (Fed. Cir. 1986).

242. See U.S. Design Patent No. 281,580 (issued Dec. 3, 1985).

The court declared that “[i]f the patented design is primarily functional rather than ornamental, the patent is invalid.”²⁴³ The court based its standard on *In re Carletti*:

Many well-constructed articles of manufacture whose configurations are dictated solely by function are pleasing to look upon. . . . But it has long been settled that when a configuration is a result of functional considerations only, the resulting design is not patentable as an ornamental design for the simple reason that it is not “ornamental”—was not created for the purpose of ornamenting. [Citations omitted.]²⁴⁴

The court did not offer any insight into how to deal with functional elements that are intertwined with ornamental features. In applying the standard, the court emphasized that the inventor acknowledged:

1. The package was made clear so that the product could be viewed by the consumer and so that a paper insert card could be protectively placed inside the plastic package and still be read;
2. The recesses in the front and back of the package were designed to fit snugly around the rotary dimmer switch and were placed as they were to balance the package;
3. The rounded corners and edges, and the angled surfaces were necessary for the production of a workable mold;
4. The rim along the periphery of the package was designed to hold the package rigid and to lock the package together; and
5. The hole for hanging the package on a peg was designed to extend only through the back of the package to obviate the need for precise package alignment during molding and assembly.²⁴⁵

The patentee responded by noting in a conclusory fashion that the design was ornamental in nature and aesthetically pleasing and contended that the court must view the design as a whole, citing *Gorham Manufacturing Co. v. White*,²⁴⁶ and not by its particular features.²⁴⁷

The Federal Circuit distinguished *Gorham*, noting that the design must be analyzed as a whole only in determining infringement, not invalidity.²⁴⁸ The

243. 806 F.2d at 238.

244. *Id.* (quoting *In re Carletti*, 328 F.2d 1020, 1022 (C.C.P.A. 1964)).

245. *Id.* at 239.

246. 81 U.S. 511 (1871) (holding that a patent is infringed when an entire design has an overall effect of resembling the patented design enough to deceive a purchaser).

247. *See* 806 F.2d at 239.

248. *See id.* at 239–40.

court further explained that the purposes of the particular elements of the design must be considered in determining whether a design is primarily functional. Based on this “strong and clear showing of functionality” and the lack of persuasive countervailing evidence, the court concluded that the design patent was functional and hence invalid.²⁴⁹

These early cases involved clearly functional designs without any discernable surface or shape ornamentation. The Federal Circuit was not challenged to go beyond the shortcuts that prior decisions had devised.

B. EXPANDING ELIGIBILITY THROUGH THE “AVAILABILITY OF ALTERNATIVE DESIGNS” TEST AND VIEWING DESIGNS AS A WHOLE

In the late 1980s, the Federal Circuit confronted more challenging design patent functionality cases and began to blaze a new trail. Two 1988 cases suggested different paths: a parsimonious approach that filtered out functional elements as part of infringement analysis and a more permissive approach based on the availability of alternative designs. The latter approach would come to dominate Federal Circuit jurisprudence over the next two decades, but the former approach occasionally resurfaced and eventually gained a stronger foothold in a 2010 case. Section C explores that reemergence.

The design patent in *Lee v. Dayton-Hudson Corp.*²⁵⁰ claimed the “massage implement”²⁵¹ depicted in Figure 17. The device features two opposing balls at one end. Based on the principle that only the “non-functional, design aspects . . . are pertinent to determinations of infringement,”²⁵² the court integrated the functionality inquiry into the infringement analysis. The Federal Circuit upheld the finding of non-infringement, explaining

the district court correctly viewed the design aspects of the accused devices: the wooden balls, their polished finish and appearance, the proportions, the carving on the handle, and all other ornamental characteristics, considered to the extent that they would be considered by “the eye of an ordinary observer.”²⁵³

249. *See id.*

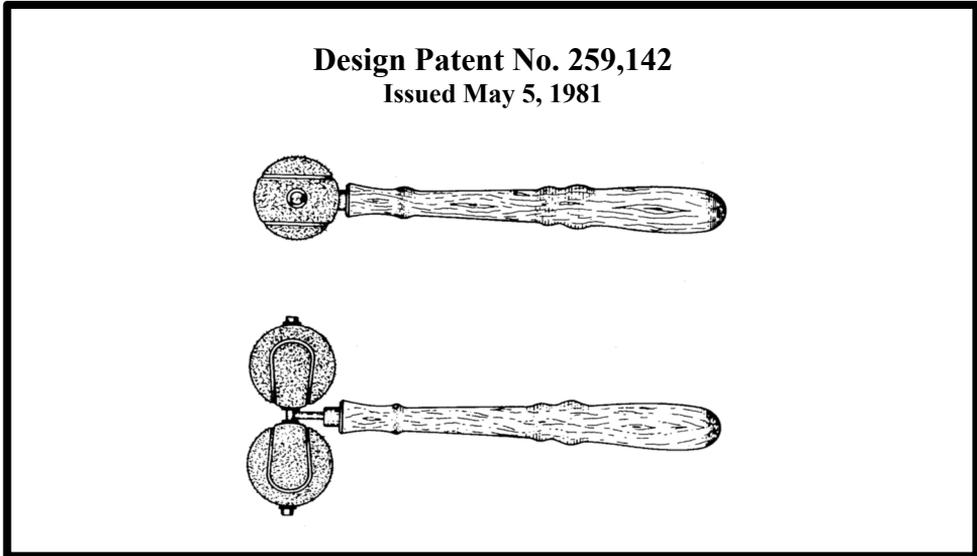
250. 838 F.2d 1186 (Fed. Cir. 1988).

251. *See* U.S. Design Patent No. 259,142 (issued May 5, 1981).

252. 838 F.2d at 1188, 1188 n.3 (“The legal protection of industrial designs was the subject of recent congressional hearings. *See Industrial Innovation and Technology Act: Hearings on S. 791 Before the Subcomm. on Patents, Copyrights and Trademarks of the Senate Comm. on the Judiciary*, 100th Cong., 1st Sess. 8–9 (1987) (statement of Hon. Giles S. Rich): ‘[T]here is definitely no Federal statute today suited to the needs of designers and design owners. . . . [T]he great bulk of industrial design is simply not protectable by design patents.’”)

253. *Id.* (citing *Gorham Co. v. White*, 81 U.S. 511, 528 (1871)).

Figure 17: Massage Implement



The Federal Circuit noted that “a design patent is not a substitute for a utility patent. A device that copies the utilitarian or functional features of a patented design is not an infringement unless the ornamental aspects are also copied, such that the overall ‘resemblance is such as to deceive.’”²⁵⁴ Thus, the court followed a parsimonious approach that avoided protecting the functional aspects of the design.

Later that year, another Federal Circuit panel took a far more permissive approach to functionality in *Avia Group International, Inc. v. L.A. Gear California, Inc.*²⁵⁵ The case involved design patents claiming the sole²⁵⁶ and upper²⁵⁷ for an athletic shoe depicted in Figure 18.²⁵⁸

254. *Id.* at 1189 (citing *Gorham*, 81 U.S. at 528).

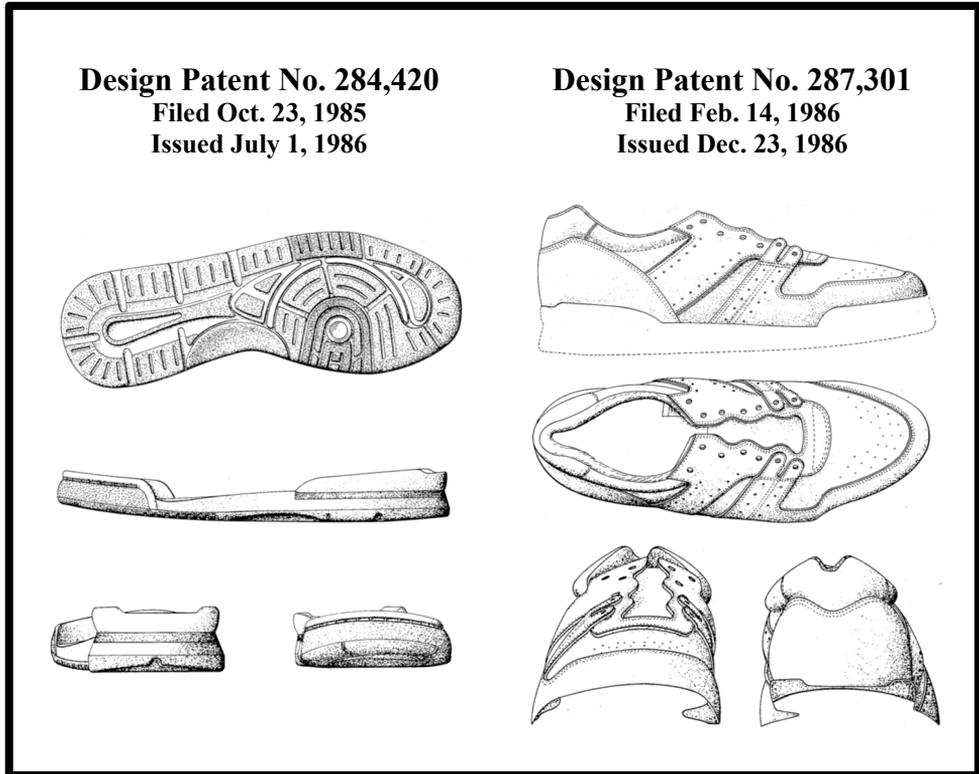
255. 853 F.2d 1557 (Fed. Cir. 1988).

256. *See* U.S. Design Patent No. 284,420 (issued July 1, 1986).

257. *See* U.S. Design Patent No. 287,301 (issued Dec. 23, 1986).

258. We note that both of these patents were prosecuted by the law firm of Saidman, Sterne, Kessler & Goldstein. Perry Saidman emerged as a leading advocate for broad eligibility. We discuss Mr. Saidman’s influence on design patent law in Section VI(A).

Figure 18: Athletic Shoe Design Patents



In affirming summary judgment for the plaintiff on validity and infringement, the Federal Circuit rejected the defendant's approach of identifying numerous functional elements of the design as a way of assessing whether the design patent was invalid. In ruling that the defendant had "not persuasively" shown the design to be functional, the court quoted a portion of the district court's analysis:

But every function which [defendant] says is achieved by one of the component aspects of the sole in this case could be and has been achieved by different components. And that is a very persuasive rationale for the holding that the design overall is not primarily functional. Moreover, there is no function which even defendant assigns to the swirl effect around the pivot point, which swirl effect is a very important aspect of the design.²⁵⁹

259. 853 F.2d at 1563 (quoting the lower court decision, denominated *Pensa, Inc. v. L.A. Gear California, Inc.*, 4 U.S.P.Q.2d 1016, 1019-20 (C.D. Cal. 1987)).

In so doing, the court implicitly approved an alternative design standard for upholding design patents against functionality challenges.²⁶⁰

The following year, the U.S. Supreme Court noted in passing in *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, a case involving federal preemption of state intellectual property legislation, that “[t]o qualify for protection, a design must present an aesthetically pleasing appearance *that is not dictated by function alone*, and must satisfy the other criteria of patentability.”²⁶¹ The Court provided no citation for this statement and it is clear from the context that the statement was pure, and inadequately informed, obiter dicta. No brief filed in the case cited or discussed the federal Design Patent Act nor the “dictated” jurisprudence for ornamentality/non-functionality.²⁶² The case did not address

260. Although the district court and the Federal Circuit did not cite any authority for the alternative design rationale, it appears to be following the District of Minnesota decision in *Bergstrom v. Sears, Roebuck & Co.*, 496 F. Supp. 476 (D. Minn. 1980).

261. 489 U.S. 141, 148 (1989) (emphasis added).

262. See Reply Brief for Petitioner, *Bonito Boats*, 489 U.S. 141 (No. 87-1346); Brief Amicus Curiae of Xenetics Biomedical, Inc., *Bonito Boats*, 489 U.S. 141 (No. 87-1346); Brief Amici Curiae of the Orange County Patent Law Association and the Los Angeles Patent Law Association in Support of Petitioner, *Bonito Boats*, 489 U.S. 141 (No. 87-1346); Brief of Boston Whaler, Inc. as Amicus Curiae, *Bonito Boats*, 289 U.S. 141 (No. 87-1346); Brief of Amicus Curiae Intellectual Property Owners, Inc. in Support of Petitioner, *Bonito Boats*, 489 U.S. 141 (No. 87-1346); Brief of Amici Curiae Marine Industries Association of South Florida and the Attorney General of the State of Florida in Support of Petitioner, *Bonito Boats*, 489 U.S. 141 (No. 87-1346); Brief of Amicus Curiae in Support of Petitioner, *Bonito Boats*, 489 U.S. 141 (No. 87-1346); Brief for the Petitioner, *Bonito Boats*, 489 U.S. 141 (No. 87-1346); see also Official Transcript, *Bonito Boats*, 489 U.S. 141 (No. 87-1346) (making no mention of federal Design Patent Act or ornamentality/non-functionality jurisprudence); Petition for a Writ of Certiorari to the Supreme Court of Florida, *Bonito Boats*, 489 U.S. 141 (No. 87-1346) (making no mention of design patent ornamentality/non-functionality jurisprudence). The “Respondent’s” brief mentions design patents:

The patent laws also provide for the issuance of patents on new and ornamental designs for articles of manufacture. 35 U.S.C. § 171. Dozens of examples of so-called “design patents” on the appearance of boat hulls could be cited, and an illustrative example (U.S. Design Patent No. 235,753, issued to Bremer) is reproduced in the Appendix for the convenience of the court (A-25).⁵

⁵ While “utility” patents issued under 35 U.S.C. § 101 protect the novel and nonobvious utilitarian features of boat hull designs or boat hull manufacturing processes, design patents issued under 35 U.S.C. § 171 protect the non-utilitarian ornamental aspects of the boat’s appearance. As can be seen from inspection of the design and utility patents issued to Bremer reproduced in the Appendix (A-4, 25), it is not uncommon for both design and utility patents to issue on different aspects of the same product. Brief of Amicus Curiae in Support of Judgment below, *Bonito Boats v.*

the standards for design patent eligibility. It is clear from the context of this statement that the Court was viewing the federal utility and design patent regimes monolithically.²⁶³

The “dictated by function alone” language appears to have been dropped into the opinion uncritically. Much of the discussion of intellectual property policy in the case supports a *higher* standard for finding that a design with functional attributes would qualify for design patent protection. The Court explained:

The Patent Clause [of the U.S. Constitution] . . . reflects a balance between the need to encourage *innovation* and the avoidance of monopolies which stifle competition without any concomitant advance in the ‘Progress of Science and useful Arts.’ . . .

From their inception, the federal patent laws have embodied a careful balance between the need to promote *innovation* and the recognition that imitation and refinement through imitation are both necessary to invention itself and the very lifeblood of a competitive economy.²⁶⁴

Thunder Craft Boats, No. 87-1346 (filed Sep. 15, 1988); *See, e.g., Carman Indus., Inc. v. Wahl*, 724 F.2d 932 (Fed. Cir. 1983).

Brief of Amicus Curiae in Support of Judgment Below at 5, 5 n.5, *Bonito Boats*, 489 U.S. 141 (No. 87-1346). The “Respondent’s” brief is filed as an amicus brief because the Supreme Court appointed amicus curiae to brief and argue the case in support of the judgment below. *See id.* at 30. The “Respondent’s” brief closed by arguing that any reevaluation of the balance between competition and incentive for innovation by the patent laws should be to Congress and citing to proposed legislation that would “confer a short-term, copyright-like protection on industrial designs.” *Id.* at 29; *see also* Brief Amicus Curiae of Xenetics Biomedical, Inc., *supra* note 262, at 23–28 (arguing that Congress did not intend for copyright law’s design separability condition to override preemption of state design protection regimes and ongoing federal legislative consideration of design protection). The only and fleeting mention of functionality comes in a brief filed by repair part manufacturers:

A manufacturer who produces a boat hull with new features that improve its performance can obtain a utility patent which accords the manufacturer 17 years of exclusivity in the manufacture, use, or sale of that product. . . .

The inventor of a new boat hull with an aesthetically pleasing and ornamental design can similarly obtain a design patent which would provide the inventor with up to 14 years of exclusivity, even if the design has no improved functional features. . . .

Brief Amici Curiae the Aftermarket Body Parts Association and Keystone Automotive Industries, Inc., in Support of Respondent at 6, *Bonito Boats*, 489 U.S. 141 (No. 87-1346).

263. *See* 489 U.S. at 148 (“Today’s patent statute is remarkably similar to the law as known to Jefferson in 1793.”); *see id.* at 148–52 (summarizing the federal patent system with examples and cases drawn exclusively from the utility patent regime).

264. *Id.* at 146 (emphasis added).

Although the Court does not explicitly explain that it refers to utility patents, the policy reasons it uses are those underlying utility patents, not design patents. The Court was clearly focused on the utility patent system as the engine of promoting *technological* innovation. The 1902 Act makes clear that the design patent system does not cover technological innovations but rather original ornamental designs. The Court concluded *Bonito Boats* by noting:

Congress has considered extending various forms of limited protection to industrial design either through the copyright laws or by relaxing the restrictions on the availability of design patents. *See generally* Brown, *Design Protection: An Overview*, 34 UCLA L. REV. 1341 (1987). Congress explicitly refused to take this step in the copyright laws, *see* 17 U.S.C. § 101; H.R. Rep. No. 94-1476, p. 55 (1976), U.S. CODE CONG. & ADMIN. NEWS 1976, pp. 5659, 5668, and despite sustained criticism for a number of years, it has declined to alter the patent protections presently available for industrial design. *See* REPORT OF THE PRESIDENT'S COMMISSION ON THE PATENT SYSTEM, S.Doc. No. 5, 90th Cong., 1st Sess., 20-21 (1967); Lindgren, *The Sanctity of the Design Patent: Illusion or Reality?*, 10 OKLA. CITY L. REV. 195 (1985). It is for Congress to determine if the present system of design and utility patents is ineffectual in promoting the useful arts in the context of industrial design. By offering patent-like protection for ideas deemed unprotected under the present federal scheme, the Florida statute conflicts with the "strong federal policy favoring free competition in ideas which do not merit patent protection." *Lear, Inc. [v. Adkins]*, 395 U.S. 653, 656 (1969)]. We therefore agree with the majority of the Florida Supreme Court that the Florida statute is preempted by the Supremacy Clause, and the judgment of that court is hereby affirmed.²⁶⁵

Notwithstanding that the Supreme Court's comment regarding the test for ornamentality/non-functionality was ill-conceived dicta, zealous lawyers, inattentive courts, and some scholars have treated this questionable interpretation of design patent law as authoritative.²⁶⁶

265. *Id.* at 167-68.

266. *See, e.g.*, *Static Media LLC v. Leader Assocs. LLC*, 395 F. Supp. 3d 982 (W.D. Wis. 2019) ("To be 'ornamental,' and thus qualify for protection, 'a design must present an aesthetically pleasing appearance that is not dictated by function alone, and must satisfy the other criteria of patentability.' *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 148 (1989)."); Peter Lee & Madhavi Sunder, *The Law of Look and Feel*, 90 S. CAL. L. REV. 529, 561 (2017) ("The Supreme Court has ruled that '[t]o qualify for protection, a design must present an aesthetically pleasing appearance that is not dictated by function alone.' Because it is relatively easy to find some nonfunctional motivation for a design (even a design that incorporates functional elements), it is relatively easy to avoid the functionality bar in the design patent context."); Brief of Amicus Curiae Apple Inc. in Support of Plaintiff-Appellant's

Over the next several years, the Federal Circuit vacillated on the proper standard for assessing whether a design patent was invalid on functionality grounds. In *Chrysler Motors Corp. v. Auto Body Panels of Ohio, Inc.*,²⁶⁷ a major automobile company sought to use a design patent on its fender design,²⁶⁸ depicted in Figure 19, to enjoin an aftermarket fender manufacturer from selling compatible replacement parts.

In affirming denial of a preliminary injunction for this truck fender design,²⁶⁹ the Federal Circuit observed that “[t]he question of when the functionality of a design so permeates an article of manufacture that design patent protection is not available under the law is a complex issue and one that continues to be the subject of considerable judicial attention.”²⁷⁰

Petition for Rehearing En Banc at 2, *Richardson v. Stanley Works, Inc.*, 597 F.3d 1288 (Fed. Cir. 2010) (No. 2009-1354) (“The Supreme Court set forth the test for design patent functionality: ‘To qualify for protection, a design must present an aesthetically pleasing appearance that is not dictated by function alone.’ *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 148 (1989).”); Gaspar, *supra* note 96, at 181–82 (“*Bonito Boats, Inc. v. Thunder Craft Boats, Inc.* is the starting point for defining ornamental.”); Hupp v. Siroflex of Am., Inc., 122 F.3d 1456, 1460 (Fed. Cir. 1997) (“As explained in *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 148 (1989), to qualify for design patent protection, a design must have an ornamental appearance that is not dictated by function alone.”); *Best Lock Corp. v. Ilco Unican Corp.*, 94 F.3d 1563, 1566 (Fed. Cir. 1996) (“[I]f the design claimed in a design patent is dictated solely by the function of the article of manufacture, the patent is invalid because the design is not ornamental. See *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 148 (1989) (“To qualify for protection, a design must present an aesthetically pleasing appearance that is not dictated by function alone, and must satisfy the other criteria of patentability.”)). These references do not mention that the Supreme Court’s reference was unsupported dicta; some incorrectly state that the Supreme Court “ruled” on the issue. Unfortunately, scholars have reinforced the ill-considered dicta by arguing to the Supreme Court that design patents cover functional features as part of their argument interpreting copyright protection for useful articles narrowly. See Peter S. Menell & Daniel Yablon, *Star Athletica’s Fissure in the Intellectual Property Functionality Landscape*, 166 U. PA. L. REV. ONLINE 137 (2017). Their analysis regrettably failed to explain that the 1902 Act does not support such a reading and that the Federal Circuit’s misreading of regional circuit law and blindness to *Baker v. Selden* explain the “dictated by functionality” anomaly. Hopefully, this Article’s comprehensive examination of the issue will steer the doctrine back on course. It does not help, however, that Justice Breyer took the bait in his *Star Athletica* dissent. See *Star Athletica, L.L.C. v. Varsity Brands, Inc.*, 137 S. Ct. 1002, 1034 (2017) (Breyer, J., dissenting). On the bright side, like the Court’s design patent comment in *Bonito Boats*, Justice Breyer’s statement was dicta.

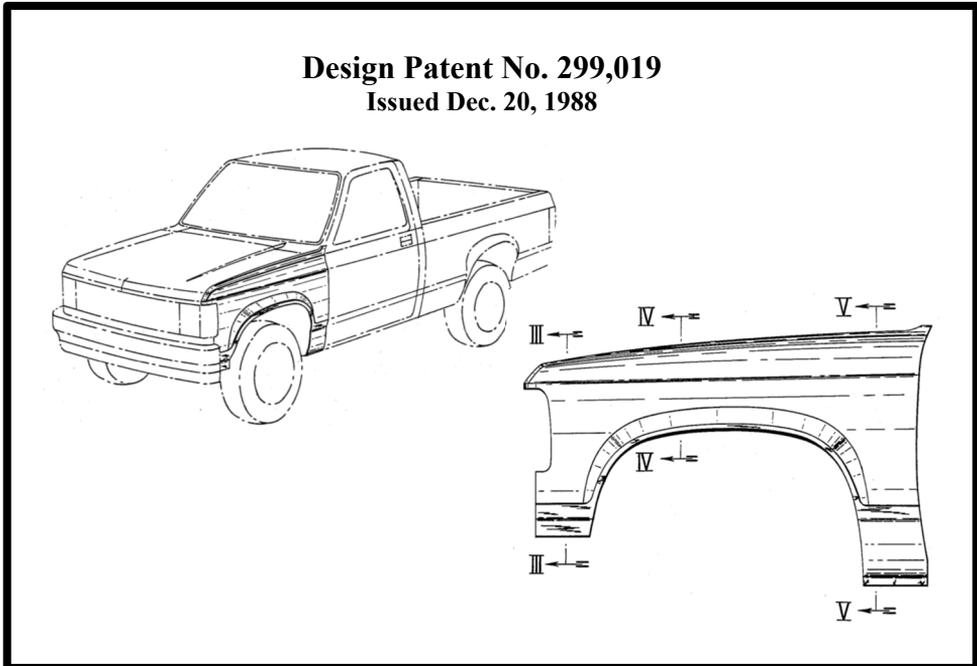
267. 908 F.2d 951 (Fed. Cir. 1990).

268. 908 F.2d at 953–54 (“The district court found the ’019 fender to have been ‘designed according to functional and performance considerations as opposed to aesthetic or ornamental considerations . . .’ and, therefore, that the validity of the ’019 patent was called into ‘serious question.’”).

269. See U.S. Design Patent No. 299,019 (issued Dec. 20, 1988).

270. 908 F.2d at 954 (citing *Avia Group Int’l, Inc. v. L.A. Gear Cal., Inc.*, 853 F.2d 1557, 1562–63 (Fed. Cir. 1988)); *Power Controls Corp. v. Hybrinetics, Inc.*, 806 F.2d 234, 238–40 (Fed. Cir. 1986).

Figure 19: Truck Fender



In *Read Corp. v. Portec, Inc.*,²⁷¹ the Federal Circuit followed the parsimonious approach in *Lee v. Dayton-Hudson Corp.*,²⁷² which filters out unprotectable elements prior to the infringement comparison, to overturn an infringement ruling: “[W]here . . . a design is composed of functional as well as ornamental features, to prove infringement a patent owner must establish that an ordinary person would be deceived by reason of the common features in the claimed and accused designs which are ornamental.”²⁷³

In 1993, the Federal Circuit returned to the alternative design standard for assessing functionality in *L.A. Gear, Inc. v. Thom McAn Shoe Co.*,²⁷⁴ another athletic shoe design case. Learning from its defeat in *Avia* a few years earlier,

271. 970 F.2d 816 (Fed. Cir. 1992).

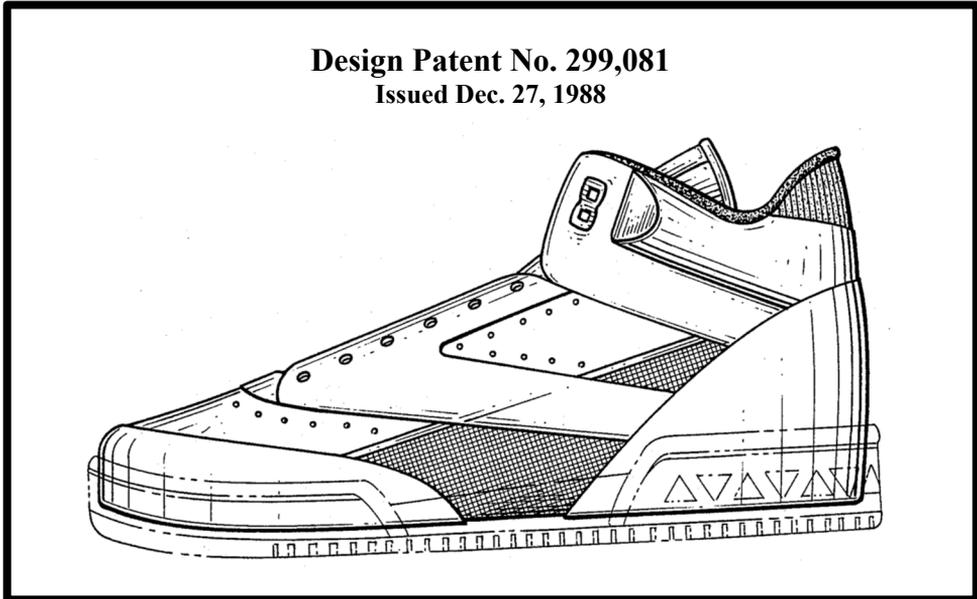
272. 838 F.2d 1186 (Fed. Cir. 1988).

273. 970 F.2d at 825 (citing *Lee v. Dayton-Hudson Corp.*, 838 F.2d at 1188). *Read Corp.* had obtained a design patent on drawings from a nearly contemporaneously filed utility patent. See U.S. Utility Patent No. 4,197,194 (issued Apr. 8, 1970) (Loam Screening Apparatus); U.S. Design Patent No. 263,836 (issued Apr. 13, 1982) (Portable Screening Plant). The court found that Read “failed to submit any evidence directed to either element of infringement . . . : (1) the similarity of the ornamental features of the Portec device and the patented design, and (2) the likelihood that an ordinary person would be confused because of such ornamental similarity.” 970 F.2d at 826.

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

L.A. Gear obtained a design patent on the upper features of an athletic shoe²⁷⁵ depicted in Figure 20.

Figure 20: Shoe Upper



After the district court found infringement, the defendants argued on appeal that each element comprising the design has a utilitarian purpose: The delta wing provides support for the foot and reinforces the shoelace eyelets; the mesh on the side of the shoe also provides support; the moustache at the back of the shoe provides cushioning for the Achilles tendon and reinforcement for the rear of the shoe; and the position of each of these elements on the shoe is due to its function.²⁷⁶ In rejecting an element-by-element analysis of functionality, the Federal Circuit emphasized the need to view the design as whole in assessing “whether the claimed design is dictated by the utilitarian purpose of the article.”²⁷⁷ The Federal Circuit affirmed the district court’s decision based on the

existence of a myriad of athletic shoe designs in which each of the functions identified by [defendant] as performed by the ’081 design elements was achieved in a way other than by the design of the ’081 patent. When there are several ways to achieve the function of an

275. See U.S. Design Patent No. 299,081 (issued Dec. 27, 1988).

276. See 988 F.2d at 1123.

277. *Id.* (citing *Lee*, 838 F.2d at 1189 and *Gorham Co. v. White*, 81 U.S. (14 Wall.) 511, 530 (1872)).

article of manufacture, the design of the article is more likely to serve a primarily ornamental purpose.²⁷⁸

Building on *Avia*, the court's decision in *L.A. Gear* reinforced a permissive approach to the functionality inquiry. The court uncritically adopted the "dictated by" standard for finding functionality without addressing its origin as a shortcut for addressing easy cases.²⁷⁹ In effect, the Federal Circuit converted a sufficient condition for finding a design patent ineligible into a necessary condition. Under this standard, only designs dictated by functionality are ineligible for design patent protection. Hence functional features that are inextricably intertwined with ornamental elements are granted design patent protection without meeting utility patent law's exacting conditions. The Federal Circuit also gave its imprimatur to the alternative design framework without explaining how a defendant could prove that a combination of functional elements resulted in a composite functional design. Moreover, despite *Lee v. Dayton-Hudson* and *Read v. Portec*, the Federal Circuit did not call for filtering out of the functional elements in the infringement inquiry.

Over the next seventeen years, the alternative design standard emerged as the principal framework for assessing ornamentality/non-functionality,²⁸⁰

278. *Id.* (citing *Avia Grp. Int'l, Inc. v. L.A. Gear Cal., Inc.*, 853 F.2d 1557, 1563 (Fed. Cir. 1988)).

279. *See infra* Sections IV(B)–(C).

280. *See Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665, 671 (Fed. Cir. 2008) (en banc) (citing *L.A. Gear*, 853 F.2d at 1563); *PHG Techs., LLC v. St. John Cos.*, 469 F.3d 1361, 1366 (Fed. Cir. 2006); *Rosco, Inc. v. Mirror Lite Co.*, 304 F.3d 1373, 1378 (Fed. Cir. 2002); *Door-Master Corp. v. Yorktowne, Inc.*, 256 F.3d 1308, 1313 (Fed. Cir. 2001); *Seiko Epson Corp. v. Nu-Kote Int'l, Inc.*, 190 F.3d 1360, 1368 (Fed. Cir. 1999); *Hupp v. Siroflex of Am., Inc.*, 122 F.3d 1456, 1460 (Fed. Cir. 1997); *Best Lock Corp. v. Ilco Unican Corp.*, 94 F.3d 1563, 1566 (Fed. Cir. 1996). *Best Lock* is the rare case where there truly were no alternative designs that could achieve the function of the key blade design: opening a lock designed to be opened by that particular key blade. *See id.* at 1566 ("The parties do not dispute that the key blade must be designed as shown in order to perform its intended function—to fit into its corresponding lock's keyway. An attempt to create a key blade with a different design would necessarily fail because no alternative blank key blade would fit the corresponding lock. In fact, Best Lock admitted that no other shaped key blade would fit into the corresponding keyway, and it presented no evidence to the contrary."). *Best Lock* is the proverbial exception that proves the rule that there is almost always an alternative design. But even in this extreme circumstance, one member of the Federal Circuit panel dissented, *see id.* at 1567–69 (Newman, J., dissenting) ("[T]he fact that the key blade is the mate of a keyway does not convert the arbitrary key profile into a primarily functional design."), and advocates for broad and strong design patent protection argued that this decision would eviscerate design patent protection. *See Perry J. Saidman, Functionality and Design Patent Validity and Infringement*, 91 J. PAT. & TRADEMARK OFF. SOC'Y 313, 318–21 (2009); Perry J. Saidman, *The Demise of the Functionality Doctrine in Design Patent Law*, 92 NOTRE DAME L. REV. 1471, 1488 (2017) (criticizing *Best Lock*

although the Federal Circuit occasionally invoked the *Dayton-Hudson* filtering approach.²⁸¹

The court tempered the alternative design standard in the 1997 case of *Berry Sterling Corp. v. Prescor Plastics, Inc.*²⁸² The design patentee there claimed a cylindrical container designed to fit a vehicle cup receptacle along with a spill-proof lid.²⁸³ The Federal Circuit reversed the district court's invalidation of the design patent on the grounds that the lower court had inappropriately focused its functionality analysis on the limitations of the commercial embodiment of the underlying article of manufacture, failing to view the minimalist design as a whole or consider alternative designs.²⁸⁴ In remanding the case, the Federal Circuit noted that presence of alternative designs was just one factor to be considered. It stated:

and explaining that “if the function of a claimed design is defined in general, broad terms, there will always be alternatives that can perform substantially the same function and not look like the patented design”); Gaspar, *supra* note 96. By contrast, regional circuit courts and Congress appreciated that interoperability is a form of functionality that should not be monopolized short of a utility patent. *See* *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 387 F.3d 522, 534–37 (6th Cir. 2004); *Sony Comput. Ent. v. Connectix*, 203 F.3d 596, 599–608 (9th Cir. 2000); *Comput. Assocs. Int’l v. Altai, Inc.*, 982 F.2d 693, 700, 707–10 (2d Cir. 1992); *Sega Enters. v. Accolade, Inc.*, 977 F.2d 1510, 1526–28 (9th Cir. 1992); 17 U.S.C. § 1201(f)(1) (“[A] person who has lawfully obtained the right to use a copy of a computer program may circumvent a technological measure that effectively controls access to a particular portion of that program for the sole purpose of identifying and analyzing those elements of the program that are necessary to achieve interoperability of an independently created computer program with other programs.”); S. REP. NO. 105-190, at 13 (1998); *see generally*, Peter S. Menell, *Economic Analysis of Network Effects and Intellectual Property*, 34 BERKELEY TECH. L.J. 218 (2019) (tracing the evolution of intellectual property protection for network features of systems and platforms and showing the many ways in which courts and Congress have recognized interoperability as functional); P. Anthony Sammi, Christopher A. Lisy & Andrew Gish, *Good Clean Fun: Using Clean Room Procedures in Intellectual Property Litigation*, 25 INTEL. PROP. & TECH. L.J. 3 (2013) (describing clean procedures for learning the interoperable features of computer software); Peter S. Menell, *An Epitaph for Traditional Copyright Protection of Network Features of Computer Software*, 43 ANTITRUST BULL. 651 (1998) (showing how courts have interpreted copyright law to avoid encroaching on functional features of computer software).

281. *See* *OddzOn Prods. v. Just Toys*, 122 F.3d 1396 (Fed. Cir. 1997) (“It is the non-functional, design aspects that are pertinent to determinations of infringement. . . . Where a design contains both functional and non-functional elements, the scope of the claim must be construed in order to identify the non-functional aspects of the design as shown in the patent.”) (citing *Lee v. Dayton-Hudson*); *see also* *Unidynamics Corp. v. Automatic Prods. Int’l*, 157 F.3d 1311 (Fed. Cir. 1998) (focusing the infringement analysis on the point of novelty, which the Federal Circuit rejected in *Egyptian Goddess*, 543 F.3d at 672–79).

282. 122 F.3d 1452 (Fed. Cir. 1997).

283. *See* U.S. Design Patent 362,368 (issued Sept. 19, 1995).

284. *See* 122 F.3d at 1455–56.

The presence of alternative designs may or may not assist in determining whether the challenged design can overcome a functionality challenge. Consideration of alternative designs, if present, is a useful tool that may allow a court to conclude that a challenged design is not invalid for functionality. As such, alternative designs join the list of other appropriate considerations for assessing whether the patented design as a whole—its overall appearance—was dictated by functional considerations. Other appropriate considerations might include: whether the protected design represents the best design; whether alternative designs would adversely affect the utility of the specified article; whether there are any concomitant utility patents; whether the advertising touts particular features of the design as having specific utility; and whether there are any elements in the design or an overall appearance clearly not dictated by function.²⁸⁵

The court cited no authority for these factors, but they appear to be derived from *In re Morton-Normich Products, Inc.*,²⁸⁶ a CCPA trade dress functionality case.²⁸⁷

Notwithstanding *OddzOn* and *Berry Sterling*, the Federal Circuit quickly shifted back to simply asking whether alternative designs were available.²⁸⁸ *Rosco, Inc. v. Mirror Lite Co.*²⁸⁹ illustrates the Federal Circuit's lax approach to design patent eligibility. As depicted in Figure 21, Rosco claimed a highly convex, curved-surface, three-dimensional, oval, aerodynamic, cross-view mirror with a black, flat metal backing.²⁹⁰

285. *Id.* at 1456.

286. 671 F.2d 1332 (C.C.P.A. 1982).

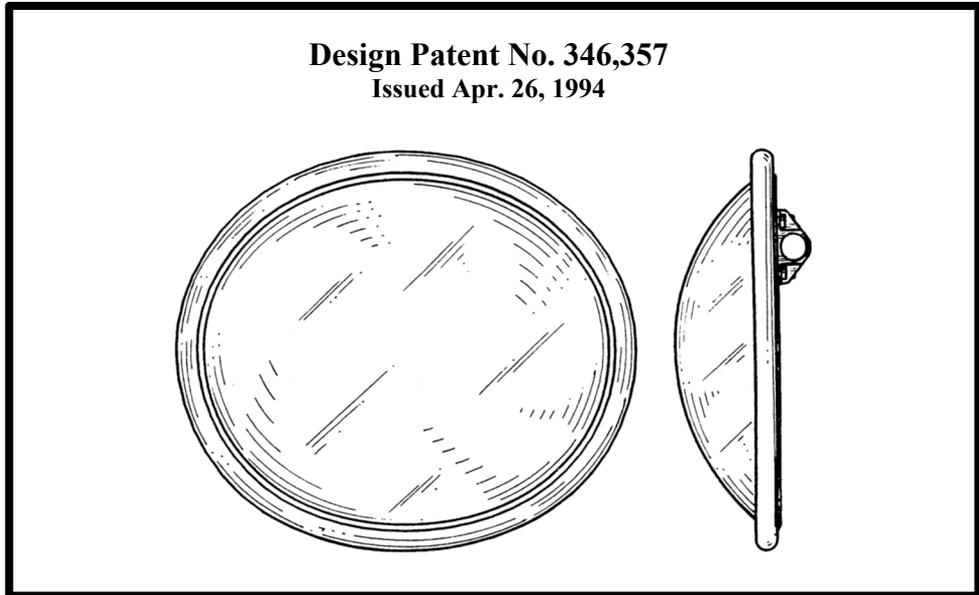
287. *See id.* at 1340–41 (listing the following factors to be considered in trade dress functionality analysis: “(1) the existence of a utility patent disclosing the utilitarian advantages of the design; (2) advertising materials in which the originator of the design touts the design’s utilitarian advantages; (3) the availability to competitors of functionally equivalent designs; and (4) facts indicating that the design results in a comparatively simple or cheap method of manufacturing the product”).

288. *See, e.g.,* *Seiko Epson Corp. v. Nu-Kote Int’l, Inc.*, 190 F.3d 1360, 1368 (Fed. Cir. 1999) (“The ‘ornamental’ requirement of the design statute means that the design must not be governed solely by function, i.e., that this is not the only possible form of the article that could perform its function.” (citing *L.A. Gear, Inc. v. Thom McAn Shoe Co.*, 988 F.2d 1117 (Fed. Cir. 1993); *Door-Master Corp. v. Yorktowne, Inc.*, 256 F.3d 1308, 1313 (Fed. Cir. 2001) (concluding that since “[m]any different configurations of [the rear features of a design for an integrated door and frame] (oval, triangular, etc.) could perform the same functions,” the design was not functional) (citing and quoting *L.A. Gear*)).

289. 304 F.3d 1373 (Fed. Cir. 2002).

290. *See* U.S. Design Patent No. 346,357 (issued Apr. 26, 1994).

Figure 21: Automotive Mirror



In assessing whether the design was functional, the district court observed that the

oval shape produces angles and images not similarly discernible in convex cross-view mirrors of different shapes. When compared with the Bus Boy mirror, another cross-view mirror, the Rosco mirror provides a more expansive field of view and produces a slightly different distortion of images in the mirror, depending on positioning. Specifically, the Rosco mirror, when mounted perpendicularly to the ground, allows the viewer to view images from above the mirror that the Bus Boy does not when mounted in the same position. Depending on where the school bus on which the mirror is mounted is operating, for example, in an urban area or in a rural area, the ability to see alongside and above the bus may or may not be important to a customer. In short, the oval design has functional capacities that a Bus Boy style mirror does not. The oval design is sufficiently central to the Rosco mirror's use as to render it functional.²⁹¹

For added measure, Judge Sifton noted:

Rosco represented to the patent office that its oval cross-view mirror provided a superb field of view by virtue of its shape. Rosco also advertised that its mirror would offer a more thorough field of view due to its oval shape than other cross-view mirrors, such as Mirror

291. *Rosco, Inc. v. Mirror Lite Co.*, 139 F. Supp. 2d 287, 296 (E.D.N.Y. 2001).

Lite's Bus Boy. 'Why settle for half a mirror when you can have it all. Our new Eagle Eye mirror gives you the big picture.' Rosco also marketed its mirror as more aerodynamic than other cross-view mirrors of different shape. Advertising that highlights features of the product's design as offering a specific utility is a factor that influences the determination of the functionality of a design patent.²⁹²

In reversing the district court's decision, the Federal Circuit noted that "[w]e apply a stringent standard for invalidating a design patent on grounds of functionality: the design of a useful article is deemed functional where 'the appearance of the claimed design is "dictated by" the use or purpose of the article.'"²⁹³ Without appreciating the origins of the "dictated by" terminology in pre-Federal Circuit jurisprudence, Judge Dyk chose the narrowest standard for invalidating a design patent on functionality grounds:

'[T]he design must not be governed solely by function, i.e., that this is not the only possible form of the article that could perform its function.' *Seiko Epson Corp. v. Nu-Kote Int'l, Inc.*, 190 F.3d 1360, 1368 (Fed.Cir.1999). 'When there are several ways to achieve the function of an article of manufacture, the design of the article is more likely to serve a primarily ornamental purpose.' *L.A. Gear*, 988 F.2d at 1123 (citations omitted). That is, if other designs could produce the same or similar functional capabilities, the design of the article in question is likely ornamental, not functional. Invalidity of a design patent claim must be established by clear and convincing evidence.²⁹⁴

The Federal Circuit created a nearly impossible burden for showing functionality:

Mirror Lite has not shown by clear and convincing evidence that there are no designs, other than the one shown in Rosco's '357 patent, that have the same functional capabilities as Rosco's oval mirror. Under these circumstances it cannot be said that the claimed design of the '357 patent was dictated by functional considerations.²⁹⁵

The court's analysis ignores the possibility that some shapes are better than others. So long as there are alternative designs that serve the same functions—even if less well—the design patent is not invalid.

292. *Id.* (citing *Berry Sterling Corp. v. Prescor Plastics, Inc.*, 122 F.3d 1452, 1456 (Fed. Cir. 1997)).

293. 304 F.3d 1373, 1378 (Fed. Cir. 2002) (quoting *L.A. Gear*, 988 F.2d at 1123).

294. *Id.*

295. *Id.* at 1378–79.

In 2007, the Federal Circuit granted en banc review in *Egyptian Goddess, Inc. v. Swisa, Inc.* to assess whether the “point of novelty” should be used in assessing design patent infringement.²⁹⁶ The Federal Circuit’s decision rejecting the “point of novelty” test further narrowed the grounds for invalidating design patents on functionality grounds by commanding that design patents be viewed as a whole.²⁹⁷ The court’s discussion of claim construction in design patent cases, however, breathed new life into the *Dayton-Hudson* filtration approach:

Apart from attempting to provide a verbal description of the design, a trial court can usefully guide the finder of fact by addressing a number of other issues that bear on the scope of the claim. Those include such matters as describing the role of particular conventions in design patent drafting, such as the role of broken lines, *see* 37 C.F.R. § 1.152; assessing and describing the effect of any representations that may have been made in the course of the prosecution history, and distinguishing between those features of the claimed design that are ornamental and those that are purely functional, *see OddzOn Prods., Inc. v. Just Toys, Inc.*, 122 F.3d 1396, 1405 (Fed.Cir.1997) (“Where a design contains both functional and non-functional elements, the scope of the claim must be construed in order to identify the non-functional aspects of the design as shown in the patent.”).²⁹⁸

C. PARTIAL REBALANCING THROUGH INFRINGEMENT FILTRATION ANALYSIS

In the first design patent functionality case following its en banc decision in *Egyptian Goddess*, the Federal Circuit took a more measured approach to the functionality issue in *Richardson v. Stanley Works, Inc.*,²⁹⁹ a case involving a quintessential functional product: a multi-function carpentry tool combining a hammer, a stud climbing tool, and a crowbar depicted in Figure 22.³⁰⁰

296. 256 Fed. Appx. 357 (Fed. Cir. 2007).

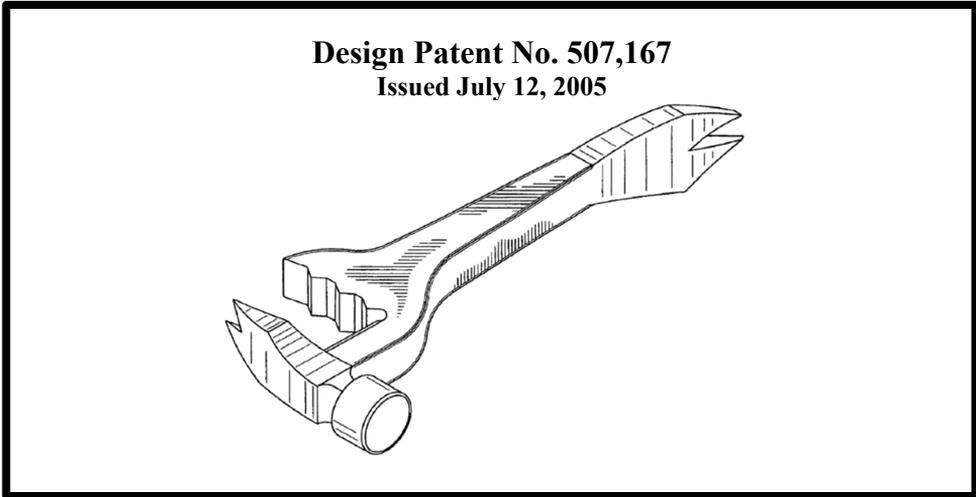
297. 543 F.3d 665, 678 (Fed. Cir. 2008) (en banc).

298. *Id.* at 680. *OddzOn* applied the *Dayton-Hudson* filtration approach. *See supra* text accompanying note 281.

299. 597 F.3d 1288 (Fed. Cir. 2010).

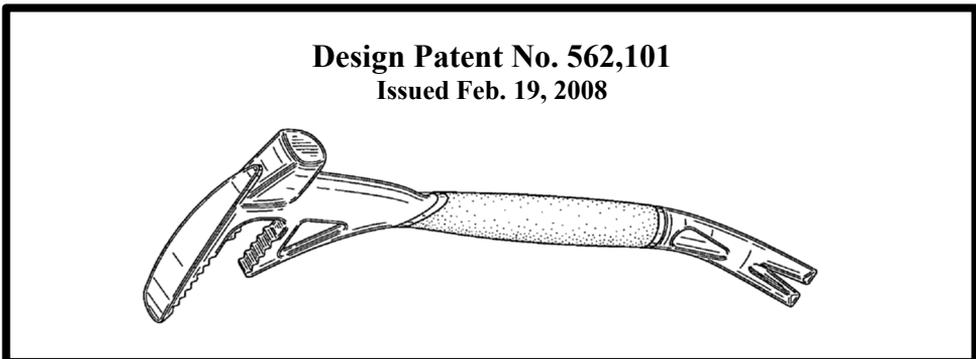
300. *See* U.S. Design Patent No. 507,167 (issued July 12, 2005).

Figure 22: Multi-Function Tool



Richardson brought suit against Stanley Works alleging that its multi-function tool—sold under the FUBAR³⁰¹ trademark—infringed the '167 design patent. The FUBAR contained the same tools but in a sleeker design, depicted in Figure 23.³⁰²

Figure 23: Demolition Tool



The district court drew heavily upon *Dayton-Hudson*: “If a given ‘configuration is made imperative by the elements which it combines and by the utilitarian

301. *Stanley Works* used FUBAR as an abbreviation for functional utility bar. *Richardson v. Stanley Works, Inc.*, 597 F.3d 1288, 1291 (Fed. Cir. 2010). The term is also recognized as a military slang acronym. *See infra* note 445.

302. *See* U.S. Design Patent No. 562,101 (issued Feb. 19, 2008).

purpose of the device,' that configuration is functional and not protected by a design patent."³⁰³ Judge Wake also referenced the alternative design framework³⁰⁴ but tempered it by a range of additional considerations:

Other appropriate considerations might include: whether the protected design represents the best design; whether alternative designs would adversely affect the utility of the specified article; whether there are any concomitant utility patents; whether the advertising touts particular features of the design as having specific utility; and whether there are any elements in the design or an overall appearance clearly not dictated by function.³⁰⁵

Judge Wake observed:

[T]he overall configuration of the[] four elements [the handle, the hammer-head, the jaw, and the crow-bar] is dictated by the functional purpose of the tool and therefore is not protected by his design patent. A designer seeking to incorporate a hammer-head, jaw, and crow-bar on a single handle will naturally and inevitably place the jaw and hammer-head together on one end and the crow-bar on the other end. To place the jaw and hammer-head on opposite ends of the handle would distribute the tool's mass, decreasing the striking force and interfering with the user's swing. It would also adversely encumber the crow-bar, which would have to be placed together with one of the other elements and thus would no longer fit into narrow spaces.³⁰⁶

As a result, Judge Wake concluded that although the configuration of a multi-tool product like that reflected in the '167 patent can take many forms as reflected in the prior art, the "'167 patent does not protect the configuration of the handle, hammer-head, jaw, and crow-bar."³⁰⁷ The design protection only extends to ornamental elements, such as "the standard shape of the hammer-head, the diamond-shaped flare of the crow-bar and the top of the jaw, the rounded neck, the orientation of the crowbar relative to the head of the tool, and the plain, undecorated handle."³⁰⁸

303. *Richardson v. Stanley Works, Inc.*, 610 F. Supp. 2d 1046, 1049 (D. Ariz. 2009) (quoting *Lee v. Dayton-Hudson Corp.*, 838 F.2d 1186, 1188 (Fed. Cir. 1988)); *Lee*, 838 F.2d at 1188 (quoting *Applied Arts Corp. v. Grand Rapids Metalcraft Corp.*, 67 F.2d 428, 430 (6th Cir.1933)).

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

305. *Id.* at 1049–50 (quoting *Berry Sterling Corp. v. Pescor Plastics Inc.*, 122 F.3d 1452, 1456 (Fed. Cir. 1997)).

306. *Id.* at 1050.

307. *Id.*

308. *Id.*

With these limitations in mind, Judge Wake focused on whether the FUBAR's sleek design infringed the '167 patent. Drawing further from *Dayton-Hudson*, the court filtered out the unprotectable elements of the '167 patent—the overall configuration of the handle, the hammer-head, the jaw, and the crow-bar—from the infringement comparison. With these elements eliminated, Judge Wake concluded that the FUBAR did not infringe the '167 patent because “[t]here is little similarity between the ornamental features of Richardson’s and Stanley’s designs.”³⁰⁹ He further noted that “[t]he '167 patent does not give Richardson a monopoly on that basic, wrench-like design for a jaw.”³¹⁰

Richardson appealed to the Federal Circuit, contending that the district court erred by not viewing his patented design as a whole as required by *L.A. Gear* and *Egyptian Goddess*.³¹¹ The Federal Circuit affirmed in an opinion that relied heavily on *OddzOn* and *Dayton-Hudson*.³¹² Writing for the court, Judge Lourie observed:

In *OddzOn*, we affirmed a district court’s claim construction wherein the court had carefully distinguished the ornamental features of the patented design from the overall ‘rocket-like’ appearance of the design of a football-shaped foam ball with a tail and fin structure. *OddzOn Prods., Inc. v. Just Toys, Inc.*, 122 F.3d 1396, 1405 (Fed.Cir.1997). We held that ‘[w]here a design contains both functional and non-functional elements, the scope of the claim must be construed in order to identify the non-functional aspects of the design as shown in the patent.’ *Id.*³¹³

The court concluded that

[t]he district court here properly factored out the functional aspects of Richardson’s design as part of its claim construction. By definition, the patented design is for a multi-function tool that has several functional components, and we have made clear that a design patent, unlike a utility patent, limits protection to the ornamental design of the article. *Lee v. Dayton-Hudson Corp.*, 838 F.2d 1186, 1188 (Fed. Cir. 1988) (citing 35 U.S.C. § 171). If the patented design is

309. *Id.* at 1052.

310. *Id.*

311. See Brief of Appellant, *Richardson*, 610 F. Supp. 2d at 1049 (No. 2009-1354), Appeal from the United States District Court for the District of Arizona in Case No. 08-Cv-1040, Judge Neil V. Wake, (Jul. 20, 2009) at 13–14, 16–18, 28–30.

312. See *Richardson v. Stanley Works, Inc.*, 597 F.3d 1288, 1293–94 (Fed. Cir. 2010).

313. *Id.* at 1293.

primarily functional rather than ornamental, the patent is invalid.
*Id.*³¹⁴

The *Richardson* decision signaled a shift toward ensuring that design patent protection would not monopolize functional product features or encroach upon the utility patent regime. But even before the *Richardson* decision was final, a campaign was already in motion to limit its influence.

More than a decade before *Richardson*, Steve Jobs began one of the most audacious technology revivals in corporate history.³¹⁵ When Jobs returned to Apple in 1997, eight years after his unceremonious departure, the company was near bankruptcy. Combining collateral advances in computing technology with his flair for elegant simplicity, Jobs launched an ambitious research and development effort to revolutionize consumer electronic products. Beginning with the iPod, Apple introduced a stream of new products that seamlessly combined minimalist design with user-friendly features and dazzling electronics. The iPod, iPad, and iPhone blended form and function to captivate the world and bring the digital revolution to billions of fingertips.

As part of his plan to lead the consumer electronics revolution, Jobs took an aggressive approach to securing intellectual property protection.³¹⁶ At the splashy product introduction for the iPhone in January 2007,³¹⁷ Jobs proudly announced five key characteristics and a clear warning to potential imitators.³¹⁸

314. *Id.* at 1293–94.

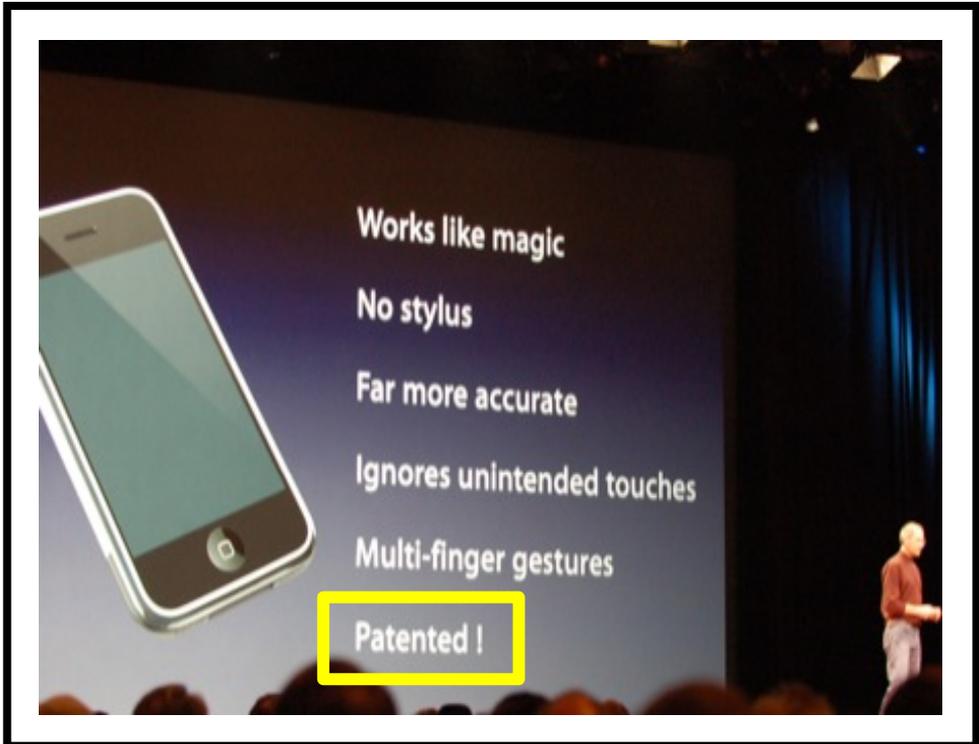
315. See WALTER ISAACSON, STEVE JOBS 305–425, 444–51, 465–75, 490–510 (2011).

316. This had long been a part of Jobs's playbook. Apple jealously guarded its intellectual property, see FRED VOGELSTEIN, DOGFIGHT: HOW APPLE AND GOOGLE WENT TO WAR AND STARTED A REVOLUTION 172–74 (2013), as reflected in its aggressive and ultimately unsuccessful effort to assert copyright protection for the Macintosh graphical user interface, much of which was derived from Xerox's Star interface, see *Apple Comput., Inc. v. Microsoft Corp.*, 35 F.3d 1435, 1446 (9th Cir. 1994).

317. See John Markoff, *Apple Introduces Innovative Cellphone*, N.Y. TIMES (Jan. 10, 2007), <https://www.nytimes.com/2007/01/10/technology/10apple.html>.

318. See VOGELSTEIN, *supra* note 316, at 172–74.

Figure 24: iPhone Introduction



As it developed the iPhone and the iPad, Apple filed rafts of utility and design patent applications. It also acquired utility patents from others. On the utility patent side, for example, Apple obtained a patent on the slide-to-unlock feature for touchscreens.³¹⁹ Figures 25 and 26 illustrate four of Apple's touchscreen design patents.³²⁰

319. See *Unlocking a Device by Performing Gestures on an Unlock Image*, U.S. Patent No. 7,657,849 (issued Feb. 2, 2010).

320. See U.S. Design Patent No. 618,677 (filed Nov. 18, 2008; issued Dec. 23, 2010); U.S. Design Patent No. 593,087 (filed June 30, 2007; issued May 29, 2009); U.S. Design Patent No. 504,889 (filed Mar. 17, 2004; issued May 10, 2005).

Figure 25: Electronic Devices

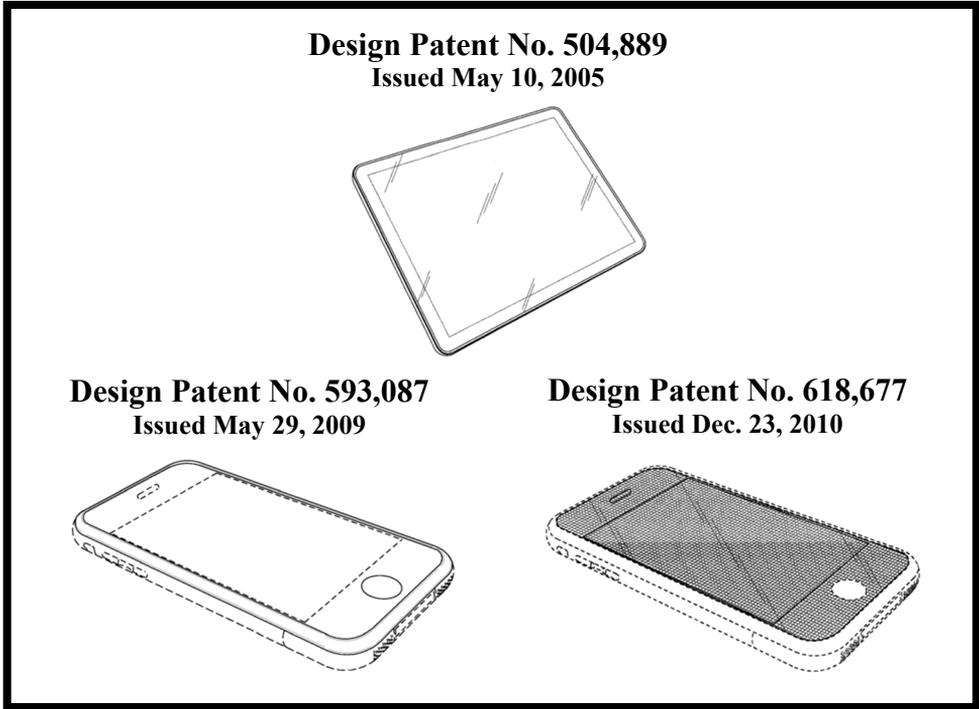


Figure 26: Graphical User Interface for Display Screen or Portion thereof



These design patents were premised on a low threshold for ornamentality and a high threshold for functionality. Apple hoped to ride the *Avia/L.A. Gear* jurisprudence to exclusive control of the mobile phone and tablet touchscreen marketplaces.

The *Richardson* decision, however, potentially stood in the way of Apple's design patent enforcement strategy. Application of a filtration approach exposed Apple's design patents to the risk that there would be nothing left of its rounded rectangular design after discounting the functional elements. By early 2010, smartphones featuring the Android operating system had overtaken Apple iPhone sales.³²¹ Apple was gearing up to launch a multi-front patent battle against the growing tide of Android products inundating the smartphone marketplace.³²²

Jobs was livid that Google's founders, Sergey Brin and Larry Page, whom he had mentored, and Google's CEO Eric Schmidt, whom he had welcomed onto Apple's Board, betrayed him. Apple sued HTC (and, by extension, Android) in June 2010 for infringement of ten of its utility patents.³²³ Apple was gearing up to sue Samsung for infringement of Apple's utility and design patents, as well as its trade dress.³²⁴ Jobs characterized its campaign against the Android iPhone clones in saying:

'Google, you fucking ripped off the iPhone, wholesale ripped us off.' Grand theft. I will spend my last dying breath if I need to, and I will spend every penny of Apple's \$40 billion in the bank, to right this wrong. I'm going to destroy Android, because it's a stolen product. I'm willing to go thermonuclear war on this. They are scared to death, because they know they are guilty. Outside of Search, Google's products—Android, Google Docs—are shit.³²⁵

As insurance to protect its design patent investments and enforcement strategy, Apple enlisted Perry Saidman, the design patent attorney behind the

321. See Gartner, *Global Market Share Held by the Leading Smartphone Operating Systems in Sales to End Users from 1st Quarter 2009 to 2nd Quarter 2018*, STATISTA (2020), <https://www.statista.com/statistics/266136/global-market-share-held-by-smartphone-operating-systems/> [<https://perma.cc/W6CP-92XL?type=image>]; see also Brad Stone, *Google's Andy Rubin on Everything Android*, N.Y. TIMES: BITS (Apr. 27, 2010, 1:02 PM), <https://bits.blogs.nytimes.com/2010/04/27/googles-andy-rubin-on-everything-android/> (predicting that Android will overtake iPhone sales).

322. See VOGELSTEIN, *supra* note 316, at 172–74.

323. See Complaint for Patent Infringement, Apple Inc. v. High Tech. Comput. Corp., No. 10CV00167, 2010 WL 711393 (D. Del. Mar. 2, 2010).

324. See *infra* Section V(D).

325. ISAACSON, *supra* note 314, at 512.

Avia case and a prominent advocate for robust design protection,³²⁶ to overturn the panel's filtration approach and restore the broad standard for design patent eligibility reflected in *Avia*, *L.A. Gear*, *Rosco*, and *Egyptian Goddess*. Apple's amicus brief supporting Richardson's en banc petition laid bare the strategy to eviscerate the functionality limitation on design patent protection:

It is exceptionally important for the Court to reconsider en banc the panel's finding that it is proper to factor out functional aspects of a claimed design prior to determining infringement.

The parsing of ornamental and functional features should be abolished. Whether an individual feature of an overall design performs a function is simply not relevant to design patent infringement.

Functional features that make up an overall design are nearly always themselves ornamental, and those functional features are no more or less relevant to design patent *infringement* than any other feature, all contributing to the overall appearance of the claimed design.

The proper place in design patent law to consider functionality is when evaluating the validity of a design patent, i.e., whether the overall claimed design is dictated solely by function. This use of functionality in the validity inquiry is supported by the Supreme Court's *Bonito Boats* decision.

This Court's *Egyptian Goddess* decision, in rejecting the old deconstructionist analysis of novelty, also changed the underpinning of older case law that similarly dissected functionality element-by-element—a flawed analysis with the same infirmities that led this Court to abolish the point of novelty test in *Egyptian Goddess*.³²⁷

Although the Federal Circuit declined en banc review of *Richardson*,³²⁸ this decision merely postponed the inevitable functionality showdown. Apple could still contend its touchscreen designs, viewed as a whole, were not functional and were infringed by Samsung's touchscreen smartphones.

326. See Perry J. Saidman & Theresa Esquerra, *A Manifesto on Industrial Design Protection: Resurrecting the Design Registration League*, 55 J. COPYRIGHT SOC'Y U.S.A. 423 (2008); Perry J. Saidman, *Design Patents—The Whipping Boy Bites Back*, 73 J. PAT. & TRADEMARK OFF. SOC'Y 859 (1991); Perry J. Saidman & Mark B. Mondry, *Sneakers, Design Patents and Summary Judgments: Opening a New Era in the Protection of Consumer Product Designs*, 71 J. PAT. & TRADEMARK OFF. SOC'Y 524 (1989).

327. Brief of Amicus Curiae Apple Inc. in Support of Plaintiff-Appellant's Petition for Rehearing En Banc at 1, *Richardson v. Stanley Works, Inc.*, 597 F.3d 1288 (Fed. Cir. 2010) ("Summary of Argument").

328. See *Richardson*, 597 F.3d 1288 (noting rehearing en banc denied on May 24, 2010).

D. THE *APPLE V. SAMSUNG* FUNCTIONALITY SHOWDOWN: DESIGN PATENTS RUN AMOK

On April 15, 2011, Apple filed a broad complaint alleging that Samsung's Galaxy phones and tablets infringed numerous utility and design patents, as well as the iPhone and iPad trade dress.³²⁹ This litigation would run for seven years and cost hundreds of millions of dollars, with several appeals to the Federal Circuit, a Supreme Court decision on a question of far less significance than design patent functionality, and ultimately a jury damages award of over a half billion dollars against Samsung based principally on the design patent infringement allegations. At the end of this Dickensian saga,³³⁰ the courts passively reinforced the permissive view of design patent ornamentality/non-functionality.

1. *The 2011 District Court Preliminary Injunction Decision*

On July 1, 2011 Apple moved for a preliminary injunction seeking to enjoin Samsung sales of smartphones and tablet computers arguing among other things that these products infringe upon Apple's design patents.³³¹ Samsung opposed the motion, arguing that Apple had not met the high threshold for this "extraordinary remedy."³³² To prevail on its motion, Apple had to establish: "(1) some likelihood of success on the merits of the underlying litigation; (2) immediate irreparable harm will result if the relief is

329. See Complaint for Patent Infringement, Federal False Designation of Origin and Unfair Competition, Federal Trademark Infringement, State Unfair Competition, Common Law Trademark Infringement, and Unjust Enrichment, Apple Inc. v. Samsung Elecs. Am., Inc., No. 11-CV-01846-LHK, 2011 WL 7036077 (N.D. Cal. Dec. 2, 2011); Amended Complaint for Federal False Designation of Origin and Unfair Competition, Federal Trademark Infringement, Federal Trade Dress Dilution, State Unfair Business Practices, Common Law Trademark Infringement, Unjust Enrichment, and Patent Infringement, *Apple*, 2011 WL 7036077; VOGELSTEIN, *supra* note 316, at 161. Notwithstanding the omnibus nature of its complaint, Apple chose not to assert a copyright infringement cause of action. Adding this cause of action would have required Apple to register copyright protection for the iPhone and iPad, which would likely have encountered pushback from the Copyright Office. Moreover, the court would apply both validity and filtration screens. See *infra* Section VII(A)(2).

330. See generally CHARLES DICKENS, BLEAK HOUSE (1853).

331. Design Patent No. D618,677; Design Patent No. D593,087; Design Patent No. D504,889. See *Apple*, 2011 WL 7036077, at *1, *aff'd in part, vacated in part, remanded*, 678 F.3d 1314 (Fed. Cir. 2012).

332. See *id.* at *5. Under 35 U.S.C. § 283, the decision to grant a preliminary injunction "in accordance with the principles of equity" is within the sound discretion of the district court. See *Abbott Lab's. v. Andrx Pharms., Inc.*, 452 F.3d 1331, 1334 (Fed. Cir. 2006).

not granted; (3) the balance of the hardships to the parties weighs in its favor; and (4) the public interest is best served by granting the injunctive relief.”³³³

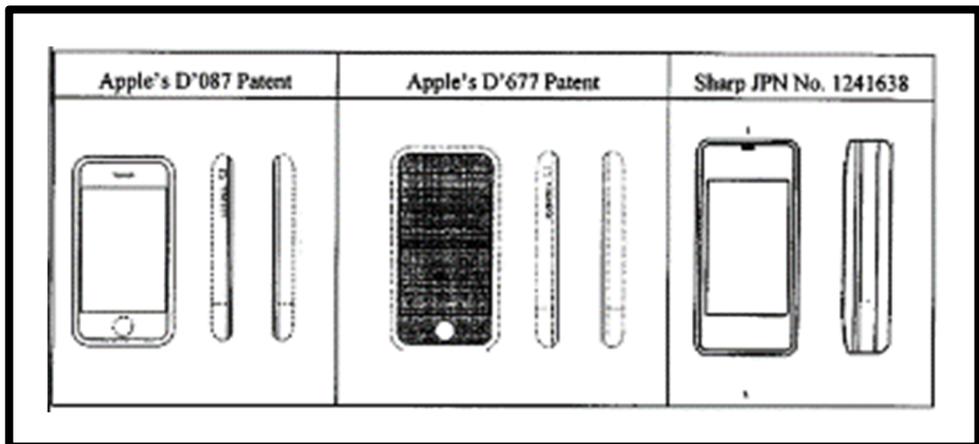
a) The Smartphone Design Patents

With regard to success on the merits of the smartphone design patents, Samsung focused its opposition on their evident minimalism (non-ornamentality) and functionality:

[T]he core of Apple’s D’677 and D’087 patents is ‘minimalistic.’ Under this theory of design, ornamentation is stripped down to pure functionality, and therefore, Samsung argues, the D’677 and D’087 patents are invalid based on functionality. Samsung offers a list of design features found in the D’677 and D’087 patents, which also have functional benefits for the user of the patented article. These design features include the design patents’ (1) rectangular shape; (2) rounded corners; (3) placement of the rounded speaker on the upper portion of the front surface above the display screen; (4) horizontal slot shape of speaker; (5) black color and borders around the screen; (6) bezel; and (7) lack of significant ornamentation. Samsung argues that all of the major elements in the D’677 and D’087 patents are “primarily functional,” and therefore the patents themselves are invalid.³³⁴

Samsung also pointed to anticipation and obviousness based on a Japanese smartphone patent, shown below in Figure 27, published more than one year before the D’677 and D’087 filing dates.

Figure 27: Smartphone Prior Art References and Comparison



333. *See id.*

334. *Apple*, 2011 WL 7036077, at *7 (citations to brief and footnote omitted).

Samsung further contended that Apple would fail to succeed in proving infringement after filtering out the functional design elements under the *Richardson* framework.

In rejecting Samsung's ornamentality/non-functionality arguments, Judge Koh explained:

The standard employed to invalidate a design patent based upon functionality requires that the design itself be *dictated* by the functionality of the item. Just because various elements of Apple's D'677 and D'087 patents *enhance* the user experience does not necessarily mean that the patented design is *dictated* by functionality. The Federal Circuit has previously rejected precisely the type of argument advanced by Samsung. In *L.A. Gear*, the party seeking to invalidate a shoe design patent based on functionality argued that various design elements had utilitarian purposes, increasing the benefit to the wearer of the shoe. 988 F.2d at 1123. The Federal Circuit refused to find that a design patent was invalid as functional because "the utility of each of the various elements that comprise the design is not the relevant inquiry with respect to a design patent." *Id.* Viewing the patents at issue here as a whole, the Court cannot say that the designs are purely functional.

Moreover, Apple has identified numerous alternative smartphone designs in which the functions identified by Samsung as performed by the design elements in the D'677 and D'087 patents were achieved in another way. Evidence of alternative designs may support a finding that the patented design is more likely to serve an ornamental function. See *L.A. Gear*, 988 F.2d at 1123.³³⁵

Judge Koh also found that

the alternative smartphone designs identified by Apple—both other smartphones within the industry, and alternative designs considered and discarded by Apple in the process of designing the D'087 and D'677 patents—establish that there are alternative designs that do not adversely affect the utility of the design. For example, Apple identified alternative designs that had different characteristics that were neither more nor less utilitarian than the design used in the D'677 and D'087 patents. These included alternative designs that contained: more deeply rounded corners that gave an overall less rectangular visual impression; sharper corners; differently shaped speakers; differently sized and placed screens; and alternative designs with additional buttons. Indeed, several of these phone designs had additional buttons on the body of the phone, which are arguably more functional than the one button designs found in the D'087 and

335. *Id.* at *8 (emphasis in original).

D'677 patents. Accordingly, Samsung has failed to meet its burden of raising substantial questions as to the validity of the D'087 and D'677 patents based on functionality.³³⁶

The court nonetheless acknowledged that “certain aspects of the design patents that are dictated by function may limit the claim scope of both the D'087 and D'677 patents.”³³⁷ Applying *Richardson*, Judge Koh found that “a size that can be handheld, a screen that encompasses a large portion of the front face of the smartphone, and a speaker on the upper portion of the front face of the product are non-ornamental.”³³⁸

As regards to invalidity based on anticipation and obviousness, Judge Koh found that Samsung had met its burden and raised substantial questions regarding the validity of the D'087 patent in light of the Sharp Japanese patent.³³⁹ She reached the opposite conclusion regarding the D'677 patent because the Sharp patent did not feature a black transparent and glass-like front surface.³⁴⁰

On the infringement question, Judge Koh acknowledged in a nod to *Richardson* that it was a close call “in light of the claim limitations and other considerations,” but that Apple had met its burden.³⁴¹ She did not, however, explain the filtration analysis and offered only a conclusory judgment.

Weighing these considerations in conjunction with Apple’s allegation of irreparable harm from erosion of design distinctiveness and loss of market share, hardship to the parties, and the public interest, Judge Koh ultimately denied Apple’s preliminary injunction request.³⁴² She emphasized the closeness of the infringement question and that “the design (as opposed to the touch screen technology) of the front view of the smartphone—is but one of many features of the Samsung accused devices. Issuing an injunction on both of these products based on one aspect of the overall product does not advance equitable principles.”³⁴³

b) The Tablet Design Patent

Samsung focused its opposition to the grant of a preliminary injunction with regard to the tablet design patent (D'889) on its minimalism and functionality as well as its obviousness in light of two prior art references: a

336. *Id.* at *9 (citations to declarations omitted).

337. *Id.*

338. *Id.*

339. *See id.* at *13.

340. *See id.* at *14–*15.

341. *See id.* at *17.

342. *See id.* at *23–*24.

343. *See id.* at *23.

1994 tablet intended to be used as a newspaper reader and Compaq's 2002 TC1000 tablet.³⁴⁴

Figure 28: Tablet Prior Art References



Samsung also challenged Apple's likelihood of success on proving infringement based on the *Richardson* filtration framework.³⁴⁵

Judge Koh rejected Samsung's functionality contentions on the same grounds that she applied to the smartphone design patents, emphasizing the narrow "dictated by" standard.³⁴⁶ Regarding obviousness, Judge Koh reasoned:

Apple's D'889 patent is a broad, simple design that gives the overall visual impression of a rectangular shape with four evenly rounded corners, a flat glass-like surface without any ornamentation and a rim surrounding the front surface. The back is a flat panel that rounds up near the edges. The overall design creates a thin form factor. The screen takes up most of the space on the front of the design.

344. *See id.* at *24–*27.

345. *See id.* at *27–*28.

346. *See id.* at *24.

The Court finds that the 1994 Fidler/Knight Ridder tablet creates ‘basically the same visual impression’ as the D’889 patent. The 1994 Fidler/Knight Ridder tablet is also a simple rectangular tablet with four evenly rounded corners. The front screen is a flat reflective surface surrounded by a rim on all four sides. The back-side, though it apparently has four screws, is essentially flat. The area surrounding the screen is admittedly not entirely symmetrical on all four sides, but none of these minor differences distracts from the overall visual appearance of the 1994 Fidler/Knight Ridder tablet as a simple and portable rectangular tablet with the same overall visual impression as the D’889 patent. *See* Durling, 101 F.3d at 103 (‘In comparing the patented design to a prior art reference, the trial court judge may determine almost instinctively whether the two designs create basically the same visual impression.’) (emphasis added).

...

Once a primary reference has been identified, ‘secondary references may only be used to modify the primary reference if they are so related to the primary reference that the appearance of certain ornamental features in one would suggest the application of those features to the other.’ *Burling*, 101 F.3d at 103 (internal quotation marks omitted). Samsung has identified several prior art references, including the 2002 Hewlett-Packard Compaq Tablet PC TC 1000 (“the HP Tablet”), which disclose additional features of the tablet that are related to the primary reference. The HP Tablet may serve as a secondary reference because it is related both in design and in use to the 1994 Fidler/Knight Ridder Tablet. The HP Tablet contains a flat glass screen that covers the top surface of the tablet and a thin rim that surrounds the front face of the device. Thus, the main element that Apple argued was not present in the 1994 Fidler/Knight Ridder Tablet existed in the HP Tablet.³⁴⁷

Consequently, the court determined that Samsung had raised substantial questions as to the validity of the D’889 patent.

As regards to infringement, Judge Koh again nodded to *Richardson* and noted that the infringement analysis must be limited to those aspects of the design that are ornamental and do not extend to any functional elements of the claimed design.³⁴⁸ She noted that in the functionality analysis that “the tablet computer must be a size that allows portability” but that is relatively large to allow users to make effective use of the touchscreen.³⁴⁹ And in view of these constraints, the “screen necessarily must encompass a large portion

347. *See id.* at *26–*27.

348. *See id.* at *27.

349. *See id.* at *25 (citation to declaration omitted).

of the front face of the product.”³⁵⁰ Notwithstanding these limitations, Judge Koh concluded that the design of the Samsung Galaxy Tab 10.1 “is substantially similar to the D’889 patent in the eyes of an ordinary observer.”³⁵¹ As with the smartphone infringement analysis, she offered little explanation of how she conducted the filtration analysis.

Judge Koh concluded that Apple had shown a likelihood of irreparable harm in the absence of a preliminary injunction³⁵² but that substantial questions regarding the D’889 patent—principally the obviousness issue—led her to deny issuing a preliminary injunction with regard to Samsung’s tablet product.³⁵³

2. *The 2012 Federal Circuit Appeal of the Preliminary Injunction Decisions and Remand*

On appeal, the Federal Circuit upheld the district court’s denial of Apple’s request for a preliminary injunction largely on Judge Koh’s findings with regard to irreparable harm,³⁵⁴ but rejected her rulings that the D’087 smartphone design patent is likely anticipated by the Sharp’s Japanese patent³⁵⁵ and that Samsung had raised substantial questions as to the obviousness of the D’889 patent.³⁵⁶ The court vacated the order denying an injunction with respect to the D’889 patent and remanded the case for further proceedings on that portion of Apple’s motion for preliminary relief.³⁵⁷

Although Samsung devoted much of its appellate brief to the ornamentality/non-functionality issue,³⁵⁸ the Federal Circuit sidestepped the

350. *See id.* (citation to declaration omitted).

351. *See id.* at *28.

352. *See id.* at *28–*29.

353. *See id.* at *29.

354. *See Apple, Inc. v. Samsung Elecs. Co., Ltd.*, 678 F.3d 1314, 1323–27 (Fed. Cir. 2012).

355. *See id.* at 1326–27.

356. *See id.* at 1328–31.

357. *See id.* at 1333. Judge O’Malley concurred with regard to upholding Judge Koh’s denial of the preliminary injunction with regard to the smartphone designs but noted that she “might have weighted Apple’s evidence of irreparable harm regarding its smartphones differently had [she] been considering it in the first instance.” *Id.* (O’Malley, J., concurring in part and dissenting in part). But Judge O’Malley agreed with the majority that deference to the district court was appropriate. *See id.* And Judge O’Malley dissented on the handling of the tablet design, contending that the Federal Circuit should have ordered issuance of the preliminary injunction subject only to consideration of an appropriate security bond. *See id.* at 1333–39.

358. *See Corrected Public Non-Confidential Brief of Defendants-Appellees* at 37–42, 60–61, *Apple*, 678 F.3d 1314 (No. 2012–1105), 2012 WL 454641.

question even as it acknowledged the highly functional character of these designs in its background summary of the design patents at issue.³⁵⁹

On remand, Judge Koh preliminarily enjoined Samsung from “making, using, offering to sell, or selling within the United States, or importing into the United States, Samsung’s Galaxy Tab 10.1 tablet computer, and any product that is no more than colorably different from this specified product and embodies any design contained in U.S. Design Patent No. D504,889.”³⁶⁰

3. *The 2012 Trial*

The district court commenced a jury trial in August 2012 to much fanfare.³⁶¹ Apple alleged infringement of four design patents,³⁶² three user-interface software utility patents,³⁶³ and the iPhone and iPad trade dress.³⁶⁴ Samsung defended the design patent allegations by arguing invalidity based on functionality, anticipation, and obviousness, and non-infringement based in part on the *Richardson* filtration framework. Samsung also counterclaimed that Apple products infringed several of its utility patents.³⁶⁵

359. See *Apple*, 678 F.3d at 1317–18 (noting that design patents are for “minimalist” rectangles with rounded corners).

360. See Order Granting Preliminary Injunction at 7, *Apple, Inc. v. Samsung Elecs. Co., Ltd.*, 920 F. Supp. 2d 1079 (N.D. Cal. 2013) (No. 11-CV-01846-LHK), 2012 WL 2401680.

361. See David Kravets, *Who Cheated Whom? Apple v. Samsung Patent Showdown Explained*, WIRED (July 27, 2012, 6:00 AM), <https://www.wired.com/2012/07/apple-v-samsung-explained/>; Nicole Perlroth & Nick Wingfield, *Design and Drama Mark First Day in Apple-Samsung Trial*, N.Y. TIMES: BITS (July 31, 2012), <https://bits.blogs.nytimes.com/2012/07/31/design-and-drama-mark-first-day-in-apple-samsung-trial/>; Cromwell Schubarth, *Apple, Samsung Jury Trial Begins in San Jose*, SILICON VALLEY BUS. J. (July 30, 2012, 9:49 AM), <https://www.bizjournals.com/sanjose/news/2012/07/30/apple-samsung-jury-trial-begins-in.html>.

362. Electronic Device, U.S. Design Patent No. D618,677 (issued Dec. 23, 2010); Electronic Device, U.S. Design Patent No. D593,087 (issued May 29, 2009); Electronic Device, U.S. Design Patent No. D504,889 (issued May 10, 2005); Graphical User Interface for Display Screen or Portion Thereof, U.S. Design Patent No. D604,305 (issued Nov. 17, 2009).

363. List Scrolling and Document Translation, Scaling, and Rotation on a Touch-Screen Display, “Rubberbanding,” U.S. Patent No. 7,469,381 (issued Dec. 23, 2008); Application Programming Interfaces for Scrolling Operations, “Scroll vs. Gesture,” U.S. Patent No. 7,844,915 (issued Nov. 30, 2010); Portable Electronic Device, Method, and Graphical User Interface for Displaying Structured Electronic Documents, “Tap-to-Zoom,” U.S. Patent No. 7,864,163 (issued Jan. 4, 2011).

364. SMS-TRADE DRESS FOR IPHONE SCREEN WITH APP ICONS, UNREGISTERED IPHONE 3G TRADE DRESS, UNREGISTERED COMBINATION IPHONE TRADE DRESS, AND UNREGISTERED IPAD/IPAD 2 TRADE DRESS, Registration No. 3,470,983.

365. Digital Image Capture and Processing System, U.S. Patent No. 7,577,460 (issued Apr. 17, 2012); Method of Controlling Digital Image Processing Apparatus for Efficient Reproduction and Digital Image Processing Apparatus Using the Method, U.S. Patent No. 7,456,893 (issued Nov. 25, 2008); Multi-Tasking Apparatus and Method in Portable Terminal, U.S. Patent No. 7,698,711 (issued Apr. 13, 2010).

Prior to trial, Judge Koh construed the design patents as follows:

1. The D'087 Patent

The D'087 Patent claims the ornamental design of an electronic device as shown in Figures 1–48. The broken lines in the D'087 Patent constitute unclaimed subject matter. Thus, the D'087 Patent claims the front face, a 'bezel encircling the front face of the patented design [that] extends from the front of the phone to its sides,' and a flat contour of the front face, but does not claim the rest of the article of manufacture.

2. The D'677 Patent

The D'677 Patent claims the ornamental design of an electronic device as shown in Figures 1–8. The broken lines in the D'677 Patent constitute unclaimed subject matter. The use of "solid black surface shading" on the D'677 Patent represents the color black. The use of oblique line shading on the D'677 Patent is used to show a transparent, translucent, or highly polished or reflective surface.

3. The D'889 Patent

The D'889 Patent claims the ornamental design of an electronic device as shown in Figures 1–9. The broken lines depicting the human figure in figure 9 do not form a part of the claimed design. The other broken lines in the other figures are part of the claimed design. The D'889 also includes oblique line shading on several of the figures. The oblique line shading in Figures 1–3 and Figure 9 depicts a transparent, translucent, or highly polished or reflective surface from the top perspective view of the claimed design, the top view of the claimed design, and the bottom perspective view of the claimed design.

4. The D'305 Patent

The D'305 Patent claims the ornamental design for a graphical user interface for a display screen or portion thereof, as shown in Figures 1–2. The broken line showing of a display screen in both views forms no part of the claimed design.³⁶⁶

The claim construction, which would be read to the jury as an instruction,³⁶⁷ makes no mention of functional elements that are outside of the scope of design patent protection, despite the fact that Judge Koh recognized many

366. See Order Amending Design Patent Claim Construction, *Apple, Inc. v. Samsung Elecs. Co., Ltd.*, 920 F. Supp. 2d 1079 (N.D. Cal. 2013) (No. 11-CV-01846-LHK). The D'305 claim construction was added later.

367. See Final Jury Instructions at 59–60, *Apple*, 920 F. Supp. 2d 1079 (No. 11-CV-01846-LHK), 2012 WL 3568795 [hereinafter Final Jury Instructions].

functional elements in Apple's design patents in her 2011 preliminary injunction decision.³⁶⁸

Following the close of evidence, Judge Koh read the jury the following instruction to guide them in assessing direct infringement of the design patents:

FINAL JURY INSTRUCTION NO. 46

DESIGN PATENTS—DIRECT INFRINGEMENT

To determine direct infringement of a design patent, you must compare the overall appearances of the accused design and the claimed design.

If you find by a preponderance of the evidence that the overall appearance of an accused Samsung design is substantially the same as the overall appearance of the claimed Apple design patent, and that the accused design was made, used, sold, offered for sale, or imported within the United States, you must find that the accused design infringed the claimed design.

Two designs are substantially the same if, in the eye of an ordinary observer, giving such attention as a purchaser usually gives, the resemblance between the two designs is such as to deceive such an observer, inducing him to purchase one supposing it to be the other. You do not need, however, to find that any purchasers actually were deceived or confused by the appearance of the accused Samsung products. You should consider any perceived similarities or differences between the patented and accused designs. Minor differences should not prevent a finding of infringement.

This determination of whether two designs are substantially the same will benefit from comparing the two designs with prior art. You must familiarize yourself with the prior art admitted at trial in making your determination of whether there has been direct infringement.

You may find the following guidelines helpful to your analysis:

1. The placement and ornamentation of a logo may alter the overall design. However, the use of a mark or logo to identify the source of an otherwise infringing design will not avoid infringement.
2. When the claimed design is visually close to prior art designs, small differences between the accused design and the claimed design may be important in analyzing whether the overall appearances of the accused and claimed designs are substantially the same.

368. *See supra* notes 330–354 and accompanying text.

3. If the accused design includes a feature of the claimed design that departs conspicuously from the prior art, you may find that feature important in analyzing whether the overall appearance of the accused and claimed designs are substantially the same.

4. If the accused design is visually closer to the claimed design than it is to the closest prior art, you may find this comparison important in analyzing whether the overall appearances of the accused and claimed designs are substantially the same.

5. You should not consider the size of the accused products if the asserted design patent does not specify the size of the design.

While these guidelines may be helpful, the test for infringement is whether the overall appearances of the accused design and the claimed design are substantially the same.

Whether Samsung knew its products infringed or even knew of Apple design patents does not matter in determining infringement.³⁶⁹

Samsung objected that this instruction failed to explain to the jury the need to filter out the functional features.³⁷⁰

As regards the ornamentality/non-functionality invalidity defense, Judge Koh provided the following jury instruction:

FINAL JURY INSTRUCTION NO. 52

DESIGN PATENTS—INVALIDITY—LACK OF ORNAMENTALITY

Design patents protect the ornamental appearance, including shape or configuration, of an article of manufacture. If Samsung proves by clear and convincing evidence that the overall appearance of an Apple patented design is *dictated by* how the article claimed in the patent works, the patent is invalid because the design is not “ornamental.” In other words, the inventor did not “design”

369. See Final Jury Instructions, *supra* note 375, at 63.

370. See Samsung's Proposed Disputed Jury Instructions at the Close of Evidence at 45, *Apple*, 920 F. Supp. 2d 1079 (No. 11-CV-01846-LHK), 2012 WL 3000306 [hereinafter Samsung's Proposed Disputed Jury Instructions] (citing *Read Corp. v. Portec, Inc.*, 970 F.2d 816, 825–26 (Fed. Cir. 1992) (“[Where] a design is composed of functional as well as ornamental features, to prove infringement a patent owner must establish that an ordinary person would be deceived by reason of the common features in the claimed and accused designs which are ornamental.”)); *OddzOn Prods., Inc. v. Just Toys, Inc.*, 122 F.3d 1396, 1405 (Fed. Cir. 1997); *Richardson v. Stanley Works, Inc.*, 597 F.3d 1288, 1293–94 (Fed. Cir. 2010); *id.* at 1296 (“We also agree that, ignoring the functional elements of the tools, the two designs are indeed different.”).

anything because in order to achieve the function of the design, it had to be designed that way.

When deciding this, you should keep in mind that design patents must be for articles of manufacture, which by definition have inherent functional characteristics. It is normal that claimed designs perform some function—that does not disqualify them from patent protection.

In determining whether a design is dictated by functionality, you may consider whether the protected design represents the best design; whether alternative designs would adversely affect the utility of the specified article; whether there are any concomitant utility patents; whether the advertising touts particular features of the design as having specific utility; and whether there are any elements in the design or an overall appearance clearly not dictated by function.

When there are several other designs that achieve the function of an article of manufacture, the design of the article is more likely to serve a primarily ornamental purpose. However, this may not be true if the other designs adversely affect the utility of the article.³⁷¹

Samsung objected to such narrow framing of the functionality question.³⁷² Samsung contended that jurors should be instructed to “ignore any features that are functional and compare only the ornamental features” and that “[i]n determining whether the overall design is functional, the functionality of each of the various elements that comprise the patented design may be relevant.”³⁷³

After thirteen days of trial and three days of deliberation,³⁷⁴ the jury found that twenty-six of Samsung’s mobile devices infringed three of Apple’s design patents (although not the tablet design), three of Apple’s utility patents, Apple’s registered trade dress, and Apple’s unregistered trade dress for the iPhone 3G.³⁷⁵ The jury rejected Samsung’s utility and design patent invalidity defenses and its utility patent counterclaims.³⁷⁶ The jury awarded

371. See Final Jury Instructions, *supra* note 367, at 70 (emphasis added).

372. See Samsung’s Proposed Disputed Jury Instructions, *supra* note 370, at 59 (disregarding the “dictated by” formulation).

373. See *id.*

374. See *Apple* 920 F. Supp. 2d at 1089.

375. See Amended Jury Verdict Form, *Apple*, 920 F. Supp. 2d 1079 (No. 11-CV-01846-LHK), 2012 WL 10208466.

376. See *id.*

approximately \$1.049 billion to Apple, the majority of which was attributable to infringement of the design patents.³⁷⁷

4. *Post-Trial Motions*

Following the trial, Samsung moved for judgment as a matter of law on multiple grounds, including that no reasonable jury could find that Apple's design patents were valid or infringed by Samsung's products.³⁷⁸ Samsung argued that Judge Koh erred in failing to give the jury a *Richardson* filtering instruction advising jurors to filter out functional design elements in assessing infringement. Samsung also contended that the weight of the evidence established that Apple's designs were functional and hence the design patents were invalid.

Although Judge Koh repeatedly referred to the *Richardson* filtering standard in grounding her denial of Apple's preliminary injunction motions,³⁷⁹ she shifted course and ruled:

[A] "filtering" instruction of the type Samsung requested is not required. The Federal Circuit has explained that a court may aid a jury in determining design patent infringement by construing the claims, *see Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665, 679–80 (Fed. Cir. 2008) (en banc), and that claim construction may, but need not, include listing functional elements that should be factored out of the claimed design. *See Richardson v. Stanley Works, Inc.*, 597 F.3d 1288, 1293–94 (Fed. Cir. 2010) (construing a design patent by factoring out functional elements in the context of a bench trial). However, claim construction is a matter of law for the Court. The

377. *See id.* Judge Koh later cut over \$400 million off the judgment and ordered a limited new trial on damages because the jury improperly awarded damages for a period when Samsung lacked notice of some of the asserted patents. *See Apple, Inc. v. Samsung Elecs. Co., Ltd.*, 786 F.3d 983 (Fed. Cir. 2015) (No. 11-CV-01846-LHK), 2014 WL 549324; Greg Botelho, *Judge Orders New Samsung, Apple Faceoff: Strikes \$450 Million in Damages*, CNN Bus. (Mar. 2, 2013, 1:25 PM), <https://www.cnn.com/2013/03/01/tech/california-apple-samsung/index.html>. The second jury trial added \$290 million to the \$639 million remaining from the first trial. *See Apple*, 786 F.3d at 990. Samsung ultimately agreed to pay Apple \$548 million in damages, while reserving a right to reimbursement should it prevail on its Supreme Court appeal. *See James Vincent, Samsung Finally Agrees to Pay Apple \$548 Million, with a Few Caveats*, THE VERGE (Dec. 4, 2015, 6:39 AM), <https://www.theverge.com/2015/12/4/9848348/samsung-apple-patent-548-million-payment>. Of the \$548 million in damages, \$399 million was attributable to design patent infringement. *See* Petition for Writ of Certiorari to the Supreme Court of the United States at 2, *Samsung Elecs. Co. v. Apple Inc.*, 137 S. Ct. 429 (2016) (No. 15-777) [hereinafter *Samsung Certiorari Petition*].

378. *See* Samsung's Notice of Motion and Motion for Judgment as a Matter of Law, New Trial and/or Remittitur Pursuant to Federal Rules of Civil Procedure 50 and 59, *Apple*, 920 F. Supp. 2d 1079 (No. 11-CV-01846-LHK).

379. *See infra* Section V(D)(1).

cases do not suggest that this type of claim construction is appropriate when instructing a jury. The cases engaging in such explicit filtering analysis generally do so in contexts in which a court then rules directly on infringement, such as summary judgment or a bench trial. *See, e.g., Richardson*, 597 F.3d 1288 (bench trial). Indeed, *Egyptian Goddess* warns of the risks of providing an element-by-element construction to a jury, as such instruction could divert the jury's attention from "the design as a whole." *Id.*; *see also* 543 F.3d at 680. Moreover, the Court determined in considering Samsung's request for a jury instruction that Samsung had not shown that the allegedly functional design elements were actually functional under the Federal Circuit's "dictated by function" standard, particularly in light of Apple's evidence that alternative designs existed. *See Richardson*, 597 F.3d at 1294 (applying the "dictated by function" standard during design patent claim construction).³⁸⁰

It is unclear how a jury would understand the need to filter out functional elements without such an instruction. The fact that *Richardson* was a bench trial hardly supports omitting such an instruction in a jury trial. If anything, such an instruction is especially important in enabling a lay jury to apply the infringement standard with due care in cases involving functional designs. Both Judge Koh and the Federal Circuit had previously emphasized the minimalist, functional aspects of Apple's design patents. In her preliminary injunction ruling, Judge Koh emphasized that aspects of Apple's design patents that are dictated by function limit the claim scope of the patents "to those aspects alone that are ornamental and do not extend to any functional elements of the claimed design"³⁸¹ and that "*Richardson* instructs the district court to identify the aspects of the design that are 'dictated by' function and to consider only the remaining aspects of the design in the infringement and anticipation analysis of the design patent."³⁸²

Samsung also argued that no reasonable jury could have found Apple's design patents valid on the basis of functionality. Judge Koh was not persuaded:

Samsung points to expert testimony identifying some allegedly functional elements of the designs. However, invalidity requires not just some functional elements, but that the overall design is "primarily functional." *See PHG Techs. v. St. John Companies, Inc.*, 469 F.3d 1361, 1366 (Fed. Cir. 2006). A design is primarily functional if "the appearance of the claimed design is 'dictated by' the use or

380. *See Apple*, 920 F. Supp. 2d at 1091.

381. *Apple, Inc. v. Samsung Elecs. Co., Ltd.*, No. 11-CV-01846-LHK, 2011 WL 7036077 (N.D. Cal. Dec. 2, 2011), at *10.

382. *Id.* at *9 (citing *Richardson v. Stanley Works, Inc.*, 597 F.3d 1288, 1293 (Fed. Cir. 2010) and *OddzOn Prods., Inc. v. Just Toys, Inc.*, 122 F.3d 1396, 1404–05 (Fed. Cir. 1997)).

purpose of the article.” *Id.* (quoting *L.A. Gear, Inc. v. Thom McAn Shoe Co.*, 988 F.2d 1117, 1123 (Fed. Cir. 1993)). Expert testimony of the type Samsung identifies, stating that individual design elements confer specific functional benefits (e.g., that round corners “help you move things in and out of your pocket,” Tr. 680:9–15), does not constitute clear and convincing evidence that the overall patented designs are dictated by function. Samsung has not identified any other evidence of functionality directed at the designs as a whole.³⁸³

Judge Koh’s comment that Samsung identifies some “allegedly functional elements of the designs” is inconsistent with her earlier ruling. Judge Koh’s detailed ruling denying Apple’s preliminary injunction motion discussed many functional elements of Apple’s design patents,³⁸⁴ as did the Federal Circuit’s opinion reviewing the preliminary injunction ruling.³⁸⁵

Moreover, Judge Koh’s reasoning illustrates how looking at minimalist designs “as a whole” without filtering out the functional features eviscerates the ornamentality/non-functionality limitation on design patents. Apple’s smartphone design patents claimed rounded rectangles without surface ornamentation. There has to be some ornamental aspects in the design to justify finding the design ornamental. The assertion that the mere combination of rounded corners and flat surfaces somehow becomes ornamental is conclusory. It is not surprising that a jury would be misled if not instructed on the need to filter out the functional features.

5. *The 2015 Federal Circuit Appeal*

On appeal, the Federal Circuit resoundingly affirmed Judge Koh’s design patent rulings.³⁸⁶ Samsung argued that it should not have been found liable for infringement of the asserted design patents because any similarity was limited to the basic or functional elements in the design patents. Citing *Richardson and OddzOn*, Samsung contended that the district court erred in failing to exclude functional aspects of the design patents either in the claim construction or elsewhere in the jury instructions.³⁸⁷ In rejecting Samsung’s position, the Federal Court confusingly limited *Richardson* to its facts:

In *Richardson*, the design patent at issue depicted a multifunction tool with numerous components that were ‘dictated by their functional purpose.’ 597 F.3d at 1294. But the claim construction in *Richardson* did not exclude those components in their entirety. Rather, the claim

383. See *Apple*, 920 F. Supp. 2d at 1091–92.

384. See *supra* notes 330–354 and accompanying text.

385. See *supra* notes 355–360 and accompanying text.

386. *Apple Inc. v. Samsung Elecs. Co.*, 786 F.3d 983, 997–99 (Fed. Cir. 2015).

387. See *id.* at 998.

construction included the ornamental aspects of those components: ‘the standard shape of the hammer-head, the diamond-shaped flare of the crow-bar and the top of the jaw, the rounded neck, the orientation of the crow-bar relative to the head of the tool, and the plain, undecorated handle.’ *Richardson v. Stanley Works, Inc.*, 610 F.Supp.2d 1046, 1050 (D.Ariz. 2009). That construction was affirmed on appeal. *Richardson*, 597 F.3d at 1294. As such, the language ‘dictated by their functional purpose’ in *Richardson* was only a description of the facts there; it did not establish a rule to eliminate entire elements from the claim scope as Samsung argues.³⁸⁸

This explanation makes no sense. Unlike the design patent at issue in *Richardson*—which had ornamental qualities—the Apple designs were truly minimalist, as the Federal Circuit acknowledged in its 2012 opinion.³⁸⁹ Furthermore, prior art, such as the Sharp Japanese patent,³⁹⁰ disclosed rounded rectangles and flat surfaces for smartphones. The fact that Apple’s actual product was sleeker should not have mattered. Apple expressly disclaimed those (and all other) aspects of the iPhone design through its use of dotted lines on its design patent drawings. Ultimately, we are left with the unavoidable conclusion that the Federal Circuit’s reasoning cannot be reconciled with the court’s precedent and the minimalist, functional character of Apple’s design patent claims.

While narrowing the meaning of functional for purposes of design patent validity and infringement to nonexistence, the Federal Circuit’s rejection of the lower court’s trade dress infringement ruling on functionality grounds makes the opinion read like a chapter from *Alice in Wonderland*.³⁹¹ Applying Ninth Circuit law,³⁹² the Federal Circuit waxes eloquently about the robust functionality of the iPhone trade dress (which parallel Apple’s design patents):

388. *Id.*

389. *See* *Apple, Inc. v. Samsung Elecs. Co., Ltd.*, 678 F.3d 1314, 1317–18 (Fed. Cir. 2012).

390. *See* *Apple, Inc. v. Samsung Elecs. Co., Ltd.*, No. 11-CV-01846-LHK, 2011 WL 7036077 (N.D. Cal. 2012), at *10.

391. *See* LEWIS CARROLL, *ALICE’S ADVENTURES IN WONDERLAND* (D. Appleton & Co. 1866) (portraying Alice as a young, innocent, youth who does not have the ability to rationalize well enough to discover an exit from Wonderland and telling stories through contradictions, such as Alice struggling not to drown in her own sea of tears, saying “I wish I had not cried so much!”).

392. Regional circuit law binds the Federal Circuit when reviewing questions of law and precedent not exclusively assigned to the Federal Circuit. *See* *ERBE Elektromedizin GmbH v. Canady Tech. LLC*, 629 F.3d 1278, 1287 (Fed. Cir. 2010) (looking to the regional circuit law where the district court sits in reviewing Lanham Act claims); *Atari Games Corp. v. Nintendo of Am., Inc.*, 897 F.2d 1572, 1575 (Fed. Cir. 1990); *see generally* Menell, *supra* note 229, at 1578–81 (explaining the legislative history of the Federal Courts Improvement Act, the legislation that established the Federal Circuit, and Congress’s intention to limit the Federal Circuit’s subject matter jurisdiction).

improving the quality of the iPhone, having utilitarian advantage, the failure of alternative designs to offer the same features, and the substance of Apple's advertisements emphasizing the functionality of multi-touch features on flat screens.³⁹³ All of this led the Federal Circuit to conclude that Apple "failed to show that there was substantial evidence in the record to support a jury finding in favor of non-functionality for the . . . registered and unregistered trade dress."³⁹⁴

In partial defense of the Federal Circuit's analysis, the Ninth Circuit (and other circuits) have set a high bar for non-functionality.³⁹⁵ But that only begs the question of why the Federal Circuit has not come to the same conclusion regarding design patents. We return to that conundrum in Parts VI and VII.

6. *The Supreme Court's Missed Opportunity*

After failing to obtain en banc review at the Federal Circuit,³⁹⁶ Samsung filed a petition for writ of certiorari in the U.S. Supreme Court. Its petition led with the fundamental question of "[w]here a design patent includes unprotected non-ornamental features, should a district court be required to limit that patent to its protected ornamental scope?"³⁹⁷ The petition also posed the question of whether the Federal Circuit properly allowed Apple to recover Samsung's "entire profit" from the sale of products of the infringing devices, as the clear text of Section 289 of Patent Act appeared to require.³⁹⁸

393. See *Apple*, 786 F.3d at 992–95.

394. *Id.* at 994–96.

395. See *Leatherman Tool Grp., Inc. v. Cooper Indus., Inc.*, 199 F.3d 1009, 1011–12, 1013 (9th Cir. 1999) (observing that the protection for source identification must be balanced against "a fundamental right to compete through imitation of a competitor's product," and that a trade dress, taken as a whole, is functional if it is "in its particular shape because it works better in this shape"); *Disc Golf Ass'n v. Champion Discs, Inc.*, 158 F.3d 1002, 1007 (9th Cir. 1998) ("A product feature need only have some utilitarian advantage to be considered functional."); see also *TraFFix Devices, Inc. v. Mktg. Displays, Inc.*, 532 U.S. 23, 33–34 (2001) (explaining that trade dress does "not bar competitors from copying functional product design features" and that there is "no need" "to engage . . . in speculation about other design possibilities").

396. See *Samsung Certiorari Petition*, *supra* note 377, at 4 ("The court of appeals denied rehearing *en banc* on August 13, 2015.").

397. See *id.* at i.

398. See 35 U.S.C. § 289 ("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.").

Samsung's petition concisely explained that un rebutted evidence at trial showed

that rounded corners improve a phone's 'pocketability' and 'durability,' that a non-rectangular display element would be difficult and 'expensive' to manufacture and 'completely rare,' that the rectangular shape of the device maximizes the size of the rectangular display it can hold, that a clear flat front surface facilitates finger-touch operation over the entire display, and that the borders surrounding the display efficiently accommodate and hide under-lying components.

Moreover, Apple's witnesses admitted that 'having a clear cover over the display element' was 'absolutely functional,' that 'you need a speaker at the top to hear,' that the bezel keeps the glass from hitting the ground if the phone is dropped, that 'rounded corners certainly help you move things in and out of your pocket,' and that Apple may not own 'a colorful matrix of icons' or 'icons arranged in rows and columns in a grid,' which inform the user that the phone will perform particular functions when specific icons are selected.³⁹⁹

The petition noted the 1902 Act and its purpose of replacing the "useful" rubric with that of "ornamental"⁴⁰⁰ but did not explain the critical historical background of the design patent regime before and after 1902. This was particularly unfortunate because the Supreme Court had not heard a design patent case since the late-19th century, before the foundational 1902 Act clarified Congress's intent to reinforce the *channeling principle* between design and utility.⁴⁰¹ The petition made no reference to the many regional circuit cases, preceding the establishment of the Federal Circuit, that interpreted the design patent regime narrowly and faithfully to the text and language of the 1902 Act.⁴⁰²

Unfortunately, the Supreme Court granted certiorari solely on the damages question: "Where a design patent includes unprotected non-ornamental features, should a district court be required to limit that patent to its protected ornamental scope?"⁴⁰³ The Supreme Court's resolution of that question did nothing to address the critical ornamentality/non-functionality doctrine and did little to clarify design patent damages law.

399. See Samsung Certiorari Petition, *supra* note 377, at 15 (record citations omitted).

400. See *id.* at 5 ("Although design patents were once available for 'useful' product configurations . . . in 1902 Congress eliminated 'the word "useful" as applied to design patents . . . and substitut[ed] the word "ornamental."').

401. See *supra* Part III.

402. See *supra* Sections IV(A)–(B).

403. Samsung Elecs. Co. v. Apple Inc., 136 S. Ct. 1453 (2016).

Samsung prevailed in persuading the Supreme Court to overturn the Federal Circuit's interpretation of Section 289. The Court held that determining profits under Section 289 of the Act involves two steps: "First, identify the 'article of manufacture' to which the infringed design has been applied. Second, calculate the infringer's total profit made on that article of manufacture."⁴⁰⁴ On the first step, the Supreme Court held that the "article of manufacture" for which total profits are awarded was not limited to the product sold to consumers, but may be either "a product sold to a consumer [or] a component of that product."⁴⁰⁵ But the Court "decline[d] to lay out a test for the first step of the § 289 damages inquiry in the absence of adequate briefing by the parties."⁴⁰⁶ The case was therefore remanded back to the Federal Circuit which in turn remanded the case back to the district court.⁴⁰⁷

7. *The 2017 Remand Trial: Samsung's Pyrrhic Victory*

The district court ordered a new damages trial and set forth a four-factor test for determining the relevant article of manufacture for the purpose of § 289.⁴⁰⁸ Judge Koh instructed the jury to identify the articles of manufacture to which Samsung applied Apple's patented designs based on the following factors:

[1] The scope of the design claimed in Apple's patent, including the drawing and written description; [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, including 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 separately from the rest of the product, or if the component can be sold separately.⁴⁰⁹

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

405. *Id.*

406. *Id.* at 436.

407. The Federal Circuit held that "the trial court should consider the parties' arguments in light of the trial record and determine what additional proceedings, if any, are needed. If the court determines that a new damages trial is necessary, it will have the opportunity to set forth a test for identifying the relevant article of manufacture for purpose of § 289, and to apply that test to this case." *Apple Inc. v. Samsung Elecs. Co.*, 678 Fed. Appx. 1012, 1014 (Fed. Cir. 2017) (per curiam).

408. Order Requiring New Trial on Design Patent Damages, *Apple Inc. v. Samsung Elecs. Co.*, No. 11-CV-01846-LHK, 2017 WL 4776443 (N.D. Cal. Oct. 22, 2017).

409. *Id.* at *19.

Apple argued that the articles of manufacture to which Samsung applied Apple's patented designs were the whole phones. Samsung countered that the articles of manufacture are a component or collection of components of each phone. Specifically, for the D'677 patent, Samsung contended that the article of manufacture was a phone's round-cornered, black glass front face. For the D'087 patent, Samsung contended that the article of manufacture was a phone's round-cornered, glass front face and surrounding rim or bezel. For the D'305 patent, Samsung contended that the article of manufacture was a phone's display screen.

The jury ultimately awarded Apple \$533 million for infringement of the design patents and \$5.3 million for infringement of the utility patents,⁴¹⁰ approximately 20% *more* than the verdict that Samsung appealed to the Supreme Court.⁴¹¹ A short time later, the parties settled their seven-year smartphone patent battle.⁴¹²

8. *Denouement*

This seven-year saga reinforced the Federal Circuit's lax interpretation of the critical intellectual property channeling doctrine aimed at balancing innovation and competition. *Apple v. Samsung* elevated the broad and lax *L.A. Gear* framework for assessing ornamentality/non-functionality while relegating *Richardson* to a narrow fact-specific decision.

In contrast with Apple's design patent enforcement efforts in the United States, Apple's international enforcement campaign against Samsung's devices was far less successful. After Apple sued Samsung in the United States in April 2011, Samsung retaliated by filing lawsuits in Europe, Asia, and Australia,⁴¹³ and the battle quickly expanded to more than fifty lawsuits covering various intellectual property claims around the world.⁴¹⁴ Notably, Apple got modest

410. See Nick Statt, *Apple Wins \$539 Million from Samsung in Latest Chapter of Ongoing Patent Trial*, THE VERGE (May 24, 2018, 7:37 PM), <https://www.theverge.com/2018/5/24/17392216/apple-vs-samsung-patent-trial-539-million-damages-jury-verdict>.

411. See Samsung Certiorari Petition, *supra* note 377.

412. See Jacob Kastrenakes, *Apple and Samsung Settle Seven-Year-Long Patent Fight over Copying the iPhone*, THE VERGE (June 27, 2018, 2:59 PM), <https://www.theverge.com/2018/6/27/17510908/apple-samsung-settle-patent-battle-over-copying-iphone>.

413. Samuel B. Dordick, *Lay Jurors: The True Casualties of the Apple v. Samsung Smartphone Patent Wars*, 29 TEMP. INT'L & COMP. L.J. 239, 243–46 (2015); Jun Yang, *Samsung Electronics Counter Sues Apple as Patent Row Deepens*, BLOOMBERG (Apr. 21, 2011, 11:05 PM), <https://www.bloomberg.com/news/articles/2011-04-22/samsung-sues-apple-on-patent-infringement-claims-as-legal-dispute-deepens>.

414. Geoff Duncan, *Why Are Apple and Samsung Throwing Down? A Timeline of the Biggest Fight in Tech*, DIGIT. TRENDS (Apr. 4, 2014), <https://www.digitaltrends.com/mobile/apple-vs-samsung-patent-war-timeline/> (providing a timeline for the global battle until April 2014);

traction with design claims in Europe, but not in Asia. The utility patent battle largely fizzled.⁴¹⁵ The battle outside of the United States produced mixed results and the parties settled all of the non-U.S. litigation in August 2014.⁴¹⁶

Narumon Saardchom, *Design Patent War: Apple Versus Samsung*, 3 S. ASIAN J. BUS. & MGMT. CASES 221, 221 (2014); Sanjeev Bajwa, *Apple v. Samsung: Is It Time to Change Our Patent Trial System?*, 27 PAC. MCGEORGE GLOB. BUS. & DEV. L.J. 77, 94–95 (2014); Stuart J.H. Graham & Nicolas Van Zeebroeck, *Comparing Patent Litigation Across Europe: A First Look*, 17 STAN. TECH. L. REV. 655, 657 (2013–14).

415. See Leon B. Greenfield, Hartmut Schneider & Joseph J. Mueller, *SEP Enforcement Disputes Beyond the Water's Edge: A Survey of Recent Non-U.S. Decisions*, 27 ANTITRUST 50 (2013) (describing, among others, Apple and Samsung's FRAND disputes in Japan, Korea, the Netherlands, France and Italy); Dordick, *supra* note 413, at 245–46 ("Samsung filed a complaint in the Tokyo District Court of Japan . . . [and] alleged that Apple infringed its patents relating to mobile-communications technologies. Predictably, Apple countersued seeking 100 million yen, or about \$1.2 million in damages, but this time over a patent that involved the synchronization of media content between a computer and a mobile device. Samsung scored a complete defense victory and was awarded various costs, most notably the stamp fee. The Intellectual Property High Court (IP High Court) upheld this decision, and Apple did not appeal to the Supreme Court. The judgment then became final and binding."); *id.* at 246("[I]n response to Apple's initial complaint in April of 2011, Samsung filed claims against Apple in the Seoul Central District Court of South Korea, claiming infringement on its telecommunication standards patents. Only a few months later, in June, Apple also filed a suit in the Seoul Central District Court alleging infringement on their trade dress, design, and utility patents. The Seoul Central District Court handed down its decision in both lawsuits on August 24, 2012—the same day that the jury in the U.S. District Court for the Northern District of California returned a verdict in Apple's favor for \$1.05 billion in damages. The South Korean court concluded that Apple infringed on two of Samsung's five disputed patents and that Samsung had infringed on Apple's 'bounce-back' patent. The decision that Apple infringed on Samsung's patents forced Apple to remove the iPhone 3GS, iPhone 4, iPad 1 and iPad2 [sic] from store shelves in South Korea. Both Apple and Samsung were ordered to pay limited damages, and Samsung was enjoined from selling infringing products, including the Galaxy S2, in South Korea. Apple was awarded a mere \$22,000 in damages."); Duncan, *supra* note 414; Bajwa, *supra* note 414, at 95 (saying that, in Germany, both parties filed lawsuits in several regions of Germany seeking injunctions, "but by the end of 2012, each party's patent infringement claims had either been rejected or stayed until Germany's Federal Patent Court could rule on patent validity; that finally, on April 4, 2013, Germany's Federal Patent Court invalidated Apple's 'slide to unlock' patent on the grounds that it failed to meet the technicity requirement under European patent law," and in Australia after Apple also sought to obtain a preliminary injunction against Samsung's Galaxy Tab 10.1, "[a]n Australian Federal Court Justice determined that 'Apple had a prima facie case that Samsung had infringed two of its patents relating to touchscreens and the gestures that control them'; that Samsung agreed to suspend the sale and distribution of its tablet in the Australian market until the dispute was resolved, but on appeal, the Federal Court of Australia unanimously overturned the ban on the Samsung device").

416. See *infra* note 429.

In Germany, after Samsung filed suit against Apple,⁴¹⁷ Apple countersued over its own European patents, including its European Community Design registration.⁴¹⁸ On August 2011, the Landgericht court in Düsseldorf granted Apple a preliminary injunction across the European Union against Samsung's Galaxy Tab 10.1 for allegedly violating a Community Design registration for the iPad. While the injunction was eventually affirmed by the appellate court of Düsseldorf Higher Regional Court on January 2012, it was restricted to Germany and was affirmed on different grounds—a violation of German unfair competition law⁴¹⁹—rather than a violation of Apple's Community Design.⁴²⁰

417. See Dordick, *supra* note 413, at 243 (claiming that Apple infringed on a number of its 3G technology utility patents).

418. A European Community Design is somewhat similar to a design patent in the United States. See Dennis Crouch, *UK Appellate Court Confirms Pan-European Win for Samsung on iPad Community Design Charges*, PATENTLY-O (Oct. 18, 2012), <https://patentlyo.com/patent/2012/10/apple-samsung-european-community-design.html> (“A registered European Community Design is roughly equivalent to a US Design Patent. However, the Europeans have done away with the examination process and replaced it with registration without considering whether the design is actually novel. Thus, while the European law requires that a registered community design be novel (a lower standard than nonobvious), that issue is not raised in the initial registration process. . . . Because of the in-expense and ease of registration, Community Designs have been quite popular.”). In Europe, designs may be registered or unregistered, provided they meet certain eligibility conditions. See Council Regulation 6/2002, art. 1–8, 2001 O.J. (L 3) 1 (EC). A design is eligible for protection if it meets three requirements: (1) be new; (2) has “individual character”; and (3) not be composed of features solely dictated by their function. See *id.* A Community Design shall also have a “unitary character,” i.e., it shall have an equal effect throughout the Community and shall not be registered, transferred or surrendered or be the subject of a decision declaring it invalid, save in respect of the whole Community. See *id.*

419. See Marc D. Mimler, *The Aspects of Unfair Competition Within the Apple v. Samsung Litigation in Germany*, 3 QUEEN MARY J. INTELL. PROP. 176 (describing that after the German ruling on unfair competition Samsung modified its tablet design and intended to market a 10.1N version of the Galaxy tablet, Apple again took action, but the German courts did not find the redesigned version to violate unfair competition rules).

420. See Dordick, *supra* note 413, at 244; Florian Mueller, *German Appeals Court Upholds Galaxy Tab 10.1 Injunction-But on Different Legal Basis than Apple's Design Right*, FOSS PATS. (Jan. 31, 2012), <https://www.fo SSPATENTS.COM/2012/01/german-appeals-court-upholds-galaxy-tab.html>. But see Samsung Elecs. (U.K.) Ltd. v. Apple, Inc., [2012] EWCA (Civ) 1339 (Eng.), <https://www.bailii.org/ew/cases/EWCA/Civ/2012/1339.html>. In the 2012 decision, the English and Wales court of appeals criticized the German proceedings:

Notwithstanding the withdrawal of the main action [in Germany concerning alleged infringement of the Apple registered design], and then HHJ Birss's final decision [in the English High Court of Justice's Chancery Division] on the merits on 9th July 2012, Apple persisted [in Germany] in its appeal from the refusal on 24th October 2011 to grant a pan-European injunction against SEC in respect of the 7.7 [Samsung's tablet]. On 24th

In the United Kingdom, after Samsung sought a declaration that three of its Galaxy tablet computers (Tab 10.1, Tab 8.9, and Tab 7.7) did not infringe Apple's Community Design, Apple counterclaimed for infringement. In July 2012, the High Court of Justice's Chancery Division ruled that Samsung's Galaxy Tab did not infringe the design of Apple's iPad because the Samsung devices were not as "cool" as Apple's products.⁴²¹ The judge also issued an order forcing Apple to publish its loss in order to correct the commercial harm done to Samsung.⁴²² In October 2012, the English and Welsh court of appeals affirmed the ruling that Samsung's devices did not infringe Apple's Community Design for the iPad as a pan-European decision.⁴²³

July 2012 the German Court of Appeal, the Oberlandesgericht, allowed the appeal and granted a pan-European interim injunction in respect of the 7.7 against SEC, and its German subsidiary. In the course of argument before us, as I shall recount later, Apple undertook to apply forthwith to the German court for that injunction to be completely withdrawn so far as it related to infringement of the registered design. . . . The upshot of all this is that there is now no injunction anywhere based on the registered design or its equivalent.

Id.; see also *infra* notes 421–423 and accompanying text.

421. [2012] EWHC (Pat) 1882, <https://www.bailii.org/ew/cases/EWHC/Patents/2012/1882.html>. The Judge held that:

The informed user's overall impression of each of the Samsung Galaxy Tablets is the following. From the front they belong to the family which includes the Apple design; but the Samsung products are very thin, almost insubstantial members of that family with unusual details on the back. They do not have the same understated and extreme simplicity which is possessed by the Apple design. *They are not as cool. The overall impression produced is different.* . . . The Samsung tablets do not infringe Apple's registered design No. 000181607-0001.

Id. at 190–91 (emphasis added).

422. Samsung Elecs. (U.K.) Ltd. v. Apple, Inc., [2012] EWHC (Pat) 2049, <https://www.bailii.org/ew/cases/EWHC/Patents/2012/2049.html>. The Judge stayed the publishing order until Apple's appeal was heard in October 2012, yet when the case reached the court of appeal, the previous ruling was supported. Charles Arthur, *Samsung Galaxy Tab 'Does Not Copy Apple's iPad Designs'*, THE GUARDIAN (Oct. 18, 2012, 7:25 AM) <https://www.theguardian.com/technology/2012/oct/18/samsung-galaxy-tab-apple-ipad>.

423. Firstly it is common ground that no German court was "first seized" of the claim for a declaration of non-infringement. Indeed given that Apple withdrew its claim for infringement in Germany, no German court appears even now to be seized of a claim for infringement. It is true that Samsung applied for declarations of non-infringement on the same day, 8th September 2011 in Spain, the Netherlands and England and Wales and there could be (but I think rather overtaken by events given that the trial and appeal are over here) a dispute about which case started first in point of time. After all there is now a Community-wide decision on the point,

In the Netherlands, during August 2011, the first instance tribunal in the Hague (Rechtbank's-Gravenhage) held that Apple's registered Community design, albeit valid, was not infringed by Samsung's Galaxy Tab 10.1. On January 2012, the Hague Court of Appeal (Gerechthofte's-Gravenhage) confirmed the first instance decision.⁴²⁴ On 31 May 2013, the Hoge Raad, the Supreme Court of the Netherlands, dismissed Apple's appeal from the decision to reject Apple's claim regarding the infringement of its registered Community design by Samsung's tablet Galaxy Tab 10.1.⁴²⁵

In parallel with the various European court cases, Samsung requested that OHIM (the European Community Designs registry)⁴²⁶ invalidate several of Apple's registered Community Designs. The Community Design⁴²⁷ that was the subject of the European iPad design litigation was found by OHIM to be valid.⁴²⁸

All of the actions between Apple and Samsung outside of the United States came to an end in August 2014.⁴²⁹ The parties dropped all non-U.S. claims without any licensing arrangements but continued their battle in the United States through the post-Supreme Court remand process and eventually settling the U.S. litigation in 2018.

now affirmed on appeal. One would think that ought to put an end to all other litigation about it.

Samsung Elec. (U.K.), [2012] EWCA (Civ) 1339; *see also* Dordick, *supra* note 413, at 245; Crouch, *supra* note 418.

424. Arnaud Folliard-Monguiral & Mikas Miniotas, *Apple v. Samsung: The Hoge Raad Legacy*, 8 J. INTELL. PROP. L. & PRAC. 925, 926–27 (2013); Florian Mueller, *Dutch Appeals Court Says Galaxy Tab 10.1 Doesn't Infringe Apple's Design Right*, FOSS PATS. (Jan. 24, 2012), <http://www.fo SSPATENTS.COM/2012/01/dutch-appeals-court-says-galaxy-tab-101.html>.

425. *See* Mueller, *supra* note 424.

426. Formerly known as the Office for Harmonization in the Internal Market (OHIM), and currently known as the European Union Intellectual Property Office (EUIPO).

427. *See* Registered Community Design No. 000181607-0001 (issued May 24, 2004).

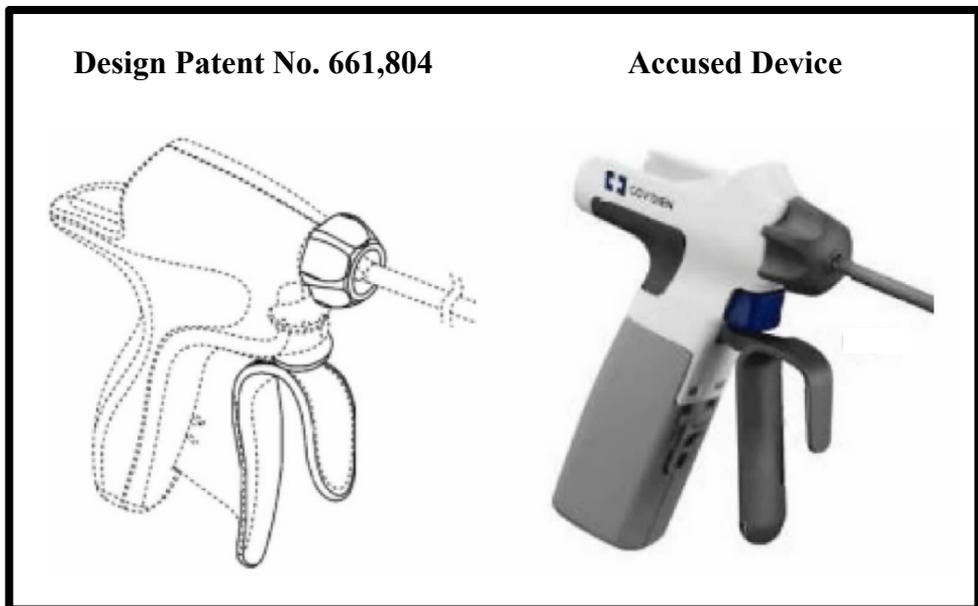
428. *See* OHIM, ICD 8539, COMMUNITY DESIGN 000181607-0001, DECISION OF THE INVALIDITY DIVISION (2013); *see also* Darren Smyth, *Apple's Cool Design Registration Not Invalid According to OHIM*, THE IPKAT (Aug. 6, 2013), <https://ipkitten.blogspot.com/2013/08/apples-cool-design-registration-not.html>. For decisions on the validity of several additional Apple Community Designs, *see* for example Darren Smyth, *OHIM Finally Moves on Invalidity of Apple Designs for Tablet Computers*, THE IPKAT (July 9, 2013) <https://ipkitten.blogspot.com/2013/07/ohim-finally-moves-on-invalidity-of.html>.

429. Amit Chowdhry, *Apple and Samsung Drop Patent Disputes Against Each Other Outside of The U.S.*, FORBES (Aug. 6, 2014, 3:11 PM), <https://www.forbes.com/sites/amitchowdhry/2014/08/06/apple-and-samsung-drop-patent-disputes-against-each-other-outside-of-the-u-s/#17f8e130418c>; Ina Fried, *Apple, Samsung Agree to Drop Non-U.S. Litigation, but Still No Settlement*, VOX (Aug. 5, 2014, 8:06 PM), <https://www.vox.com/2014/8/5/11629578/samsung-and-apple-agree-to-drop-non-u-s-litigation-but-still-no>.

E. THE POST-APPLE TRAJECTORY: FURTHER EROSION OF THE ORNAMENTALITY/NON-FUNCTIONALITY LIMITATION

Following *Apple v. Samsung*, the Federal Circuit reinforced the *L.A. Gear* framework by narrowly interpreting the ornamentality/non-functionality limitation while further marginalizing the *Richardson*, *OddzOn*, and *Dayton-Hudson* line of cases that provided a filtration approach to safeguard against design patents protecting functional features. In *Ethicon Endo-Surgery, Inc. v. Covidien, Inc.*,⁴³⁰ the Federal Circuit endorsed the district court's construing design patents to identify the non-functional aspects and even agreed that elements of the designs were functional. Nonetheless, the court held that a minimalist inverted U-shaped design contoured to fit a human hand and a conventional fluted torque knob for a surgical instrument had "some scope," noting that "the trigger has a particular curved design, the torque knob has a particular flat-front shape, and the activation button has a particular rounded appearance."⁴³¹ As reflected in Figure 29, it is difficult to ascertain what aspects of those appearances for a surgical instrument are not functional.

Figure 29: Handle and Torque Knob for Surgical Device



430. See *Ethicon Endo-Surgery, Inc. v. Covidien, Inc.*, 796 F.3d 1312, 1315 (Fed. Cir. 2015).

431. *Id.* at 1329–32.

The decision reinforced the “dictated by” standard and the availability of alternative designs as a basis for finding a design patent valid. Although overturning the district court’s ruling that the design patent was functional, the court affirmed the district court’s ruling that the accused device was not infringing.⁴³² In doing so, the court specifically referenced the *Apple v. Samsung* narrowing of *Richardson*.⁴³³ While recognizing that both designs include an open trigger, a small activation button, and a fluted torque knob in relatively similar positions, the court excluded these features from consideration at a general conceptual level because of their functional character and focused instead on the contours of the components. The Federal Circuit affirmed the district court’s determination that these elements were “plainly dissimilar.”⁴³⁴

In 2016, the Federal Circuit in *Sports Dimension, Inv. v. Coleman Co.* overturned a district court decision finding that a design patent for a personal floatation device was functional and therefore invalid.⁴³⁵ As depicted in the left panel of Figure 30, Coleman’s design patent claimed a wide, form-fitting torso strap with two arm bands that serve as buoyant floatation devices.⁴³⁶ The torso strap is connected using a conventional clip.

Sport Dimension filed a declaratory relief action seeking declarations that that Coleman’s design patent was invalid and not infringed. Following a claim construction hearing, the district court concluded that “the armbands, the armband attachments, the shape of the armbands, the tapering of the armbands, and the tapering of the side torso are all elements that serve a functional rather than ornamental role in the D’714 patent.”⁴³⁷ Accordingly, the court construed the claimed design to be:

The ornamental design for a personal floatation device, as shown and described in Figures 1–8, except the left and right armband, and the side torso tapering, which are functional and not ornamental.⁴³⁸

Based on this claim construction, Judge O’Connell entered a stipulated judgment of non-infringement and the appeal followed.

432. *See id.* at 1334–37.

433. *See id.* at 1333.

434. *See id.* at 1337.

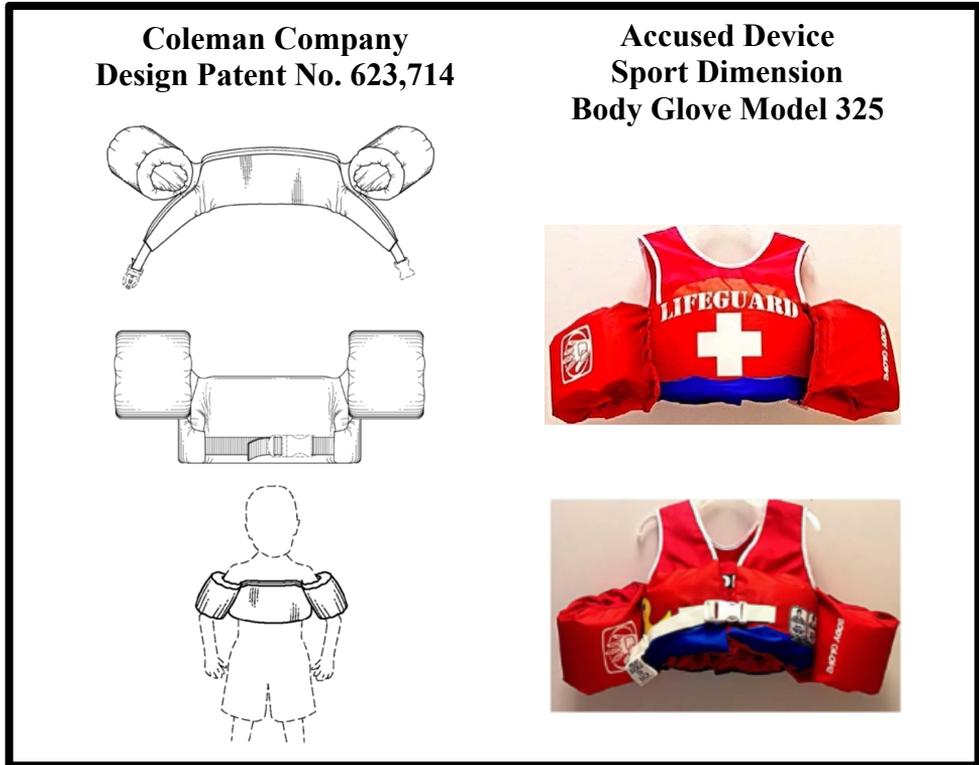
435. *Sport Dimension, Inc. v. Coleman Co.*, 820 F.3d 1316, 1323 (Fed. Cir. 2016).

436. Personal Floatation Device, U.S. Design Patent No. 523,714 (issued Sept. 14, 2010).

437. *Sport Dimension, Inc. v. Coleman Company, Inc.*, No. CV 14-00438 BRO (MRWx), 2015 WL 13309300 (C.D. Cal. Feb. 5, 2015), at *11.

438. *Id.*

Figure 30: Sport Dimension, Inc. v. Coleman Co.



While acknowledging that a district court may use claim construction to help guide the fact finder through issues that bear on a claim's scope, the Federal Circuit faulted the district court's construction for excluding structural elements from the claim.⁴³⁹ While agreeing with Coleman that the claim construction was improper, the panel recognized that the armbands and tapered side torso designs serve a functional purpose. The court further noted that "Coleman filed a co-pending utility patent disclosing the design patent's armbands and torso tapering and touting the utility of those features. And it found Coleman to have promoted the particular utility of the armbands and tapered torso in its advertisements."⁴⁴⁰ Nonetheless, the court overturned the claimed construction "completely removing the armbands and side torso tapering from its construction."⁴⁴¹ The court's insistence that claim construction must include all of the structural elements is difficult to understand considering that it characterized the elements as "minimalist, with

439. *See Sports Dimension*, 820 F.3d at 1320–23.

440. *Id.* at 1322.

441. *Id.*

little ornamentation” and “serving a functional purpose.” The court did, however, comment that “[b]ecause of the design’s many functional elements and its minimal ornamentation, the overall claim scope of the claim is accordingly narrow.”⁴⁴² The court remanded the case for “consideration of infringement and, if necessary, validity consistent with the proper claim construction.”⁴⁴³

F. THE CURRENT STATE OF THE DESIGN PATENT ORNAMENTALITY/
NON-FUNCTIONALITY DOCTRINE: A WAYWARD, INCOHERENT
FRAMEWORK

The foregoing demonstrates that on the Federal Circuit’s watch, the ornamentality/non-functionality doctrine has veered far from the 1842 and 1902 Acts and much of the jurisprudence that preceded the Federal Circuit’s formation. Between 1988 and 2008, the Federal Circuit eviscerated the non-functionality limitation of design patents through its uncritical adoption of the “dictated by” shortcut for dealing with easy cases as *the* test for assessing ornamentality/non-functionality. The Federal Circuit treated designs for which there are alternatives as non-functional, viewed even simple designs comprising functional elements “as a whole,” and categorically rejected the point of novelty viewpoint. After some apparent moderation of these questionable standards through a filtration infringement test in the 2010 *Richardson* decision, the court marginalized the filtration approach in *Apple v. Samsung* and has since further eroded the ornamentality/non-functionality limitation. Many of these decisions, including *Apple v. Samsung* and *Rosco*, reveal the absurdity of the Federal Circuit’s approach. What is especially disconcerting is that to this day the Federal Circuit has never once examined the 1902 legislation that established the critical ornamentality/non-functionality limitation on design patent protection. Patent Commissioner Allen, the principal author and advocate for the 1902 Act, could not have been clearer about the meaning and purpose of the design patent amendment—to preserve the utility patent system’s exclusive role in protecting functional advances:

It is thought that if the present bill shall become a law the subject of design patents will occupy its proper philosophical position in the field of intellectual production, having upon the one side of it the statute providing protection to mechanical constructions possessing utility of mechanical function, and upon the other side the copyright law, whereby objects of art are protected, reserving to itself the position of protecting objects of new and artistic quality pertaining,

442. *Id.* at 1323.

443. *Id.*

however, to commerce, but not justifying their existence upon functional utility. If the design patent does not occupy this position there is no other well-defined position for it to take. It has been treated of late years as an annex to the statute covering mechanical cases, since the introduction of the word 'useful' into it. It is thought that this practice should no longer continue.⁴⁴⁴

The fact that copyright law later expanded to provide parallel coverage of ornamental aspects of useful articles in no way suggests that design patent protection should be shoehorned into protecting functional elements as a way to differentiate its role from copyright's expanded scope. To the contrary, copyright law provides a model for how to ensure that the utility patent regime remains the exclusive means for protecting functional elements. And it further demonstrates that *Baker v. Selden* should apply with equal force to design patent protection.

As one commentator observed: "Design patent law in the USA is what's FUBARed."⁴⁴⁵ *Frankenstein*⁴⁴⁶ provides another apt metaphor for contemporary design patent law: a hideous creature comprised of different parts. The Federal Circuit's articulation of the design patent infringement standard reveals the incongruous combination: "whether an ordinary observer, familiar with the prior art [] designs, would be deceived into believing the [accused device] is the same as the patented [design]."⁴⁴⁷ This test confusingly intermingles copyright, trademark, and utility patent protection standards. Add in the skewed ornamentality/non-functionality doctrine and we have both incoherence and a complete undermining of Congress's intent in clarifying the design patent regime in 1902. Whereas regional circuit law generally applied standards that invalidated design patents embodying functional features, the Federal Circuit switched the polarity of those standards to validate design patents so long as there were alternative ways of achieving similar functionality.

444. See S. REP. NO. 57-1139, at 1-3 (1902).

445. See Dennis Crouch, *Design Patents: Eliminating the Ornamental/Functional Dichotomy*, PATENTLY-O (Apr. 25, 2010). As used in military slang, FUBAR means "F***ed/Fouled Up Beyond All Recognition." *List of Military Slang Terms*, WIKIPEDIA, https://en.wikipedia.org/wiki/List_of_military_slang_terms (last visited Nov. 21, 2020).

446. See generally MARY SHELLEY, *FRANKENSTEIN; OR, THE MODERN PROMETHEUS* (1818).

447. See *Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665, 683 (Fed. Cir. 2008) (en banc).

VI. THE ROLE OF ADVOCATES AND THE FEDERAL CIRCUIT IN DESIGN PATENT LAW'S WAYWARD COURSE

The incoherence of the design patent ornamentality/non-functionality doctrine, as well as the general confusion over the role of the design patent regime within the larger intellectual property landscape, begs the question of how design patent law diverged from what Congress intended.

A. DESIGN PROTECTION ADVOCACY

Since the turn of the 20th century, design industry advocates have sought to expand design protection.⁴⁴⁸ Several of these efforts came close to fruition⁴⁴⁹ but ultimately fell short. As of the mid-1980s, most intellectual property practitioners viewed design patent protection for functional features as unenforceable:

[I]n substantially all [design patent infringement cases], the trial court will rule that the design patent is invalid. Where the trial court determines that a design patent is valid, such determinations are usually overturned upon appeal. Or should the trial court determine that the design patent is valid, no infringement of the design patent will, be found by the trier of fact.⁴⁵⁰

In his 1987 overview of the state of design protection in the United States,⁴⁵¹ Professor Ralph Brown characterized the design patent regime as “a Cinderella who never goes to the ball”:

There are several reasons why design patents are held in low esteem. First, the process that certifies their worth is expensive and time-consuming. The Patent and Trademark Office (PTO) fees come to \$300. It is essential to hire a patent solicitor to draft the claims and specifications. And when, after waiting up to two years, you get a

448. See SYLVAN GOTSCHAL & ALFRED LIEF, *THE PIRATES WILL GET YOU: A STORY OF THE FIGHT FOR DESIGN PROTECTION* (1945); C.F. Hughes, *The Merchant's Point of View*, N.Y. TIMES, Apr. 12, 1936, at F9 (estimating that 90% of patent applications for industrial design were refused); Irene L. Blunt, *Fighting the Design Pirate*, 15 J. PAT. OFF. SOC'Y 29 (1933); see generally Steven Wilf, *The Making of the Post-War Paradigm in American Intellectual Property Law*, 31 COLUM. J.L. & ARTS 139, 184–90 (2008).

449. See generally David Goldenberg, *The Long and Winding Road: A History of the Fight over Industrial Design Protection in the United States*, 45 J. COPYRIGHT SOC'Y U.S.A. 21 (1997) (cataloging dozens of failed design protection bills dating the beginning of the 20th century and concluding that “[g]iven this long history of failure, it is not difficult to predict the future of design legislation”).

450. Thomas B. Lindgren, *The Sanctity of the Design Patent: Illusion or Reality? 20 Years of Design Patent Litigation Since Compc v. Day-Brite Lighting, Inc., and Sears, Roebuck & Co. v. Stiffel Co.*, 10 OKLA. CITY U.L. REV. 195, 198 (1985).

451. See Ralph S. Brown, *Design Protection: An Overview*, 34 UCLA L. REV. 1341 (1987).

design patent, detect an infringer, and bring suit, seven times out of ten your patent will be held invalid, if validity is an issue. In the three out of ten that are held valid, only half will be found to have been infringed. That at least was the situation for the period 1964–83. Now that all patent appeals go to the Court of Appeals for the Federal Circuit, patentees may fare better.⁴⁵²

Professor Brown's rumination about the Federal Circuit proved prescient. The year after his article was published, attorney Perry Saidman escorted design patents to the intellectual property ball, although not with a glass slipper but with a sleek and functional athletic shoe.⁴⁵³ After winning summary judgment, enhanced damages, and attorney fees in the *Avia* athletic shoe case in the lower court,⁴⁵⁴ Saidman persuaded the Federal Circuit to consider the availability of alternative designs as part of the ornamentality/non-functionality doctrine.⁴⁵⁵ This victory changed his own view about design patents: They were no longer a "booby prize" for inventors who failed to surmount the utility patent hurdles. Instead, under the lax ornamentality/non-functionality standard adopted in *Avia*, design patents could be a lower cost path to protecting functional features and opening the door to robust remedies.⁴⁵⁶ Over the next three decades, Saidman spread the design patent gospel. He authored numerous articles in design trade journals praising the cost-effectiveness of design patents.⁴⁵⁷ He also penned a stream of articles in practitioner intellectual property journals advocating lax design patent

452. *Id.* at 1356 (citing Lindgren, *supra* note 450, at 261 app. II); *see also* J. H. Reichman, *Legal Hybrids Between the Patent and Copyright Paradigms*, 94 COLUM. L. REV. 2432, 2460 (1994) ("In practice, . . . the patent process has proved too rigid, slow, and costly for the fastmoving, short-lived products of mass consumption, and too strict in excluding the bulk of all commercial designs on grounds of obviousness." (citations omitted)).

453. *See* Perry J. Saidman, *The Glass Slipper Approach to Protecting Industrial Designs or When the Shoe Fits, Wear It*, 19 U. BAL. L. REV. 167 (1989).

454. *See* *Pensa Inc. v. L.A. Gear Cal. Inc.*, No. CV-86-5549-IH, 1987 WL 125071 (C.D. Cal. June 15, 1987).

455. *See* *Avia Group Int'l, Inc. v. L.A. Gear Cal., Inc.*, 853 F.2d 1557, 1563 (Fed. Cir. 1988); *see also supra* text accompanying notes 255–260.

456. *See* Perry J. Saidman & Mark B. Mondry, *Sneakers, Design Patents and Summary Judgments: Opening a New Era in the Protection of Consumer Product Designs*, 71 J. PAT. & TRADEMARK OFF. SOC'Y 524 (1989) (discussing the virtues of design patents); *see also* Perry J. Saidman, *Design Patentees: Don't Get Unglued by Elmer or the Single Most Important Thing to Know About the Preparation of Design Patent Applications*, 78 J. PAT. & TRADEMARK OFF. SOC'Y 311, 316 (1996).

457. *See* Perry J. Saidman, *The Ten Commandments of Design Patent Protection*, INNOVATION Fall 1990, at 21; Perry J. Saidman, *Design Protection Tools—A Primer*, 3 DESIGN MGMT. INST. NEWS (1991); Perry J. Saidman, *How to Protect Product Design*, 2 DESIGN MGMT. J. 32 (1991); Perry J. Saidman, *Who Owns What? / Design Protection Tools*, INNOVATION, Winter 1992, at 21.

protection standards and reforms to expand industrial design protection outside of the utility patent system.⁴⁵⁸

The relaxation of design patent law's ornamentality/non-functionality doctrine attracted more industrial designers in search of a backdoor for functional design protection.⁴⁵⁹ Even the PTO Director joined the campaign.⁴⁶⁰ The success of this campaign, of course, turned on the Federal Circuit's support.

B. THE FEDERAL CIRCUIT

As Professor Ralph Brown intimated in his 1987 overview of design protection,⁴⁶¹ the Federal Circuit's approach to design patent protection would play a significant role in how that regime developed. As noted earlier,⁴⁶² legislators, judges, and scholars raised concerns that a national appellate patent tribunal could lead to overly protectionist interpretations of patent law. They warned that such a specialty court would be less sympathetic to competition policy concerns and less sensitive to the intellectual property policy balances reflected in the copyright and trademark arenas. As a result, Congress stopped short of entrusting those regimes to the Federal Circuit. The Federal Circuit would only adjudicate such matters if they were part of a patent case, and the Federal Circuit would be required to apply the regional circuit law of the district in which the case arose.

None of these safeguards, however, would apply to design patent law. Although design patent protection is more properly viewed as a close cousin

458. See Saidman & Hintz, *supra* note 93; Perry J. Saidman, *The Crisis in the Law of Designs*, 89 J. PAT. & TRADEMARK OFF. SOC'Y 301 (2007); Perry J. Saidman, *The Dysfunctional Read Test: Missing the Mark(man) Regarding the Test for Design Patent Infringement*, 90 J. PAT. & TRADEMARK OFF. SOC'Y 533 (2008); Saidman & Esquerra, *supra* note 326; Perry J. Saidman, *What Is the Point of the Point of Novelty Test for Design Patent Infringement—Nail Buffers and Saddles: An Analysis Fit for an Egyptian Goddess*, 90 J. PAT. & TRADEMARK OFF. SOC'Y 401 (2008); Perry J. Saidman, *The Ornamental/Functional Dichotomy in Design Patent Law Is Akin to the Idea/Expression Dichotomy in Copyright Law*, 78 PAT., TRADEMARK & COPYRIGHT J. 199 (2009); Perry J. Saidman, *Functionality and Design Patent Validity and Infringement*, 91 J. PAT. & TRADEMARK OFF. SOC'Y 313 (2009); Perry J. Saidman, *The Demise of the Functionality Doctrine in Design Patent Law*, 92 NOTRE DAME L. REV. 1471 (2017).

459. See Pat. Tech. Monitoring Team, *supra* note 2 (showing a steep rise in design patent applications).

460. See Kappos, *supra* note 3. The USPTO prominently showcased Apple patents (including design patents) and trademarks in the entrance to the main campus in Alexandria Virginia. See Press Release, U.S. Pat. & Trademark Off., USPTO Announces New Exhibit Highlighting the Patents and Trademarks of Steve Jobs (Nov. 14, 2011), <https://www.uspto.gov/about-us/news-updates/uspto-announces-new-exhibit-highlighting-patents-and-trademarks-steve-jobs>.

461. See Brown, *supra* note 451.

462. See *supra* text accompanying notes 227–229.

of copyright law than utility patent law, the Federal Courts Improvement Act included design patents within the same exclusive appellate jurisdiction provision as the utility patent regime.⁴⁶³ The Federal Circuit immediately jettisoned regional circuit law in favor of the CCPA soon after it commenced operations.⁴⁶⁴

To the extent that the interpretation of design patent protection served as a test of the warnings about a specialty patent court, the post-1988 case law validates those concerns. Long before design patent protection gained salience, Giles Rich, a storied and revered patent attorney, CCPA judge, and Federal Circuit judge,⁴⁶⁵ had taken up the cause of design protection.⁴⁶⁶ In addition to his role on the Federal Circuit, Judge Rich frequently testified before Congress on intellectual property policy and developed a reputation for promoting robust utility patent protection. He was also one of the main proponents of expanding design protection throughout the mid to late 20th century.⁴⁶⁷ Although he did not write any of the key Federal Circuit design patent decisions, his *In re Carletti*⁴⁶⁸ decision at the CCPA played a significant role in the Federal Circuit's design patent jurisprudence.⁴⁶⁹ Although that decision was

463. See 28 U.S.C. § 1295. As we discuss below, see *infra* Section VII(A)(3), this was possibly an oversight that reflected the relative obscurity of design patent law and its misbegotten copyright pedigree.

464. See *supra* text accompanying note 231.

465. See *Tribute to the Life and Work of the Honorable Giles Sutherland Rich*, 9 FED. CIR. B.J. 1 (1999); Donald R. Dunner, *Giles Sutherland Rich*, 9 FED. CIR. B.J. 71 (1999); Tom Arnold, *My Friend, Giles Rich*, 9 FED. CIR. B.J. 39 (1999) (discussing, among other influential activities, Giles Rich's role as a member of the 1952 Patent Act Drafting Committee and concluding by stating that Judge Rich "served the patent law longer than any other man" and "shaped the patent law more than any other man").

466. See *Design Protection: Hearings on S. 1884 Before the Subcomm. on Pats., Trademarks & Copyrights of the S. Comm. on the Judiciary*, 87th Cong. 27–36, 83–86 (1961) (noting that Judge Rich served as chairman of the Coordinating Committee, Designs, of the National Council of Patent Law Associations and played a key role in drafting S. 1884, "[a] bill to encourage the creation of original ornamental designs of useful articles by protecting the authors of such designs for a limited time against unauthorized copying"); *The Industrial Innovation and Technology Act: Hearings on S. 791 Before the Subcomm. on Pats., Copyrights & Trademarks of the S. Comm. on the Judiciary*, 100th Cong. 22 (1987) (statement of Hon. Giles S. Rich, U.S. Court of Appeals, Federal Circuit, Washington, D.C.).

467. See Goldenberg, *supra* note 449, at 45.

468. 328 F.2d 1020 (C.C.P.A. 1964).

469. See, e.g., *Power Controls Corp. v. Hybrinetics, Inc.*, 806 F.2d 234, 238 (Fed. Cir. 1986); *Lee v. Dayton-Hudson Corp.*, 838 F.2d 1186, 1188 (Fed. Cir. 1988); *L.A. Gear, Inc. v. Thom McAn Shoe Co.*, 988 F.2d 1117, 1123 (Fed. Cir. 1993); *Best Lock Corp. v. Ilco Unican Corp.*, 94 F.3d 1563, 1566 (Fed. Cir. 1996); *Hupp v. Siroflex of Am., Inc.*, 122 F.3d 1456, 1460, 1461 (Fed. Cir. 1997); *Rosco, Inc. v. Mirror Lite Co.*, 304 F.3d 1373, 1378 (Fed. Cir. 2002); *Ethicon Endo-Surgery, Inc. v. Covidien, Inc.*, 796 F.3d 1312, 1328 (Fed. Cir. 2015). All of these cases cite *In re Carletti*, 328 F.2d 1020.

ambiguous regarding whether the “dictated by” inquiry is the exclusive test of whether a design is eligible for protection under the ornamentality/non-functionality doctrine,⁴⁷⁰ the Federal Circuit eventually embraced “dictated by” as *the* test.

As Part V chronicled, the Federal Circuit has pursued an especially protectionist path in its interpretation of design patent law. From *Avia* through *L.A. Gear*, *Egyptian Goddess*, and *Apple v. Samsung*, there is a clear blindness to concerns about encroachment on the utility patent regime and free competition in functional elements that are not protected by utility patents. The Federal Circuit has proven far less sensitive to these concerns than regional circuit courts.⁴⁷¹

VII. RECTIFYING DESIGN PATENT LAW'S ORNAMENTALITY/NON-FUNCTIONALITY DOCTRINE

The design patent saga reveals a distressing level of administrative and judicial amnesia. The Patent Office overcame repeated bouts of amnesia in the mid to late 19th century. It was eventually led out of the fog by Commissioner Frederick Allen at the turn of the 20th century.⁴⁷² Following legislative clarification in 1902, the judiciary made a conscientious and largely successful effort to effectuate Congress's intentions, but common law drift shifted the ornamentality/non-functionality doctrine away from the legislative mooring. The Federal Circuit misinterpreted linguistic shortcuts used to dispose of easy cases, causing the ornamentality/non-functionality doctrine to veer away from Congress's intent to ensure that design patent law did not protect functional features. The resulting jurisprudence twisted the case law so that designs were eligible for design patents so long as they were not *solely* dictated by functionality or if alternative designs to achieve a particular function were not available—a nearly 180-degree shift from the 1902 Act.

The shift can be seen by reviewing the ten circuit court decisions *invalidating* designs in Part IV⁴⁷³ and asking whether they would be upheld under the Federal Circuit's “dictated by functionality”/view designs as a whole/availability of alternative designs approach. The functions of each of these designs could be achieved by alternative designs, which is nearly all that the

470. See *supra* text accompanying notes 177–184.

471. The same can be said about the Federal Circuit's approach to copyright protection of computer software, as is reflected in the epic battle between Oracle and Google over copyright protection for application program interface elements. See *Oracle Am., Inc. v. Google Inc.*, 750 F.3d 1339 (Fed. Cir. 2014); *Oracle Am., Inc. v. Google Inc.*, 886 F.3d 1179 (Fed. Cir. 2018); see *generally* Menell, *supra* note 126.

472. See *supra* text accompanying note 73.

473. See *supra* Figures 2–11.

federal circuit requires. Furthermore, these designs are more original and ornamental than the iPhone and iPad rounded rectangles. Yet the regional circuit courts found all of the designs in Figures 2–11 to be invalid. It is only happenstance that the enactment of the Federal Courts Improvement Act establishing the Federal Circuit has obscured a profound circuit split.

Beyond contradicting Congress's intent to keep design patent protection from encroaching the utility patent's exclusive domain of protecting functional advances,⁴⁷⁴ the Federal Circuit's expansive standard for design patent eligibility conflicts with the critical channeling principle set forth in the Supreme Court's seminal *Baker v. Selden* decision.⁴⁷⁵ At a minimum, the Federal Circuit should steer the design patent ship back on course. If not, the Supreme Court should correct this wayward shift. *Samsung v. Apple* provided a prime opportunity, but unfortunately the opportunity was missed. *Samsung* did not explain the rationale behind the 1902 Act legislation or the Federal Circuit's misreading of regional circuit law that used the "dictated by functionality" language. We hope that our jurisprudential archeology provides a beacon for returning design patent law to the course that Congress intended.

We do not question the proposition that designs that are dictated by functionality are ineligible for design patent protection, but this proposition is merely one part of a faithful ornamentality/non-functionality doctrine. What is lacking from the Federal Circuit's jurisprudence is that even if a design in its entirety is not dictated by functional considerations, the design or features thereof may embody functional elements that should remain free for others to use and build upon. The proper ornamentality/non-functionality test—as recognized by reasoned regional circuit jurisprudence;⁴⁷⁶ reflected in Congress's crafting of the analogous copyright originality, compilation, and useful article doctrines;⁴⁷⁷ developed in regional circuit law;⁴⁷⁸ and stated in the Supreme Court's trade dress functionality jurisprudence⁴⁷⁹—should have several components.

First, minimal designs do not rise to the modicum of creativity necessary to meet the originality requirement for design patent protection. Minimal or simple combinations of shapes do not merit protection. Second, design patent protection extends only to ornamental design elements or original compilations of ornamental elements that are *separable* from functional

474. See *supra* Part III.

475. 101 U.S. 99 (1879).

476. See *supra* Part IV.

477. See *infra* Section VII(A)(1).

478. See *id.*

479. See *Traffix Devices, Inc. v. Mktg Displays, Inc.*, 532 U.S. 23, 33–34 (2001).

features. Any lesser test would allow designers to obtain exclusive rights to functional elements without meeting the more exacting utility patent law standards. Furthermore, application of these standards must include a filtration infringement test that ensures that competitors and other inventors can use the unprotectable functional features.⁴⁸⁰

Section A explains how these principles can be restored into the design patent regime to return to the legislative design. Section B goes further and suggests that the time is ripe for Congress to reopen the policy debate over design protection. Section C responds to the counterargument that Apple's rebirth supports the notion that design patent protection should extend to functional features of articles of manufacture.

A. RESTORING THE FUNDAMENTAL INTELLECTUAL PROPERTY CHANNELING PRINCIPLE

The Supreme Court's *Baker v. Selden* decision channels functional features to the utility patent regime so as to ensure that only those technological advances meeting the utility patent regime's high requirements are protected and other inventors and competitors are free to imitate and build on technology, methods, and designs that do not meet these standards. In this way, the intellectual property system promotes progress through a balance of time-limited rewards for innovation and robust competition. As a copyright-based regime, design patent law should be cabined in much the same way that copyright and trademark law have been barred from extending to functional features. That was indeed the purpose of the 1902 design patent amendments. However, the Federal Circuit's failure to grasp this fundamental legislative purpose has created an imbalance within the intellectual property system. This imbalance can be corrected by looking to the ways in which copyright and trademark law have dovetailed with the utility patent regime. Beyond these substantive limitations on design patent eligibility, Congress could protect against wayward drift by bringing regional circuit percolation back into the development of design patent jurisprudence.

1. *Guiding the Federal Circuit's Ornamentality/Non-Functionality Jurisprudence Back to the Proper Course*

The Federal Circuit can restore design patent law to its appropriate role first and foremost by reviewing the 1902 Act legislation that established the ornamentality/non-functionality doctrine and the regional circuit jurisprudence that developed in the early 20th century. As those cases make clear, the "dictated by functionality" jurisprudence was never intended to be the exclusive test for ornamentality/non-functionality, it was merely a shortcut

480. See *infra* Section VII(A)(1).

for disposing of easy cases—often where the patentee had sought both utility and design patents on the same features. These decisions recognized the need for separating protectable ornamental elements from functional features, a principle that Congress incorporated into the Copyright Act's useful article doctrine. As reflected in the 1902 Act's legislative history, channeling, and thus separability, was the purpose in the 1902 Act's "ornamentality" requirement.

In drafting the 1976 Copyright Act, Congress incorporated separability into the definition of pictorial, graphic, and sculptural works:

'Pictorial, graphic, and sculptural works' . . . shall include works of artistic craftsmanship insofar as their form but not their mechanical or utilitarian aspects are concerned; the design of a useful article, as defined in this section, shall be considered a pictorial, graphic, or sculptural work only if, and only to the extent that, such design incorporates pictorial, graphic, or sculptural features that can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the article.⁴⁸¹

With regard to copyright protection for computer software, a highly functional type of work, Congress explained:

Some concern has been expressed lest copyright in computer programs should extend protection to the methodology or processes adopted by the programmer, rather than merely to the "writing" expressing his ideas. Section 102(b) is intended, among other things, to make clear that the expression adopted by the programmer is the copyrightable element in a computer program, and that the actual processes or methods embodied in the program are not within the scope of the copyright law.⁴⁸²

The Copyright Act's definition of pictorial, graphic, and sculptural works and the treatment of computer software parallel the rationale for the 1902 design patent act amendments.⁴⁸³

Second, the Federal Circuit should give meaning to the design patent act's "originality" requirement.⁴⁸⁴ It is not merely a novelty standard but serves to

481. 17 U.S.C. § 101 (defining "pictorial, graphic, and sculptural works").

482. See H.R. REP. NO. 94-1476, at 57 (1976). Reflecting the Supreme Court's *Baker v. Selden* decision, Section 102(b) provides that "[i]n no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work." 17 U.S.C. § 102(b).

483. See *supra* Part III; see also Christopher Buccafusco & Mark A. Lemley, *Functionality Screens*, 103 VA. L. REV. 1293, 1375 (2017).

484. See 35 U.S.C. § 171(a).

exclude designs that are derived from prior art or that are so minimal or simple as to not merit protection.

Third, along similar lines, the Federal Circuit should restore use of the point of novelty,⁴⁸⁵ or more precisely the point of non-obviousness, to better focus the invalidity inquiry. If the point of novelty of a claimed design is functional, then the design is not eligible for a design patent.

Fourth, the Federal Circuit should abandon the rule that designs are not functional merely because there are alternative designs available.⁴⁸⁶ The design patent rule apparently derives from a Minnesota district court decision that lacks support in prior authority.⁴⁸⁷ It also confusingly overlaps with trade dress law, which imposes a stricter standard.⁴⁸⁸ As applied in design patent law, the availability of alternative design rule validates almost any design since there are almost always alternative ways of achieving function. Yet, the intellectual property system seeks to preserve the freedom to use functional designs unless an inventor comes up with a novel, nonobvious design that meets the utility patent standards.

At a minimum, the Federal Circuit should clarify that designs that offer functional advantages are outside of the design protection regime. The Federal Circuit decision in *Berry Sterling Corp. v. Pescor Plastics, Inc.*⁴⁸⁹ recognized this idea by suggesting that district courts consider a range of factors—including “whether the protected design represents the best design” and “whether alternative designs would adversely affect the utility of the specified article”—

485. See *supra* text accompanying note 297; Mark A. Lemley, *Point of Novelty*, 105 NW. U. L. REV. 1253 (2015).

486. Cf. *Traffix Devices, Inc. v. Mktg Displays, Inc.*, 532 U.S. 23, 33–34 (2001) (“There is no need . . . to engage . . . in speculation about other design possibilities, such as using three or four springs which might serve the same purpose. Here, the functionality of the spring design means that competitors need not explore whether other spring juxtapositions might be used. The dual-spring design is not an arbitrary flourish in the configuration of MDI’s product; it is the reason the device works. Other designs need not be attempted.” (citation to lower court decision omitted)).

487. See *supra* Section IV(D)(3) (discussing *Bergstrom v. Sears, Roebuck & Co.*, 496 F. Supp. 476 (D. Minn. 1980)).

488. See *supra* note 395.

489. 122 F.3d 1452 (Fed. Cir. 1997).

in assessing the availability of alternative designs,⁴⁹⁰ but subsequent Federal Circuit decisions have ignored this important caveat.⁴⁹¹

Beyond invalidity analysis, the Federal Circuit should restore and invigorate the filtration analysis. The Second Circuit in *Computer Associates International, Inc. v. Altai, Inc.*⁴⁹² provides a sound analytical framework for determining copyright infringement of computer code:

In ascertaining substantial similarity . . . a court would first break down the allegedly infringed program into its constituent structural parts. Then, by examining each of these parts for such things as incorporated ideas, expression that is necessarily incidental to those ideas, and elements that are taken from the public domain, a court would then be able to sift out all non-protectable material. Left with a kernel, or perhaps kernels, of creative expression after following this process of elimination, the court's last step would be to compare this material with the structure of an allegedly infringing program.⁴⁹³

The court's abstraction-filtration-comparison (AFC) test framed the ultimate comparison not between the programs as a whole, but between the *protectable* elements of the plaintiff's program and the allegedly infringing program. The way in which the court addressed interoperability, a key functionality consideration for computer software, illustrates how design patent law could systematically ensure that functional elements remain unprotectable. The court held that copyright protection did not extend to those program elements where the programmer's "freedom to choose" is:

490. *See id.* at 1456 ("The presence of alternative designs may or may not assist in determining whether the challenged design can overcome a functionality challenge. Consideration of alternative designs, if present, is a useful tool that may allow a court to conclude that a challenged design is not invalid for functionality. As such, alternative designs join the list of other appropriate considerations for assessing whether the patented design as a whole—its overall appearance—was dictated by functional considerations. Other appropriate considerations might include: *whether the protected design represents the best design; whether alternative designs would adversely affect the utility of the specified article*; whether there are any concomitant utility patents; whether the advertising touts particular features of the design as having specific utility; and whether there are any elements in the design or an overall appearance clearly not dictated by function." (emphasis added)).

491. *See, e.g.,* *Ross v. Sonax Furniture Mfg., Ltd.*, 217 F.3d 860 (Fed. Cir. 1999); *Seiko Epson Corp. v. Nu-Kote Int'l, Inc.*, 190 F.3d 1360 (Fed. Cir. 1999); *Door-Master Corp. v. Yorktowne, Inc.*, 256 F.3d 1308 (Fed. Cir. 2001); *Rosco, Inc. v. Mirror Lite Co.*, 304 F.3d 1373 (Fed. Cir. 2002).

492. 982 F.2d 693 (2d Cir. 1992).

493. *Id.* at 706; *see also* *Apple Comput., Inc. v. Microsoft Corp.*, 35 F.3d 1435, 1446 (9th Cir. 1994) ("[T]he unprotectable elements have to be identified, or filtered, before the works can be considered as a whole.").

circumscribed by extrinsic considerations such as (1) the mechanical specifications of the computer on which a particular program is intended to run; (2) compatibility requirements of other programs with which a program is designed to operate in conjunction; (3) computer manufacturers' design standards; (4) demands of the industry being serviced; and (5) widely accepted programming practices within the computer industry.⁴⁹⁴

The court observed that “[w]hile, hypothetically, there might be a myriad [sic] ways in which a programmer may effectuate certain functions within a program—i.e., express the idea embodied in a given subroutine—efficiency concerns may so narrow the practical range of choice as to make only one or two forms of expression workable operations.”⁴⁹⁵

The Federal Circuit recognized the role of filtration analysis in its 1988 *Lee v. Dayton-Hudson Corp.* decision and later picked up on this precedent in *OddzOn* and *Richardson*. Unfortunately, the Federal Circuit tacked away from these decisions in *Avia*, *L.A. Gear*, *Rosco*, *Egyptian Goddess*, and *Apple v. Samsung*. The filtration step is vital to ensuring that design patent protection does not encroach on utility patent's domain and that competitors and subsequent inventors can imitate and build on non-utility patented functional features.

Such filtration requires that a district court construe design claims and instruct the jury as to those aspects of the claimed designs that are not protectable and hence excluded from consideration in assessing infringement. Although Judge Koh identified functional elements of Apple's design patents in declining to issue a preliminary injunction,⁴⁹⁶ she declined to instruct the jury about those elements in the trial.⁴⁹⁷ Furthermore, the Federal Circuit should accord deference to the district court's resolution of subsidiary factual issues involved in patent claim construction.⁴⁹⁸

Courts should also apply a sliding similarity scale in assessing whether the accused device infringes the appropriately filtered design claim. Where the

494. *Id.* at 709–10.

495. *Id.* at 708.

496. *See supra* text accompanying notes 331–353.

497. *See supra* text accompanying notes 367–373.

498. *See* *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 547 U.S. 318 (2015) (interpreting Federal Rule of Civil Procedure 52(a)(6) and the court's prior decision in *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996), to require that the Federal Circuit accord deference to the resolution of subsidiary factual issues involved in patent claim construction); J. Jonas Anderson & Peter S. Menell, *Restoring the Fact/Law Distinction in Patent Claim Construction*, 109 NW. U.L. REV. ONLINE 187 (2015).

protection is thin, the standard for similarity should be elevated as a safeguard against overprotection.⁴⁹⁹

Relatedly, copyright law's compilation doctrine is analogous and instructive for assessing the scope of design patents. The Copyright Act defines a "compilation" as "a work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship."⁵⁰⁰ The Federal Circuit's emphasis on viewing design patents "as a whole" assumes that the elements of the design are selected and arranged in an original and ornamental/non-functional way. Such an assumption should be scrutinized. Many articles of manufacture combine elements in non-original and functional ways. Take, for example, the surgical device depicted in Figure 29. The form-fitting handle and the tightening knob are likely derived from prior art devices and assembled in a functional configuration. Hence, viewing this design "as a whole" does not comport with the originality and ornamentality/non-functionality limitations on design patents. As with copyright law, competitors should be able to copy unoriginal or functional compilations of elements.

That said, protection can subsist in a compilation of unprotectable elements if there is originality in the selection and arrangements of the constituent elements. As a result, courts must assess both the copyrightability of elements and the way those elements are compiled. As noted above, where the originality is thin—as is true in some categories of compilations—the

499. *Cf.*, *Mattel, Inc. v. MGA Ent., Inc.*, 616 F.3d 904, 913–14 (9th Cir. 2010) ("If there's only a narrow range of expression (for example, there are only so many ways to paint a red bouncy ball on blank canvas), then copyright protection is 'thin' and a work must be 'virtually identical' to infringe."); *Incredible Techs., Inc. v. Virtual Techs., Inc.*, 400 F.3d 1007, 1015 (7th Cir. 2005) ("[T]he video display is afforded protection only from virtually identical copying."); *Satava v. Lowry*, 323 F.3d 805 (9th Cir. 2003); *Apple Comput., Inc. v. Microsoft Corp.*, 35 F.3d 1435 (9th Cir. 1994) ("[T]here can be no infringement [of thinly protected works] unless the works are virtually identical."); *Harper House, Inc. v. Thomas Nelson, Inc.*, 889 F.2d 197 (9th Cir. 1989) ("[C]opyright infringement of compilations consisting largely of uncopyrightable elements should not be found in the absence of 'bodily appropriation of expression'" (quoting *Cooling Systems & Flexibles, Inc. v. Stuart Radiator, Inc.*, 777 F.2d 485, 573 (9th Cir. 1985)); *E. USA, Inc. v. Epyx, Inc.*, 862 F.2d 204, 209 (9th Cir. 1988) (applying a heightened infringement standard for evaluating thinly protected works, such as the audiovisual elements for a videogame).

500. 17 U.S.C. § 101 (defining "compilation").

standard for similarity should be elevated as a safeguard against overprotection.⁵⁰¹

An industrial design for an article of manufacture might be a single element or a compilation of elements. The Federal Circuit should limit its focus to design as a whole only to the extent that it embodies originality in the compilation of features. And it should also ensure that any functional feature embodied in the design is not monopolized simply because the design as a whole has original features.

Applying this framework to the *Apple v. Samsung* design patents, the Federal Circuit should have questioned whether a rounded rectangle is original. Even apart from the fact that the Sharp Japanese patent anticipated this claimed design, the Apple claim should have been held to fall below the modicum of creativity required for originality. Furthermore, the rounded rectangle design element should have been filtered out or discounted in the infringement analysis. These limitations would have left nothing to protect because Apple disclaimed the other aspects of the iPhone shape in its design claim through its use of dotted lines on the drawing.

Finally, the Federal Circuit should instruct district courts (and itself) to apply the presumption of validity accorded to issued patents with due regard for the fact that the ornamentality/non-functionality doctrine drifted from the 1902 standards long ago.⁵⁰² Therefore, courts should be appropriately skeptical of the eligibility of design patents containing functional features.

2. *Jettison Consumer Deception as Part of the Design Patent Infringement Standard*

The Federal Circuit should further clarify design patent protection by abandoning the long-standing reference to consumer deception in the

501. See *supra* text accompanying note 499; *Feist Publ'n, Inc. v. Rural Tel. Serv. Co., Inc.*, 499 U.S. 340, 347–49 (1991) (noting that factual compilations only attract protection to the extent that the facts, which are unprotectable, are arranged in an original way and “[t]his inevitably means that the copyright in a factual compilation is thin”); *Key Publ'ns, Inc. v. Chinatown Today Publ'g Enter., Inc.*, 945 F.2d 509, 514 (2d Cir. 1991) (observing that substantial similarity inquiry is “narrowed” when dealing with compilations).

502. Following Federal Circuit case law, the Patent Office applies an overly broad standard for design patent eligibility. See U.S. PAT. & TRADEMARK OFF., *supra* note 94, § 1504.01(c) (“To be patentable, a design must be ‘primarily ornamental.’ ‘In determining whether a design is primarily functional or primarily ornamental the claimed design is viewed in its entirety, for the ultimate question is not the functional or decorative aspect of each separate feature, but the overall appearance of the article, in determining whether the claimed design is dictated by the utilitarian purpose of the article.’ See *L.A. Gear Inc. v. Thom McAn Shoe Co.*, 988 F.2d 1117, 1123 (Fed. Cir. 1993) The design for the article *cannot be assumed to lack ornamentality merely because the article of manufacture would seem to be primarily functional.*”).

infringement standard.⁵⁰³ That language dates back to a time when design patent law served as a proto-trademark law.⁵⁰⁴ Yet that era ended well over a century ago and the reference to this factor mischaracterizes the essential copyright nature of design patent protection. Design patent law, like copyright law's useful article protection, is about similarity of original, non-functional design. It should not depend on whether consumers would be confused as to the source of a useful article.

3. *Bring Regional Circuit Percolation Back into Design Patent Jurisprudence*

Another reform that could alleviate the encroachment of design patents into the utility patent regime would be for Congress to reform the exclusive subject matter jurisdiction of the Federal Circuit to allow design patent appeals to be heard by regional circuit courts. Such courts have historically been more sensitive to limiting incursions of copyright, trademark, and, prior to the establishment of the Federal Circuit, design patents into utility patent law's exclusive role in protecting functional features.

There is good reason to believe that Congress would have narrowed the Federal Circuit's exclusive jurisdiction in this way if it had been aware of the copyright nature of design patents.⁵⁰⁵ Congress voiced concern about the Federal Circuit expanding its exclusive patent jurisdiction to other areas, such as antitrust law. The Senate Judiciary Committee noted the risk and specifically warned against manipulating or extending the Federal Circuit's exclusive jurisdiction over patent claims. The Senate Report explained that the establishment of the Federal Circuit

is intended to alleviate the serious problems of forum shopping among the regional courts of appeals on patent claims by investing exclusive jurisdiction in one court of appeals. It is not intended to

503. *See* *Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665, 683 (Fed. Cir. 2008) (en banc) (characterizing the infringement standard as “whether an ordinary observer, familiar with the prior art [] designs, would be *deceived* into believing the [accused device] is the same as the patented [design]” (emphasis added)); *Gorham Co. v. White*, 81 U.S. 511, 528 (1871) (stating the design infringement standard as “if, in the eye of an ordinary observer, giving such attention as a purchaser usually gives, two designs are substantially the same, if the resemblance is such as to *deceive* such an observer, *inducing him to purchase one supposing it to be the other*, the first one patented is infringed by the other” and concluding that “whatever differences there may be between the plaintiffs' design and those of the defendant in details of ornament, they are still the same in general appearance and effect, *so much alike that in the market and with purchasers they would pass for the same thing*—so much alike that even persons in the trade would be in danger of being *deceived*.” (emphases added)).

504. *See supra* Section II(B).

505. *See* Menell, *supra* note 229, at 1578–81.

create forum shopping opportunities between the Federal Circuit and the regional courts of appeals on other claims.⁵⁰⁶

Senator Leahy specifically warned that “[i]n nearly all . . . litigation [other than patent cases], science and technology, when relevant, are related to other human or social issues, and only a generalist court should ever hear such matters.”⁵⁰⁷ The House Report stated that “jurisdiction of an appeal in a case involving a claim arising under any Act of Congress relating to copy rights or trademarks . . . will continue to go to the regional appellate courts, pursuant to section 1294 of title 28.”⁵⁰⁸

When the Federal Courts Improvement Act of 1981 was passed, the design patent regime was a sleepy area. And even many patent practitioners had little appreciation of its copyright origins. It is unlikely that generalist legislators or their staffs were aware of the copyright nature of design patents. The focus of that legislation was on the regional circuit court forum shopping plaguing the utility patent regime. Such technologically complex cases presented special problems for generalist regional circuit jurists. Furthermore, regional circuit courts had been sensitive to the need to prevent design patents from encroaching on utility patent turf.

Congress could bring a wider range of perspectives to the design patent law regime by restoring appellate jurisdiction over design patent cases to the regional circuit courts. The problem of design patents cases brought in conjunction with utility patent infringement claims could be addressed through various approaches.⁵⁰⁹ Although the utility patent and design patent issues may share a common nucleus of operative facts, the disputed issues may be sufficiently distinct that it makes sense for the district court to phase or bifurcate trial of the causes of action. To the extent that the district court keeps the trial and post-trial rulings separate, it is as if separate cases have been adjudicated.

If exclusively utility patent or design issues are appealed, jurisdictional integrity and federalism considerations favor having those issues resolved by the appellate tribunal with primary authority: the Federal Circuit for utility patent issues and the regional circuit court for the design patent issues. Thus, since there is no loss in administrative efficiency for cases in which utility patent issues are not appealed, the most obvious solution would be to vest jurisdiction over the appeal of the design patent issues with the regional

506. See S. REP. NO. 97-275 (1981), as reprinted in 1982 U.S.C.C.A.N. 11.

507. See *id.* at App. B (1981) (providing the additional views of Senator Patrick J. Leahy).

508. H.R. REP. NO. 96-1307, at 23 (1980).

509. This proposal parallels a proposal to alter appellate jurisdiction over copyright cases that plead patent infringement allegations in the complaint. See Menell, *supra* note 229, at 1591–95.

appellate court. This could be accomplished by amending § 1295(a)(1) of Title 28 of the U.S. Code to exclude from the Federal Circuit's appellate jurisdiction cases that do not appeal issues arising under the utility patent provisions of the Patent Act or the Plant Variety Protection Act.

If both utility patent and design issues are appealed, the case would be effectively divided into separate causes of action and the timing of appeals and remands could affect case management. But since the case was already phased or bifurcated, appellate bifurcation would be straightforward and not add significant additional administrative cost. The district court would retain jurisdiction and could adapt any further proceedings based on the outcome and timing of the parallel appellate processes. Section 1295(a) could be amended to provide for cases in which the design issues have been tried separately—whether through phasing or bifurcation—to fall within the appellate jurisdiction of the regional circuit court of appeals.

That leaves cases in which the patent and nonpatent issues are litigated in a combined proceeding and are intertwined. Even in such scenarios, the appeal could be best handled by the regional circuit court if no utility patent issues are appealed. If utility patent issues or utility patent and design patent issues are appealed, then the Federal Circuit has primacy in adjudicating the appeal. But even in this situation, Congress could maintain regional circuit courts in the loop to the extent that distinct design patent issues arise by: (1) providing for certification of design patent questions to regional circuit courts; or (2) providing for review of Federal Circuit interpretations of regional circuit design decisions by a regional circuit panel and/or at the en banc level.

B. SUBSTANTIVE LEGISLATIVE REFORM

A lot has happened since 1902. Copyright has emerged as a significant form of protection not just for “fine arts” but for pictorial, graphic, and sculptural works generally, including useful articles. Moreover, the design field has shifted from decorative ornamentation to industrial design that integrates form and function. As an astute observer recognized half a century ago:

The distinction between ornamental and functional qualities, which the courts have long sought to establish, takes on an almost humorous aspect when its premise is contrasted with the theories underlying modern design. The elaboration of the ornamental standard is based on the notion that design and function are easily separable. Of course, this is not the case, at least not without a more detailed articulation of the reasons for the rule. Even if it were an easy distinction to make, it does not reckon with modern design, which is heavily influenced by Louis Sullivan's dictum ‘Form follows function.’ Contemporary design avoids decoration: ‘The stark simplicity of much modern design, both industrial and architectural,

is a violent reaction against the ginger-bread of the nineteenth century.’ Yet the law in this area is built upon a gingerbread conception of design; it sees design as something added to a product, an ornamentation, an embellishment, not as an integral part of the product itself. The contemporary designer does not take a finished good and decorate it; he helps to create it as much as does the production engineer. The designer does not seek to add something special to the product; rather he seeks, if he is in the vanguard of artistic innovators, to strip away and reveal basic forms. The design patent, in particular its requirement of ornamentation, is not only difficult to apply through the establishment of legally respectable standards; it is also grounded conceptually in an aesthetic outlook inconsistent with the art it seeks to encourage.⁵¹⁰

Although we still believe that the fundamental channeling principle reflected in *Baker v. Selden*—reserving protection for technological advances to the utility patent system—should be preserved and reinforced, there could be significant benefits from clarifying, harmonizing, and unifying design protection in light of the shifts in industrial design theory and practice that have taken place over the past century.

It is important to recognize, however, that advances in industrial design can qualify for utility patent protection. And although design protection advocates emphasize gaps in protection, industrial design is not rocket science or biomedical research. Advocates would need to make a much stronger case that industrial design falling short of the utility patent thresholds faces the technological risk, research and development expenditure, and appropriability problems necessary to justify new or expanded protections.

We are certainly not the first to recommend reexamining the need for design patent protection. There have been nearly perpetual efforts to reform design protection for more than a century.⁵¹¹ But as one scholar intimately familiar with such efforts recognized, “[g]iven this long history of failure, it is

510. See Matthew Nimetz, *Design Protection*, 15 COPYRIGHT L. SYMP. 79, 120–21 (1965) (footnotes omitted).

511. See, e.g., Goldenberg, *supra* note 449; Brown, *supra* note 451, at 1395–1403 (discussing prior reform efforts); PRESIDENT’S COMM’N ON THE PAT. SYS., “TO PROMOTE THE PROGRESS OF USEFUL ARTS” IN AN AGE OF EXPLODING TECHNOLOGY 12–13 (1966) (concluding that another form of design protection should be devised and design patents abandoned); Daniel H. Brean, *Enough Is Enough: Time to Eliminate Design Patents and Rely on More Appropriate Copyright and Trademark Protection for Product Designs*, 16 TEX. INTELL. PROP. L.J. 325, 379–81 (2008) (arguing that the design patent system should either be abolished or should be phased out and replaced with a system more akin to community design protection); Note, *Design Protection—Time to Replace the Design Patent*, 51 MINN. L. REV. 942, 959–61 (1967); Roy V. Jackson, *A New Approach to Protection for the Designs of New Products*, 38 J. PAT. OFF. SOC’Y 448, 449 (1956) (arguing that design patent protection should be converted to a system of “engineering copyright” or “copyright-design”).

not difficult to predict the future of design legislation.”⁵¹² We note, however, that Congress passed sui generis design legislation for vessel boat hull designs the year after that prediction.⁵¹³

The time may be ripe for considering ways of updating design protection. Now that the dust has settled from the *Apple v. Samsung* litigation and the Federal Circuit has doubled down on eviscerating the ornamentality/non-functionality doctrine, it is clearer than ever that the design patent regime has drifted far from what Congress intended more than a century ago. Apple's legal victory, however, has escalated efforts by other electronic device manufacturers, as well as many design industries, to gamble on design patent lottery tickets. The aftermath of the Supreme Court's *Samsung* ruling did little to quell the concern about design patent windfalls. As with the business method gold rush following the Federal Circuit's *State Street Bank* decision upholding business method utility patents,⁵¹⁴ the Federal Circuit's lax standard for assessing ornamentality/non-functionality in conjunction with the outsize *Apple v. Samsung* damages award has produced a surge in offensive and defensive design patenting.⁵¹⁵

This vesting of interests, however, further complicates the political economy of design protection reform.⁵¹⁶ Prior to the smartphone wars, many of the competitors might well have supported a ceasefire so as to reduce the risk of mutually assured destruction resulting from drawn out unpredictable battles over subjective intellectual property claims. But now many of these

512. See Goldenberg, *supra* note 449, at 21.

513. See Vessel Hull Design Protection Act, Pub. L. No., 105-304, 112 Stat. 2860 (1998) (codified as 17 U.S.C. §§ 1301–32). Support for this federal legislation emerged in reaction to the Supreme Court's decision striking down Florida's vessel hull protection legislation as preempted by federal intellectual property law. See *Bonito Boats Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141 (1989).

514. See *State St. Bank & Trust Co. v. Signature Fin. Grp.*, 149 F.3d 1368 (Fed. Cir. 1998); Megan M. La Belle & Heidi Mandanis Schooner, *Big Banks and Business Method Patents*, 16 U. PA. J. BUS. L. 431, 451 (2014) (“While there is no single cause of this surge in patent litigation, allowing patents on business methods has been a contributing factor.”); Gerald H. Kiel & Harry K. Ahn, “*Business Methods*” *Are Broadly Defined: Patent Protection Is Available in Variety of Areas Including Marketing, Sales and Finance*, N.Y.L.J., Feb. 3, 2003, at S9 (noting that *State Street Bank* “opened a floodgate for companies to seek patent protection for new business methods”); Robert P. Merges, *As Many as Six Impossible Patents Before Breakfast: Property Rights for Business Concepts and Patent System Reform*, 14 BERKELEY TECH. L.J. 577 (1999) (questioning the need for patents on inventions that are easily made).

515. See generally Pat. Tech. Monitoring Team, *supra* note 2.

516. Cf. Peter S. Menell, *The Challenges of Reforming Intellectual Property Protection for Computer Software*, 94 COLUM. L. REV. 2644, 2647–48, 2648 n.19 (1994); William N. Eskridge, Jr., *Politics Without Romance: Implications of Public Choice Theory for Statutory Interpretation*, 74 VA. L. REV. 275, 287–88 (1988) (explaining how formal organization of interest groups leads to substantial influence in the political arena).

companies have armed themselves with design patents. And that is in addition to the traditional opposing forces in the design reform arena—such as fashion designers, manufacturing industries, replacement part manufacturers, and insurance companies. That said, hope springs eternal that a grand compromise can be achieved.

C. RESPONDING TO THE APPLE REVIVAL COUNTERARGUMENT

Prior to the *Apple v. Samsung* litigation, design patent law was a sleepy intellectual property niche that did not have a large impact on commerce or the digital technology industries. The publicity surrounding the smartphone wars and Apple's massive damages award attributable to its design patent claims for rounded rectangles catapulted design patents to prominence in intellectual property law and business strategy. The design patent Cinderella is now a celebrity, leading electronic device manufacturers and a growing range of other industries to pursue design patent applications. Applying the Federal Circuit's lax design patent functionality standards, the Patent Office has been issuing a growing number of design patents embodying clearly functional features.

Defenders of design patent law's emergence point to how the design system fostered Steve Jobs's visionary focus on the integration of form and function in electronic products, reviving a once great but near-bankrupt company to historic financial success, transforming the consumer marketplace, and contributing to the reemergence of American industry.⁵¹⁷ But is this story more mythology than truth? Would Apple have failed without lax design patent eligibility? Are the Federal Circuit's lax standards for ornamentality/non-functionality promoting or impeding "progress"?

While we do not question Apple's contributions to product design, we don't think that it should override the limits that Congress wisely included within the design patent regime nor the fundamental logic of the *Baker v. Selden* channeling principle. Apple's re-emergence is inspiring, but the role of design patents is at least partly mythology spun by one of the most charismatic business leaders in history. Furthermore, the expansion of design patent eligibility is likely to undermine technological progress by cluttering the electronic device and other design markets with minefields of dubious intellectual property rights that threaten cumulative innovation and competition.

We focus first on the role of design patents in Apple's rebirth. The product that revitalized Apple was not the iPhone or the iPad, but the iPod.⁵¹⁸ While

517. See Kappos, *supra* note 3.

518. See generally STEVEN LEVY, THE PERFECT THING: HOW THE IPOD SHUFFLES COMMERCE, CULTURE, AND COOLNESS (2006).

this charismatic device also embodied seamless minimalist design for which it (belatedly) obtained design patents,⁵¹⁹ the key to its success was its ingenious solution to an intractable clash between the content industries (record labels, music publishers, recording artists, and composers) and the digital technology industries. Neither Steve Jobs nor Apple invented file compression, faster and more compact electronics, enhanced battery life, more advanced programming languages, nor other technologies that drove the emergence of a new generation of digital music devices. And while Jobs and Apple deserve credit for integrating these technological advances into a highly successful user-friendly device, the iPod's success turned significantly on Jobs's loosening of the recording industry's controlling licensing practices and creation of a legitimate marketplace (the iTunes store) for acquiring digital downloads of popular music. And even here, we should not overestimate Jobs's role. More than anything else, the emergence of Napster and file-sharing technology drove the recording industry to the negotiating table. And the failure of the recording industry's efforts to develop their own online music stores also played a role. Steve Jobs and Apple deserve tremendous credit for pulling off the iTunes deal quickly. But the context is critically important to assessing their role: They accelerated what was already in motion.

The iPod and the iTunes Store played critical roles in Apple's revival and provided the platform for the expansion of Apple's consumer electronics product catalog. The "iPod-iTunes symbiosis" was a "self-reinforcing" "unassailable fortress" that gave Apple a seventy percent share of the music player marketplace.⁵²⁰ Like Microsoft Windows in the 1990s, the iPod platform created the potential for tremendous network effects.⁵²¹ It also provided a pathway for Apple to enter and dominate the mobile phone marketplace, a far larger business. And with the iPod's synergy of technology and content, Apple could expand its empire into many other markets.

Although Apple acquired design patents on its iPod products, its success in building this marketplace turned significantly on Apple's business acumen and advances in collateral technologies. Apple was not the first company to develop a portable electronic music device or a music download service. Apple

519. See Media Device, U.S. Design Patent No. 516,576 (issued Mar. 7, 2006). Note that Apple did not file the application for this design until 2004, several years after the iPod's introduction. See Chiam Gartenberg, *The iPod Turns 15: A Visual History of Apple's Mobile Music Icon Look Back at 15 Years of iPod History*, THE VERGE (Oct. 23, 2016, 10:00 AM), <https://www.theverge.com/2016/10/23/13359534/ipod-mini-nano-touch-shuffle-15-years-visual-history-apple>.

520. See VOGELSTEIN, *supra* note 316, at 140–45.

521. See Menell, *supra* note 280.

brilliantly integrated various technologies, broke the logjam with the major music industry content owners, and adeptly marketed the iPod.

The utility patent system provided Apple with the means to protect novel and nonobvious *technological* advances in its electronic devices, including the integration of components.⁵²² We don't see why the design patent system should afford Apple additional protection for the functional features of its devices that do not meet the novelty and non-obviousness thresholds of the utility patent system. Apple's first mover advantage, utility patents, integration with its other computers, high manufacturing standards, strong brand loyalty, and adroit marketing afforded Apple ample motivation to pursue research and development of media devices. Vague design patents on minimalist designs may have reinforced these motivations, but it is not at all clear that they were needed.

Which brings us to whether the iPhone and iPad design patents were worth both the economic and legal costs that they imposed on competitors and consumers and the larger effects that they continue to have on many consumer industries as companies accumulate arsenals of design patents of uncertain scope with regard to minimalist and functional features. There is no doubt that the design patents on rounded rectangles created a minefield for competitors and slowed cumulative innovation. The notion that Apple needed such patents to pursue its iPhone and iPad product lines has more to do with Steve Jobs's humorous presentation of the iPhone than economic reality.⁵²³ In discussing Apple's approach to intellectual property, Nancy Heinen, Apple's General Counsel and Senior Vice President from 1997 through 2006,⁵²⁴ explained:

Remember, [Jobs] was the best marketer on the planet. So he was sending a message . . . I've got a sledgehammer, and I am going to use it anytime [cell phone manufacturers] come too close. It's a business strategy. There were true innovations in the iPhone, but we were not the first by a long shot into this area. So if you're not the first in, you have to be robust in covering every possible invention or feature or little thing because it's a crowded environment. You

522. Apple acquired various utility patents associated with the iPod. *See, e.g.*, U.S. Patent No. 7,348,967 (issued Mar. 25, 2008) (Touch Pad for Handheld Device); U.S. Patent No. 7,046,230 (issued May 16, 2006) (Touch Pad Handheld Device).

523. *See supra* Figure 24; VOGELSTEIN, *supra* note 316, at 172–74 (“Nothing illustrates Jobs's obsession with patents as weapons better than his comments about them during the first iPhone launch in 2007 and the private meetings he had surrounding them in 2006. In the fall of 2006, as Apple's engineers were scrambling to ready the iPhone for its January unveiling, the topic of what technologies Apple should patent in the iPhone came up It was a short discussion. . . . Jobs answers it completely and definitively: ‘We are going to patent it all.’ . . . Jobs knew that defending patents is as much about bluster as about the law.”).

524. *See Nancy R. Heinen*, WIKIPEDIA, https://en.wikipedia.org/wiki/Nancy_R._Heinen (last visited Nov. 21, 2020).

don't know what is going to survive [the patent-office and legal challenges], and don't know what other things are going to be coming out from competitors in the space.⁵²⁵

Apple's aggressive intellectual property enforcement campaign was also fueled by Steve Jobs's perception that he had been betrayed by Sergey Brin and Larry Page, Google's co-founders whom he had befriended and mentored, and Eric Schmidt, Google's CEO who served on Apple's Board of Directors.⁵²⁶

Thus, the narrative surrounding design patents is more hype than substance. Jobs had already revived Apple and paved the way for its entry into the smartphone and tablet markets before embarking on the iPhone and iPad projects. Furthermore, Apple's iPhone and iPad products were less breakthroughs than the next stage in the maturation of various collateral technologies. Apple did not invent smartphones, multitouch gestures, or tablet devices.⁵²⁷

These ideas had been floating around Silicon Valley for decades. Alan Kay,⁵²⁸ a noted software engineer at Xerox's Palo Alto Research Center (PARC),⁵²⁹ came up with plans for Dynabook, a progenitor of laptop and tablet computers and the e-book, in 1968.⁵³⁰ In the early 1990s, James Gosling, a legendary software engineer credited with developing the Java programming language, built the Star7, a prototype for a handheld device that combined a Sun SPARCStation motherboard, radio, a four-inch LCD touchscreen, and speakers from the Nintendo Game Boy.⁵³¹

GO Corporation envisioned a touchscreen device that integrated a cell phone, fax machine, modem, microphone, calendar, and word processor in the early 1990s.⁵³² Apple introduced the Newton, a handheld personal digital assistant (PDA), in 1994. Although the Newton was initially successful, the

525. See VOGELSTEIN, *supra* note 316, at 174 (quoting Nancy Heinen).

526. See *id.* at 83–145.

527. See VOGELSTEIN, *supra* note 316, at 101–05.

528. See *Alan Kay*, WIKIPEDIA, https://en.wikipedia.org/wiki/Alan_Kay (last visited Nov. 21, 2020).

529. Xerox PARC is where a young Steve Jobs, along with Steve Wozniak, his Apple co-founder, got some of the ideas for the desktop graphical user interface that contributed the success of the Apple Macintosh line of computers. See Jeremy Reimer, *A History of the GUI*, ARS TECHNICA (May 5, 2005, 1:40 AM), <https://arstechnica.com/features/2005/05/gui/4>.

530. See *Dynabook*, WIKIPEDIA, <https://en.wikipedia.org/wiki/Dynabook> (last visited Nov. 21, 2020).

531. See James A. Gosling, *Star7 Demo*, YOUTUBE (Oct. 19, 2007), <https://www.youtube.com/watch?v=1CsTH9S79qI>. The Star7 was developed as part of Sun Microsystem's Green Project. See Menell, *supra* note 126, at 348–49.

532. See JERRY KAPLAN, *ADVENTURES OF A SILICON VALLEY STARTUP* (1999) (chronicling GO's journey from promising start-up to business failure).

PalmPilot's sleeker size and longer battery life won the PDA market.⁵³³ Microsoft and Compaq introduced tablet devices in the early 2000 period.

Apple's success with the iPhone and iPad was built on a vast body of prior art, the emergence of the internet, and plummeting prices on ever more powerful microprocessors, batteries, and touchscreens resulting from robust innovation and competition. There is no doubt that Apple brought many valuable insights and incremental innovations to its iPhone and iPad products. But it would be a mistake to view Jobs or Apple as a modern-day Prometheus, the Greek mythological hero credited with the creation of humanity from clay and defying the gods by stealing fire and giving it to humanity as civilization.⁵³⁴

And that is why it is ironic that Apple's most powerful weapon in its smartphone intellectual property arsenal turned out to be design patents on rounded rectangles. Without the Federal Circuit's failure to appreciate the limited, copyright-based nature of design patent protection and its unwarranted expansion of design patent protection into the exclusive domain of utility patents, the digital technology industry would have been spared tremendous wasteful litigation that hindered cumulative innovation and competition.

It is doubtful that Apple needed its design patents, and their collateral effects on progress and the intellectual property system are regrettable. While appropriately tailored intellectual property can promote progress, overbroad and vague intellectual property protection undermines progress by imposing costs on follow-on inventors through needless due diligence and the costs of defending against unwarranted protections. We have learned these lessons through the painful experience of utility patents on business methods and efforts to use copyrights on computer software to protect functional features.

Despite their great technology leadership, neither Steve Jobs nor Apple has served the intellectual property system well through their cynical assertion of dubious intellectual property claims. Apple's smartphone war against Android devices was not its first cavalier effort to use dubious intellectual property assets to wreak havoc across the digital computing ecosystem. Recall that Apple pursued a vigorous campaign against Microsoft, Hewlett-Packard, and other computer companies in the late 1980s and early 1990s over the graphical user interface for desktop computers. It took several years to sort out that mess, but Judge Vaughn Walker in the Northern District of California and the Ninth Circuit ultimately resolved that controversy in a way that blocked

533. See VOGELSTEIN, *supra* note 316, at 150.

534. See *Prometheus*, WIKIPEDIA, <https://en.wikipedia.org/wiki/Prometheus> (last visited Nov. 21, 2020).

Apple's monopolistic impulses and promoted both innovation and competition.⁵³⁵

Unfortunately, Apple's design patent campaign has, thus far, had the opposite effect. The Federal Circuit has opened the backdoor to protecting functional features without requiring that the claims meet the utility patent's more exacting requirements. This shift in the law, without due attention to Congress's intention in amending the design patent regime or the wise channeling doctrine reflected in *Baker v. Selden*, threatens to undermine progress. It remains to be seen how far this wayward drift will go, although the buildup of design patent arsenals is an ominous sign.⁵³⁶

VIII. CONCLUSION: THE VERY UNEASY CASE FOR DESIGN PATENT PROTECTION FOR FUNCTIONAL FEATURES

The U.S. design patent regime began as a mislabeled copyright regime, which has continued to plague its efficacy since the mid-19th century. The regime served for a brief period as proto-trademark law until the U.S. Congress established a true federal trademark regime. The early dalliance with trademark law, however, caused lasting confusion as courts continue to apply a trademark-like standard for assessing infringement more than a century and a half later.

During the mid to late 19th century, some patent commissioners and courts, confused by the inclusion of the term "useful" in some classes of design patent subject matter, caused design patent law to encroach on utility patent protection for technological inventions. At the turn of the 20th century, Commissioner Allen righted the ship, persuading Congress to excise the word "useful" from the design patent law and insert an express "ornamentality" requirement so as to properly channel protection between the utility and design patent regimes.

While struggling to assess aesthetics directly, early 20th century courts appreciated that Congress intended the ornamentality requirement to serve as a channeling doctrine to bar design patents from protecting functional features. Without any intention of allowing design patent protection to extend to functional features of articles of manufacture that are intertwined with ornamental elements, several regional circuit courts stated that designs that are "dictated by functionality" are ineligible. This was merely a shortcut to dispose

535. See *Apple Comput., Inc. v. Microsoft Corp.*, 799 F. Supp. 1006 (N.D. Cal. 1992), *aff'd in part, rev'd in part*, 35 F.3d 1435 (9th Cir. 1994).

536. See Sarah Burstein, *Costly Designs*, 77 OHIO ST. L.J. 107, 125–29 (2016) (identifying especially unworthy design patents).

of easy cases. The regional circuit courts generally adhered to the channeling principle.

The establishment of the U.S. Court of Appeals for the Federal Circuit in the early 1980s led to a pronounced shift in design patent eligibility. After a cautious start, the Federal Circuit produced two 1988 decisions pointing in different directions. *Lee v. Dayton-Hudson Corp.*⁵³⁷ respected the channeling principle by holding that “a design patent is not a substitute for a utility patent. A device that copies the utilitarian or functional features of a patented design is not an infringement unless the ornamental aspects are also copied, such that the overall ‘resemblance is such as to deceive.’”⁵³⁸ *Avia Grp. International, Inc. v. L.A. Gear California, Inc.*⁵³⁹ took a far more permissive approach to design patent eligibility, rejecting dissection of function elements of patented designs and suggesting that a design is ornamental and not functional so long as there are alternative designs available.

The Federal Circuit reinforced the alternative design standard a few years later in *L.A. Gear, Inc. v. Thom McAn Shoe Co.*⁵⁴⁰ Without exploring the 1902 Act or the context in which the “dictated by functionality” formulation emerged—i.e., regional circuit decisions employed this test as a shortcut for invalidating straightforward functional design patents—the Federal Circuit adopted the “dictated by” formulation as *the* test for ornamentality/non-functionality. The Federal Circuit reinforced this interpretation in the en banc *Egyptian Goddess* case,⁵⁴¹ which overturned the use of a point of novelty focus. Although the Federal Circuit tempered the ornamentality/non-functionality doctrine in a 2010 decision that filtered out functional features in the infringement assessment,⁵⁴² it largely repudiated that approach in its handling of the blockbuster *Apple v. Samsung* case.⁵⁴³ Its subsequent decisions reinforced the permissive approach.

It is disconcerting that throughout nearly four decades of struggling to make sense of the design patent regime, and particularly its role within the larger intellectual property system, the Federal Circuit has never once referred to the 1902 Act and its rationale. Nor has it seriously examined the rich body of regional circuit authority that sheds light on the key legislation.

Apart from this wayward drift, the design patent regime is an anachronism. Passed as a mislabeled form of copyright protection for useful articles before

537. 838 F.2d 1186 (Fed. Cir. 1988).

538. *Id.* (citing *Gorham Co. v. White*, 81 U.S. (14 Wall.) 511, 528 (1872)).

539. 853 F.2d 1557 (Fed. Cir. 1988).

540. 988 F.2d 1117 (Fed. Cir. 1993).

541. *Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665, 678 (Fed. Cir. 2008) (en banc).

542. *Richardson v. Stanley Works, Inc.*, 597 F.3d 1288 (Fed. Cir. 2010).

543. *See supra* Section V(D).

copyright had expanded to encompass useful articles, design patent protection served a narrow but worthwhile purpose for a century. As copyright law expanded, however, the need for design patent protection has faded. Congress provided clearer language in the Copyright Act to ensure that it did not encroach on the utility patent domain. And the Supreme Court has similarly guarded against trade dress law affording backdoor protection for functional features of product design. Yet the Federal Circuit has allowed the design patent regime to drift into a troubling collision with the utility patent regime. Product designers can now gain protection for functional features without meeting the higher requirements of the utility patent system.

In 1969, then Professor Stephen Breyer wrote a provocative article entitled "The Uneasy Case for Copyright."⁵⁴⁴ While his questioning of the need for copyright for some categories of books may have overshot the mark,⁵⁴⁵ his parsimonious intellectual property framework captured the importance of balancing innovation and competition in pursuing the constitutional aim of promoting progress of expressive and inventive works.⁵⁴⁶ This perspective is especially valuable for protecting forms of expression that combine expressive and functional attributes.⁵⁴⁷

Like computer software, designs are an ideal candidate for the parsimonious framework. Design patents should never have been interpreted so broadly as to protect functional features. We have suggested ways to restore the fundamental channeling principle that undergirds the intellectual property system. We have also explained why the time is ripe for Congress to address the overlap of design and utility patent protection so as to promote design creativity without inhibiting competition in functional features. Designers should not be offered a backdoor for protecting functionality.

544. See Stephen Breyer, *The Uneasy Case for Copyright: A Study of Copyright in Books, Photocopies, and Computer Programs*, 84 HARV. L. REV. 281 (1970).

545. See BARBARA A. RINGER, *THE DEMONOLOGY OF COPYRIGHT* 14–15 (R.R. Bowker Co. 1974) ("While mostly disagreeing with his conclusions, I admire Professor Breyer's courage and skill in saying what he thinks, but I must say that at this point he scared me."); Barry W. Tyerman, *The Economic Rationale for Copyright Protection for Published Books: A Reply to Professor Breyer*, 18 UCLA L. REV. 1100 (1970); cf. Stephen Breyer, *Copyright: A Rejoinder*, 20 UCLA L. REV. 75, 80 (1972) (conceding that the claim for *abolishing* copyright protection for important categories of books is not convincing while defending his methodology and refocusing the discussion on *reforming* copyright protection).

546. See U.S. CONST. art. I, § 8, cl. 8.

547. See, e.g., Peter S. Menell, *Tailoring Legal Protection for Computer Software*, 39 STAN. L. REV. 1329 (1987) (analyzing legal protection for computer software).

